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INTERNATIONAL

SIMULTANEOUS METEOROLOGICAL OBSERVATIONS

INCLUDING A MONTHLY SUMMARY WITH DAILY BULLETINS AND ACCOMPANYING CHARTS.

FOR THE MONTH OF SEPTEMBER and October 1881.

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PRINTED FOR EXCHANGE WITH CO-OPERATING OBSERVERS.

WASHINGTON, D. C.
OCTOBER, 1882.

10298

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 1, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.86	758.5	85.5	29.7	75	calm			0		1			0	0	very fair	Raynard.
Algiers ‡			29.91	759.7	80.6	27.0	71	ne.			2		0			inap.	inap.	clear	Nicolas.
La Calle ‡			29.88	758.9	83.5	28.6	66	n.			3		3			0	0	pretty fair	Fonfréde.
Tunis ‡			29.81	757.1															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.91	759.7	92.3	33.5	26	n.			2		0			0	0	clear	Dumas.
Tebessa ‡			29.91	759.7	76.6	24.8	52	nnw.			5		4			0	0	cloudy	Derché.
Geriville ‡					95.0	35.0	11	sw.			3		0			0	0	clear	Lonchamp.
Laghouat ‡			29.93	760.2	97.2	36.2	11	sw.			3		0			0	0	clear	Herbin.
Biskra ‡			29.93	760.2	102.2	39.0	16	nnw.			3		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.06	763.5	30.15	765.8	44.4	6.9	85	ne.	3	1.3			3			0.01	0.3	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.22	742.3	29.75	755.6	74.3	23.5	49	e.			4		7			0.335	8.5		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.15	740.4	29.89	759.2	71.6	22.0	50	ese.	10.5	4.7			2			0	0		Dr. Wiersbicki.
Eperies	29.01	736.9	29.85	758.3	71.6	22.0	52	s.			1	3 cs	0			0	0		Julius Mikolik.
Gratz ‡	28.57	725.7	29.78	756.3	68.9	20.5	66	ese.			1		6			0	0		Andreas Rospini.
Hermannstadt	28.47	723.2	29.83	757.6	75.2	24.0	43	ese.			6		0			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.40	721.4	29.69	754.2	65.8	18.8	83	ne.			1		5			0	0		The Staff.
Lemberg	28.96	735.5	29.91	759.7	69.1	20.6	56	s.			2		3			0	0		Dr. T. Stanecki.
Pola	29.58	751.4	29.69	754.1	74.1	23.4	67	se.			4		7			0.661	16.8	thunder	I. R. Hydrographic Office.
Szathmar	29.39	746.6	29.84	757.8	76.5	24.7	68	ne.			2		0			0	0		Beicht Peter, S. J.
Szegedin	29.51	749.6	29.78	756.3	78.1	25.6	47	s.			2		0			0	0		Karl Stancel.
Trieste	29.61	752.1	29.71	754.7	77.5	25.3	45	ese.			1		10			1.535	39.0	cloudy	Secco.
Vienna	29.13	739.8	29.82	757.4	68.4	20.2	65	e.			2		8			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 7, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.29	769.4	30.39	771.9	53.8	12.1	62	n.	19	8.5			8			0.020	0.5	d. clouds	W. Boswell.
Armagh, Observatory	30.18	766.6	30.40	772.1	59.0	15.0	59	ne.	2	0.9			2					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.33	770.4	55.0	12.8	65	nnw.	18	8.0			9					overcast	John Hartnup.
Bolton, Sharples	29.76	755.9	30.30	769.6	54.2	12.3	65	nne.	12	5.4			8					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29.84	757.9	29.24	768.1	54.4	12.4	92	ne.			3		7			0	0	d. clouds	[A.S. J.McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.17	766.3	56.0	13.3	71	n.			4.0		10					overcast	John McLaren.
Chatham, School M. E.	30.04	763.0	30.17	766.3	55.7	13.2	72	n.			2		9					gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	30.08	764.0	30.31	769.9	57.4	14.1	53	n.			4		4					d. clouds	The Staff.
Fort Napier, Natal	27.69	703.3	29.91	759.7	78.2	25.7	61	ne.			3		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.64	752.8	29.88	758.9	86.0	30.0	88	s.			1		4					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.32	770.1	64	17.8	63	n.			2		2					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	29.91	759.7	29.96	761.0	79.6	26.4	77	ne.			3		6					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	30.17	766.3	30.37	771.4	56.9	13.8	53	nw.			2		2					blue sky	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.01	762.2	30.18	766.6	54.8	12.7	73	nnw.			3		10					overcast	The Staff.
Guernsey	30.00	762.0	30.22	767.6	55	12.8	62	nnw.			3		5					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.17	766.3	30.20	767.1	54.1	12.3	68	nnw.	16	7.2			10					threatening	The Staff.
Leicester, Museum	29.99	761.7	30.25	768.3	55.1	12.8	68	n.			1		10					overcast	J. C. Smith.
Malta, Mediterranean					82.5	28.1	73	se.			4		1					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.99	761.7	30.04	763.0	86.5	30.3	77	e.			1		8 n					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	30.00	762.0	30.23	767.8	54.1	12.3	73	n.			5		9					squally	The Staff.
Plymouth	30.22	767.6	30.30	769.6	58.9	14.9	54	nw.			3		2					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.47	773.9	51.8	11.0	70	ne.	17	7.6			5					d. clouds	Rev. C. Clouston, L. L. D
Scutari Cemetery, Turkey	29.82	757.4	29.88	758.9	76.2	24.6	60	ne.			2		9					d. clouds	Serg't W. H. Lyne.
Sheffield	30.03	762.7	30.31	769.9	55.1	12.8	73	nne.			2		10			0	0	overcast	W. F. Cooper.
Silloth Rectory	30.34	770.6	30.37	771.4	55.5	13.1	63	ene.			2		5			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.32	770.1	56.5	13.6	56	nne	13	5.8			7					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss					57.0	13.9	79	nw.			2		6					d. clouds	Rev. C. H. Griffiths, F. M. S
Truro, Royal Institution	30.29	769.4	30.31	769.9	61	16.1	61	ne.			6		6					d. clouds	W. Newcombe.
Valencia, Observatory	30.36	771.1	30.38	771.6	60.6	15.9	73	sse.	4	1.8			6					misty	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.54	750.3	29.58	751.3	71	21.7	85	w.	3	1.3			10 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	29.58	751.3	29.64	752.8	70	21.1	90	nw.	10	4.5		2 cs	8 ks	nw.	nw.	0.02	0.5	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B																			H. A. Johnson.
Father Point, Quebec*	29.81	757.2	29.84	757.9	56	13.3	100	calm	0	0			fg.			0.08	2.0	dense fog	J. McWilliams.
Fort Garry, Manitoba*	29.20	741.7	30.02	762.5	56	13.3	100	nw.	2	0.9			fg.			0.300	7.6	dense fog	James Stewart.
Fredericton, N. B																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.53	750.0	29.66	753.4	67	19.4	93	w.	4	1.8			fg.			0	0	foggy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.59	751.6	29.91	759.7	71	21.7	68	w.	6	3.1			fg.		w.	0	0	dense fog	S. Woods, M. A.
Little Glace Bay, N. S																			C. H. Rigby.
Montreal, Quebec*	29.63	752.6	29.82	757.4	72	22.2	79	w.	11	4.9			sk.			0	0	smoky	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.29	744.0	29.95	760.7	67	19.4	90	w.	4	1.8			sk.			0	0	clear	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.32	744.7	29.98	761.5	71	21.7	95	calm	0	0		hz.	hz.			0	0	hazy	H. Morgan.
Port Stanley, Ontario	29.35	745.5	29.97	761.2	70	21.1	90	calm	0	0			fg.			0	0	foggy	M. Payne.
Quebec, Quebec*	29.46	748.3	29.77	756.1	67	19.4	90	ne.			6		8 ks		ne.	0	0	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.50	749.3	29.94	760.5	67	19.4	78	w.	5	2.2			10 ks		nw.	0	0	cloudy	W. H. McIntyre.
Saugeen, Ontario*	29.27	743.4	29.95	760.7	67	19.4	97	calm	0	0			sk.			0	0	smoky	K. Stewart.
St. Andrews, N. B	29.64	752.8	29.69	754.1	72	22.2	82	nw.	4	1.8		0	hz.			0	0	clear	
St. John, N. B																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.47	748.5	29.52	749.8	72	22.2	81	w.	14	6.3			10 s		w.	0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.60	751.8	29.97	761.2	73	22.8	76	n.	3	1.3			hz.			0.22	5.6	dense haze	Magnetic Observatory.
Windsor, N. S																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.68	753.9	29.74	755.4	57	13.9	96	w.	6	2.7		sk.	sk.			0	0	dense smoke	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.57	751.1	29.82	757.4	50	10.0	100	se.	4	1.8			10 n			0.95	24.1	rainy	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.06	763.5	30.09	764.3	61.5	16.4	85	ne.	17.9	8.0			10 n			0.030	0.8	showery	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.23	742.4			68.4	20.2	50	se.			1	0	3			0	0	light clouds	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.85	758.3	29.88	758.9	71.4	21.9	88	e.	5.8	2.6			10			0.028	0.7	covered	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.90	759.4	29.95	760.6	59.2	15.1	88	e.	18	8			8						Oversergent Fischer
Fanöe	29.95	760 8	29.97	761.3	57.7	14.3	87	ene.			6		10						Overloerer Lauridsen
Godthaab, Greenland	29.48	748.9	29.53	750.0	40.3	4.7	94	w.			2		10						S. Kleinschmidt.
Stykkisholm, Iceland	29.96	761.0	30.00	762.1	55.8	13.2	64	s.			8		10					raining	A. O. Thorlacius.
Thorshavn	30.51	775.0	30.55	775.9	52.9	11.6	80	calm	0	0			0						Overloerer Bergh.
Vestervig	29.97	761.1	30.06	763.4	57.9	14.4	81	ne.			6		9						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.38	746.2	30.02	762.6	61.9	16.6	40	nw.			3		nks		nw.	0	0		M. Labroue, Director.
Alençon Normal School	29.63	752.6	30.18	766.6	58.6	14.8	76	n.			4		k	e.	n.	0.08	2.		M. Nicot, Director.
Arras, Engineer School	29.79	756.6	30.05	763.2	55.8	13.2	75	n.				0	n		n.				M. Klein, Commandant.
Avignon, Normal School	29.73	755.2	29.81	757.2	63.3	17.4	50	n.			6		5		n.	0	0	¼ covered	M. Giraud, Director.
Bar-sur-Seine	29.43	747.5	29.98	761.4	59.7	15.4	57	nnw.			3	0	8 kn		ne.	0	0	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.82	757.5	30.09	764.3	57.2	14	68	n.			2		10		n.	0	0	covered.	M. Frère Eugène Marie.
Besançon, Normal School	29.02	737.1	29.90	759.5	56.7	13.7	82	nne.			3		10		nne.	0	0	covered.	M. Gobin, Director.
Bordeaux, Observatory	29.85	758.3	30.11	764.9	61.5	16.4	44	n.			1		8		n.	0.031	0.8	very cloudy.	M. Rayet, Director.
Bourges, Normal School	29.49	749.1	30.04	762.9	58.1	14.5	53	n.			2		5		n.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	30.06	763.6	30.31	769.8	58.6	14.8	52	nne.			2		3		nne.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.08	764.0	30.15	765.9	57.2	14	73	nw.			3		5		nw.	0	0	cloudy	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l					59.7	15.4	73	nw.			4		5		n.	0	0	cloudy	M. Jadot, Director.
Charleville, Normal School	29.48	748.7	29.98	761.5	58.6	14.8	56	nw.			1		8		ne.	0	0	¾ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.64	727.4	29.99	761.7	54.7	12.6	55	nw.			2		8			0.181	4.6	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.11	739.4	29.94	760.5	56.8	13.8	53	n.			3		3		n.	0.055	1.4		M. de Villemontée, Dir.
Commercy, Normal School	29.11	739.3	29.97	761.2	56.1	13.4	73	nw.			1		5	nw.	nw.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.15	689.5	29.64	752.9	56.1	13.4	60	s.			1	0	8 kn		n.	0	0	¾ covered	M. Jeangirard, Director.
Grénoble, Normal School	28.64	727.6	29.79	756.6	59.2	15.1	52	nw.			6		10		nw.	0.142	3.6	covered	M. Kina, Director.
Grenoble, Normal School	29.05	737.8	29.82	757.3	51.1	10.6	93	nw.			4		10 n			0.791	20.1	light rain	M. Ablard, Director.
Guéret, Normal School	28.48	723.4	30.08	764.0	53.8	12.1	59	ne.			1	0	kn		s.	0	0		M. Rivoire, Director.
Lamballe, Normal School	29.93	760.2	30.21	767.2	59.9	15.5	74	n.			2		mist		n.	0	0	light mist	M. Olliltrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.15	765.7	30.25	768.3	62.6	17.0	70	n.			3		2		n.	0	0	¼ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.87	733.3	29.93	760.1	54.5	12.5	61	nw.			2		10		nw.	0.004	0.1	sprinkling	M. André, Director.
Mans, Normal School	29.75	755.7	30.06	763.5	58.1	14.5	60	nne.			1		8		ne.	0	0	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.46	748.3	29.73	755.1	64.4	18.0	43	nw.			6		7		nw.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.74	628.4	29.93	761.4	51.8	11.0	41	w.	16.8	7.5			6		w.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.72	755.0	29.85	758.2	62.6	17	49	nnw.			6		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.18	741.1	29.92	760.3	59.4	15.2	58	nw.			2	8 ok	0			0.047	1.2	very cloudy	M. Hasse.
Nantes, Observatory	30.04	762.9	30.20	767.0	62.8	17.1	45	n.			2–3	0	9 kn	n.	n.	0	0	covered	M. Larocque, Director.
Nice	29.54	750.4	29.58	751.3	62.6	17.0	90	se.			1		10	se.	se.	1.748	44.4	light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.79	756.6	29.89	759.2	67.5	19.7	38	nw.	29.8	13.3			6		nw.	0.020	0.5	raining	Dr. Fines.
Pic-du-Midi, Plantade	22.53	572.2			30.9	—0.6							10		nnw.	1.059	26.9	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.84	732.6	29.88	759.0	69.8	21	49	calm			0		0			0	0	clear	M. Talleu.
Puy de Dôme Obs'y, Summit	25.10	637.5			35.4	1.9	97	nne.			4		10			0.201	5.1	covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.13	765.4	30.17	766.2	65.8	18.8	88	n.			4		8		ne.	0	0	¾ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.95	760.6	30.16	766.0	58.6	14.8	61	ne.			3		8	n.	n.	0	0	very cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.05	763.3	30.13	765.4	59.0	15	68	nnw.			3		2			0.12	3.	slightly cl'dy	M. Platrier, Director.
Saint Lô, Normal School	30.01	762.2	30.17	766.2	57.2	14	75	n.			1		5		n.	0	0	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.91	759.6	30.07	763.8	57.2	14.0	72	nnw.			2		10		n.	0.012	0.3		M. Renou, Director.
Toulouse, Observatory	29.36	745.8	30.09	764.2	65.8	18.8	39	nw.			6		5		nw.	0.047	1.2	cloudy	M Bailland, Director.
Tours	29.91	759.6	30.10	764.6	63.0	17.2	56	nnw.			2		8	calm	n.	0.024	0.6	¾ covered	M. de Tastes.
Versailles, Observatory	29.60	751.9	30.10	764.4	59.7	15.4	62	n.			4					0.079	2.0		Dr. A. Bérigny, Director.
Sub-Series. Paris, Montsouris Obs'y	29.80	756.8	30.09	764.2	52.3	11.3	91	nnw.			2		8		nw.	0.059	1.5	sprinkling	M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.01	736.8	29.87	758.6	60.1	15.6	70	nw.			2	0	8 k		wnw.	0.008	0.2		Prof. Dr. Hoh.
Berlin	29.73	755.2	29.90	759.5	67.1	19.5	61	se.			1		8			0.028	0.7	light fog	Prof. Dr. Arndt.
Breslau	29.39	746.6	29.92	760.0	72.3	22.4	48	se.			2		5	s.		0.016	0.4		Royal University Obs'y.
Carlsruhe	29.47	748.5	29.89	759.2	60.4	15.8	71	n.			1		10	n.		0.039	1.0		Albert Senz.
Cassel	29.18	741.2	29.90	759.4	61.5	16.4	71	e.			1		7	e.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.53	750.0	29.89	759.1	62.6	17.0	64	nne.			2		9			0.075	1.9		Physical Society.
Friedrichshafen	28.38	720 8	29.80	756.9	54.7	12.6	93	nne.			6		10	ne.		3.197	81.2		Wilhelm, Chief Tel.
Hamburg	29.82	757.3	29.91	759.7	61.2	16.2	83	se.			1		8			0.008	0.2		E. Preller.
Kiel	29.88	758.9	29.89	759.3	62.6	17.0	74	ese.			2		9			0.016	0.4		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.49	749.1	29.91	759.6	64.2	17.9	64	e.			2		9	ese.		0	0		H. Leppig, Asst.
Magdeburg	29.71	754 7	29.89	759.3	64.6	18.1	63	sse.			2	0	7 ks			0.579	14.7		Dr. Assmann.
Memel	30.01	762.2	30.06	763.4	66.0	18.9	69	e.			3	5 cs	0						Issermann.
Munich	27.99	711.0	29.84	758.0	57.0	13.9	87	ne.			2		10	e.		0	0		Central Station.
Neufahrwasser	29.96	760.9	29.97	761.3	68.4	20.2	70	sse.			3		6			0.236	6.0		A. Lothes.
Neustadt, Palatinate	29.35	745.6	29.88	759.0	63.0	17.2	59	n.			1		0			0	0		Dickmether.
Stuttgart	28.91	734.2	29.80	756.8	58.1	14.5	71	n.			1		10			0.220	5.6	light rain	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.35	720.2	29.82	757.5	56.7	13.7	87	n.			2		10	ne.		0.264	6.7		Fischer.
Wustrow	29.93	760.1	29.95	760.7	64.0	17.8	75	se.			2		10 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.54	750.3	29.91	759.8	82.2	27.9		s.			1.5		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.53	749.9	29.58	751.2	82.0	27.8	79	sw.	32.0	14.3			6	wsw.		0	0	misty	
Deesa	29.19	741.3	29.66	753.3	81.2	27.3	82	sw.					5		ssw.	0	0	d. clouds	
Bombay	29.76	755.8	29.79	756.8	79.7	26.5	85	wsw.	19.0	8.5			10		sw.	0.15	3.8	overcast	
Poona, Yarrowda.	27.93	709.4	29.79	756.8	75.5	24 2	77	w.	20.0	8.9			9		w.	0.03	0.8	d. clouds	
Belgaum	27.31	693.6	29.86	758.4	73.1	22.8	81	wsw.	13.0	5.8			8		sw.	0.10	2.5	showery	
Lahore	28.67	728.2	29.39	746.4	92.1	33.4	61	e.	3.0	1.3			0			0	0	blue sky	
Roorkee	28.61	726.7	29.50	749.4	78.2	25.7	95	sw.	2.2	1.0			10			0.75	19.0		
Agra	28.97	735.8	29.52	749.9	84.2	29.0	70	w.	5.7	2.6			10		w.	0	0		
Nagpur	28.61	726.8	29.64	752.9	85.2	29.6	66	w.	4.6	2.1			6	w.		0	0	d. clouds	
Jubbulpore	28.30	718.8	29.64	752.8	82.8	28.2	64	w.	5.7	2.6			10			0	0	overcast	
Lucknow	29.16	740.7	29.53	750.2	80.2	26.8	80	nw.	6.7	3.0			10			0.02	0.5	overcast	
Allahabad	29.23	742.5	29.54	750.3	81.7	27.6	89	sw.	3.6	1.6			8			0.14	3.6	d. clouds	
Patna	29.38	746.2	29.56	750.8	79.8	26.6	90	w.	2.6	1.2			10	w.	w.	5.48	139.2	overcast	
Hazaribagh	27.57	700.2	29.56	750.8	77.3	25.2	87	calm	9.1	4.1			8		w.	0.37	9.4	showery	
Cuttack	29.56	750.9	29.65	753.0	84.3	29.1	77	wnw.	0.3	0.1			10			0.07	1.8	overcast	
Calcutta, Alipore	29.56	750.8	29.58	751.4	82.7	28.2	87	sw.	5.0	2.2			10		s.	0.16	4.1	overcast	
Dhubri	29.44	747.7	29.56	750.7	79.4	26.3	94	e.	7.0	3.1			9			0.89	22.6	gloomy	
Chittagong	29.56	750.9	29.66	753.2	79.9	26.6	87	s.	5.9	2.6			6			0	0	d. clouds	
Sibsagar	29.30	744.3	29.64	752.8	79.1	26.2	93	ese.	2.8	1.2			10	w.	w.	0.09	2.3	gloomy	
Jeypore	28.13	714.5	29.55	750.6	83.2	28.4	62	w.	8.8	3.9			10		w.	0	0	overcast	
Zanzibar, Africa			30.00	762.0	83.2	28.4	46	sse.	5	2.2			5			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.30	744.3	29.71	754.5	69.6	20.9	53	ne.	3.1	1.4			10			0	0		Prof. Giovanni Clodig.
Milan	29.16	740.6	29.66	753.4	59.7	15.4	89	ene.	6.9	3.1			10	e.		2.571	65.3		Prof. Schiaparelli.
Padua	29.61	752.1	29.71	754.7	60.3	15.7	91	nne.	15.0	6.7			10	s.		1.378	35.0		Prof. Dott. Lorenzoni.
Moncalieri	28.76	730.5	29.65	753.0	57.6	14.2	97	nw.	2.5	1.1			10			1.433	36.4		Prof. P. F. Denza.
Genoa	29.35	745.6	29.55	750.5	63.1	17.3	75	ne.	5.6	2.5			10	se.		1.551	39.4		Prof. G. M. Garibaldi.
Mondovi	27.77	705.3	29.63	752.7	52.2	11.2	96	w.			4		10			1.413	35.9		Prof. D. C. Bruno.
Pesaro	29.58	751.3	29.63	752.5	73.4	23.0	74	sw.	12.5	5.6			10	sw.		0.453	11.5		Prof. Luigi Guidi.
Florence	29.38	746.3	29.63	752.6	57.6	14.2	93	ne.			2		10	sw.		0.984	25.0		Prof. Costantino Pitter.
Leghorn	29.52	749.9	29.61	752.0	65.5	18.6	79	ene.	3.8	1.7			10			0.827	21.0		Prof. P. Monte.
Rome	29.54	750.2	29.71	754.5	63.7	17.6	88	w.					10			0.732	18.6		Prof. P. S. Ferrari.
Lecce	29.60	751.7	29.84	758.0	82.0	27.8	50	s.	27.3	12.2			4	s.		0	0		Prof. C. de Giorgi.
Cosenza	28.94	735.1	29.79	756.7	83.8	28.8	63	sse.	4.3	1.9			2	se.		0	0		Prof. D. Conti.
Cagliari	29.56	750.8	29.74	755.5	77.5	25.3	35	wnw.			4		4	w.		0	0		Prof. A. Pacinotti.
Palermo	29.50	749.2	29.73	755.2	86.5	30.3	37	sw.	19.9	8.9			4	wsw.		0	0		Prof. G. Ciacciatore.
Syracuse	29.78	756.4	29.82	757.5	81.1	27.3	56	s.	4.9	2.2			7	s.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.19	741.5	29.70	754.3	75.2	24.0	57	sse.	3.8	1.7			10	s.		0	0		Prof. F. Brioschi.
Stelvio	22.01	559.1			35.8	2.1	89	e.			2		10 n	se.		0.323	8.2	covered	Prof. P. F. Denza.
Valdobbia	21.94	557.3			32.0	0.0	81	e.			2		10			0	0	foggy	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.84	757.9	29.86	758.4	78.9	26.1	81	sw.	1.7	0.8		6ck;cs	0			0	0	fair	K. Sasaki.
Kioto	29.70	754.4	29.87	758.7	79.1	26.2	76	s.	2.1	0.9		0.	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.74	755.4	29.94	760.5	74.7	23.7	88	wsw.	1.5	0.7		0	0			0	0	clear	S. Takehayashi.
Niigata	29.86	758.4	29.89	759.2	82.3	27.9	66	se.	3.8	1.7		5cs;ck	0			0	0	fair	
Nobiru	29.95	760.7	29.97	761.2	78.0	25.6	89	ne.	7.4	3.3			10 n;s			0.135	3.4	raining	
Sapporo	29.93	760.2	30.00	762.0	73.8	23.2	84	se.	12.0	5.4			1			0	0		
Tokei Obs'y, Yeddo	29.77	756.1	29.84	757.9	78.5	25.8	77	n.	11.2	5.0		1 ck	9 s			0.025	0.6	covered	The Staff.
Wakayama	29.82	757.4	29.87	758.7	80.7	27.1	83	wsw.	1.9	0.8		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.98	761.5	30.17	766.4	73.2	22.9	65	e.	17.0	7.6		0	6		e.	0	0	squally	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.8	29.91	759.8	60.8	16.0	78	ne.	5.6	2.5		2	5	e.	e.	0.003	0.1	foggy	Vicente Fernandez.
Leon	24.42	620.3	30.03	762.7	65.1	18.4	89	nw.			1	3 c	1 k	e.		0	0	clear	Prof. M. Leal.
Mazatlan	29.66	753.4	29.92	759.9	74.5	23.6	98	e.	5.3	2.3			9 n		se.	1.536	39.0	very cloudy	F. Quijano, U. E.
Mexico, Central Obs'y	23.11	587.0	30.10	764.6	57.6	14.2	88	nw.	0.7	0.3		1 ck	5 ks	e.		0.055	1.4	cloudy	The Staff.
Morelia	24.05	610.9	30.10	764.7	55.8	13.2	78	sw.			2	4	2	sw.	s.	0	0	½ cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.95	608.2	29.91	759.7	61.9	16.6	92	w.			1	1 c	1 s	e.	ne.	0.308	7.8	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	594.9	30.20	767.2	51.8	11.0	60	ne.	0.9	0.4		0	1			0.051	1.3	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.62	574.6	30.21	767.4	55.6	13.1	97	ne.	1.7	0.8			10 n		se.	0	0	covered	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.01	762.3	30.01	762.3	60.8	16.0		nw.			4					0.051	1.3		
Groningen	29.87	758.6	29.92	760.0	61.9	16.6		ne.			2					0.594	15.1		
Helder	29.93	760.1	29.93	760.1	61.0	16.1		nne.			4					0.091	2.3		
Hellevoetsluis	29.96	760.9	29.96	760.9	60.4	15.8	76	nnw.			1					0.039	1.0		
Utrecht	29.91	759.6	29.95	760.8	64.2	17.9	71	wnw.			1		8			0.004	0.1	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.11	764.9	30.18	766.5	61.2	16.2	47	nne.	7.4	3.3			2			0	0		
Christiania	30.06	763.6	30.21	767.3	59.4	15.2	56	nne.	13	6			8			0	0		
Gjæsvær	30.34	770.5	30.36	771.1	48.0	8.9		w.			2		10						
Lodingen	30.34	770.7	30.39	771.9	52.2	11.2	70	n.			2		8			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.69	754.1	29.84	757.9	71.2	21.8	91	wnw.	9.8	4.4			3			1.535	39.0		Dr. J. A. Sampaio.
Campo Major	29.00	736.5	29.94	760.5	86.2	30.1	21	ese.	1.3	0.6			0			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.89	759.2	29.98	761.4	75.7	24.3	63	sw.	3.1	1.4			0			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.65	753.0	29.99	761.8	76.8	24.9	36	ne.	8.1	3.6			0			0	0		The Staff.
Ponta Delgada, Azores	29.85	758.2	29.92	760.0	73.4	23.0	83	s.	14.3	6.4			3			0.098	2.5		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.57	725.7	29.58	751.3	78.8	26.0	39	sw.	4	2		0	5 k					heavy cl'ds.	Capt. Lasarew.
Archangel	30.18	766.6	30.20	767.1	57.0	13.9	68	ne.	13	6			10					light clouds	Capt. Sseliwerstow.
Astrakhan	29.97	761.2	29.89	759.1	82.6	28.1	48	sw.	2	1		0	1 ks						Capt. Wisganow.
Barnaul ‡	29.28	743.8	29.76	755.9	71.1	21.7	46	calm	0	0			0						Meteorological Obs'y.
Dorpat	29.79	756.7	30.03	762.8	57.9	14.4	71	wnw.	7	3			10 kn						Observatory.
Ekaterinburg	29.03	737.3	29.95	760.6	75.0	23.9	54	ene.	4	2		0	1 k						Meteorological Obs'y.
Kasan	29.71	754.5	29.96	761.0	78.8	26.0	47	ne.	4	2		0	3 k						Observatory.
Kertch	29.84	757.9	29.86	758.4	81.5	27.5	69	sse.	2	1		0	2 ks			0	0		Lagorio & Sastyrea.
Kieff	29.38	746.2	30.00	762.0	65.1	18.4	49	nne.	7	3		1 c	0					light clouds	Observatory.
Lugan	29.09	754.0	29.88	758.9	85.3	29.6	30	e.	4	2			3						Meteorological Obs'y.
Moscow	29.40	746.7	29.84	757.9	78.6	25.9	52	s.	7.8	3.5		0	6 ks						Meteorological Obs'y.
Nikolaiev	29.91	759.8	29.98	761.6	72.5	22.5	66	nne.	13	6		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.82	757.5	29.91	759.7	57.4	14.1	92	se.			7		10 n			0.315	8.0	raining	Lieut. Iwanow.
Pekin, China	29.62	752.4	29.76	756.0	73.2	22.9	85	calm	0	0		3 cs	0			0	0		Physical Observatory.
St. Petersburg	29.90	759.4	29.91	759.8	62.1	16.7	80	ssw.	11	5			9 n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.26	717.8	29.75	755.7	77.0	25.0	58	calm	0	0			0						Teich, A. M.
Tiflis	28.48	723.4	29.81	757.2	84.7	29.3	56	calm	0	0		10 cs	0					light rain	Physical Observatory.
Warsaw	29.55	750.5	29.95	760.8	71.8	22.1	48	se.	7	3		2 ck	0						Astronomical Obs'y.
Wilna	29.66	753.4	30.08	763.9	67.6	19.8	54	w.	2	1			5						Berg, Assistant.
Yeniseisk	29.75	755.6	30.03	762.8	52.7	11.5	86	w.	2	1			7						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.40	772.1	56.0	13.3	66	e.			2	0	0			0	0	fine	Andrew Gibb.
Monach Lt. House, Hebrides			30.45	773.4	55	12.8	93	e.			4	5	5	e.		0	0		J. Youngclause
North Unst, Shetland Isl'ds			30.41	772.4				n.			4	2	7	nne.					Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.76	755.9	29.86	758.5	74.1	23.4	57	se.	0	0						0.677	17.2	clear	Antonio Rave, Director
Bilbao, Met. Obs'y	30.10	764.5	30.15	765.9	69.4	20.8	67	nw.	1.6	0.7		2	7	ne.		0.154	3.9	almost cov'd	Prof. Manuel de Navera.
Burgos, Met. Obs'y	27.17	690.2			63.9	17.7	79	ne.	6.3	2.8			3			0	0	slightly cld'y	Domingo Martin.
Madrid, Royal Obs'y	27.84	707.0	29.98	761.6	74.7	23.7	33	n.	8.1	3.6		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	29.78	756.4	29.92	760.0	87.8	31.0	42	ene.	2.2	1.0		0	2			0	0	almost clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.13	739.9	30.00	761.9	73.8	23.2	36	ne.	9.4	4.2			1			0	0	almost clear	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.96	760.8	30.02	762.5	77.7	25.4	88	ese.	2.7	1.2		6 c,cs	2 k;ks	sse.		0.441	11.2	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.83	757.6	29.88	758.9	84.1	28.9	82	sw.	13.2	6.0		8 ck	0	w.		0.09	2.0	very cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.89	759.1	29.98	761.5	80.6	27.0	63	sse.	10.6	4.7		3	5	w.	s.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.89	759.2	29.98	761.5	82.4	28.0	88	ne.	13.0	5.8		5 k	5 kn	ne.	ne.	0.236	6.0	overcast	E. Cadea, Chief Enga'r.
Tuguegarao, Philippine Ids	29.76	756.0	29.90	759.4	82.3	27.9	76	nnw.	4.7	2.1		0	7 k		nw.	0	0	cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.27	768.8	30.31	769.8	60.4	15.8	46	ne.			4		2			0	0		
Umea	30.19	766.8	30.24	768.1	60.1	15.6	62	w.			4		10			0	0		
Hernosand	30.21	767.4	30.26	768.7	57.7	14.3	66	ne.			2		10			0	0		
Stockholm	29.96	760.9	30.13	765.4	60.1	15.6	66	n.			2		8			0.106	2.7		
Wisby	30.01	762.3	30.07	763.8	58.3	14.6	72	e.			4		10			0.024	0.6	raining	
Sub-Series.																			
Upsala	30.06	763.4	30.14	765.6	57.9	14.4	77	n.	9.6	4.3			10		ne.	0.008	0.2		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.43	722.2	29.86	758.5	53.1	11.7	84	nne.			4		10			0.122	3.1	raining	The Observatory.
Zurich ‡	28.22	716.8	29.87	758.7	50.0	10.0	96	nw.			2		10			3.661	93.0	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.95	760.6	74.7	23.7	58	nne.	11	5.0			10	ne.		0	0		The Observatory.
Valona			29.99	761.7	54.9	29.4		s.			2		2			0	0	slightly cld'y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.85	758.2	90.0	32.2	58	w.			1	0	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	29.85	758.2	29.93	760.2	76	24.4	64	s.	2	0.9		hz.	hz			0	0	dense haze	
Alpena, Michigan	29.35	745.5	30.00	762.0	64	17.8	90	n.	4	1.8		10 cs	fg.	w.		0	0	cloudy	
Atlanta, Georgia	28.98	736.1	30.16	766.1	67.5	19.7	89	s.	2	0.9		0	sk.			0.07	1.8	clear	
Atlantic City, New Jersey	30.01	762.2	30.02	762.5	72.3	22.4	90	sw.	8	3.6		5 cs	hz.	calm	calm	0	0	fair	
Augusta, Georgia	29.95	761.0	30.15	765.8	69.0	20.6	93	calm	0	0			fg.			0	0	dense fog	
Baltimore, Maryland	29.99	761.7	30.04	763.0	71	21.7	82	w.	1	0.4		4 ck	fg.	calm	calm	0	0	fair	
Barnegat, New Jersey	29.97	761.2	29.99	761.7	74.5	23.6	84	sw.	11	4.9		4 cs	hz.	sw.	calm	0	0	fair	
Bismarck, Dakota	28.23	717.0	30.06	763.5	52	11.1	86	calm	0	0		1 c	0	calm		0	0	clear	
Boise City, Idaho	27.25	692.1	30.09	764.3	44.0	6.7	68	calm	0	0			10 s		calm	0	0	cloudy	
Boston, Massachusetts	29.73	755.1	29.89	759.2	74.5	23.6	64	sw.	8	3.6			10s;fg			0	0	cloudy	
Brackettville, Texas	28.84	732.5	29.86	758.4	73	22.8	90	e.	2	0.9		0	0			inap.	inap.	clear	
Brownsville, Texas	29.93	760.2	29.97	761.2	78	25.6	91	calm	0	0		1 cs	9 s		e.	0.38	9.7	cloudy	
Buffalo, New York	29.28	743.7	30.00	762.0	74.5	23.6	84	sw.	2	0.9			10s;sme			0	0	cloudy	
Burlington, Vermont	29.59	751.6	29.88	758.9	77.2	25.1	60	w.	2	0.9			sk.			0	0	dense smoke.	
Cairo, Illinois	29.71	754.6	30.11	764.8	76	24.4	85	sw.	4	1.8		8 ck	0	nw.		inap.	inap.	fair	
Campo, California	27.38	695.4	29.95	760.7	37.6	3.1	64	se.	4	1.8		0	0			0	0	clear	
Camp Thomas, Arizona	27.30	693.4			58	14.4	72	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.04	763.0	30.06	763.5	74	23.3	76	sw.	10	4.5		3 k	5 s	sw.		0	0	cloudy	
Cape May, New Jersey	30.00	762.0	30.02	762.5	74	23.3	82	sw.	14	6.3		1 ck	hz.	s.		0	0	clear	
Castroville, Texas	29.10	739.1	29.78	756.4	73	22.8	64	w.	2	0.9		0	0			0	0	clear	
Cedar Keys, Florida	30.08	764.0	30.10	764.5	74	23.3	66	ne.	7	3.1		0	0			0	0	clear	
Champaign, Illinois	29.22	742.2	29.98	761.5	70.5	21.4	88	sw.	7	3.1			10 ks		s.	inap.	inap.	cloudy	
Charleston, S. Carolina	30.06	763.5	30.12	765.0	75	23.9	90	ne.	4	1.8		0	hz.			0.01	0.3	clear	
Charlotte, N. Carolina	29.25	742.9	30.13	765.3	72.0	22.2	76	sw.	3	1.3		0	hz.			0	0	clear	
Chattanooga, Tennessee	29.32	744.7	30.15	765.8	72.2	22.3	78	sw.	2	0.9		4 k	sk.	w.	calm	0	0	fair	
Cheyenne, Wyoming	24.14	613.1	30.11	764.8	51.2	10.7	90	nw.	2	0.9		0	5 s		sw.	0	0	fair	
Chicago, Illinois	29.33	745.0	30.04	763.0	71.0	21.7	76	n.	6	2.7		0	8 ks		n.	inap.	inap.	fair	
Chincoteague, Virginia	30.05	763.3	30.07	763.8	74	23.3	84	sw.	16	7.2		2 c	2 s	calm	calm	0	0	fair	
Cincinnati, Ohio	29.46	748.3	30.12	765.0	72	22.2	79	n.	2	0.9		0	fg.			0.29	7.4	dense fog	
Cleveland, Ohio	29.32	744.7	30.06	763.5	76.3	24.6	77	w.	3	1.3		10 k	sk.	w.		0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.24	742.7	30.10	764.5	71	21.7	84	w.	4	1.8			10 ks		w.	0.03	0.8	cloudy	
Concho, Texas	28.11	714.0	30.05	763.3	70	21.1	75	e.	4	1.8		0	3 s			0	0	fair	
Corsicana, Texas	29.60	751.8	30.07	763.8	76	24.4	85	calm	0	0		0	0			0	0	clear	
Davenport, Iowa	29.39	746.5	30.05	763.3	73	22.8	76	w.	1	0.4		5 k	4 s	w.	w.	0.02	0.5	cloudy	
Dayton, Washington T'y	28.37	720.6	30.18	766.6	43.5	6.4	73	nw.	4	1.8			10 s		calm	0	0	cloudy	
Deadwood, Dakota	25.40	645.1	30.10	764.5	55	12.8	90	s.	8	3.6			10 ks		s.	0.12	3.0	cloudy	
Decatur, Texas	28.86	733.0	29.97	761.2	80	26.7	67	s.	7	3.1		0	0			0	0	clear	
Delaware Breakwater, Del.	30.01	762.2	30.03	762.7	72	22.2	84	s.	16	7.2		8 c;k	hz.	sw.		0	0	fair	
Denison, Texas	29.25	742.9	30.06	763.5	81	27.2	82	s.	5	2.2		0	0			0	0	clear	
Denver, Colorado	24.83	630.7	30.05	763.3	55.0	12.8	62	s.	2	0.9		0	hz.		calm	0	0	clear	
Des Moines, Iowa	29.06	738.1	29.97	761.2	67	19.4	90	n.	8	3.6			10 ks		w.	2.55	64.8	cloudy	
Detroit, Michigan	29.30	744.2	30.02	762.5	77.5	25.3	69	w.	1	0.4		6 k	sk.	w.		inap.	inap.	fair	
Dodge City, Kansas	27.36	694.9	29.95	760.7	72.8	22.7	64	s.	15	6.7		0	2 k			0	0	clear	
Dubuque, Iowa	29.34	745.2	30.06	763.5	70.1	21.2	84	ne.	2	0.9			10 s		e.	0.34	8.6	cloudy	
Duluth, Minnesota	29.36	745.7	30.07	763.8	62	16.7	84	ne.	6	2.7			10 s		ne.	0	0	cloudy	
Eagle Pass, Texas	29.24	742.7	30.07	763.8	75.0	23.9	76	s.	1	0.4		0	0			0	0	clear	
Eagle Rock, Idaho	25.25	641.3	30.10	764.5	50	10.0	35	sw.	24	10.7		6 cs	0	sw.		0	0	fair	
Eastport, Maine	29.63	752.6	29.70	754.4	70.5	21.4	80	sw.	6	2.7		sk.	sk.			0	0	dense smoke.	
El Paso, Texas	26.24	666.5	29.99	761.7	62.1	16.7	72	calm	0	0		1 ck	hz.			0	0	light haze	
Erie, Pennsylvania	29.28	743.7	30.01	762.2	76	24.4	85	sw.	4	1.8		6 k	fg.			0	0	dense fog	
Escanaba, Michigan	29.35	745.5	30.01	762.2	59	15.0	93	n.	6	2.7			10 s		calm	0	0	cloudy	
Florence, Arizona	28.40	721.3	30.00	762.0	62.8	17.1	58	e.	1	0.4		0	0			0	0	clear	
Fort Apache, Arizona																			
Fort Assinnaboine, Montana	27.22	691.4	30.03	762.7	48	8.9	93	ne.	4	1.8			10 n		ne.	0.50	12.7	light rain	
Fort Bennett, Dakota	28.49	723.6	30.03	762.7	58	14.4	100	n.	12	5.4			10 n			0.13	3.3	thund'r st'm.	
Fort Benton, Montana	27.31	693.7	30.17	766.3	46	7.8	100	ne.	6	2.7			10 n		ne.	0.32	8.1	light rain	
Fort Buford, Dakota	28.10	713.7	30.11	764.8	48	8.9	93	n.	5	2.2		8 cs	0	w.		0	0	cloudy	
Fort Custer, Montana	26.82	681.2	30.06	763.5	47	8.3	78	n.	8	3.6		0	1 s		calm	0	0	clear	
Fort Davis, Texas	25.24	641.1	30.20	767.1	61	16.1	72	w.	3	1.3		0	0			0	0	clear	
Fort Elliott, Texas	27.25	692.1	30.44	773.2	70	21.1	76	se.			1	0	0			0	0	clear	
Fort Gibson, Indian T'y	29.47	748.5	30.02	762.5	78.1	25.6	69	se.	4	1.8		0	0			0	0	clear	
Fort Grant, Arizona					68	20.0	63	ne.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.75	730.2	29.97	761.2	76.3	24.6	74	se.	4	1.8		0	0			0	0	clear	
Fort Keogh, Montana	27.50	698.5	30.04	763.0	51	10.6	80	n.	14	6.3		10 cs	0			0	0	cloudy	
Fort Macon, North Carolina	30.09	764.3	30.10	764.5	78	25.6	82	w.	3	1.3		9 c	hz.	calm	calm	0	0	cloudy	
Fort McKavett, Texas	27.83	706.9	29.68	753.9	72.3	22.4	90	e.	3	1.3			8 ks		s.	0	0	cloudy	
Fort Missoula, Montana	26.77	679.9	30.29	769.4	47	8.3	100	nw.	1	0.4		4 k	4 s			0.20	5.1	cloudy	
Fort St. Michaels																			
Fort Shaw, Montana	26.42	671.1	30.02	762.5	47	8.3	100	ne.	1	0.4			10 n		calm	0.57	14.5	heavy rain	
Fort Sill, Indian Territory	28.79	731.3	30.04	763.0	75.7	24.3	65	s.	17	7.6		0	0			0	0	clear	
Fort Stevenson, Dakota	28.30	718.8	30.17	766.3	50	10.0	93	w.	2	0.9			10 s		calm	0	0	cloudy	
Fort Verde, Arizona					53.1	11.7	61	w.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.32	719.3	29.82	757.4	73	22.8	97	s.	1	0.4		0	8 ks		s.	0	0	cloudy	
Galveston, Texas	30.01	762.2	30.05	763.3	82	27.8	79	se.	4	1.8		2 ck	5 ks	w.	se.	0.76	19.3	cloudy	
Grand Haven, Michigan	29.39	746.5	30.06	763.5	70.0	21.1	92	nw.	4	1.8			10 n		sw.	0.09	2.3	light rain	
Hatteras, North Carolina	30.10	764.5	30.12	765.0	73	22.8	82	sw.	7	3.1		4 ck	4 s	s.	sw.	inap	inap.	cloudy	
Helena, Montana	25.83	656.1	30.22	767.6	49	9.4	86	s.	8	3.6		0	8 s		calm	0.58	14.7	cloudy	
Henrietta, Texas	29.01	736.8	29.89	759.2	77	25.0	69	se.	7	3.1		0	0			0	0	clear	
Huron, Dakota	28.63	727.2	30.02	762.5	59	15.0	90	ne.	8	3.6		7 k	0			0	0	fair	
Indianapolis, Indiana	29.26	743.2	30.06	763.5	74	23.3	76	sw.	1	0.4		3c;ck	hz	calm	calm	0.43	10.9	fair	
Indianola, Texas	30.00	762.0	30.03	762.7	82.3	27.9	82	se.	6	2.7		4 cs	4 k;ks	w.	se;e	0.10	2.5	threatening.	
Jacksboro, Texas	28.88	733.5	29.96	761.0	74	23.3	69	se.	8	3.6		0	0			0	0	clear	
Jacksonville, Florida	30.05	763.3	30.09	764.3	74	23.3	85	ne.	5	2.2		0	0			0	0	clear	
Keokuk, Iowa	29.35	745.5	30.01	762.2	73.8	23.2	73	calm	0	0		0	8 s			inap.	inap.	cloudy	
Key West, Florida	30.00	762.0	30.04	763.0	82.4	28.0	80	e.	1	0.4		3 cs	1 ks			0.02	0.5	fair	
Kittyhawk, North Carolina	30.11	764.8	30.13	765.3	75	23.9	82	e.	6	2.7		7 ck	0	sw.		0	0	fair	
Knoxville, Tennessee	29.14	740.1	30.18	766.6	69.2	20.7	83	sw.	4	1.8		3 c	2 s	nw.	calm	0	0	fair	
La Crosse, Wisconsin	29.21	741.9	29.98	761.5	71	21.7	84	s.	3	1.3		0	6 s			0.15	3.8	fair	
La Mesilla, New Mexico	26.15	664.2	30.30	769.6	58.5	14.7	53	n.	2	0.9		0	0			0	0	clear	
Laredo, Texas	29.55	750.6	29.88	758.9	75.0	23.9	82	calm	0	0		0	3 ks		calm	0.32	8.1	fair	
Leavenworth, Kansas	29.19	741.4	30.09	764.3	70	21.1	78	se.	4	1.8			10 ks		sw.	0.07	1.8	threatening.	
Lewiston, Idaho	29.15	740.4	30.00	762.0	48	8.9	68	ne.	1	0.4			10 s		calm	0.06	1.5	cloudy	
Little Rock, Arkansas	29.75	755.6	30.07	763.8	74	23.3	85	calm	0	0		4 cs	hz.	sw.		0.24	6.1	fair	
Los Angeles, California	29.59	751.6	29.98	761.5	57.2	14.0	80	sw.	2	0.9			9 s		calm	0	0	cloudy	
Louisville, Kentucky	29.52	749.8	30.08	764.0	70.0	21.1	90	s.	3	1.3		1 c	hz.			inap.	inap.	clear	
Lynchburg, Virginia	29.37	746.0	30.06	763.5	71.8	22.1	62	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	29.03	737.3	30.06	763.5	68	20.0	84	se.	8	3.6		5 cs	3 s	w.	w.	0.33	8.4	cloudy	
Marquette, Michigan	29.29	744.0	30.02	762.5	61	16.1	84	n.	4	1.8			10 s		calm	0	0	cloudy	
Mason, Texas	28.42	721.9	30.09	764.3	76	24.4	82	calm	0	0			10 s		s.	0	0	cloudy	
Memphis, Tennessee	29.76	755.9	30.10	764.5	76	24.4	64	calm	0	0		hz.	hz.	calm	calm	0	0	light haze	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.24	742.7	30.00	762.0	69	20.6	78	n.	8	3.6			10 s		nw.	0.22	5.6	cloudy	
Mobile, Alabama	30.03	762.7	30.10	764.5	74	23.3	90	n.	3	1.3		3 cs	fg.			0	0	clear	
Montgomery, Alabama	29.92	760.0	30.14	765.5	70	21.1	90	e.	1	0.4		2 c	0	e.		0	0	clear	
Moorhead, Minnesota	29.07	738.4	30.08	764.0	55	12.8	80	nw.	2	0.9		0	0			0.15	3.8	clear	
Morgantown, W. Virginia	29.07	738.4	30.04	763.0	65	18.3	81	calm	0	0		2 k	4 s	n.	nw.	0	0	fair	
Mt. Washington, N. H.	23.79	604.3	29.99	761.7	53	11.7	93	nw.	68	30.4			fg; sk		nw.	0	0	foggy	
Nashville, Tennessee	29.58	751.3	30.12	765.0	74.7	23.7	83.8	w.	4	1.8			10 ks		n.	0.01	0.3	cloudy	
New Haven, Connecticut	29.83	757.7	29.94	760.5	73	22.8	71	sw.	1	0.4		hz	hz			0	0	dense haze	
New London, Connecticut	29.88	758.9	29.94	760.5	74	23.3	85	w.	4	1.8		hz.	hz			0	0	dense haze	
New Orleans, Louisiana	30.02	762.5	30.08	764.0	78	25.6	88	e.	4	1.8		2 c	3 ks		e.	0	0	fair	
Newport, Rhode Island	29.88	758.9	29.92	760.0	70.5	21.4	86	sw.	3	1.3		hz.	hz			0	0	dense haze	
New River, N. Carolina					75	23.9	82	w.			1	0	2 s			0	0	clear	
New Shoreham, Rhode I'd	29.90	759.4	29.93	760.2	71.2	21.8	84	sw.	16	7.2		sk	sk	calm	calm	0	0	clear	
New York, New York	29.81	757.2	29.99	761.7	71	21.7	84	sw.	5	2.2		4 cs	fg	sw.		0	0	fair	
Norfolk, Virginia	30.04	763.0	30.07	763.8	73	22.8	82	sw.	7	3.1		3 ck	5 ks	s.		0	0	fair	
North Platte, Nebraska	27.10	688.3	30.04	763.0	65	18.3	90	n.	18	8.0			10 n		nw.	0.06	1.5	light rain	
Olympia, Washington T'y	30.05	763.3	30.09	764.3	51	10.6	93	ne.	2	0.9			10 s		calm	0.15	3.8	cloudy	
Omaha, Nebraska	28.84	732.5	30.04	763.0	70.5	21.4	72	se.	4	1.8		0	8 s		sw.	inap.	inap.	cloudy	
Oswego, New York	29.61	752.1	29.94	760.5	75	23.9	82	nw.	5	2.2		sk	sk.			0	0	dense smoke	
Pensacola, Florida	30.08	764.0	30.11	764.8	72	22.2	90	ne.	5	2.2		0	0			0	0	clear	
Philadelphia, Pa.	29.97	761.2	30.03	762.7	71	21.7	90	w.	8	3.6		5 k	hz	w.		0	0	fair	
Phœnix, Arizona	28.73	729.7	30.50	774.7	59	15.0	76	ne.	5	2.2		0	0			0	0	clear	
Pike's Peak, Colorado	18.02	457.7	30.22	767.6	31	— 0.6	57	sw.	24	10.7		0	0			0	0	clear	
Pioche, Nevada	24.11	612.4	30.13	765.3	37	2.8	28	s.	2	0.9		10 c	0	calm		0	0	cloudy	
Pittsburg, Pennsylvania	29.24	742.7	30.06	763.5	72.5	22.5	61	w.	2	0.9		8 ck	0	sw.		0	0	fair	
Port Eads, Louisiana	30.07	763.8	30.08	764.0	79.0	26.1	77	e.	12	5.4		0	1 kihz		e.; c.	0	0	clear	
Port Huron, Michigan	29.32	744.7	30.01	762.2	70	21.1	90	s.	2	0.9		10 cs	fg.	calm		0.61	15.5	dense fog	
Portland, Maine	29.74	755.4	29.79	756.7	75.5	24.2	69	w.	5	2.2		hz	hz			0	0	dense haze	
Portland, Oregon	30.02	762.5	30.10	764.5	50.6	10.3	98	calm	0	0			fg.			0	0	dense fog	
Portsmouth, N. Carolina					77	25.0	74	s.	8	3.6		6 c	0	calm		0	0	fair	
Prescott, Arizona	24.84	630.9	30.02	762.5	45	7.2	65	s.	3	1.3		0	0			0	0	clear	
Punta Rassa, Florida	30.02	762.5	30.03	762.7	78.5	25.8	89.3	ne.	11	4.9		6 c	3 ks	calm	ne.	0.12	3.0	cloudy	
Red Bluff, California	29.56	750.8	29.90	759.4	61.5	16.4	55	calm	0	0		0	1 s		calm	0	0	clear	
Rio Grande City, Texas	29.80	756.9	30.01	762.2	77	25.0	72	s.	3	1.3		5 cs	5 s	calm	calm	inap.	inap.	fair	
Rochester, New York	29.37	746.0	30.01	762.2	75	23.9	71	w.	4	1.8		hz.	fg			0	0	dense fog	
Roseburg, Oregon	29.52	749.8	30.10	764.5	46.5	8.1	87	calm	0	0		0	0			0	0	clear	
Sacramento, California	29.86	758.4	29.94	760.5	53.6	12.0	75	se.	8	3.6		0	0			0	0	clear	
St. Louis, Missouri	29.47	748.5	30.08	764.0	74.2	23.4	79	nw.	5	2.2		4 ck	5 s	w.	nw.	0.10	2.5	cloudy	
St. Paul, Minnesota	29.15	740.4	30.03	762.7	65.6	18.7	95	nw.	2	0.9		9 cs	0	sw.		0.07	1.8	cloudy	
Salt Lake City, Utah	25.59	650.0	29.92	760.0	64	17.8	28	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.34	745.2	30.04	763.0	77	25.0	90	e.	2	0.9			8 s		s.	inap.	inap.	cloudy	
San Diego, California	29.81	757.2	29.88	758.9	63	17.2	84	n.	2	0.9			10 s			0	0	cloudy	
Sandusky, Ohio	29.35	745.5	30.04	763.0	77	25.0	74	w.	4	1.8			10 s			0.02	0.5	cloudy	
Sandy Hook, New Jersey	29.96	761.0	29.99	761.7	77.2	25.1	76	sw.	8	3.6		0	hz		calm	0	0	clear	
San Francisco, California	29.93	760.2	29.99	761.7	54	12.2	86	sw.	7	3.1			fg		sw.	0	0	dense fog	
Santa Fé, New Mexico	23.40	594.3	30.20	767.1	54.2	12.3	59	e.	3	1.3		0	0			0	0	clear	
Savannah, Georgia	30.04	763.0	30.12	765.0	74	23.3	90	n.	2	0.9		0	fg			0	0	clear	
Shreveport, Louisiana	29.88	758.9	30.12	765.0	76	24.4	79	calm	0	0		0	0			0	0	clear	
Silver City, New Mexico	24.36	618.7	29.93	760.2	52	11.1	54	nw.	2	0.9		0	0			0	0	clear	
Sitka, Alaska	30.11	764.8	30.18	766.6	52	11.1	86	se.	6	2.7			10 ks		calm	0	0	cloudy	
Smithville, North Carolina	30.08	764.0	30.11	764.8	74	23.3	90	nw.	4	1.8		6 k	1 ks	nw.		0	0	fair	
Spokane Falls, Wash. Ter.	28.05	712.5	30.07	763.8	50	10.0	93	w.	3	1.3			10 s			0.66	16.8	cloudy	
Springfield, Illinois	29.36	745.7	30.04	763.0	72.5	22.5	83	s.	4	1.8		2 c	6s; ks; sk	w.	w.	3.18	80.8	cloudy	
Springfield, Massachusetts	29.78	756.4	29.91	759.7	71.5	21.9	84	s.	1	0.4		hz.	hz			0	0	dense haze	
Stockton, Texas	27.02	686.3	30.09	764.3	67.5	19.7	84	s.	12	5.4		0	0			0	0	clear	
St. Vincent, Minnesota	29.18	741.2	30.07	763.8	55	12.8	93	nw.	1	0.4			10 s		calm	inap.	inap.	cloudy	
Thatcher's Island, Mass	29.80	756.9	29.85	758.2	68.0	20.0	84	w.	12	5.4			10 s		w.	0	0	cloudy	
Toledo, Ohio	29.34	745.2	30.04	763.0	76	24.4	69	w.	3	1.3		3 cs	7 s; sk	nw.	nw.	0	0	threatening	
Tucson, Arizona	27.44	697.0	29.80	756.9	64	17.8	73	s.	3	1.3		0	0			0	0	clear	
Umatilla, Oregon	29.76	755.9	29.80	756.9	52.2	11.2	92	ne.	4	1.8		0	7 s		sw.	0.09	2.3	cloudy	
Uvalde, Texas	29.07	738.4	29.86	758.4	74	23.3	100	calm	0	0			10 s		calm	0.10	2.5	cloudy	
Vicksburg, Mississippi	29.85	758.2	30.11	764.8	72	22.2	84	e.	9	4.0		4 ck	0	calm		0	0	fair	
Visalia, California	29.53	750.0	29.89	759.2	58.5	14.7	61	n.	4	1.8		0	1 s			0	0	clear	
Washington, D. C.	29.92	760.0	30.03	762.7	70.1	21.2	84	sw.	1	0.4		6 k	sk	s.		0	0	fair	
Wickenburg, Arizona					54	12.2	66	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.06	763.5	30.12	765.0	75	23.9	90	calm	0	0		2 ck	0	e.		0	0	fair	
Winnemucca, Nevada	25.65	651.5	29.98	761.5	47	8.3	55	ne.	10	4.5		0	0			0	0	clear	
Wood's Holl, Mass	29.87	758.7	29.90	759.4	69	20.6	90	w.	6	2.7		0	sk.			0	0	dense smoke	
Yankton, Dakota	28.72	729.5	30.02	762.5	66	18.9	90	ne.	6	2.7			10 s			0	0	cloudy	
Yuma, Arizona	29.65	753.1	29.79	756.7	69.6	20.9	71	se.	2	0.9		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	29.94	760.5	29.98	761.5	82	27.8	91	n.	2	0.9		5 k	5 ks	calm	calm	0.20	5.1	cloudy	J. A. Racker.
Bogota, U. S. Columbia	22.07	560.6			52.2	11.2	72	calm	0	0			8 n			0.29	7.4	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.83	757.7	29.83	757.7	80	26.7	90	se.				5 c	0			0.4	10.		B. Bigar.
Havana, Cuba, W. I.	29.99	761.7	30.04	763.0	79	26.1	88	calm	0	0		8 cs	0	calm		0.41	10.4	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.98	761.5	29.99	761.7	82.0	27.8	70	calm	0	0		7 cs	0	e.		0.48	12.2	rainy	Robert Johnstone.
Navassa, W. I.	29.89	759.2	29.97	761.2	82	27.8	87	n.	10	4.5		50s; hz	5 k		e.	0.15	3.8	fair	F. M. Everett.
Paramaribo, S. A.	30.04	763.0	30.04	763.0	80	26.7	82	se.			2	0	3 k		e.	0	0		Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.46	748.3	30.02	762.5	76	24.4	94	calm	0	0			10 ks		calm	0.27	6.9	raining	Francesco J. Cisneros.
Rivas, Nicaragua					73.4	23		ne.			1	5 cs	1 ks	e.	ne.	0	0		Earl Flint.
Santiago de Cuba, W. I.	29.98	761.5	30.01	762.2	81	27.2	82	n.	3.6	1.6		2 c	0	sw.		0	0	fair	Robert Mason.
St. Thomas, W. I.‡	29.84	757.9	29.96	761.0	80	26.7	87	ne	6	2.7			8 n			0.49	12.4	cloudy	G. O. Gyllich.
York Factory, B. A.	30.10	764.5	30.16	766.1	43.0	6.1	96	e.	8	3.6		2 k	2 s	se.	e.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Booby Is'd, Torres Strait	30.03	762.7	75	23.9	79	se.			3-4		5							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Cagliari, Sardinia	29.77	756.1	75.5	24.2	58	wnw			5-6		6	wnw.				1	wnw.	squally	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.92	760.0	80	26.7		nne.			2-3		10	nne.						overcast	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 10° 36′, E. 43° 30′	29.63	752.6	94	34.4	70	calm			0		0					sm'h		blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 17° 00′, W. 61° 45′	29.94	760.5	82	27.8	91	ese.			4		6							squally	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 2° 55′, E. 7° 26′	29.99	761.7	75	23.9	72	sse.			3-4		5	sse.				3	sse.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant, S. 11° 10′, E. 162° 30′	29.97	761.2	80	26.7		ese.			3		2	se.				3	se.	d. clouds	Capt. J. A. T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 19′, E. 21° 48′	29.85	758.2	81	27.2		e.			1		1					1	e.	blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 35° 00′, E. 19° 10′	30.01	762.2	64	17.8		ese.			2		3	nne.				3	ese.	d. clouds.	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	29.94	760.5	79.5	26.4	86	nw.			1-2		2	wnw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 51′, W. 56° 08′	29.50	749.3	54	12.2	93	n.			2-4		10	w.						raining	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.46	748.3	86	30.0		se.			1		4	se.				1	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 6° 53′, E. 82° 03′	29.81	757.2	80.5	26.9		s.			5		1					3	sw.	blue sky	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 34° 00′, W. 34° 10′	29.80	756.9	75	23.9		wnw.			3		1	wnw.				3	wsw	blue sky	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Zanzibar, Zanzibar	30.01	762.2	80	26.7	78	se.			2-3		3	se.						d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 35° 50′, E. 10° 40′	29.76	755.9	81	27.2		nne.			3-4		1					3	nne.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Off Yessashi, Yezo, Japan	29.96	761.0	78	25.6	82	ne.			2		6	ne.				4	w.	misty	Capt. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich Is'ds	30.07	763.8	76	24.4	72	ene.			2-5		6							showery	Comm. E. G. Bourke.
H. M. S. Garnet, S. 34° 36′, W. 58° 19′	29.88	758.9	63	17.2	88	ene.			6		10							misty	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 20° 00′, E. 178° 00′	30.12	765.0	74	23.3	81	e.			6		10	e.				3	se.	squally	Capt. C. C. P. Fitzgerald.
H. M. S. Iris, Hammamet, Tunis, Africa	29.78	756.4	84	28.9	77	nw.			3-5		0					1-2	nnw.	squally	Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 43° 54′, E. 135° 29′	29.89	759.2	63	17.2		calm			0		9					2	w.	drizzling	Capt. R. E. Tracey.
H. M. S. Kingfisher																			Comm. R. H. Thornton.
H. M. S. Lapwing, S. 1° 20′, E. 105° 00′	29.83	757.7	84	28.9		se.			3		1	se.						blue sky	Comm. F. H. Haygorth.
H. M. S. Lark, N. 9° 15′, W. 25° 23′	29.99	761.7	79	26.1	90	ssw.			3		1					2	wsw; ssw.	blue sky	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.78	756.4	81.3	27.4	85	w.			1		9					1	w.	misty	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Malabar																			
H. M. S. Minotaur																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Susa, Tunis	29.80	756.9	84	28.9	83	nne.			3-4		6	nnw.						d. clouds	Capt. G. C. Tryon
H. M. S. Mutine, S. 44° 50′, W. 66° 16′	29.52	749.8	49	9.4	86	nnw.			6		10					5	nnw.	overcast	Capt. F. Edwards.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton. Petipso, Newfoundland.	29.54	750.3	55.5	13.1	84	ene.			4		10	e.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin, N. 45° 36′, W. 16° 01′	30.16	766.1	65	18.3		ese.			4–5		6	se.				2	ene.	d. clouds	Capt. A. C. Paget.
H. M. S. Phœnix, N. 49° 50′, W. 55° 39′	29.65	753.1	52	11.1	93	e.			0–1		10					2	nne.	overcast	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready, N. 16° 46′, E. 96° 15′	29.83	757.7	80	26.7		sw.			3		8	sw.						d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 6° 24′, E. 39° 18′	30.08	764.0	79.3	26.3	78	ese.			3		5							d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 45° 34′, W. 61° 15′	29.56	750.8	73	22.8	76	w.			3–4		10							misty	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	30.09	764.3	59	15.0	87	se.			3		10	se.						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I	29.98	761.5	80	26.7		n.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.57	751.1	80.5	26.9	78	wsw.			3–4		5	sw.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			

GERMAN NAVAL SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

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Bengo	Carlos Candid dos Reis.
India	
Quanza	A. M. da Sitra.
Rio Lima	
Sado	Carlos M. de Silva Costa.
Tamega	C. da Silva Costa.
	G. A. de Brito Capello.
	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

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H. M. Corvette Saga	Capt. M. von Krusenstiern.
H. M Frigate Vanadis	Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.18	766.6	75	23.9	86	ne.	5	2.2			0							clear	
N. Yard, Portsmouth, N. H.	29.82	757.4	74	23.3	81	w.	12	5.4		2 c	0			0	0			smoky	
Naval Hospital, Yokohama, Japan	29.70	754.4	79.5	26.4	76	n.			6		5		n.	0	0			fair	
Adams, N. 21° 22′, W. 109° 36′	29.68	753.9	81	27.2	87	sw.			2		2		w.			long	nw.	fair	
Alaska, Callao, Peru	30.03	762.7	59	15.0	100	s.			1		10			0	0	sm'h		misty	
Alert, Yokohama, Japan *	29.73	755.1	82	27.8	79	nnw.			4-6		10		calm			mod.	ne.	cloudy	
Alliance, N. 76° 05′, E. 11° 45′	30.10	764.5	37	2.8	100	ssw.			6		10			light	light	sm'h		gloomy	
Ashuelot, Kobe, Japan	29.86	758.4	84	28.9	68	wnw.			2		2		calm					clear	
Colorado, New York, N. Y.	29.97	761.2	74	23.3	81	sw.	10	4.5			0			0	0			misty	
Constitution, New London, Conn	29.88	758.9	72	22.2	?	wnw.	2	0.9			8							hazy	
Franklin, Norfolk, Va	30.03	762.7	73	22.8	?	ssw.	7	3.1			8		se.	0	0			fair	
Galena, Villafranca, France	29.57	751.1	65	18.3	89	sw.			1		10		sw.			sm'h		raining	
Independence, N. Yard, Mare I'd, Cal	29.84	757.9	58	14.4	82	sw.	8.4	3.8			0							clear	
Jamestown, Mare Isl'd, Cal *	29.91	759.7	58	14.4	94	sw.			4		0			0	0	sm'h		clear	
Kearsarge, New London, Conn	29.93	760.2	69	20.6	90	wsw.			2		10					sm'h		hazy	
Lackawanna, Mare Isl'd, Cal †	30.20	767.1	59	15.0	100	sw.			2-3		0							clear	
Lancaster, Portsmouth, N. H.	29.81	757.2	75	23.9	90	wsw.	2	0.9											
Marion, [S. A.* Off Buenos Ayres, La Plata,	29.60	751.8	63	17.2		ene.			5		10		calm			mod	ne.	cloudy	
Michigan, Detroit, Mich	29.93	760.2	74	23.3	86	wsw.			1		10		wsw.					cloudy	
Minnesota, Newport, R. I.	29.91	759.7	71	21.7	85	ssw.			2		0			0	0			misty	
Monocacy, Yokohama, Japan	29.88	758.9	83	28.3	83	n.			3		8		nw.					cloudy	
Nipsic, Villafranca, France	29.58	751.3	66	18.9	79	nw.			1		10					sm'h		raining	
Onward, Callao, Peru †	30.05	763.3	58	14.4	100	sse.			3		10		n.			long	w.	misty	
Palos, Hong Kong, China	29.82	757.4	78	25.6	95	ssw.			1		10		s;w.					overcast	
Passaic, Washington, D. C.	30.11	764.8	72	22.2	95	se.			1		2		se.					fair	
Pensacola, N. 9° 52′, W. 86° 24′	29.94	760.5	81	27.2	83	nne.			1		8		se.	0	0	long	sse.	cloudy	
Portsmouth, Portsmouth, N. H.	29.82	757.4	72	22.2	95	w.			2		8		w.			sm'h		cloudy	
Powhatan, New York, N. Y.	29.97	761.2	75	23.9	100	ssw.			2		2							hazy	
Quinnebaug, Villafranca, France	29.56	750.8	65	18.3	89	ene.			1		10					sm'h		cloudy	
Ranger, Mare Island, Cal *	29.91	759.7	59	15.0	82	s.			3		1		calm			sm'h		clear	
Richmond, N. 19° 45′, W. 110° 02′	29.84	757.9	83	28.3	91	n.			1		2		n.	0	0	long	n.	fair	
Shenandoah, Maldonado, Uruguay *	30.07	763.8	59	15.0	94	nne.			4		10					mod.		cloudy	
St. Louis, League Island, Pa	29.76	755.9	73	22.8	90	sw.	5	2.2			5		sw.	0	0			fair	
Swatara, Chefoo, China †	29.85	758.2	75	23.9	77	se.			2		0							clear	
Tennessee, New London, Conn	29.94	760.5	76	24.4	95	wsw.	4	1.8			8			0	0			hazy	
Trenton, Villafranca, France *	29.58	751.3	64	17.8	83	calm			0		10			8 h'r	mod.	sm'h		rainy	
Vandalia, Newport, R. I.	29.90	759.4	69	20.6	95	wsw.			1		0							clear	
Wabash, Boston, Mass.	29.89	759.2	75	23.9	64	wsw.	5	2.2						0	0			hazy	
Wachusetts, Sitka, Alaska	30.17	766.3	56	13.3	94	var.			1		5		e.	0	0			fair	
Wyoming, Port Royal, S. C.	30.44	773.2	73	22.8	90	n.	11	4.9			0			0	0			clear	
Yantic, N. 41° 24′, W. 70° 10′ *	29.86	758.4	72	22.2	85	w.			3		0					sm'h	w.	hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 46° 02′, W. 73° 07′ *†	29.99	761.7				wsw.	1		8		wsw.			sm'h		fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 46° 33′, W. 34° 09′	29.85	758.2	59	15.0	82	w.	4		2		w.			r'gh	nw.	fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng †	30.30	769.6	68	20.0	79	n.	3		2		n.	0	0			fine	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Philadelphia, Penn *†	30.10	764.5	74	23.3	90	sw.	1		2		w.					hazy	
S. S. Pennsylvania, Capt G. H. Dodge, N. 41° 48′, W. 46° 35′ †	29.87	758.7	74	23.3	76	sw.	5		10		w.			r'gh	ne.	cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall																	
S. British Merchant, Capt. E. J. Moloney, ‡ N. 19° 00′, W. 33° 30′	30.02	762.5	80.2	26.8	66	ne.	2		6							d. clouds	
S. S. Cipero, Capt. W. N. Latley, N. 23° 50′, W. 36° 24′	30.08	764.0	81.1	27.3	70	nw.	1		3					1	e.	d. clouds	
Bk. Commewyne, Capt. W. Scott, N. 48° 10′, W. 26° 58′	29.91	759.7	60.4	15.8	82	se.	1		9							d. clouds	
Bk. Coppename, Capt. A. Buchan, N. 26° 04′, W. 53° 30′	30.14	765.5	82.5	28.1	71	ene.	2		2							blue sky	
Bk. Glaramara, Capt. R. Morton, N. 31° 46′, W. 153° 23′	30.33	770.4	63	17.2	95	e.	2		6							d. clouds	
Bg. Hermine, Capt. S. G. Jones, N. 31° 45′, W. 18° 10	30.04	763.0	69.8	21.0	100	ne.	3		1							blue sky	
Bkt. Hope, Capt. Jas. Campbelle, ‡ N. 15° 25′, W. 29° 20′	29.99	761.7	78.5	25.8	74	n.	4		2							d. clouds	
Island Belle, Capt. A. McBride, N. 14° 05′, W. 48° 38′	30.04	763.0	83	28.3		ene.	4		2							blue sky	
S. Lochee, Capt. J. Raeburn, ‡ S. 7° 18′, W. 29° 33′	30.09	764.3	76.1	24.5	93	e.	6		9							showery	
Bk. Mertola, Capt. E. W. Turner, N. 37° 05′, W. 7° 16′	29.95	760.7	80.8	27.1	68	calm.	0		1							blue sky	
Naiad, Capt. J. Smith, S. 52° 12′, W. 79° 06	29.96	761.0	34.9	1.6	80	sw.	10		10							showery	
S. Pleione, Capt. C. H. Renant, S. 15° 55′, W. 34° 42′	30.17	766.3	74	23.3	72	ese.	6		5							squally	
S. S. Rosetta, Capt. A. E. Barlow, S. 9° 05′, E. 91° 14′	29.89	759.2	78	25.6	91	wnw.	4		10							overcast	
Sierra Estrella, Capt. P. Murdoch, N. 7° 49′, E. 87° 17′	29.88	758.9	82.0	27.8	89	sw.	5		5							misty	
Bk. Shun Lee, Capt. J. N. Gray, ‡ S. 16° 00′, W. 26° 15′	30.20	767.1	71.6	22.0	76	ese.	4		3							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, N. 18° 50′, E. 113° 35′	29.80	756.9	83.5	28.6	89	sw.	2		10							overcast	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers																	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains																	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Hermann, Capt. H. Baur																	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst. N. 43° 31′, W. 45° 04′	29.94	760.5	60.0	15.6	67	se.	2		10		sw.			long	n.	light rain	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche																	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 42° 06′, W. 167° 32′ †	30.10	764.5	70	21.1	85	s.	5		5		ssw.	0	0	mod.	sw.	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 47° 14′, E. 173° 19′ *†	29.86	758.4	58	14.4	88	w.	6		6?		nw.			he'vy	w.	cloudy?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 22° 19′, E. 115° 08′	29.88	758.9	79	26.1	91	var.	1		8		sw.	0	0	sm'h		fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann																	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 35° 53′, W. 121° 29′†	30.01	762.2	53	11.7	93	nw.	6	.....	0	.....	.....	.....	.....	r'gh	w;nw	clear	J. N. Ingalls.
S. S. Dakota, Capt. ——, N. 44° 08′ W. 124° 36′†	30.05	763.3	54	12.2	94	nnw.	4	.....	10?	.....	nw.	0	0	sm'h	.....	clear?	.....
S. S. Idaho, Capt. T. Huntington, N. 42° 48′, W. 124° 42′†	30.10	764.5	58	14.4	88	nw.	4	.....	0	.....	.....	.....	.....	mod.	nw.	clear	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 35° 15′, W. 120° 55′†	29.92	760.0	56	13.3	81	nw.	6	.....	fg	.....	nw.	.....	.....	long	sw.	foggy	G. H. Harrison.
S. S. Senator. Capt. Wallace, N. 35° 39′, W. 121° 10′†	29.94	760.5	52	11.1	93	var-	1	.....	10	.....	.....	.....	.....	.....	.....	foggy	T. Wallace.
S. S. State of California, Capt. Debney, N. 43° 20′, W. 124° 40′†	30.08	764.0	58	14.4	88	nnw.	3	.....	5?	.....	nw.	.....	.....	sm'h	nw.	clear?	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, Nanaimo, Vancouver's Isl'd†	30.14	765.5	56	13.3	87	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——, Sydney, N. S. W.	30.19	766.8	54	12.2	74	se.	3	.....	5?	.....	se.	.....	.....	.....	.....	clear?	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.†	30.12	765.0	61	16.1	100	se.	3	.....	0	.....	.....	0	0	.....	.....	clear	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin, N. 15° 26′ W. 96° 37′†	29.99	761.7	79	26.1	91	e.	5	0	9 ks;n	.....	ne.	5 h'r	5 h'r	h'vy	s.	squally	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, Panama, Panama†	29.93	760.2	83	28.3	87	n.	2	.....	5	.....	n.	1 h'r	1 h'r	sm'h	s.	fine	.....
S. S. City of Sidney, Capt. H. C. Dearborn, N. 26° 59′, W. 147° 13′†	30.29	769.4	71	21.7	75	ne.	4	.....	8	.....	ne.	0	0	mod.	ne.	cloudy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, N. 8° 26′, W. 83° 54′†	29.95	760.7	81	27.2	100	wnw.	4	.....	9	.....	wnw.	0	0	h'vy	ssw.	cloudy	R. R. Searle.
S. S. Grenada. Capt. M. Connolly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, N. 29° 18′, W. 141° 20′	30.34	770.6	70	21.1	80	nw.	1	.....	1?	.....	wnw.	.....	.....	sm'h	nw.	overcast?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 47° 22′, W. 27° 00′†	30.22	767.6	63	17.2	94	calm	0	.....	8	.....	nw.	0	0	light	nw.	fine	A. Fedderson, 2d Off
S. S. Rhyniand, Capt. W. G. Randall, N. 43° 15′, W. 44° 50′†	30.01	762.2	59	15.0	82	se.	3	.....	10	.....	sse.	0.1	3.	long	n.	rainy	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 46° 45′, W. 37° 37′†	29.79	756.7	54	12.2	?	nnw.	5	.....	5	.....	n.	sh's	sh's	mod.	nne.	fair	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, Liverpool, England†	30.46	773.7	53	11.7	86	n.	2	.....	2	.....	n.	sh's	sh's	.....	.....	showery	.....
S. S. Republic. Capt. P. J. Irving	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, New Bedford, Mass.†	29.94	760.5	71	21.7	100	wsw.	1	0	2s	.....	.....	0	0	.....	.....	clear	.....
Golden Fleece	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler, Lt. Com. Nichols, Kargani Strait, Alaska.*†	30.19	766.8	54	12.2	.....	wnw.	2	.....	0	.....	.....	.....	.....	.....	.....	blue sky	.....
S. Iron Cross, Capt. Randall, S. 25° 18′, E. 3° 50′.*	30.07	763.8	64	17.8	97	ene.	2-3	.....	6	.....	se.	0	0	mod.	s; se	misty	W. Randall.
S. Pawashick, Capt. E. Fry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	cross	.....	.....	E. Fry.
S. S. Proteus, Capt. Pike	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam, Capt. Jos. Hand, N. 41° 03′, W. 23° 21′†	30.07	763.8	71	21.7	80	se.	6	.....	10	.....	sse.	light	light	mod.	s.	cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 2, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.93	760.2	83.1	28.4	75	calm			0		1			0	0	very fair	Raynard.
Algiers ‡			29.97	761.3	77.0	25.0	71	nne.			4		0			0	0	clear	Nicolas.
La Calle ‡			29.95	760.8	82.0	27.8	74	n.			4		4			0	0	cloudy	Fonfréde.
Tunis ‡			29.97	761.1															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.98	761.4	94.1	34.5	26	nw.			3		2			0	0	fair	Dumas.
Tebessa ‡			29.98	761.4	80.6	27.0	19	n.			5		2			0	0	fair	Derché.
Geriville ‡					92.8	33.8	10	wsw.			8		0			0	0	clear	Lonchamp.
Laghouat ‡			29.98	761.5	92.8	33.8	9	s.			5		4			0	0	cloudy	Herbin.
Biskra ‡			29.99	761.8	94.3	34.6	26	nnw.			1		2			0	0	fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.65	753.1	29.74	755.4	53.0	11.7	74	n.	13	5.8			10			0.01	0.3	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.19	741.5	29.72	754.9	68.4	20.2	80	e.			2		3			0.087	2.2	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	28.94	735.1	29.68	753.8	70.5	21.4	67	e.	16.1	7.2			10			0.028	0.7		Dr. Wiersbicki.
Eperies	28.85	732.8	29.69	754.2	67.8	19.9	63	se.			4		10 ks			0	0		Julius Mikolik.
Gratz ‡	28.41	721.6	29.61	752.2	64.4	18.0	74	sse.			2		7			0.154	3.9		Andreas Rospini.
Hermannstadt	28.37	720.7	29.72	754.9	77.5	25.3	41	s.			5		5			0.433	11.0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.26	717.9	29.56	750.9	63.0	17.2	88	ene.			1		9			0.524	13.3	rainy	The Staff.
Lemberg	28.80	731.4	29.74	755.4	69.4	20.8	55	se.			3		9			0	0		Dr. T. Stanecki.
Pola	29.56	750.8	29.67	753.6	66.9	19.4	76	wsw.			2		10			0.276	7.0	thunder	I. R. Hydrographic Office.
Szathmar	29.30	744.3	29.75	755.7	66.6	19.2	87	sw.			4		10			0.276	7.0		Beicht Peter, S. J.
Szegedin	29.44	747.8	29.71	754.6	69.8	21.0	74	s.			1		10			0.776	19.7		Karl Stancel.
Trieste	29.59	751.6	29.69	754.2	67.3	19.6	70	sse.			1		10			0.886	22.5		Secco.
Vienna	28.97	735.8	29.67	753.7	58.1	14.5	95	e.			1		10			0.594	15.1		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 7, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.27	768.8	30.37	771.4	54.6	12.6	68	n.	12	5.4			8			0	0	d. clouds	W. Boswell.
Armagh, Observatory	30.13	765.3	30.36	771.1	53.0	11.7	73	nne.	3	1.3			8					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.28	769.1	53.2	11.8	79	nnw.	10	4.5			10					overcast	John Hartnup.
Bolton, Sharples	29.71	754.6	30.25	768.3	56.8	13.8	67	ene.	12	5.4			5					d. clouds	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.86	758.4	30.25	768.3	56.2	13.4	74	ne.			4		6			0	0	d. clouds	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.14	765.5	59.0	15.0	76	n.			4.0		9					overcast	John McLaren.
Chatham, School M. E.	29.98	761.5	30.11	764.8	59.6	15.3	78	n.			2		8					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	30.00	762.0	30.23	767.8	58.3	14.6	66	ne.			1		9					overcast	The Staff.
Fort Napier, Natal	27.58	700.5	29.80	756.9	88.2	31.2	31	n.			2		1					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.65	753.1	29.88	758.9	86.0	30.0	83	sw.			2		5					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.26	768.6	63	17.2	66	wnw.			2		6					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	29.94	760.5	29.99	761.7	80.4	26.9	78	e.			3		3					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	30.14	765.5	30.35	770.9	55.5	13.1	66	ene.			5		9					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.95	760.7	30.12	765.0	58.0	14.4	80	n.			4		10					overcast	The Staff.
Guernsey	29.97	761.2	30.19	766.8	58	14.4	81	nnw.			2		6					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.11	764.8	30.14	765.5	58.3	14.6	69	n.	19	8.5			9					threatening	The Staff.
Leicester, Museum	29.94	760.5	30.22	767.6	56.5	13.6	78	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean					81.8	27.7	76	nw.			2		1					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.93	760.2	29.98	761.5	84.5	29.2	77	se.			1		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.96	761.0	30.18	766.6	58.2	14.6	75	n.			6		9					squally	The Staff.
Plymouth	30.15	765.8	30.22	767.6	59.8	15.4	68	ssw.			1		8					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.43	772.9	52.5	11.4	76	ne.	12	5.4			10					misty	Rev. C. Clouston, L. L. D
Scutari Cemetery, Turkey	29.79	756.7	29.86	758.4	84.2	29.0	60	sw.			1		1					blue sky	Serg't W. H. Lyne.
Sheffield	29.99	761.7	30.27	768.8	58.4	14.7	78	nne.			1		10			0.01	0.3	overcast	W. F. Cooper.
Silloth Rectory	30.28	769.1	30.31	769.9	55.5	13.1	73	e.			1		10			0	0	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.28	769.1	56.0	13.3	73	ne.	7	3.1			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss					56.2	13.4	71	nw.			3		6					d. clouds	Rev. C. H. Griffiths, F.M.S
Truro, Royal Institution	30.21	767.3	30.23	767.8	62	16.7	61	e.			4		4					d. clouds	W. Newcombe.
Valencia, Observatory	30.27	768.8	30.30	769.6	57.9	14.4	81	wsw.	5	2.2			5					misty	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.97	761.2	30.01	762.2	58	14.4	90	calm	0	0		2 ck	8 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	29.96	761.0	30.02	762.5	55	12.8	96	ne.	1	0.4		5 k	5 ks	ne.	ne.	0	0	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.97	761.2	29.99	761.7	51	10.6	100	w.	3	1.3		5 k	fg.	nw.		0	0	fair	J. McWilliams.
Fort Garry, Manitoba*	29.17	740.9	29.98	761.5	55	12.8	93	ne.	3	1.3		5 k	5 s	ne.	ne.	0	0	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.87	758.7	30.00	762.0	62	16.7	81	ne.	8	3.6		2 cs	2 ks	ne.	ne.	0	0	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.57	751.1	29.89	759.2	65	18.3	90	n.	2	0.9			10 n			0.08	2.0	light rain	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.73	755.1	29.93	760.2	64	17.8	87	ne.	8	3.6		10 cs	0	w.		0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.30	744.2	29.97	761.2	61	16.1	93	e.	1	0.4		0	2 ks		e.	0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.28	743.7	29.95	760.7	69	20.6	100	nw.	4	1.8		hz.	sk.			0.04	1.0	smoky	H. Morgan.
Port Stanley, Ontario	29.32	744.7	29.94	760.5	69	20.6	93	w.	4	1.8			fg.			0.13	3.3	foggy	M. Payne.
Quebec, Quebec*	29.65	753.1	29.96	761.0	62	16.7	87	ne.			1	0	5 s		ne.	0	0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.53	750.0	29.98	761.5	59	15.0	78	w.	4	1.8			10 ks		nw.	0	0	cloudy	W. H. McIntyre.
Saugeen, Ontario*	29.27	743.4	29.97	761.2	62	16.7	100	n.	1	0.4			fg.			0.02	0.5	foggy	K. Stewart.
St. Andrews, N. B.	29.94	760.5	29.99	761.7	56	13.3	96	se.	3	1.3			10 n			0	0	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.99	761.7	30.04	763.0	58	14.4	80	e.	6	2.7		5 ck	5 ks	w.	e.	0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.58	751.3	29.94	760.5	69	20.6	90	n.	5	2.2			sk.			0	0	dense smoke	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.89	759.2	29.96	761.0	60	15.6	90	e.	2	0.9			8 s		e.	0	0	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.91	759.7	30.16	766.1	48	8.9	78	ne.				0	0			0.18	4.6		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	29.91	759.7	29.94	760.5	65.2	18.4	97	e.	15.4	6.9		7 c	0			0.145	3.7	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†																			C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.89	759.1	29.91	759.7	71.8	22.1	99	sw.	2.7	1.2			10			1.705	43.3	covered	M. Marc Dechevrens, S.J

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.02	762.5	30.07	763.7	57.7	14.3	72	e.	29	13			8						Oversergent Fischer
Fanöe	30.06	763.5	30.08	764.0	57.4	14.1	84	ene.			6		10						Overloerer Lauridsen.
Godthaab, Greenland	29.71	754.7	29.76	755.8	36.1	2.3	96	s.			2		10					foggy.	S. Kleinschmidt.
Stykkisholm, Iceland	30.04	763.0	30.08	764.1	55.4	13.0	89	se.			4		10					raining	A. O. Thorlacius.
Thorshavn	30.50	774.8	30.54	775.7	51.4	10.8	68	ene.	7	3			5						Overloerer Bergh.
Vestervig	30.08	764.0	30.17	766.3	58.8	14.9	71	ne.			6		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.42	747.3	30.07	763.7	63.0	17.2	52	wnw.			2		kn;k			0	0		M. Labrone, Director.
Alençon Normal School	29.57	751.1	30.08	764.1	57.2	14	93	n.			4		kn	w.	n.	0.031	0.8		M. Nicot, Director.
Arras, Engineer School	29.69	754.0	29.94	760 4	56.5	13.6	90	n.				0	10 n		n.			raining	M. Klein, Commandant.
Avignon, Normal School	29.77	756.1	29.85	758.1	66.2	19	54	n.			3		2		n.	0	0	slightly cl'dy	M. Giraud, Director.
Bar-sur-Seine	29.33	745.0	29.88	758.9	62.6	17.0	76	ne.			1	0	8 kn			0	0	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.82	757.5	29.98	761.4	60.3	15.7	75	nnw.			2		8		n.	0.059	1.5	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.99	736.3	29.88	758.9	55.4	13	94	w.			1		10		w.	0.268	6.8	covered	M. Gobin, Director.
Bordeaux, Observatory	29.86	758.4	30.12	765.0	63.1	17.3	68	nw.			1		8		nw.	0	0	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.48	748.7	30.02	762.6	58.1	14.5	78	n.			1		10		n.	0.016	0.4	covered	M. Postel, Director.
Brest, Naval Observatory	30.00	762.1	30.25	768.3	60.4	15.8	71	ne.			1		9		ne.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.02	762.6	30.10	764.5	59.4	15.2	82	nw.			2		5		nw.	0.12	3.	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					60.1	15.6	89	wnw.			6		10		n.	0	0	covered	M. Jadot, Director.
Charleville, Normal School	29.36	745.8	29.88	758.8	61.2	16.2	69	nw.			3		10		n.	0.028	0.7	covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.61	726.8	29.96	760.9	59.7	15.4	61	nw.			2		5		nw.	0.047	1.2	showery	M. Alluard, Director.
Cluny, Normal School	29.08	738.7	29.91	759.8	57.9	14.4	76	n.			3		3		n.	0.059	1.5		M. de Villemontée, Dir.
Commercy, Normal School	29.00	736.5	29.86	758.4	56.1	13.4	90	wnw.			1		5	wnw.	wnw.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.24	691.9	29.71	754.5	61.5	16.4	38	s.			2	0	5 k		n.	0	0	cloudy	M. Jeanglrard, Director.
Gréasque, du. Rhone	28.69	728.6	29.83	757.6	62.1	16.7	47	nw.			4		5		nw.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.13	739.9	29.90	759.4	52.5	11.4	86	ene.			4		10			0.520	13.2	light rain	M. Ablard, Director.
Guéret, Normal School	28.47	723.1	30.04	762.9	55.6	13.1	90	nw.			2		10 sn		s.	0.417	10.6	raining	M. Rivoire, Director.
Lamballe, Normal School	29.96	761.0	30.23	767.8	66.4	19.1	92	n.			4				n.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.10	764.5	30.20	767.1	64.4	18.0	80	n.			1		8		n.	0.039	1.0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.87	733.2	29.92	760.0	61.2	16.2	50	nnw.			3		8		nnw.	0.165	4.2	very cloudy.	M. André, Director.
Mans, Normal School	29.79	756.6	30.10	764.4	61.2	16.2	66	n.			1		8		n.	0.094	2.4	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.50	749.3	29.76	756.0	65.3	18.5	36	nw.			6		3		nw.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.81	630.2	30.05	763.2	55.4	13.0	49	nw.	20.6	9.2			2		w.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.73	755.2	29.86	758.4	61.0	16.1	54	w.			6		5			0	0	fair	M. Pourle, Director.
Nancy, Normal School	29.07	738.3	29.82	757.4	55.4	13.0	88	n.			2		10		n.	0	0	covered	M. Hasse.
Nantes, Observatory	30.05	763.2	30.21	767.3	63.0	17.2	65	nnw.			2-3	[10	m;kn; k	n.	n.	0	0		M. Larocque, Director.
Nice	29.63	752.7	29.67	753.5	71.2	21.8	67	w.			1		10	w.	w.	0.850	21.6	light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.87	758.7	29.97	761.3	65.3	18.5	32	nw.	31.8	14.2			4		nw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.57	573.3			37.4	3.0							1		n.	0.079	2.0	clear	Gen'l de Nansouty Dir.
Privas, Normal School	28.95	735.3	29.99	761.7	66.9	19.4	68	calm			0		2			0	0	slightly cl'dy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.10	637.4			40.3	4.6	100	nw.			6		10			0.287	7.3	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.12	765.0	30.15	765.8	65.7	18.7	86	nw.			1		10		n.	0	0	covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.91	759.6	30.12	765.1	62.2	16.8	70	n.			3		10		n.	0	0	covered	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.95	760.8	30.04	763.0	57.2	14	89	ne.			3		10			0.335	8.5	covered	M. Platrier, Director.
Saint Lô, Normal School	29.97	761.2	30.13	765.2	58.1	14.5	78	n.			3		8		n.	0.110	2.8	very cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.80	756.8	29.96	761.0	60.3	15.7	71	nnw.			2		10		n.	0.039	1.0		M. Renou, Director.
Toulouse, Observatory	29.42	747.3	30.15	765.7	62.2	16.8	46	wnw.			6		5	nw.		0	0	cloudy	M Bailland, Director.
Tours	29.86	758.4	30.06	763.4	64.4	18.0	59	nne.			3		8		n.	0	0	¾ covered	M. de Tastes.
Versailles, Observatory	29.51	749.5	30.00	762.0	57.9	14.4	84	n.			6					0.094	2.4		Dr. A. Bérigny, Director.
Sub-Series. Paris, Montsouris Obs'y	29.68	753.9	29.97	761.3	62.1	16.7	71	n.			3		10		nw.	0.043	1.1	raining	M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.86	733.1	29.72	754.8	61.7	16.5	80	wnw.			2		9 n		w.	0.118	3.0	raining	Prof. Dr. Hoh.
Berlin	29.58	751.3	29.74	755.5	72.3	22.4	44	ne.			4		7			0	0		Prof. Dr. Arndt.
Breslau	29.21	742.0	29.74	755.3	70.9	21.6	60	e.			2		6			0	0		Royal University Obs'y.
Carlsruhe	29.28	743.8	29.70	754.4	59.4	15.2	93	n.			1		10	n.		1.693	43.0	raining	Albert Senz.
Cassel	29.07	738.3	29.78	756.5	66.0	18.9	70	n.			5		7	n.		0.197	5.0		Dr. H. Möhl.
Frankfort on the Main	29.36	745.8	29.71	754.7	67.3	19.6	66	nne.			3		7			0.035	0.9		Physical Society.
Friedrichshafen	28.33	719.5	29.75	755.7	52.9	11.6	91	ssw.			8		10	sw.		1.220	31.0		Wilhelm, Chief Tel.
Hamburg	29.82	757.4	29.91	759.8	58.8	14.9	89	ne.			5		8			0.035	0.9		E. Preller.
Kiel	29.96	761.0	29.98	761.4	58.1	14.5	86	ene.			4		10			0.370	9.4		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.32	744.7	29.72	755.0	70.0	21.1	65	ne.			3		6	ne.		0	0		H. Leppig, Asst.
Magdeburg	29.58	751.3	29.76	755.9	69.8	21.0	64	ne.			1	0	4 k		nne.	0	0		Dr. Assmann.
Memel	30.06	763.4	30.10	764.6	71.8	22.1	49	e.			3	0	5 ks						Issermann.
Munich	27.86	707.7	29.71	754.5	55.6	13.1	77	nw.			4		10	w.		0.083	2.1	raining	Central Station.
Neufahrwasser	29.96	760.9	29.97	761.3	66.0	18.9	73	ne.			4		5			0	0		A. Lothes.
Neustadt, Palatinate	29.13	740.0	29.65	753.2	63.1	17.3	75	nw.			3		8	w.		0.417	10.6		Dickneither.
Stuttgart	28.74	730.1	29.62	752.3	58.6	14.8	94	w.			1		10			0.984	25.0	raining	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.18	715.8	29.63	752.7	63.1	17.3	75	ne.			4		10	ne.		0.677	17.2		Fischer.
Wustrow	29.95	760.8	29.98	761.4	59.4	15.2	73	ne.			5		10			0.250	6.5		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.54	750.4	29.92	759.9	83.8	28.8		s.			3.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.52	749.9	29.58	751.2	82.4	28.0	81	sw.	22.0	9.8			8		w.	0	0	misty	
Deesa	29.15	740.5	29.62	752.4	83.8	28.8	75	sw.					8	wsw.		0	0	d. clouds	
Bombay	29.77	756.1	29.81	757.1	81.7	27.6	84	wsw.	22.0	9.8			10		wsw.	0.25	6.4	overcast	
Poona, Yarrowda	27.97	710.4	29.83	757.7	76.1	24.5	71	w.	18.0	8.0			6		w.	0.05	1.3	d. clouds	
Belgaum	27.32	693.8	29.89	759.1	69.6	20.9	95	w.	10.0	4.5			10		sw.	0.07	1.8	showery	
Lahore	28.73	729.7	29.45	748.0	90.1	32.3	62	calm	1.4	0.6			0			0	0	blue sky	
Roorkee	28.60	726.5	29.48	748.8	86.6	30.3	74	w.	2.9	1.3			8			0.25	6.4		
Agra	29.00	736.5	29.55	750.6	84.2	29.0	62	w.	6.0	2.7			10		w.	0	0		
Nagpur	28.64	727.4	29.07	753.6	85.7	29.8	58	wnw.	5.0	2.2			5	w.		0.03	0.8	d. clouds	
Jubbulpore	28.32	719.2	29.67	753.6	76.8	24.9	86	calm	5.8	2.6			10			0.20	5.1	overcast	
Lucknow	29.17	740.8	29.54	750.3	82.2	27.9	81	wsw.	3.8	1.7			6	wnw.		1.03	26.2	blue sky	
Allahabad	29.25	742.9	29.56	750.7	83.6	28.7	80	sw.	5.3	2.4			8	w.		0.40	10.2	d. clouds	
Patna	29.37	746.1	29.55	750.7	83.0	28.3	84	nw.	3.1	1.4			10	nw.	nw.	0.30	7.6	overcast	
Hazaribagh	27.58	700.4	29.57	751.0	79.0	26.1	85	nw.	8.1	3.6			8			0.12	3.0	showery	
Cuttack	29.58	751.4	29.67	753.5	81.2	27.3	73	wnw.	2.1	0.9			7			0.18	4.6	d. clouds	
Calcutta, Alipore	29.58	751.4	29.60	752.1	84.3	29.1	83	wsw.	3.0	1.3			10	w.		0.03	0.8	overcast	
Dhubri	29.48	748.8	29.60	751.8	79.1	26.2	91	calm	1.1	0.5			5			0.41	10.4	d. clouds	
Chittagong	29.61	752.1	29.70	754.4	80.5	26.9	90	sse.	5.8	2.6			6			0	0	d. clouds	
Sibsagar	29.32	744.6	29.65	753.2	78.1	25.6	95	calm	2.1	0.9			10	sw.	sw.	1.35	34.3	gloomy	
Jeypore	28.17	715.4	29.59	751.6	84.0	28.9	56	w.	8.0	3.6			6		w.	0	0	d. clouds	
Zanzibar, Africa			30.02	762.5	82.7	28.2	51	sse.	5	2.2			8		se.	0.10	2.5	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.29	744.0	29.69	754.2	65.7	18.7	69	e.	0.7	0.3			8			1.685	42.8		Prof. Giovanni Clodig.
Milan	29.17	740.9	29.67	753.7	65.8	18.8	70	ssw.	3.8	1.7			7	nne.		0.051	1.3		Prof. Schiaparelli.
Padua	29.54	750.4	29.65	753.0	66.4	19.1	69	nne.	5.6	2.5			8	sw.		0.780	19.8		Prof. Dott. Lorenzoni.
Moncalieri	28.76	730.6	29.65	753.1	65.8	18.8	61	sse.	2.5	1.1			6	e.		0.768	19.5		Prof. P. F. Denza.
Genoa	29.47	748.4	29.66	753.3	65.7	18.7	63	n.	3.8	1.7			10	se.		0.520	13.2		Prof. G. M. Garibaldi.
Mondovi	27.79	705.9	29.66	753.3	62.4	16.9	50	ne.			4		7			1.768	44.9		Prof. D. C. Bruno.
Pesaro	29.59	751.5	29.63	752.7	64.0	17.8	88	sw.	7.4	3.3			10	sw.		0.197	5.0		Prof. Luigi Guidi.
Florence	29.44	747.7	29.69	754.0	61.3	16.3	84	s.			2		10	ssw.		0.780	19.8		Prof. Costantino Pitter.
Leghorn	29.51	749.6	29.60	751.7	64.4	18.0	82	w.	7.4	3.3			10			2.756	70.0		Prof. P. Monte.
Rome	29.61	752.1	29.78	756.4	72.3	22.4	49	ssw.					8			0.571	14.5		Prof. P. S. Ferrari.
Lecce	29.57	751.1	29.82	757.4	82.8	28.2	42	sw.	24.2	10.8			6	s.		0	0		Prof. C. de Giorgi.
Cosenza	28.98	736.2	29.84	757.8	81.3	27.4	61	sw.	3.8	1.7			9	sw.		0	0		Prof. D. Conti.
Cagliari	29.67	753.5	29.85	758.2	68.4	20.2	67	nw.			4		5	w.		0	0		Prof. A. Pacinotti.
Palermo	29.63	752.5	29.86	758.5	77.2	25.1	45	ne.	6.9	3.1			2	wsw.		0	0		Prof. G. Ciacciatore.
Syracuse	29.79	756.7	29.84	757.8	79.9	26.6	56	wsw.	3.1	1.4			6	wsw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.30	744.1	29.80	756.9	73.4	23.0	52	ssw.	9.8	4.4			1	w.		1.079	27.4		Prof. F. Brioschi.
Stelvio	21.93	557.0			41.2	5.1	67	se.			2		10 n	se.		0.122	3.1	covered	Prof. P. F. Denza.
Valdobbia	22.00	558.7			34.7	1.5	92	w.			2	0	5 k	nw.		1.791	45.5	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.88	758.9	29.90	759.4	79.6	26.4	71	nne.	6.0	2.7		0	0			0	0	clear	K. Sasaki.
Kioto	29.73	755.1	29.90	759.4	79.7	26.5	72	nnw.	2.7	1.2		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.80	756.9	30.00	762.0	73.5	23.1	84	wsw.	0.8	0.4		0	0			0	0	clear	S. Takehayashi.
Niigata	29.81	757.2	29.84	757.9	82.7	28.2	81	n.	6.1	2.7		ck	10 s		nnw.	0	0	cloudy	
Nobiru	29.76	755.9	29.77	756.1	77.0	25.0	92	nnw.	14.1	6.3			9 s			0.115	2.9	cloudy	
Sappro	29.87	758.8	29.93	760.2	75.2	24.0	87	ese.	6.0	2.7			0			0	0		
Tokei Obs'y, Yeddo	29.74	755.4	29.80	756.9	79.7	26.5	82	nnw.	2.5	1.1		ck	6ks;s		nw.	0.195	5.0	fair	The Staff.
Wakayama	29.85	758.2	29.90	759.4	84.4	29.1	68	nnw.	3.8	1.7		10 ck	0			0	0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.97	761.2	30.16	766.2	74.1	23.4	58	e.	20.5	9.2		1	1			0	0	squally	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.9	29.92	759.9	60.8	16.0	82	ene.	0	0		0	8		se.	0.418	10.6	cloudy	Vicente Fernandez.
Leon	24.45	621.0	30.09	764.3	62.6	17.0	90	nw.			2	2c	7 ks			0.130	3.3	cloudy	Prof. M. Leal.
Mazatlan	29.63	752.6	29.89	759.1	79.8	26.6	84	ne.	0.9	0.4		6 cs	0	e.		0	0	¼ cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.11	587.0	30.11	764.7	57.2	14.0	87	nw.	1.3	0.6			10 kn			0.208	5.3	covered	The Staff.
Morelia	24.06	611.0			54.1	12.3	76	s.			2	2	1	s.	se.	inap.	inap.	clear	M. Tena, M. D.
Pabellon, Aguascalientes																0.138	3.5		M. V. de Leon, M. E.
Puebla, Catholic Institute	23.44	595.5	30.14	765.5	58.1	14.5	61	n.	0.4	0.2			10		se.	0.264	6.7	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.64	575.1	30.25	768.4	54.5	12.5		se.			3	0	9n		se.	0	0	very cloudy	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.96	761.0	29.96	761.0	63.3	17.4		nne.			4					0.551	14.0		
Groningen	29.90	759.5	29.96	760.9	61.3	16.3		ne.			4					0	0		
Helder	29.97	761.3	29.97	761.3	60.6	15.9		nne.			4					0.031	0.8		
Hellevoetsluis	29.95	760.6	29.95	760.6	63.0	17.2	77	nne.			2					0.047	1.2		
Utrecht	29.91	759.6	29.95	760.8	63.1	17.3	76	nne.			2		8			0.016	0.4	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Amount and kind. Lo'er 0—10	Direction. Upper. From.	Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.27	768.9	30.34	770.5	63.3	17.4	37	e.	4.5	2.0			1			0	0		
Christiania	30.21	767.3	30.35	771.0	63.0	17.2	44	ne.	18	8			2			0	0		
Gjæsvær	30.46	773.7	30.48	774.3	46.8	8.2		w.			6		10						
Lodingen	30.52	775.2	30.57	776.4	50.9	10.5	80	ne.			3		1			0	0	foggy	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.85	758.2	30.00	762.0	69.8	21.0	78	nne.	3.1	1.4			2			0	0		Dr. J. A. Sampaio.
Campo Major	29.02	737.0	29.96	761.0	88.2	31.2	18	ese.	1.8	0.8			0			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.98	761.5	30.06	763.6	74.8	23.8	62	calm	0	0			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.65	753.0	29.99	761.7	83.5	28.6	15	ene.	6.3	2.8			1			0	0		The Staff.
Ponta Delgada, Azores	29.98	761.4	30.05	763.2	76.3	24.6	61	calm	0	0			4			0.047	1.2		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.55	725.2	29.57	751.0	77.4	25.2	42	s.	4	2		8 ck	0						Capt. Lasarew.
Archangel	30.33	770.4	30.35	770.9	52.7	11.5	68	ne.	9	4			10					light clouds	Capt. Sseliwerstow.
Astrakhan	29.97	761.3	29.89	759.2	85.8	29.9	34	ne.	2	1			9 ks						Capt. Wisganow.
Barnaul ‡	29.22	742.2	29.70	754.3	68.7	20.4	47	calm	0	0			0						Meteorological Obs'y.
Dorpat	29.94	760.5	30.18	766.6	60.3	15.7	64	nnw.	7	3		0	8 k						Observatory.
Ekaterinburg	28.97	735.8	29.89	759.1	72.7	22.6	51	ene.	9	4		ck	3 ks						Meteorological Obs'y.
Kasan	29.70	754.3	29.95	760.7	80.8	27.1	43	calm	0	0		0	2 k						Observatory.
Kertch	29.89	759.2	29.91	759.7	81.9	27.7	57	ne.	9	4		0	0			0	0		Lagorio & Sastyrea.
Kieff	29.28	743.6	29.88	759.0	76.8	24.9	52	e.	4	2		0	0						Observatory.
Lugan	29.74	755.5	29.94	760.4	86.9	30.5	34	ene.	13	6			6						Meteorological Obs'y.
Moscow	29.59	751.6	30.06	763.4	63.3	17.4	63	n.	7.8	3.5		0	8 ks						Meteorological Obs'y.
Nikolaiev	29.86	758.4	29.93	760.2	89.1	31.7	40	e.	13	6		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.62	752.3	29.71	754.5	62.1	16.7	94	calm			0		10 s			0	0		Lieut. Iwanow.
Pekin, China	29.54	752.9	29.78	756.5	77.7	25.4	80	calm	0	0		0	1 k			0	0		Physical Observatory.
St. Petersburg	30.09	764.3	30.11	764.7	59.9	15.5	83	wnw.	11	5		0	5 k;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.26	717.9	29.76	755.9	75.6	24.2	55	calm	0	0			1						Teich, A. M.
Tiflis	28.45	722.7	29.78	756.3	88.0	31.1	44	se.	4	2		0	6 k						Physical Observatory.
Warsaw	29.43	747.4	29.83	757.7	70.0	21.1	49	e.	20	9		ck	10 s						Astronomical Obs'y.
Wilna	29.68	753.9	30.10	764.4	68.7	20.4	49	calm	0	0			5					light clouds	Berg, Assistant.
Yeniseisk	29.61	752.1	29.89	759.2	58.6	14.8	75	s.	2	1			8						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.38	771.6	52.9	11.6	86	ne.			3		10 ks			0.09	2.3	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			30.37	771.4	55	12.8	93	ese.			4	5	5	e.		0	0	d. clouds	J. Youngclause
North Unst, Shetland Isl'ds			30.42	772.7				ne.			4		10						Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.82	757.4	29.92	760.0	72.7	22.6	52	s.	0	0						0.870	22.1	clear	Antonio Rave, Directon
Bilbao, Met. Obs'y	30.11	764.7	30.12	765.1	69.4	20.8	59	e.	3.8	1.7		2	3	se.		0	0	cloudy	Prof. Manuel de Navera.
Burgos, Met. Obs'y	27.17	690.2			60.8	16.0	79	n.	8.3	3.7			0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.85	707.7	30.03	762.8	70.5	21.4	25	nw.	5.1	2.3		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	29.85	758.2	29.99	761.8	84.2	29.0	34	ene.	3.4	1.5		0	1			0	0	almost clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.07	738.4	29.93	760.1	80.2	26.8	38	se.	0	0			0			0	0	clear	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.92	760.0	29.99	761.6	78.3	25.7	88	calm	0	0		3 c;cs	0	sse.		0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.82	757.5	29.87	758.8	81.0	27.2	87	ssw.	0	0			9 k		w.	1.59	40.3	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.88	758.9	29.97	761.3	81.0	27.2	62	calm	0	0		2	6	sw.	sw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.80	756.8	29.89	759.1	82.0	27.8	85	e.	5.6	2.5		1 s	2 k	e.	se.	0.197	5.0	clear	E. Cudea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.76	755.9	29.89	759.3	80.4	26.9	89	nnw.	3.3	1.4		1 c	2 k	e.	n.	0.26	6.4	lightly cl'dy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.45	773.5	30.49	774.5	57.9	14.4	55	ne.			4		2			0	0		
Umea	30.39	771.9	30.44	773.2	57.6	14.2	59	ne.			6		8			0	0		
Hernosand	30.41	772.3	30.46	773.6	59.2	15.1	48	nne.			7		6			0	0		
Stockholm	30.09	764.2	30.27	768.7	51.6	10.9	87	nne.			2		10			0.075	1.9	raining	
Wisby	30.13	765.3	30.19	766.8	55.8	13.2	77	nne.			6		5			0.035	0.9		
Sub-Series.																			
Upsala	30.18	766.6	30.27	768.8	52.2	11.2	85	n.	17.7	7.9			10		nne.	0.028	0.7	raining	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.48	723.4	29.92	759.9	50.4	10.2	96	ese.			1		10			1.315	33.4	raining	The Observatory.
Zurich ‡	28.18	715.8	29.84	757.8	49.3	9.6	92	se.			2		10			1.535	39.0	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.92	760.0	79.2	26.2	67	s.	7	3.0			3		ne.	0	0		The Observatory.
Valona			29.98	761.4	81.5	27.5		s.			2		10			0	0	covered	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.85	758.2	90.0	32.2	59	w.			1	0	1 k		w.	0	0		Prof. C. V. A. van Dyck.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		

UNITED STATES SERIES.

By authority of the Secretary of War.

Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

Albany, New York	29.83	757.7	29.91	759.7	77.5	25.3	62	e.	2	0.9			10s;hz			0.51	13.0	dense haze	
Alpena, Michigan	29.38	746.2	30.03	762.7	60	15.6	87	w.	4	1.8		4 cs	0			0.05	1.3	cloudy	
Atlanta, Georgia	28.90	734.0	30.08	764.0	72.0	22.2	82	nw.	6	2.7		0	0			0	0	clear	
Atlantic City, New Jersey	29.86	758.4	29.87	758.7	71.6	22.0	97	calm	0	0			10 s		calm	0	0	cloudy	
Augusta, Georgia	29.86	758.4	30.05	763.3	71.0	21.7	82	s.	1	0.4		0	hz.			0	0	clear	
Baltimore, Maryland	29.87	758.7	29.92	760.0	74	23.3	71	n.	6	2.7		0	fg		calm	0	0	light fog	
Barnegat, New Jersey	29.84	757.9	29.86	758.4	67.0	19.4	97	se.	2	0.9			10s;fg		calm	0	0	cloudy	
Bismarck, Dakota	28.22	716.8	30.05	763.3	58	14.4	93	nw.	10	4.5			10 s		calm	0.09	2.3	cloudy	
Boise City, Idaho	27.13	689.1	29.97	761.2	53.0	11.7	61	sw.	2	0.9		0	0			0	0	clear	
Boston, Massachusetts	29.78	756.4	29.94	760.5	65.0	18.3	79	ne.	11	4.9			10 s			0	0	cloudy	
Brackettville, Texas	28.85	732.8	29.87	758.7	75	23.9	90	e.	4	1.8		0	8 s		se.	0	0	cloudy	
Brownsville, Texas	29.91	759.7	29.95	760.7	75	23.9	97	n.	2	0.9		6 cs	0	e.		0.12	3.0	fair	
Buffalo, New York	29.24	742.7	29.96	761.0	70	21.1	90	sw.	1	0.4		0	sk.			inap.	inap.	dense smoke.	
Burlington, Vermont	29.64	752.8	29.93	760.2	66.0	18.9	93	n.	3	1.3			10 n		n.	0.22	5.6	light rain	
Cairo, Illinois	29.65	753.1	30.05	763.3	74.8	23.8	82	sw.	15	6.7		0	0			0	0	clear	
Campo, California	27.36	694.9	29.93	760.2	37.5	3.1	64	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.26	692.4			64	17.8	73	ne.			1	2 ck	3 k	w.	w.	0	0	fair	
Cape Henry, Virginia	29.88	758.9	29.90	759.4	74	23.3	82	w.	12	5.4		0	hz.			0	0	clear	
Cape May, New Jersey	29.84	757.9	29.87	758.7	74	23.3	90	w.	7	3.1			10 s		sw.	0	0	cloudy	
Castroville, Texas	29.23	742.4	29.92	760.0	72	22.2	90	calm	0	0			10 s		s.	0	0	cloudy	
Cedar Keys, Florida	30.04	763.0	30.06	763.5	77	25.0	90	e.	9	4.0		0	2 k			0	0	clear	
Champaign, Illinois	29.18	741.2	29.95	760.7	67.8	19.9	90	sw.	3	1.3			10 s		sw.	0.30	7.6	cloudy	
Charleston, S. Carolina	29.96	761.0	30.02	762.5	76	24.4	90	sw.	5	2.2		0	0			0	0	clear	
Charlotte, N. Carolina	29.14	740.1	30.02	762.5	76.0	24.4	69	nw.	4	1.8		0	hz.			0	0	clear	
Chattanooga, Tennessee	29.29	744.0	30.12	765.0	70.7	21.5	88	sw.	3	1.3		6 ck	fg.	n.	calm	inap.	inap.	fair	
Cheyenne, Wyoming	24.14	613.1	30.10	764.5	43.8	6.6	89	n.	6	2.7			10 s		calm	0	0	cloudy	
Chicago, Illinois	29.31	744.5	30.02	762.5	69.0	20.6	90	nw.	1	0.4		3 c	2k;fg			0	0	fair	
Chincoteague, Virginia	29.88	758.9	29.90	759.4	74	23.3	100	w.	4	1.8			10 s		calm	0	0	cloudy	
Cincinnati, Ohio	29.40	746.7	30.06	763.5	74	23.3	82	w.	5	2.2			10 s		w.	0	0	cloudy	
Cleveland, Ohio	29.26	743.2	30.00	762.0	70.3	21.3	83	s.	2	0.9		2 k	8 s;sk	w.		0.01	0.3	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.16	740.7	30.02	762.5	72	22.2	82	n.	1	0.4		4 ck	6 s	n.		0.04	1.0	cloudy	
Concho, Texas	28.12	714.2	30.06	763.5	72	22.2	87	s.	6	2.7		0	0			0	0	clear	
Corsicana, Texas	29.59	751.6	30.06	763.5	78	25.6	77	calm	0	0		0	0			0	0	clear	
Davenport, Iowa	29.32	744.7	29.98	761.5	70	21.1	79	s.	3	1.3		5 k	5 n	w.	w.	inap.	inap.	light rain	
Dayton, Washington T'y	28.22	716.8	30.03	762.7	43.5	6.4	64	ne.	3	1.3		0	0			0	0	clear	
Deadwood, Dakota	25.48	647.2	30.18	766.6	46	7.8	93	ne.	6	2.7						0	0	foggy	
Decatur, Texas	28.82	732.0	29.93	760.2	80	26.7	47	s.	8	3.6		0	0			0	0	clear	
Delaware Breakwater, Del.	29.86	758.4	29.88	758.9	72	22.2	90	w.	4	1.8			9 s		w.	0	0	cloudy	
Denison, Texas	29.23	742.4	30.04	763.0	87	30.6	82	s.	5	2.2		0	0			0	0	clear	
Denver, Colorado	24.81	630.2	30.03	762.7	56.0	13.3	49	calm	0	0		3 c	0	sw.		0	0	fair	
Des Moines, Iowa	29.02	737.1	29.93	760.2	67	19.4	90	s.	8	3.6			10 n		sw.	0.22	5.6	light rain	
Detroit, Michigan	29.30	744.2	30.02	762.5	70 1	21.2	94	n.	5	2.2			fg.			0.04	1.0	dense fog	
Dodge City, Kansas	27.35	694.7	29.94	760.5	71.4	21.9	63	s.	11	4.9		1 ck	0			0	0	clear	
Dubuque, Iowa	29.24	742.7	29.96	761.0	67.8	19.9	84	se.	4	1.8			10 s		calm	0	0	cloudy	
Duluth, Minnesota	29.26	743.2	29.97	761.2	61	16.1	93	ne.	11	4.9			fg.			0.08	2.0	dense fog	
Eagle Pass, Texas	29.24	742.7	30.07	763.8	75.1	23.9	85	s.	3	1.3		0	0			0.02	0.5	clear	
Eagle Rock, Idaho	25.15	638.8	30.00	762.0	50	10.0	56	n.	16	7.2			10 s		sw.	0	0	cloudy	
Eastport, Maine	29.94	760.5	30.01	762.2	54.5	12.5	86	ne.	7	3.1			10 s			0	0	cloudy	
El Paso, Texas	26.25	666.7	30.00	762.0	65.2	18.4	78	n.	1	0.4		0	1 s			0	0	clear	
Erie, Pennsylvania	29.24	742.7	29.98	761.5	72	22.2	90	sw.	5	2.2			10 n			0.01	0.3	light rain	
Escanaba, Michigan	29.36	745.7	30.02	762.5	59	15.0	87	calm	0	0			10 s		calm	0	0	cloudy	
Florence, Arizona	28.38	720.8	29.98	761.5	67	19.4	66	w.	1	0.4		2 ck	0			0	0	clear	
Fort Apache, Arizona																			
Fort Assinnaboine, Montana	27.41	696.2	30.22	767.6	39	3.9	92	se.	1	0.4		0	6 s		calm	0.40	10.2	fair	
Fort Bennett, Dakota	28.37	720.6	29.91	759.7	64	17.8	90	n.	8	3.6			10 s		n.	0.77	19.6	cloudy	
Fort Benton, Montana	27.35	694.7	30.21	767.3	45	7.2	71	calm	0	0		0	6 ks		ne.	0.10	2.5	fair	
Fort Buford, Dakota	28.20	716.3	30.21	767.3	49	9.4	93	n.	12	5.4		10 cs	0	ne.		0.23	5.8	cloudy	
Fort Custer, Montana	26.94	684.3	30.18	766.6	46	7.8	92	n.	8	3.6			10 ks		calm	0	0	cloudy	
Fort Davis, Texas	25.22	640.6	30.18	766.6	61	16.1	78	sw.	3	1.3		0	0			0	0	clear	
Fort Elliott, Texas	27.25	692.1	30.44	773.2	69	20.6	66	se.			1	0	0			0	0	clear	
Fort Gibson, Indian T'y	29.42	747.3	29.97	761.2	78	25.5	64	se.	5	2.2		0	0			0	0	clear	
Fort Grant, Arizona					68	20.0	63	ne.	4	1.8		4 k	0	ne.		0	0	fair	
Fort Griffin, Texas	28.74	730.0	29.95	760.7	77.2	25.1	66	calm	0	0		0	0			0	0	clear	
Fort Keogh, Montana	27.69	703.3	30.23	767.8	46	7.8	86	n.	12	5.4		10 cs	0	n.		0	0	cloudy	
Fort Macon, North Carolina	29.99	761.7	30.00	762.0	78	25.6	90	se.	12	5.4		1 k	0	se.		0	0	clear	
Fort McKavett, Texas	27.80	706.1	29.65	753.1	70.2	21.2	85	s.	2	0.9		0	c			inap.	inap.	clear	
Fort Missoula, Montana	26.78	680.2	30.30	769.6	52	11.1	61	ne.	7	3.1			10 s			0	0	cloudy	
Fort St. Michaels																			
Fort Shaw, Montana	26.56	674.6	30.16	766.1	44	6.7	93	ne.	1	0.4			10 s		ne.	0.09	2.3	cloudy	
Fort Sill, Indian Territory	28.77	730.7	30.02	762.5	77.5	25.3	64	s.	1	0.4		0	0			0	0	clear	
Fort Stevenson, Dakota	28.22	716.8	30.09	764.3	54	12.2	93	nw.	12	5.4		10 ck	0	calm		0.30	7.6	cloudy	
Fort Verde, Arizona					58	14.4	53	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.31	719.1	29.81	757.2	74	23.3	88	w.	1	0.4		4 k	0	sw.		0	0	fair	
Galveston, Texas	30.01	762.2	30.05	763.3	81.3	27.4	74	s.	6	2.7		2 ck	0			inap.	inap.	clear	
Grand Haven, Michigan	29.36	745.7	30.02	762.5	64.0	17.8	97	n.	4	1.8			fg.			0.03	0.8	dense fog	
Hatteras, North Carolina	29.95	760.7	29.97	761.2	76	24.4	85	sw.	24	10.7		2 k	hz.			0	0	fair	
Helena, Montana	25.94	658.9	30.33	770.4	47	8.3	86	calm	0	0			10 n		calm	0.30	7.6	light rain	
Henrietta, Texas	28.99	736.3	29.86	758.4	80	26.7	65	se.	8	3.6		0	0			0	0	clear	
Huron, Dakota	28.55	725.2	29.94	760.5	62.2	16.8	90	sw.	7	3.1			10 n		w.	0.52	13.2	thund'r st'm.	
Indianapolis, Indiana	29.22	742.2	30.02	762.5	72	22.2	84	sw.	1	0.4			10 s		sw.	0	0	cloudy	
Indianola, Texas	30.00	762.0	30.03	762.7	81.0	27.2	79	se.	8	3.6		3 k	3 ks	e.	calm	0.41	10.4	fair	
Jacksboro, Texas	28.86	733.0	29.93	760.2	79	26.1	74	sw.	4	1.8		0	0			0	0	clear	
Jacksonville, Florida	30.00	762.0	30.04	763.0	76	24.4	85	ne.	6	2.7		0	0			0	0	clear	
Keokuk, Iowa	29.32	744.7	29.98	761.5	71.0	21.7	82	e.	1	0.4			10 s		nw.	0.05	1.3	cloudy	
Key West, Florida	29.97	761.2	30.00	762.0	84.0	28.9	80	calm	0	0		2 cs	2 ks			0.08	2.0	fair	
Kittyhawk, North Carolina	29.93	760.2	29.95	760.7	75	23.9	82	w.	17	7.6		hz.	0			0	0	clear	
Knoxville, Tennessee	29.08	738.6	30.12	765.0	65.6	18.7	98	calm	0	0			fg.		calm	0.04	1.0	dense fog	
La Crosse, Wisconsin	29.14	740.1	29.91	759.7	71	21.7	90	s.	4	1.8		0	6 s		s.	0.11	2.8	fair	
La Mesilla, New Mexico	26.14	663.9	30.29	769.4	59.0	15.0	70	calm	0	0		0	0			0	0	clear	
Laredo, Texas	29.54	750.3	29.87	758.7	79.0	26.1	82	calm	0	0		0	0			0	0	clear	
Leavenworth, Kansas	29.01	736.8	29.91	759.7	71	21.7	84	se.	3	1.3		1 k	0	s.		0.53	13.5	clear	
Lewiston, Idaho	29.17	740.9	30.02	762.5	48	8.9	86	ne.	1	0.4		0	0			0.03	0.8	clear	
Little Rock, Arkansas	29.71	754.6	30.03	762.7	75	23.9	85	calm	0	0		hz.	hz.			0	0	dense haze	
Los Angeles, California	29.54	750.3	29.92	760.0	56.1	13.4	86	w.	3	1.3		0	0			0	0	clear	
Louisville, Kentucky	29.45	748.0	30.02	762.5	70.0	21.1	90	sw.	4	1.8			10 s			0	0	cloudy	
Lynchburg, Virginia	29.26	743.2	29.95	760.7	74.6	23.7	64	calm	0	0		0	sk.			0	0	clear	
Madison, Wisconsin	29.00	736.6	30.03	762.7	66	18.9	93	e.	7	3.1			fg.		calm	0	0	foggy	
Marquette, Michigan	29.31	744.5	30.04	763.0	58	14.4	96	se.	4	1.8			fg.			0	0	dense fog	
Mason, Texas	28.40	721.3	30.10	764.5	72	22.2	84	calm	0	0		0	0			0	0	clear	
Memphis, Tennessee	29.72	754.9	30.06	763.5	76	24.4	82	calm	0	0		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction, Upper.	Clouds. Direction, Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.28	743.7	30.04	763.0	68	20.0	84	e.	3	1.3			10 ks		ne.	0	0	cloudy	
Mobile, Alabama	30.03	762.7	30.10	764.5	74.9	23.8	85	sw.	4	1.8		5 cs	sk	sw.	sw.	0	0	fair	
Montgomery, Alabama	29.80	758.4	30.09	764.3	72	22.2	87	nw.	1	0.4		2 c	hz			0	0	clear	
Moorhead, Minnesota	28.93	734.8	29.94	760.5	58	14.4	93	n.	6	2.7			10 s		w.	0.28	7.1	cloudy	
Morgantown, W. Virginia	29.01	736.8	29.97	761.2	68	20.0	90	ne.	1	0.4		4 ck	o	nw.		0.56	14.2	fair	
Mt. Washington, N. H.	23.90	607.0	30.10	764.5	52	11.1	93	nw.	15	6.7			fg;sk		nw.	0.03	0.8	foggy	
Nashville, Tennessee	29.51	749.5	30.05	763.3	70.1	21.2	89	calm	0	0			fg			0.57	14.5	dense fog	
New Haven, Connecticut	29.77	756.1	29.88	758.9	72	22.2	84	ne.					hz			0.01	0.3	dense haze	
New London, Connecticut	29.84	757.9	29.88	758.9	70	21.1	84	ne.	6	2.7			10s;fg		ne.	0	0	cloudy	
New Orleans, Louisiana	30.01	762.2	30.07	763.8	78.5	25.8	81	calm	0	0		3 cs	2 k			0	0	fair	
Newport, Rhode Island	29.84	757.9	29.88	758.9	68.3	20.2	83	n.	5	2.2			10s;sk		calm	0	0	cloudy	
New River, N. Carolina					78	25.6	76	sw.			2	0	0			0	0	clear	
New Shoreham, Rhode I'd	29.84	757.9	29.87	758.7	66.4	19.1	90	ne.	17	7.6			sk		calm	0	0	dense smoke	
New York, New York	29.74	755.4	29.92	760.0	73	22.8	84	n.	4	1.8			fg			0	0	dense fog	
Norfolk, Virginia	29.89	759.2	29.92	760.0	76	24.4	76	w.	7	3.1		0	hz			0	0	clear	
North Platte, Nebraska	27.03	686.5	29.97	761.2	59.4	15.2	88	w.	5	2.2		0	0			inap.	inap.	clear	
Olympia, Washington T'y	30.00	762.0	30.04	763.0	46	7.8	93	n.	2	0.9		0	0			0	0	clear	
Omaha, Nebraska	28.72	729.5	29.91	759.7	72	22.2	84	se.	4	1.8		3 cs	0			0	0	clear	
Oswego, New York	29.60	751.8	29.93	760.2	70	21.1	84	ne.	4	1.8			10 s			0.15	3.8	cloudy	
Pensacola, Florida	30.04	763.0	30.07	763.8	74	23.3	85	nw.	4	1.8		0	0			0	0	clear	
Philadelphia, Pa	29.85	758.2	29.91	759.7	74	23.3	76	ne.	9	4.0		hz	hz			0	0	dense haze	
Phœnix, Arizona	28.69	728.7	30.45	773.4	64	17.8	73	e.	1	0.4		0	0			0	0	clear	
Pike's Peak, Colorado	18.01	457.4	30.22	767.6	35	1.7	66	sw.	12	5.4		0	0			0	0	clear	
Pioche, Nevada	24.03	610.4	30.05	763.3	58	14.4	29	w.	2	0.9		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.20	741.7	30.02	762.5	70.5	21.4	92	s.	3	1.3		8 ck	o			inap.	inap.	fair	
Port Eads, Louisiana	30.07	763.8	30.08	764.0	79	26.1	77	e.	12	5.4		o	1k;hz		e.; e	0	0	clear	
Port Huron, Michigan	29.31	744.5	30.00	762.0	70.1	21.2	83	ne.	6	2.7		o	fg		calm	0.29	7.4	foggy	
Portland, Maine	29.93	760.2	29.98	761.5	63	17.2	73	e.	7	3.1			10 s		ne.	0	0	cloudy	
Portland, Oregon	29.92	760.0	29.99	761.7	55.4	13.0	82	nw.	11	4.9		o	1 s			0	0	clear	
Portsmouth, N. Carolina					79	26.1	82	sw.	16	7.2		o	hz		calm	0	0	clear	
Prescott, Arizona	24.78	629.4	29.97	761.2	51	10.6	57	s.	4	1.8		o	o			0	0	clear	
Punta Rassa, Florida	29.99	761.7	30.00	762.0	79	26.1	88	ne.	8	3.6		2 ck	o	ne.		0	0	clear	
Red Bluff, California	29.51	749.5	29.85	758.2	61.5	16.4	66	calm	0	0		o	1 s		calm	0	0	clear	
Rio Grande City, Texas	29.79	756.7	30.01	762.2	74	23.3	90	e.	2	0.9		3 c	o	calm		0	0	clear	
Rochester, New York	29.30	744.2	29.94	760.5	70	21.1	94	w.	3	1.3			10ks;fg		calm	0.87	22.1	cloudy	
Roseburg, Oregon	29.39	746.5	29.97	761.2	56	13.3	93	calm	0	0			10 n			0.10	2.5	light rain	
Sacramento, California	29.81	757.2	29.89	759.2	57.1	13.9	80	se.	14	6.3		o	7 s			0	0	fair	
St. Louis, Missouri	29.41	747.0	30.02	762.5	74.1	23.4	79	s.	8	3.6		10c;ck	o	w.		0	0	cloudy	
St. Paul, Minnesota	29.08	738.6	29.96	761.0	62	16.7	100	ne.	21	9.4			10 n			0.35	8.9	light rain	
Salt Lake City, Utah	25.50	647.7	29.83	757.7	62	16.7	38	se.	6	2.7		o	o			0	0	clear	
San Antonio, Texas	29.33	745.0	30.03	762.7	73	22.8	90	e.	1	0.4		o	5 k		se.	0	0	fair	
San Diego, California	29.77	756.1	29.84	757.9	64.3	17.9	84	w.	1	0.4			10 s			0	0	cloudy	
Sandusky, Ohio	29.30	744.2	29.99	761.7	72.2	22.3	84	sw.	7	3.1		2 c	5 s			0.86	21.8	fair	
Sandy Hook, New Jersey	29.86	758.4	29.89	759.2	78.1	25.6	74	nw.	1	0.4			fg		calm	0	0	dense fog	
San Francisco, California	29.86	758.4	29.92	760.0	54	12.2	90	w.	16	7.2		o	fg		nw.	0	0	clear	
Santa Fé, New Mexico	23.38	593.8	30.18	766.6	54.3	12.4	71	e.	1	0.4		o	1 s		calm	0	0	clear	
Savannah, Georgia	29.95	760.7	30.04	763.0	77	25.0	85	w.	4	1.8		o	o			0	0	clear	
Shreveport, Louisiana	29.83	757.7	30.06	763.5	76.5	24.7	82	sw.	1	0.4		o	o			0	0	clear	
Silver City, New Mexico	24.34	618.2	29.91	759.7	54	12.2	67	nw.	2	0.9		o	o			0	0	clear	
Sitka, Alaska	30.10	764.5	30.17	766.3	55.1	12.8	87	w.	2	0.9			10 s		calm	0.10	2.5	cloudy	
Smithville, North Carolina	29.97	761.2	30.00	762.0	78	25.6	88	nw.	7	3.1		o	o			0	0	clear	
Spokane Falls, Wash. Ter.	28.04	712.2	30.06	763.5	47	8.3	86	e.	4	1.8		o	o			0	0	clear	
Springfield, Illinois	29.31	744.5	30.00	762.0	70.7	21.5	90	se.	5	2.2		2 cs	6s; hz	w.	nw.	0	0	cloudy	
Springfield, Massachusetts	29.78	756.4	29.90	759.4	71.2	21.8	84	ne.	5	2.2			10s;hz		ne.	0	0	cloudy	
Stockton, Texas	27.04	686.8	30.11	764.8	67.2	19.6	90	s.	5	2.2		o	o			0	0	clear	
St. Vincent, Minnesota	29.09	738.9	29.98	761.5	52	11.1	93	nw.	8	3.6			10 s		calm	0.03	0.8	cloudy	
Thatcher's Island, Mass.	29.93	760.2	29.98	761.5	63.0	17.2	100	ne.	15	6.7			10 s		ne.	0	0	cloudy	
Toledo, Ohio	29.30	744.2	30.00	762.0	72.5	22.5	83	w.	3	1.3		6 c; ck	sk	nw.		0.63	16.0	dense smoke	
Tucson, Arizona	27.40	695.9	29.76	755.9	70	21.1	55	se.	4	1.8		5 k	o	s.		0	0	fair	
Umatilla, Oregon	29.65	753.1	29.69	754.1	56.0	13.3	69	ne.	15	6.7		10 cs	o	sw.		0	0	cloudy	
Uvalde, Texas	29.06	738.1	29.85	758.2	75	23.9	76	calm	0	0			10 ks		nw.	0	0	cloudy	
Vicksburg, Mississippi	29.82	757.4	30.08	764.0	73	22.8	82	se.	5	2.2		o	o			0	0	clear	
Visalia, California	29.50	749.3	29.86	758.4	60	15.6	60	nw.	4	1.8		o	o			0	0	clear	
Washington, D. C.	29.82	757.4	29.93	760.2	71.1	21.7	76	nw.	4	1.8		hz	3 ks;hz	calm	calm	0	0	hazy	
Wickenburg, Arizona					59	15.0	86	n.			1	o	o			0	0	clear	
Wilmington, N. Carolina	29.92	760.0	29.98	761.5	75	23.9	90	sw.	6	2.7		hz	o	calm		0	0	dense haze	
Winnemucca, Nevada	25.33	643.4	29.85	758.2	45	7.2	76	ne.	4	1.8		6 ck	o	sw.		0	0	fair	
Wood's Holl, Mass.	29.83	757.7	29.86	758.4	68	20.0	90	e.	17	7.6			10 s		e.	0	0	cloudy	
Yankton, Dakota	28.66	728.0	29.97	761.2	68	20.0	84	ne.	6	2.7			10 s		ne.	0	0	cloudy	
Yuma, Arizona	29.59	751.6	29.73	755.1	70.3	21.3	71	sw.	1	0.4		o	o			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.94	760.5	29.98	761.5	84	28.9	87	e.	5	2.2		5 k	10 ks	e.	calm	0	0	cloudy	J. A. Racker.
Bogota, U. S. Columbia	22.05	560.1			50.2	10.1	78	se.	1	0.4		5 k	2 s			0.04	1.0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.83	757.7	29.83	757.7	81	27.2	87	se.				5 c	2 k			0.8	20.		B. Bigar.
Havana, Cuba, W. I.	29.87	758.7	29.92	760.0	81	27.2	88	calm	0	0		8 cs	o	calm		0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.92	760.0	29.93	760.2	80.0	26.7	82	n.	1	0.4		1 cs	o			0	0	fair	Robert Johnstone
Navassa, W. I.	29.81	757.2	29.89	759.2	84	28.9	79	ne.	10	4.5		8 k	2 k	ne.	n.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	30.02	762.5	30.03	762.7	79	26.1	83	se.			2	5 ks	4 s	e.		0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.43	747.5	29.99	761.7	80	26.7	85	calm	0	0			10 ks		n.	0.22	5.6	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24		se.			1	3cs;ck	5 ks	e.	se.	0.04	1.		Earl Flint.
Santiago de Cuba, W. I.	29.91	759.7	29.94	760.5	80	26.7	82	n.	1.2	0.5		2 c	4 s		ne.	0.24	6.1	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.80	756.9	29.92	760.0	82	27.8	83	se.	5	2.2		1 cs	6 ks	ne.		0.86	21.8	fair	G. O. Gyllich.
York Factory, B. A.	30.00	762.0	30.05	763.3	44.0	6.7	96	sw.	10	4.5		2 k	1 s	s.	s.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, West Id., Torres Strait	29.98	761.5	77	25.0	77	se.			3-4		10							overcast	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 38° 41′, E. 7° 54′	29.93	760.2	71	21.7	68	nnw.			4		7	nnw.				3	nnw.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.93	760.2	73	22.8		nne.			3		2	nne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 11° 27′, E. 43° 37′	29.64	752.8	92	33.3	76	e.			2		0					sm'h		blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 17° 00′, W. 61° 45′	29.94	760.5	83	28.3	87	se.			1-2		3							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 3° 10′, E. 8° 36′	30.04	763.0	73	22.8	85	se.			3		5	sse.				3	se.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant, S. 13° 20′, E. 162° 00′	29.98	761.5	78	25.6		e.			4		3	e.				3	se.	showery	Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.84	757.9	82	27.8		calm			0		1							blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 35° 00′, E. 19° 10′	30.00	762.0	61	16.1		nw.			4		4	wnw.				2	ese; ssw.	d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	29.93	760.2	78.5	25.8	82	nw.			1-2		3	nw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 50′, W. 55° 48′	30.09	764.3	49	9.4	89	n.			1		5	ne.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 36′, E. 58° 38′	29.45	748.0	87	30.6		sse.			1		4	se.				1	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 6° 53′, E. 82° 03′	29.78	756.4	84	28.9		sw.			3		3							d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 34° 50′, W. 34° 08′	29.98	761.5	75	23.9		ne.			1		4	wnw.				3	wnw.	d. clouds	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Zanzibar, Zanzibar	30.04	763.0	80	26.7	66	se.			3-4		1	se.						blue sky	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19′	29.82	757.4	76	24.4		ssw.			2		1					2	ssw.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Off Ota, Yezo, Japan	29.87	758.7	80	26.7	74	ese.			2-3		4					1	se.	misty	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich I'ds	30.06	763.5	76	24.4	69	ene.			2-6		7							d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argentine Rep	29.86	758.4	63	17.2	88	s.			4		9	n.						misty	Capt. L. F. Jones
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 18° 00′, E. 179° 00′	30.09	764.3	77	25.0	90	e.			5		4	e.				3	se.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 43° 54′ E. 135° 29′	29.90	759.4	66	18.9		calm			0							2	w.	foggy	Capt. R. E. Tracey.
H. M. S. Kingfisher																			Comm. R. H. Thornton.
H. M. S. Lapwing, S. 3° 00′, E. 100° 00′	29.85	758.2	83	28.3		se.			3		2					2	se.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, N. 8° 06′, W. 23° 18′	29.97	761.2	80	26.7	91	s.			3		1					1	ssw.	blue sky	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.80	756.9	81.3	27.4	82	se.			1-2		9							d. clouds	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Susa, Tunis	29.88	758.9	82	27.8	91	ese.			2		4	ene.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, S. 46° 58′, W. 64° 39′	29.82	757.4	38	3.3	?	wsw.			6		9					5	wsw.	d. clouds	Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, N. 48° 25′, W. 59° 41′	29.98	761.5	54	12.2	79	calm			0		10							d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin, N. 47° 07′, W. 14° 24′	30.07	763.8	61	16.1		ese.			5		10					5	ene.	overcast	Capt. A. C. Paget.
H. M. S. Phœnix, N. 49° 44′, W. 53° 06′	30.05	763.3	47	8.3	85	calm			0		9					5	nne.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready, N. 16° 46′, E. 96° 15′	29.84	757.9	77	25.0		sw.			1		4	sw.						d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 6° 24′, E. 39° 18′	30.06	763.5	78.3	25.7	82	se.			3		8							d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 6° 34′, E. 39° 12′	29.61	752.1	77	25.0	86	se.			2–3		3	ese.				3	sse.	d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 46° 01′, W. 61° 34′	30.02	762.5	60	15.6	78	ene.			1		9							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S Thunderer																			Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	30.06	763.5	61	16.1	88	calm			0		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.93	760.2	81	27.2		ne.			1		3							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.58	751.3	80.5	26.9	70	wsw.			4–5		5	sw.						d. clouds	Capt. T. P. Nesham.
H M. S. Wrangler																			Capt. C. R. Arbuthnot.

GERMAN NAVAL SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

PORTUGUESE NAVAL SERIES.

Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.

Bengo	Carlos Candid dos Reis
India	A. M. da Sitra.
Quanza	Carlos M. de Silva Costa.
Rio Lima	C. da Silva Costa.
Sado	G. A. de Brito Capello.
Tamega	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,

H M. Corvette Saga	M. von Krusenstierna.
H. M. Frigate Vanadis	Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.07	763.8	77	25.0	82	nw.	4	1.8			0			0	0			clear	
N. Yard, Portsmouth, N. H.	29.97	761.2	62	16.7	88	ne.	9	4.0			10		ne.	2.5	64.			cloudy	
Naval Hospital, Yokohama, Japan	29.63	752.6	80	26.7	87	calm			0		2		n.	0.13	3.3			clear	
Adams, N. 19° 42′, W. 107° 07′	29.63	752.6	85	29.4	79	se.			2		5		sw.			long	nw.	fair	
Alaska, Callao, Peru	30.00	762.0	61	16.1	94	calm			0		10			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.65	753.1	84	28.9	83	calm			0		5		ne.			sm'h		fair	
Alliance, N. 74° 52′, E. 16° 45′	30.13	765.3	39	3.9	100	w.			6-7		10			0	0	mod.	w.	cloudy	
Ashuelot, Kobe, Japan	29.88	758.9	86	30.0	72	n.			2		8		nnw.					cloudy	
Colorado, New York, N. Y.	29.90	759.4	74	23.3	86	n.	4	1.8			10		calm	0	0			misty	
Constitution, New London, Conn	29.78	756.4	70	21.1	100	nne.	3	1.3			8							hazy	
Franklin, Norfolk, Va	29.86	758.4	75	23.9	?	ssw.	8.4	3.8			2		s.	0	0			fair	
Galena, Villafranca, France	29.65	753.1	67	19.4	84	calm			0		8					sm'h		cloudy	
Independence, N. Yard, Mare I'd, Cal	29.81	757.2	56	13.3	81	sw.	10.8	4.8			0							clear	
Jamestown, Mare Isl'd, Cal *	29.90	759.4	56	13.3	87	wsw.			3		0			0	0			clear	
Kearsarge, New London, Conn	29.89	759.2	67	19.4	89	nne.			4		10					sm'h		misty	
Lackawanna, Mare Isl'd, Cal †	30.09	764.3	57	13.9	87	sw.			2-3		2		sw.					fair	
Lancaster, Portsmouth, N. H.	29.96	761.0	68	20.0	92	ne.	3	1.3			10			0.75	19.0			misty	
Marion, [S. A.* Off Buenos Ayres, La Plata,	29.66	753.4	62	16.7		s.			4		8		nw.	sh's	sh's	mod	s.	misty	
Michigan, Detroit, Mich	29.94	760.5	70	21.1	95	ne.			2		10		ne.					cloudy	
Minnesota, Newport, R. I.	29.86	758.4	67	19.4	95	nne.			1		10			0	0	sm'h		misty	
Monocacy, Yokohama, Japan	29.81	757.2	84	28.9	87	calm			0		5		calm					fair	
Nipsic, Villafranca, France	29.68	753.9	70	21.1	70	s.			1		8		*			sm'h		d. clouds	
Onward, Callao, Peru †	30.03	762.7	61	16.1	100	calm			0		10		nw.			long	w.	cloudy	
Palos, Hong Kong, China	29.87	758.7	80	26.7	82	s.			1		2		calm					fair	
Passaic, Washington, D. C.	29.99	761.7	74	23.3	90	w.			1		10		w.					overcast	
Pensacola, N. 8° 43′, W. 84° 17′	29.90	759.4	78	25.6	91	wsw.			3		10			h'vy	h'vy	mod.		cloudy	
Portsmouth, Portsmouth, N. H.	29.95	760.7	60	15.6	?	ene.			1		10					sm'h		overcast	
Powhatan, Sandy Hook, N. J.	29.90	759.4	74	23.3	100	wnw.			1		10							foggy	
Quinnebaug, Villafranca, France	29.65	753.1	69	20.6	75	s.			1		5					sm'h		fair	
Ranger, Mare Island, Cal *	29.86	758.4	56	13.3	87	wsw.			3-4		0					sm'h		clear	
Richmond, N. 19° 24′, W. 109° 49′	29.81	757.2	82	27.8	96	calm			0		5		se.	0.34	8.6	long	se.	fair	
Shenandoah, Maldonado, Uruguay *	29.91	759.7	64	17.8	78	nnw.			2		10					sm'h		cloudy	
St. Louis, League Island, Pa	29.61	752.1	73	22.8	81	nnw.	4	1.8			10			0	0			foggy	
Swatara, Chefoo, China †	29.95	760.7	77	25.0	77	ssw.			2		0							clear	
Tennessee, New London, Conn	29.89	759.2	72	22.2	100	n.	12	5.4			10			0.12	3.0			hazy	
Trenton, Villafranca, France *	29.63	752.6	72	22.2	76	calm			0		5			3 h'r	mod.			fair	
Vandalia, Newport, R. I.	29.86	758.4	68	20.0	90	nne.			3		2		n.					hazy	
Wabash, Boston, Mass.	29.94	760.5	66	18.9	84	nne.	6	2.7			10		n.	0.90	22.9			hazy	
Wachusetts, Sitka, Alaska	30.17	766.3	60	15.6	94	calm			0					0	0			clear	
Wyoming, Port Royal, S. C.	30.34	770.6	75	23.9	90	wsw.	8	3.6			0			0	0			clear	
Yantic, N. 41° 24′, W. 70° 55′ *	29.85	758.2	68	20.0	95	ne.			1									hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 47° —′ W. 71° —′ †*	30.08	764.0				nne.	2		2		ne.			sm'h		clear	N. McLean. G. Gapou, 2d Officer.
S. S. Circassian, Capt. W. H. Smith																	
S. S. Nova Scotian, Capt. W. Richardson																	
AMERICAN S. S. CO.																	
Peter Wright & Sons, agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, N. 44° 37′, W. 39° 16′	29.64	752.8	59	15.0	88	nne.	7		2		n.			r'gh	nne.	fine	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng. †	30.25	768.3	63	17.2	72	n.	3		2		n.	0	0			fine	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Philadelphia, Penn. *†	30.06	763.5	76	24.4	95	sw.	1		0							hazy	
S. S. Pennsylvania, Capt. G. H. Dodge, N. 43° 48′, W. 40° 01′ †	29.63	752.6	66	18.9	84	ne.	6		10		ne.			r'gh	ne.	cloudy	C. Rodman, 3d Off.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, N. 37° 43′, W. 13° 54′	30.07	763.8	69	20.6	75	nnw.	2		5							blue sky	
S. British Merchant, E. J. Moloney, N. 20° 14′, W. 35° 13′ ‡	30.05	763.3	81	27.2	66	nne.	2		6							d. clouds	
S. S. Cipero, Capt. W. N. Lailey, N. 21° 36′, W. 38° 25′	30.06	763.5	77	25.0	77	ese.	1		1					1	e.	blue sky	
Bk. Commewyne, Capt. W. Scott, N. 48° 45′, W. 24° 52′	29.83	757.7	59	15.0	79	n.	4		10							d. clouds	
Bk. Coppename, Capt. A. Buchan, N. 26° 36′, W. 53° 24′	30.06	763.5	84.0	28.9	68	ssw.	2		1							blue sky	
Bk. Glaramara, Capt. R. Morton, N. 32° 22′, W. 153° 07′	30.30	769.6	64	17.8		nne.	2		4							d. clouds	
Bg. Hermine, Capt. S. G. Jones, N. 31° 12′, W. 18° 19′	30.14	765.5	76	24.4	68	n.	2		2							blue sky	
Bkt. Hope, Capt. J. Campbell																	
Island Belle, Capt. A. McBride, N. 13° 01′, W. 50° 56′	29.93	760.2	81.4	27.4		ese.	4–5		7							d. clouds	
S. Lochee, Capt. J. Raeburn, S. 10° 30′, W. 30° 33′ ‡	30.10	764.5	76.7	24.8	93	ese.	7		10							squally	
Bk. Mertola, Capt. E. W. Turner, N. 37° 05′, W. 7° 16′	29.98	761.5	74.5	23.6	86	s.	1		8							d. clouds	
Naiad, Capt. J. Smith, S. 49° 32′, W. 80° 51′	30.09	764.3	36.0	2.2	93	sw.	6		6							d. clouds	
S. Pleione, Capt. C. H. Renant, S. 18° 33′, W. 35° 30′	30.24	768.1	70	21.1	90	ese.	6		10							raining	
S. S. Rosetta, Capt. A. E. Barlow, S. 6° 34′, E. 89° 27′	29.82	757.4	82	27.8	83	nw.	4		6							d. clouds	
Sierra Estrella, Capt. P. Murdock, N. 9° 03′, E. 90° 00′	29.90	759.4	82.5	28.1	87	wsw.	4		5							misty	
Bk. Shun Lee, Capt. J. N. Gray, S. 13° 03′, W. 26° 20′ ‡	30.15	765.8	74.0	23.3	79	ese.	6		4							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, N. 22° 16′, E. 114° 10′	29.81	757.2	81.5	27.5	91	e.	2		5							d. clouds	R. Ladd, 1st Officer.
S. S. Thames, Capt. Luckhurst																	
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, agent. San Francisco.																	
S. S. Newbern, Capt. E. Rogers																	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., agents, New York.																	
S. S. Galia, Capt. W. H. P. Haines																	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.																	
S. S. Hermann, Capt. H. Baur																	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst, N. 45° 15′, W. 40° 16′	29.72	754.9	60.0	15.6	88	nne.	6		8?		nne.	20 h'r	20 h'r	cross	ne.	clear ?	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer																	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouch N. 36° 56′, W. 75° 50′	29.93	760.2	75.5	24.2	93	w.	3		2		wnw.	0	0	mod.	e.	fair	Englehart & von [Goesset.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davidson, N. 41° 53′, W 171° 42′ †	30.02	762.5	67	19.4	79	wsw.	2		5		wsw.	0	0	mod.	sw.	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 47° 53′, E. 179° 40′ *†	29.98	761.5	60	15.6	77	nnw.	4		9		nnw.			mod.	nw.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 24° 48′, E. 119° 23′	29.94	760.5	80	26.7	87	calm	0		8			0.05	1.3	sm'h		fine	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Oterendorp, agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann																	C. W. Pob[illegible] 1d Off'cer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancom, Capt. J. N. Ingalls, San Francisco, Cal.....†..	29.90	759.4	55	12.8	87	wnw.	3	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. N. Ingalls.
S. S. Dakota, Capt. ——, N. 48° 00′, W. 124° 48.....†..	30.04	763.0	59	15.0	88	nnw.	4	.....	0	.....	.....	0	0	sm'h	nnw.	clear.....	.....
S. S. Idaho, Capt. T. Huntington, N. 35° 48′, W. 123° 50′.....†..	29.94	760.5	57	13.9	87	nw.	6	.....	7	.....	nw.	.....	.....	mod.	nw.	cloudy.....	T. Huntington.
S. S. Orazaba, Capt. Z. B. Johnson, N. 33° 42′, W. 118° 12′.....†..	29.82	757.4	56	13.3	75	se.	2	.....	8	.....	se.	.....	.....	long	sw.	cloudy.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 34° 15′, W. 119° 18′.....†..	29.79	756.7	60	15.6	88	ne.	2	.....	10	.....	.....	.....	.....	.....	.....	hazy.....	T. Wallace.
S. S. State of California, Capt. Debney, N. 38° 00′, W. 123° 05′.....†..	29.90	759.4	55	12.8	87	wnw.	4	.....	10	.....	w.	.....	.....	short	nnw.	foggy.....	G. Debney.
S. S. Victoria, H. M. Hayward, Strait of Fuga.....†..	30.14	765 5	57	13.9	87	sw.	2	.....	0	.....	.....	.....	.....	small	sw.	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulloy, Supt. New York.*																	
S. S. Australia, Capt. ——, Sydney, N. S. W.....	30.03	762.7	54	12.2	74	ne.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†..	29.99	761.7	62	16.7	72	calm	0	.....	0	.....	.....	0	0	.....	.....	clear.....	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin, N. 14° 30′, W. 93° 08′.....†..	30.00	762.0	81	27.2	78	ene.	1	0	9 ks	.....	se.	12 h'r	12 h'r	h'vy	s.	cloudy.....	W. H. T. Titus. Thos. Martensen.
S. S. City of Peking, Capt. G. G. Barry..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama.....†	29.95	760.7	84	28.9	91	n.	2	.....	2	.....	n.	½ h'r	½ h'r	sm'h	s.	fine.....	.....
S. S. City of Sydney, Capt. H. C. Dearborn, N. 29° 20′, W. 142° 47′.....†	30.24	768.1	69	20.6	70	ene.	4	.....	8	.....	ne.	0	0	mod.	ne.	cloudy.....	E. L. Saik. A. L. Ritchie, 2d Offl.
S. S. City of Tokio, Com. J. Maury.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Colima, R. R. Searle, N. 10° 04′, W. 86° 17′.....†..	29.94	760.5	79	26.1	91	ssw.	5	.....	10	.....	sw.	0.60	15.2	h'vy	ssw.	thnd'r storm	R. R. Searle. M. Connolly.
S. S. Grenada, Capt. M. Connolly.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Zelandia, Capt. H. Webber, N. 27° 00′, W. 146° 34′.....	30.27	768.8	69	20.6	80	nne.	3	.....	2	.....	nw.	.....	.....	sm h	nw.	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 46° 05′, W. 33° 06′.....†	30.04	763.0	61	16.1	?	se.	3	.....	10	.....	se.	6 h'r	6 h'r	long	nw.	rainy.....	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, N. 45° 09′, W. 39° 03′.....†..	29.53	750.0	57	13.9	81	ne.	7	.....	9	.....	ne.	0.4	10.	high	ne.	cloudy.....	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 48° 53′. W. 29° 50′.....†..	29.81	757.2	57	13.9	100	var.	3	.....	5	.....	n.	show	ers	mod.	e.	fair.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, Queenstown, Ireland.....†..	30.44	773.2	58	14.4	94	e.	1	.....	2	.....	ne.	0	0	.....	.....	d. clouds....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fise Hawk, Woods Holl, Mass.....†..	29.89	759.2	67	19.4	100	ne.	5	.....	10 n	.....	.....	0	0	.....	.....	cloudy.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols, Karigani Strait, Alaska.....*†	30.23	767.8	57	13.9	.....	wnw.	1	.....	3	.....	nw.	.....	.....	.....	.....	d. clouds.....	.....
S. Iron Cross, Capt. Randall, S. 24° 02′, E. 2° 40′.....*..	30.12	765.0	63.2	17.3	98	sse.	3	.....	7	.....	sse.	sl't	sl't	mod.	se.	d. clouds.....	W. Randall. E. Fry.
S. Pawshick, Capt. E. Fry,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, N. 41° 02′, W. 20° 00′.....†..	30.02	762.5	70	21.1	80	s.	6	.....	10	.....	sw.	light	light	cross	nw.; [ne.	cloudy..	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 3, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.93	760.2	81.0	27.2	72	calm			0		1			0	0	very fair	Raynard.
Algiers ‡			29.97	761.1	81.7	27.6	37	n.			2		0			0	0	clear	Nicolas.
La Calle ‡			29.98	761.4	83.5	28.6	66	wnw.			2		2			0	0	fair	Fonfréde.
Tunis ‡			30.00	762.0															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.98	761.4	93.2	34.0	20	n.			2		2			0	0	fair	Dumas.
Tebessa ‡			30.00	762.0	81.0	27.2	10	calm			0		0			0	0	clear	Derché.
Geriville ‡					93.2	34.0	11	nw.			2		3			inap.	inap.	pretty fair	Lonchamp.
Laghouat ‡			30.01	762.3	93.6	34.2	9	n.			2		2			0	0	fair	Herbin.
Biskra ‡			30.01	762.2	90.3	32.4	6	nnw.			5		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.44	747.8	29.53	750.0	47.2	8.4	78	n.	12	5.4			2			0.03	0.8	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.14	740.1	29.67	753.7	62.6	17.0	80	ne.			1		7			0.055	1.4	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	28.95	735.3	29.69	754.1	68.4	20.2	64	ese.	4.3	1.9			10			0.957	24.3	raining	Dr. Wiersbicki.
Eperies	28.80	731.5	29.66	753.3	57.9	14.4	94	n.			2		10 n			0.398	10.1	light rain	Julius Mikolik.
Gratz ‡	28.45	722.6	29.67	753.6	62.8	17.1	84	wsw.			1		5			0.157	4.0		Andreas Rospini.
Hermannstadt	28.24	717.2	29.61	752.1	65.8	18.8	87	wnw.			2		10			0.425	10.8		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.38	720.9	29.70	754.4	56.1	13.4	94	sw.			1		9			0.669	17.0		The Staff.
Lemberg	28.68	728.5	29.62	752.4	71.2	21.8	67	se.			1		10			0.516	13.1		Dr. T. Stanecki.
Pola	29.60	751.7	29.71	754.5	68.4	20.2	73	ese.			1		8			0	0		I. R. Hydrographic Office.
Szathmar	29.13	739.9	29.58	751.2	60.1	15.6	85	se.			3		10			1.102	28.0		Beicht Peter, S. J.
Szegedin	29.35	745.6	29.63	752.5	61.2	16.2	85	s.			2		10			0	0		Karl Stancel.
Trieste	29.62	752.4	29.72	755.0	71.4	21.9	64	w.			1		5			0	0		Secco.
Vienna	28.99	736.4	29.69	754.1	61.2	16.2	83	calm			0		10			0.098	2.5		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 8, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Aberdeen	30.17	766.3	30.27	768.8	54.8	12.7	87	ene.	12	5.4		9				0	0	overcast	W. Boswell.
Armagh, Observatory	29.95	760.7	30.18	766.6	55.4	13.0	80	ne.	5	2.2		10						overcast	S. Call.
Bidston, Liverpool Obs'y			30.09	764.3	54.8	12.7	83	nnw.	9	4.0		10						overcast	John Hartnup.
Bolton, Sharples	29.54	750.3	30.08	764.0	56.8	13.8	77	ene.	18	8.0		9						gloomy	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.71	754.6	30.11	764.8	54.5	12.5	83	ne.			1	9				0.28	7.1	overcast	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.01	762.2	60.0	15.6	82	n.			0.6	10						overcast	John McLaren.
Chatham, School M. E.	29.91	759.7	30.04	763.0	55.3	12.9	91	n.			1	10				blank	blank	overcast	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.87	758.7	30.10	764.5	57.8	14.3	74	se.			1	3						d. clouds	The Staff.
Fort Napier, Natal	27.72	704.1	29.93	760.2	69.0	20.6	65	s.			1	6							Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.73	755.1	29.96	761.0	85.0	29.4	83	w.			1	3						d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.07	763.8	60	15.6	76	nw.			2	8						d. clouds	J. O'Donaghue.
Gibraltar, Mediterranean	29.97	761.2	30.03	762.7	81.5	27.5	78	ne.			3	2						blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.98	761.5	30.19	766.8	59.0	15.0	70	ene.			4	7						d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.83	757.7	30.01	762.2	56.0	13.3	83	nnw.			1	10						drizzling	The Staff.
Guernsey	29.84	757.9	30.06	763.5	61	16.1	66	ne.			2	3						d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.00	762.0	30.04	763.0	58.4	14.7	75	nw.	9	4.0		10						threatening	The Staff.
Leicester, Museum	29.77	756.1	30.02	762.5	58.5	14.7	80	n.			1	10						overcast	J. C. Smith.
Malta, Mediterranean					78.8	26.0	55	nw.			2	0						blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.89	759.2	29.94	760.5	83.5	28.6	81	ne.			1	4						d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.82	757.4	30.05	763.3	56.5	13.6	77	nnw.			2	9						overcast	The Staff.
Plymouth	30.00	762.0	30.08	764.0	61.5	16.4	70	s.			1	8						d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.33	770.4	57	13.9	74	e.			5	2						d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.61	752.1	29.67	753.6	84.6	29.2	55	sw.			1	0						blue sky	Serg't W. H. Lyne.
Sheffield	29.80	756.9	30.08	764.0	56.8	13.8	84	nne.			2	10				0.13	3.3	squally	W. F. Cooper.
Silloth Rectory	30.11	764.8	30.14	765.5	56.0	13.3	68	e.			4	6				0.010	0.3	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.12	765.0	54.5	12.5	77	ne.	8	3.6		8						d. clouds	Rev. S. J. Perry.
Stratfield Turgiss					57.9	14.4	76	nw.			1	8						d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.04	763.0	30.06	763.5	64	17.8	52	n.			4	4						d. clouds	W. Newcombe.
Valencia, Observatory	30.05	763.3	30.08	764.0	60.6	15.9	73	ese.	11	4.9		10						misty	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected Inch.	Mill.	Reduced Inch.	Mill.	Temperature Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.07	763.8	30.11	764.8	58	14.4	88	ese.	1	0.4			10 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.03	762.7	30.09	764.3	56	13.3	93	se.	3	1.3			10 ks		se.	0	0	cloudy	G. A. Blair.
Chicoutimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.94	760.5	29.95	761.0	52	11.1	100	sw.	2	0.9		2 c	fg.	calm		0	0	dense fog	J. McWilliams.
Fort Garry, Manitoba*	29.16	740.7	30.00	762.0	42	5.6	93	e.	3	1.3		5 k	5 ks	sw.	e	0.060	1.5	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.95	760.7	30.08	764.0	58	14.4	93	e.	8	3.6		2 ck	5 ks		se.	0	0	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.58	751.3	29.90	759.4	68	20.0	97	se.	5	2.2			sk.			inap.	inap.	dense smoke	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.73	755.1	29.92	760.0	64	17.8	90	s.	3	1.3			10 ks			0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.20	741.7	29.87	758.7	63	17.2	100	calm	0	0			10 n			Inap.	Inap.	light rain	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.26	743.2	29.93	760.2	65	18.3	94	calm	0	0			10 n		w.	0.05	1.3	threatening	H. Morgan.
Port Stanley, Ontario	29.30	744.2	29.93	760.2	66	18.8	97	w.	1	0.4			fg.			0	0	foggy	M. Payne.
Quebec, Quebec*	29.66	753.4	29.97	761.2	61	16.1	87	ne.			1		8 ks		ne.	0	0	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.48	748.8	29.92	760.0	58	14.4	93	calm	0	0			sk.			0	0	smoky	W. H. McIntyre.
Saugeen, Ontario*	29.26	743.2	29.95	760.7	62	16.7	97	ne.	8	3.6			fg.			0	0	foggy	K. Stewart.
St. Andrews, N. B.	30.00	762.0	30.05	763.3	57	13.9	92	se.	1	0.4			10 n			0	0	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.12	765.0	30.17	766.3	54	12.2	80	e.	2	0.9			10 s			0.01	0.3	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.57	751.1	29.94	760.5	63	17.2	93	nw.	4	1.8		sk.	fg.			0	0	smoky	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.94	760.5	30.01	762.2	60	15.6	90	e.	8	3.6		5 ck	2 s	ne.	e.	Inap.	inap.	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.08	764.0	30.32	770.1	54	12.2	74	e.				0	0			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected Inch.	Mill.	Reduced Inch.	Mill.	Temperature Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Cape St. Francis Lt. House‡	29.91	759.7	29.94	760.5	65.0	18.3	83	sw.	14.3	6.4		0	1 s			0	0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.25	742.9			65.1	18.4	47	w.			1	0	0			0	0	fine	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected Inch.	Mill.	Reduced Inch.	Mill.	Temperature Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.89	759.1	29.91	759.7	77.4	25.2	96	se.	3.6	1.6		9 ck	0	sw.		0	0	covered	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.93	760.1	29.97	761.3	61.3	16.3	73	ne.	18	8			8						Oversergent Fischer
Fanöe	30.00	761.9	30.02	762.4	59.2	15.1	78	ene.			4		9						Overloerer Lauridsen.
Godthaab, Greenland	29.95	760.8	30.00	761.9	37.4	3.0	81	ssw.			2		7						S. Kleinschmidt.
Stykkisholm, Iceland	30.18	766.5	30.22	767.6	55.0	12.8	73	se.			4		8						A. O. Thorlacius.
Thorshavn	30.35	771.0	30.39	771.9	52.0	11.2	88	ene.	7	3			3						Overloerer Bergh.
Vestervig	30.01	762.3	30.10	764.6	56.7	13.7	79	ne.			6		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.34	745.2	29.97	761.3	68.7	20.4	49	ese.			1	0	k			0	0		M. Labroue, Director.
Alençon Normal School	29.59	751.6	30.10	764.6	62.6	17	70	n.			3	0	k	w.	n.	0	0		M. Nicot, Director.
Arras, Engineer School	29.72	754.9	29.97	761.3	60.1	15.6	75	nnw.					10k;n		nw.			covered	M. Klein, Commandant.
Avignon, Normal School	29.80	757.0	29.88	759.0	69.8	21	58	n.			3		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.44	747.8	29.99	761.7	61.2	16.2	81	n.			1		10		n.	0.256	6.5	covered	M. Saillard, Director.
Beauvais, Normal School	29.75	755.6	30.01	762.2	62.8	17.1	61	nw.			2		8		sw.	0.043	1.1	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.09	738.9	29.97	761.3	59.4	15.2	90	w.			1		10		w.	0.201	5.1	covered	M. Gobin, Director.
Bordeaux, Observatory	29.74	755.4	30.00	761.9	67.1	19.5	48	e.			1		2			0	0	slightly cl'dy	M. Rayet, Director.
Bourges, Normal School	29.46	748.2	30.04	762.9	62.6	17	66	w.			1		10		w.	0.067	1.7	covered	M. Postel, Director.
Brest, Naval Observatory	29.83	757.6	30.07	763.8	64.8	18.2	74	e.			1		10		e.	0	0		M. de Kermaree, Dir.
Caen, Normal School	30.00	761.9	30.07	763.8	61.0	16.1	76	nw.			1		8		nw.	0	0	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					64.0	17.8	76	nw.			2		10		nnw.	0	0	covered	M. Jadot, Director.
Charleville, Normal School	29.45	748.0	29.95	760.8	62.6	17	63	ne.			1		10		n.	0.059	1.5	covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.67	728.2	30.00	762.0	62.2	16.8	63	nw.			1		8			0.035	0.9	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.16	740.7	29.99	761.7	64.0	17.8	74	w.			2		4		nw.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.10	739.1	29.95	760.6	61.5	16.4	77	nw.			1		5	nw.	nw.	0.55	14.	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.34	694.5	29.80	756.8	66.6	19.2	45	s.			2	0	5 k		n.	0	0	¼ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	28.79	731.3	29.93	760.3	70.2	21.2	44	nw.			2		2		nw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.18	741.1	29.93	760.1	62.6	17	68	nw.			3	0	km			0.311	7.9		M. Ablard, Director.
Guéret, Normal School	28.48	723.4	30.05	763.2	56.3	13.5	81	ene.			2		n			0	0		M. Rivoire, Director.
Lamballe, Normal School	29.95	760.7	30.13	765.4	62.2	16.8	87	n.			1				n.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.95	760.8	30.06	763.4	62.6	17.0	80	s.			2		10			0	0	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.97	735.7	30.02	762.4	58.5	14.7	76	nw.					10		wnw.	0.028	0.7	covered	M. André, Director.
Mans, Normal School	29.76	755.9	30.06	763.6	62.8	17.1	71	e.			1		8		e.	0	0	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.58	751.3	29.84	758.0	71.2	21.8	43	nw.			3		1			0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.84	630.8	30.07	763.8	60.3	15.7	32	w.	9.4	4.2			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.84	757.9	29.97	761.1	59.0	15	46	nnw.			1		0			0	0	clear	M. Pourie, Director.
Nancy, Normal School	29.19	741.3	29.93	760.3	57.6	14.2	78	nw.			1		10 n		nw.	0.71	18.	covered	M. Hasse.
Nantes, Observatory	29.91	759.7	30.07	763.8	65.5	18.6	60	ene.			0-1	0	9 kn	wsw.	ene.	0	0		M. Larocque, Director.
Nice	29.74	755.4	29.77	756.2	73.8	23.2	58	w.			4	1	1	w.	w.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	29.84	758.0	29.95	760.6	70.3	21.3	30	ne.	5.6	2.5			5		nw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.61	574.2			51.8	11.0							1		wnw.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School	28.74	730.1	29.79	756.7	60.8	16	59	calm			0		5			0	0	cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.17	639.4			43.0	6.1	99	n.			1		10			0.638	16.2	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.04	762.9	30.07	763.7	67.3	19.6	87	calm			0		2		e.	0	0	¼ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.81	757.2	30.02	762.6	67.6	19.8	58	ne.			1		5		e.	0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.95	760.7	30.04	762.9	59.7	15.4	79	nnw.			1		5			0.028	0.7	cloudy	M. Platrier, Director.
Saint Lô, Normal School	29.87	758.7	30.03	762.7	61.2	16.2	81	n.			1		5		n.	0	0	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.85	758.3	30.02	762.5	60.3	15.7	76	nw.			1		10		n.	0.189	4.8	covered	M. Renou, Director.
Toulouse, Observatory	29.36	745.7	30.08	764.1	72.3	22.4	43	ne.			1		1	w.		0	0	clear	M. Baillaud, Director.
Tours	29.85	758.1	30.04	763.1	64.0	17.8	69	e.			1		10		n.	0	0	covered	M. de Tastes.
Versailles, Observatory	29.55	750.5	30.04	763.0	61.5	16.4	67	n.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.74	755.4	30.03	762.8	60.4	15.8	72	nnw.			1		10		nnw.	0.189	4.8		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.97	735.9	29.83	757.6	64.8	18.2	70	nw.			3	0	7 k		wnw.	0	0		Prof. Dr. Hob.
Berlin	29.00	751.7	29.76	756.0	64.9	18.3	69	n.			2		10			0	0		Prof. Dr. Arndt.
Breslau	29.20	741.6	29.72	754.9	68.9	20.5	55	se.			1		4			0.047	1.2		Royal University Obs'y.
Carlsruhe	29.46	748.2	29.87	758.8	62.2	16.8	85	sw.			1		10	nw.		0.035	0.9		Albert Senz.
Cassel	29.14	740.1	29.85	758.3	59.4	15.2	85	n.			2		8	n.		0.012	0.3		Dr. H. Möllt.
Frankfort on the Main	29.48	748.8	29.84	757.8	67.5	19.7	60	n.			2		9			0	0		Physical Society.
Friedrichshafen	28.48	723.3	29.90	759.5	55.4	13.0	91	sw.			7		10	sw.		0.201	5.1		Wilhelm, Chief Tel.
Hamburg	29.84	758.0	29.94	760.4	57.4	14.1	85	ne.			4		10			0	0		E. Preller.
Kiel	29.94	760.5	29.96	760.9	57.6	14.2	82	ne.			6		10			0	0		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.37	746.1	29.78	756.5	64.0	17.8	66	n.			3		9	nne.		0	0		H. Leppig, Asst.
Magdeburg	29.02	752.4	29.80	757.0	64.2	17.9	69	n.			3		9 ks		n.	0	0		Dr. Assmann.
Memel	29.89	759.1	29.93	760.3	60.6	15.9	79	ese.			4		10 k						Issermann.
Munich	28.00	711.2	29.85	758.2	57.7	14.3	87	nw.			2		10	n.		0.449	11.4		Central Station.
Neufahrwasser	29.80	756.9	29.82	757.3	59.7	15.4	89	ene.			4		10			0.126	3.2		A. Lothes.
Neustadt, Palatinate	29.32	744.7	29.84	758.0	64.8	18.2	75	nw.			1		7			0	0		Dicknether.
Stuttgart	28.91	734.4	29.79	756.6	60.8	16.0	88	w.			1		10			0.016	0.4	light rain	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.34	719.9	29.81	757.2	59.7	15.4	81	n.			2		10	n.		0.406	10.3		Fischer.
Wustrow	29.89	759.3	29.92	759.9	55.9	13.3	87	ne.			5		10 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.40	746.8	29.77	756.2	88.7	31.5		sw.			1.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.60	751.9	29.65	753.2	82.7	28.2	80	wsw.	29.0	13.0			7		wsw.	0	0	d. clouds	
Deesa	29.19	741.4	29.66	753.3	84.6	29.2	67	sw.					8		sw.	0	0	d. clouds	
Bombay	29.81	757.2	29.85	758.2	82.3	27.9	86	w.	18.0	8.0			7		w.	0.06	1.5	d. clouds	
Poona, Yarrowda.	28.00	711.1	29.80	758.4	77.0	25.0	70	w.	20.0	8.9			7		w.	0	0	d. clouds	
Belgaum	27.34	694.3	29.90	759.5	70.9	21.6	86	wsw.	8.0	3.6			7	e.	sw.	0.26	6.6	showery	
Lahore	28.79	731.2	29.51	749.5	91.1	32.8	52	w.	1.0	0.4			0			0	0	blue sky	
Roorkee	28.65	727.8	29.53	750.1	86.8	30.4	72	w.	2.9	1.3			6			0	0		
Agra	29.06	738.1	29.62	752.2	85.7	29.8	58	w.	2.2	1.0			6		w.	0	0		
Nagpur	28.68	728.6	29.71	754.6	87.2	30.7	54	calm	4.1	1.8			5		nw.	0	0	d. clouds	
Jubbulpore	28.38	720.8	29.72	754.9	82.5	28.1	60	nw.	3.4	1.5			10			0.01	0.3	overcast	
Lucknow	29.23	742.4	29.60	751.9	82.7	28.2	71	wsw.	5.2	2.3			5	nw.		0	0	blue sky	
Allahabad	29.33	744.9	29.64	752.8	82.5	28.1	83	sw.	5.3	2.4			10			0.02	0.5	overcast	
Patna	29.46	748.2	29.64	752.7	82.2	27.9	78	w.	3.3	1.5			10	w.	w.	0.20	5.1	overcast	
Hazaribagh	27.66	702.4	29.65	753.1	78.8	26.0	75	wnw.	10.3	4.6			10		w.	0	0		
Cuttack	29.60	751.7	29.68	753.8	85.9	29.9	78	nne.	0.8	0.4			8			0.12	3.0	d. clouds	
Calcutta, Alipore	29.63	752.6	29.65	753.2	82.8	28.2	88	calm	0	0			10			0	0	overcast	
Dhubri	29.50	749.2	29.62	752.2	80.2	26.8	90	calm	1.6	0.6			10	sw.	sw.	1.38	35.0	gloomy	
Chittagong	29.62	752.3	29.71	754.6	79.1	26.2	94	se.	4.2	1.9			10			0	0	overcast	
Sibsagar	29.34	745.3	29.68	753.8	78.2	25.7	94	ese.	2.7	1.2			10	w.	w.	0.40	10.2	overcast	
Jeypore	28.22	716.7	29.64	752.7	85.7	29.8	52	w.	7.1	3.2			3		w.	0	0	d. clouds	
Zanzibar, Africa			30.02	762.5	84.6	29.2	42	se.	5	2.2			2			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.32	744.8	29.72	755.0	67.3	19.6	57	calm	0	0			9			0	0		Prof. Giovanni Clodig.
Milan	29.24	742.7	29.74	755.5	70.5	21.4	65	w.	3.8	1.7			4	ene.		0	0		Prof. Schiaparelli.
Padua	29.63	752.5	29.73	755.1	68.5	20.3	61	wnw.	1.8	0.8			5	ne.		0.020	0.5		Prof. Dott. Lorenzoni.
Moncalieri	28.84	732.4	29.72	754.9	72.0	22.2	49	e.	3.8	1.7			1			0	0		Prof. P. F. Denza.
Genoa	29.60	751.9	29.80	756.8	71.2	21.8	27	sw.	3.1	1.4			0			0	0		Prof. G. M. Garibaldi.
Mondovi	27.88	708.1	29.74	755.5	70.7	21.5	41	se.			2		0			0.028	0.7		Prof. D. C. Bruno.
Pesaro	29.68	753.9	29.73	755.1	70.2	21.2	62	w.	3.8	1.7			8	w.		0	0		Prof. Luigi Guidi.
Florence	29.52	749.7	29.76	756.0	69.1	20.6	65	sw.			2		6	wnw.		0.185	4.7		Prof. Costantino Pitter.
Leghorn	29.71	754.7	29.80	756.8	68.7	20.4	68	s.	3.1	1.4			8			2.756	70.0		Prof. P. Monte.
Rome	29.61	752.2	29.78	756.5	66.9	19.4	70	nne.					10			0.173	4.4		Prof. P. S. Ferrari.
Lecce	29.58	751.2	29.82	757.5	73.0	22.8	74	sw.	23.0	10.3			5	w.		0.181	4.6		Prof. C. de Giorgi.
Cosenza	28.98	736.1	29.83	757.7	70.3	21.3	62	sse.	3.8	1.7			9	se.		0.638	16.2		Prof. D. Conti.
Cagliari	29.73	755.1	29.91	759.8	75.4	24.1	34	nw.			6		6	nw.		0.008	0.2		Prof. A. Pacinotti.
Palermo	29.71	754.6	29.95	760.6	76.8	24.9	29	nnw.	21.0	9.4			3	wsw.		0	0		Prof. G. Ciacciatore.
Syracuse	29.80	757.0	29.85	758.1	81.3	27.4	50	w.	9.4	4.2			3	sw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.28	743.7	29.79	756.7	62.2	16.8	85	s.	15.0	6.7			10			0.858	21.8		Prof. F. Brioschi.
Stelvio	22.08	560.8			37.6	3.1	76	ne.			4		10 n	n.		0.185	4.7	covered	Prof. P. F. Denza.
Valdobbia	22.14	562.4			41.9	5.6	80	n.			2	3 cs	0	nw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.89	759.2	29.91	759.7	78.2	25.7	78	nne.	5.8	2.6		0	0			0	0	clear	K. Sasaki.
Kioto	29.77	756.1	29.94	760.5	75.7	24.3	74	nw.	2.0	0.9		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.80	756.9	29.99	761.7	75.1	23.9	84	wsw.	0.8	0.4		0	0			0	0	clear	S. Takehayashi.
Niigata	29.90	759.4	29.93	760.2	79.1	26.2	66	w.	7.1	3.2		1 ck	0			0	0	clear	
Nobiru	29.85	758.2	29.86	758.4	76.9	24.9	76	nnw.	8.7	3.9		0	0			0	0	clear	
Supporo	29.70	754.4	29.75	755.9	69.7	20.9	94	nw.	3.0	1.3			7			0	0		
Tokei Obs'y, Yeddo	29.81	757.2	29.88	758.9	80.2	26.8	83	w.	4.0	1.8		6 cs	0			0	0	fair	The Staff.
Wakayama	29.78	756.4	29.83	757.7	82.5	28.1	70	ne.	5.0	2.2		1 ck	0	n.		0	0	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.95	760.7	30.14	765.5	75.0	23.9	58	ese.	6.2	2.8		1	3		wsw.	0	0	fine	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.7	29.91	759.7	62.6	17.0	75	ene.	0	0		0	8		se.	0	0	cloudy	Vicente Fernandez.
Leon	24.45	621.0	30.09	764.2	63.2	17.3	92	nw.			2	5 c	4 k	e.		0.071	1.8	very cloudy	Prof. M. Leal.
Mazatlan	29.59	751.6	29.85	758.1	73.0	22.8	100	nne.	1.6	0.8			10 n			1.378	35.0	rainy	F. Quijano, U. E.
Mexico, Central Obs'y	23.11	587.1	30.10	764.6	58.1	14.5	85	calm	0	0			10 kn		e.	0.142	3.6	overcast	The Staff.
Morelia	24.05	610.9	30.14	765.5	57.2	14.0	77	ne.			2	0	0			0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.94	608.0	29.85	758.1	64.4	18.0	81	calm			0		9 ks		s.	inap.	inap.	very cloudy.	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.7	30.10	764.7	57.4	14.1	61	calm	0	0			10		se.	0.059	1.5	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.63	575.0	30.24	768.1	54.9	12.7	86	se.	1.7	0.8			10 n		se.	0	0	covered	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.98	761.4	29.98	761.4	63.3	17.4		ene.			2					0.012	0.3		
Groningen	29.91	759.6	29.96	761.0	57.2	14.0		ne.			1					0.012	0.3		
Helder	29.96	761.0	29.96	761.0	57.6	14.2		ene.			3					0.024	0.6		
Hellevoetsluis	29.94	760.5	29.94	760.5	59.9	15.5	86	nw.			1					0	0		
Utrecht	29.91	759.6	29.95	760.8	60.3	15.7	81	ne.			1		8			0.004	0.1	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.19	766.7	30.25	768.3	62.6	17.0	38	calm	0	0			0			0	0		
Christiania	30.15	765.7	30.29	769.4	57.6	14.2	55	ene.	7	3			10			0	0		
Gjæsvær	30.33	770.3	30.35	770.9	45.5	7.5		wsw.			7		10					foggy	
Lodingen	30.47	774.0	30.52	775.2	52.7	11.5	72	calm			0		9			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.93	760.1	30.08	763.9	73.4	23.0	86	wnw.	15.4	6.9			3			0	0		Dr. J. A. Sampaio.
Campo Major	28.99	736.4	29.94	760.4	80.0	30.0	22	w.	6.3	2.8			0			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.11	764.7	30.19	766.9	74.7	23.7	68	calm	0	0			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.71	754.6	30.06	763.4	75.2	24.0	49	nnw.	13.6	6.1			1			0.004	0.1		The Staff.
Ponta Delgada, Azores	30.08	764.1	30.15	765.9	77.4	25.2	68	w.	6.9	3.1			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.49	723.7	29.52	749.7	70.5	21.5	56	ssw.	7	3		0	7 k					heavy cl'ds.	Capt. Lasarew.
Archangel	30.40	772.1	30.42	772.6	52.0	11.1	69	nw.	4	2		2 cs	0						Capt. Sseliwerstow.
Astrakhan	30.02	762.5	29.94	760.4	85.8	29.9	29	nne.	4	2		0	0						Capt. Wisganow.
Barnaul ‡	29.14	740.1	29.61	752.1	74.5	23.6	46	calm	0	0			6						Meteorological Obs'y.
Dorpat	29.95	760.8	30.19	766.9	60.6	15.9	64	ese.	7	3			10 k						Observatory.
Ekaterinburg	29.01	736.8	29.96	761.0	55.8	12.8	86	ne.	9	4			10						Meteorological Obs'y.
Kasan	29.74	755.4	30.00	761.9	72.3	22.4	59	nnw.	4	2			10					light rain	Observatory.
Kertch	29.84	757.9	29.86	758.4	81.9	27.7	51	e.	11	5		0	0			0	0		Lagorio & Sastyrez.
Kieff	29.21	741.8	29.80	756.9	82.2	27.9	34	se.	16	7		1 c;ck	0						Observatory.
Lugan	29.77	756.2	29.97	761.1	86.5	30.3	36	ese.	4	2			5						Meteorological Obs'y.
Moscow	29.05	753.0	30.11	764.8	64.0	17.8	58	n.	7.8	3.5		0	0						Meteorological Obs'y.
Nikolaiev	29.76	755.9	29.83	757.7	92.3	33.5	35	se.	22	10		1 ck	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.63	752.6	29.72	754.8	62.8	17.1	92	calm			0	0	3 k			0	0		Lieut. Iwanow.
Pekin, China	29.69	754.0	29.83	757.6	74.8	23.8	84	ne.	4	2		0	5 ks			0.945	24.0	thund'r st'm	Physical Observatory.
St. Petersburg	30.21	767.4	30.23	767.8	61.0	16.1	78	ene.	9	4			9 n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.26	717.9	29.76	755.9	75.2	24.0	61	calm	0	0			4						Teich, A. M.
Tiflis	28.58	725.8	29.91	759.8	83.7	28.7	40	s.	4	2		0	0						Physical Observatory.
Warsaw	29.34	745.3	29.75	755.6	72.1	22.3	50	sse.	4	2		ck	9 s						Astronomical Obs'y.
Wilna	29.50	749.2	29.91	759.7	62.6	17.0	83	ene.	4	2			10					heavy cld's.	Berg, Assistant.
Yeniseisk	29.60	751.8	29.88	759.0	52.9	11.6	60	nnw.	9	4			0						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.22	767.6	57.1	13.9	81	e.			2	0	8 k			0.04	1.0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.25	768.3	57	13.9	94	ese.			4	5	0	ese.		0	0		J. Youngclause
North Unst, Shetland Isl'ds			30.32	770.1				ne.			1		fg.						Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.84	758.0	29.95	760.6	72.1	22.3	62	se.	0.7	0.3		c	0			0	0		Antonio Rave, Directon
Bilbao, Met. Obs'y	29.93	760.3	29.99	761.7	73.4	23.0	65	se.	1.3	0.6			10			0	0	covered	Prof. Manuel de Navera.
Burgos, Met. Obs'y	27.07	687.6			75.6	24.2	66	sw.	2.7	1.2			7			0	0	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.81	700.4	29.92	759.9	83.7	28.7	28	s.	7.6	3.4		8	0			0	0	light clouds	The Staff.
Murcia, Met. Obs'y ‡	29.84	757.8	29.98	761.4	92.1	33.4	44	nne.	2.0	0.9		1	2	ene.		0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.06	738.2	29.94	760.4	69.8	21.0	73	sw.	0	0			9			0	0	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.87	758.7	29.94	760.3	80.2	26.8	86	calm	0	0		3 c;cs	1 k;s	wsw.	e.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.81	757.1	29.86	758.4	81.0	27.2	89	ne.	1.1	0.5			10 n		w.	1.03	26.2	raining	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.93	760.2	30.02	762.6	79.2	26.2	70	w.	8.9	4.0		0	4		nw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.80	757.0	29.89	759.3	81.3	27.4	91	se.	0	0		2 s	4 k		s.	0	0		E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.73	755.0	29.86	758.4	79.7	26.5	89	n.	0	0			10 ks			0.14	3.6	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.45	773.5	30.49	774.5	56.8	13.8	65	sw.			2		0			0	0		
Umea	30.39	771.9	30.44	773.2	56.1	13.4	87	ne.			6		1			0	0		
Hernosand	30.42	772.6	30.47	773.9	55.2	12.9	58	ne.			6		1			0	0		
Stockholm	30.04	763.1	30.22	767.6	52.2	11.2	99	ne.			4		10			0.071	1.8	raining	
Wisby	30.01	762.2	30.07	763.7	61.9	16.6	68	ene.			6		3			0	0		
Sub-Series.																			
Upsala	30.16	766.1	30.25	768.3	51.8	11.0	85	ne.	14.5	6.5			10		ne.	inap.	inap.		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.58	726.0	29.99	761.7	60.4	15.8	75	ne.			1		10			0	0	covered	The Observatory.
Zurich ‡	28.35	720.0	29.98	761.6	53.6	12.0	94	w.			1		10			0.031	0.8	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.76	756.0	85.8	29.9	50	ese.	4	1.5			0			0	0		The Observatory.
Valona			29.89	759.2	74.5	23.6		s.			2		2			2.76	70.	slightly cld'y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.82	757.3	89.1	31.7	52	sw.			3	0	1 k		sw.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	29.88	758.9	29.96	761.0	69	20.6	72	s.	4	1.8			10 s			0.01	0.3	cloudy	
Alpena, Michigan	29.30	744.2	29.95	760.7	61	16.1	87	nw.	3	1.3		2 c	1 s	w.		0.02	0.5	fair	
Atlanta, Georgia	28.83	732.3	30.01	762.2	72.0	22.2	76	nw.	7	3.1		0	0			0	0	clear	
Atlantic City, New Jersey	29.93	760.2	29.94	760.5	69.4	20.8	93	n.	6	2.7			10s;fg		calm	0	0	cloudy	
Augusta, Georgia	29.80	756.9	29.99	761.7	74.2	23.4	82	calm	0	0		0	0			0	0	clear	
Baltimore, Maryland	29.90	759.4	29.95	760.7	72	22.2	90	ne.	2	0.9			10s;fg		calm	inap.	inap.	cloudy	
Barnegat, New Jersey	29.90	759.4	29.92	760.0	68.0	20.0	93	ne.	9	4.0			10s;fg		calm	0	0	cloudy	
Bismarck, Dakota	28.17	715.5	30.00	762.0	56	13.3	100	e.	2	0.9			10 n		calm	0.06	1.5	light rain	
Boise City, Idaho	27.07	687.6	29.91	759.7	44.3	6.8	68	w.	2	0.9		0	0			0	0	clear	
Boston, Massachusetts	29.83	757.7	29.99	761.7	60.0	15.6	94	ne.	10	4.5			10 n		ne.	1.09	27.7	light rain	
Brackettville, Texas	28.83	732.3	29.84	757.9	76	24.4	82	se.	2	0.9			10 s		s.	0	0	cloudy	
Brownsville, Texas	29.90	759.4	29.94	760.5	78	25.6	91	calm	0	0		0	7 ks		se.	0.03	0.8	fair	
Buffalo, New York	29.24	742.7	29.96	761.0	67.2	19.6	92	sw.	2	0.9			fg.			0	0	dense fog	
Burlington, Vermont	29.67	753.6	29.96	761.0	64.2	17.9	89	s.	1	0.4			10 s		s.	0.09	2.3	cloudy	
Cairo, Illinois	29.62	752.3	30.02	762.5	71.7	22.1	94	s.	4	1.8		3 ck	fg.	nw.		0.05	1.3	fair	
Campo, California	27.34	694.4	29.91	759.7	42.3	5.7	59	s.	4	1.8		0	0			0	0	clear	
Camp Thomas, Arizona	27.15	689.6			66.2	19.0	65	ne.			1	0	2 k			0	0	clear	
Cape Henry, Virginia	29.89	759.2	29.91	759.7	75	23.9	90	calm	0	0		5 ck	hz.			0	0	fair	
Cape May, New Jersey	29.91	759.7	29.93	760.2	70	21.1	90	ne.	5	2.2			fg.			0	0	dense fog	
Castroville, Texas	29.21	741.9	29.89	759.2	75	23.9	82	calm	0	0			10 s		s.	0	0	cloudy	
Cedar Keys, Florida	29.95	760.7	29.97	761.2	80	26.7	88	nw.	1	0.4		2 ck	0			0	0	clear	
Champaign, Illinois	29.15	740.4	29.92	760.0	66.3	19.1	93	s.	4	1.8			fg.			0.07	1.8	foggy	
Charleston, S. Carolina	29.88	758.9	29.94	760.5	79	26.1	91	w.	3	1.3		0	hz.			0	0	clear	
Charlotte, N. Carolina	29.11	739.4	29.99	761.7	78.4	25.8	58	nw.	5	2.2		4 c	hz.	w.		0	0	fair	
Chattanooga, Tennessee	29.22	742.2	30.05	763.3	73.5	23.1	78	w.	4	1.8		3 k	sk.	n.	calm	0	0	fair	
Cheyenne, Wyoming	24.14	613.1	30.04	763.0	53.2	11.8	86	sw.	6	2.7			10 s		sw.	0	0	cloudy	
Chicago, Illinois	29.25	742.9	29.96	761.0	71.7	22.1	90	ne.	10	4.5		2 c	3 k	e.	e.	0.03	0.8	fair	
Chincoteague, Virginia	29.91	759.7	29.93	760.2	72	22.2	100	ne.	11	4.9			fg.		calm	0	0	foggy	
Cincinnati, Ohio	29.37	746.0	30.03	762.7	72.5	22.5	83	nw.	2	0.9			fg.			0	0	dense fog	
Cleveland, Ohio	29.24	742.7	29.98	761.5	68.4	20.2	92	nw.	3	1.3		1 c	fg.			0.06	1.5	clear	
Coleman City, Texas																			
Columbus, Ohio	29.14	740.1	30.00	762.0	69	20.6	84	nw.	1	0.4		0	fg.			0.03	0.8	clear	
Concho, Texas	28.12	714.2	30.06	763.5	72	22.2	90	calm	0	0		0	0			0	0	clear	
Corsicana, Texas	29.57	751.1	30.04	763.0	77	25.0	76	s.	4	1.8		0	hz.			0	0	clear	
Davenport, Iowa	29.34	745.2	30.00	762.0	69	20.6	84	e.	3	1.3			10 ks		sw.	0.05	1.3	cloudy	
Dayton, Washington T'y	28.17	715.5	29.98	761.5	57.5	14.2	38	s.	3	1.3		0	0			0	0	clear	
Deadwood, Dakota	25.37	644.4	30.07	763.8	48	8.9	86	s.	4	1.8			10 s		calm	0	0	cloudy	
Decatur, Texas	28.81	731.8	29.92	760.0	77	25.0	69	se.	7	3.1		0	0			0	0	clear	
Delaware Breakwater, Del.	29.90	759.4	29.92	760.0	71	21.7	94	n.	6	2.7			hz.			0	0	dense haze	
Denison, Texas	29.20	741.7	30.01	762.2	77	25.0	79	sw.	8	3.6		0	0			0	0	clear	
Denver, Colorado	24.81	630.2	30.03	762.7	53.0	11.7	80	se.	1	0.4			fg.			0	0	dense fog	
Des Moines, Iowa	29.06	738.1	29.97	761.2	70	21.1	79	sw.	6	2.7			10 n		sw.	0.12	3.0	heavy rain	
Detroit, Michigan	29.26	743.2	29.97	761.2	70.0	21.1	84	sw.	3	1.3		0	hz.			0.02	0.5	clear	
Dodge City, Kansas	27.32	693.9	29.91	759.7	72.3	22.4	56	sw.	14	6.3		1 ck	0			0	0	clear	
Dubuque, Iowa	29.27	743.4	29.99	761.7	64.6	18.1	90	sw.	1	0.4			10 s		sw.	0.14	3.6	threatening	
Duluth, Minnesota	29.28	743.7	29.99	761.7	59	15.0	87	ne.	4	1.8			fg.			0.07	1.8	dense fog	
Eagle Pass, Texas	29.21	741.9	30.04	763.0	77.0	25.0	82	se.	5	2.2			10 s		se.	0	0	cloudy	
Eagle Rock, Idaho	25.14	638.5	29.99	761.7	45	7.2	49	sw.	8	3.6			10 s		sw.	0	0	cloudy	
Eastport, Maine	30.01	762.2	30.08	764.0	55	12.8	90	ne.	7	3.1			10 s		ne.	0	0	cloudy	
El Paso, Texas	26.24	666.5	29.99	761.7	65.2	18.4	78	ne.	2	0.9		1 k	0			0	0	clear	
Erie, Pennsylvania	29.22	742.2	29.95	760.7	70	21.1	84	sw.	5	2.2			fg.			inap.	inap.	foggy	
Escanaba, Michigan	29.33	745.0	29.99	761.7	63	17.2	90	n.	7	3.1			10 s		n.	0.09	2.3	cloudy	
Florence, Arizona	28.36	720.3	29.92	761.0	69	20.6	70	w.	4	1.8		4 k	1 s			0	0	fair	
Fort Apache, Arizona																			
Fort Assinnaboine, Montana	27.00	685.8	29.81	757.2	43	6.1	83	se.	2	0.9		0	0			0	0	clear	
Fort Bennett, Dakota	28.35	720.1	29.89	759.2	61	16.1	93	s.	6	2.7			10 s		w.	0	0	cloudy	
Fort Benton, Montana	27.05	687.3	29.92	760.0	51	10.6	55	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	27.95	709.9	29.96	761.0	52	11.1	86	se.	3	1.3		3 cs	0	w.		0	0	clear	
Fort Custer, Montana	26.62	676.1	29.86	758.4	42	5.6	79	n.	5	2.2			10 ks		calm	0	0	cloudy	
Fort Davis, Texas	25.24	641.1	30.20	767.1	62	16.7	81	w.	3	1.3		0	0			0	0	clear	
Fort Elliott, Texas	27.23	691.6	30.42	772.7	72	22.2	64	sw.	12	5.4		8 k	0	sw.		0	0	fair	
Fort Gibson, Indian T'y	29.40	746.7	29.95	760.7	78.1	25.6	62	se.	4	1.8		0	0			0	0	clear	
Fort Grant, Arizona					69	20.6	59	n.	4	1.8		4 k	0			0	0	fair	
Fort Griffin, Texas	28.71	729.2	29.92	760.0	78.2	25.7	58	se.	4	1.8		0	0			0	0	clear	
Fort Keogh, Montana	27.41	696.2	29.95	760.7	46	7.8	86	se.	1	0.4		2 c	0	w.		0	0	clear	
Fort Macon, North Carolina	29.93	760.2	29.94	760.5	79	26.1	88	sw.	6	2.7		hz.	0	calm		0	0	clear	
Fort McKavett, Texas	27.75	704.8	29.60	751.8	70.1	21.2	75	calm	0	0		0	0			0	0	clear	
Fort Missoula, Montana	26.65	676.9	30.17	766.3	44	6.7	93	nw.	1	0.4		0	0			0	0	clear	
Fort St. Michaels																			
Fort Shaw, Montana	26.22	666.0	29.82	757.4	50	10.0	74	sw.	11	4.9		0	0			0	0	clear	
Fort Sill, Indian Territory	28.74	730.0	29.99	761.7	76.3	24.6	56	s.	4	1.8		0	0			0	0	clear	
Fort Stevenson, Dakota	28.11	714.0	29.98	761.5	54	12.2	93	n.	3	1.3			fg.		n.	inap.	inap.	dense fog	
Fort Verde, Arizona					60.1	15.6	34	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.30	718.8	29.81	757.2	74	23.3	68	calm	0	0			10 s			0	0	cloudy	
Galveston, Texas	29.97	761.2	30.01	762.2	83	28.3	67	s.	6	2.7		hz.	2 k		s.	0	0	clear	
Grand Haven, Michigan	29.31	744.5	29.98	761.5	63.0	17.2	97	calm	0	0			fg.			0	0	dense fog	
Hatteras, North Carolina	29.91	759.7	29.93	760.2	78	25.6	90	sw.	10	4.5		4 c	hz.			0	0	fair	
Helena, Montana	25.72	653.3	30.11	764.8	43	6.1	93	calm	0	0		0	0			0.28	7.1	clear	
Henrietta, Texas	28.95	735.3	29.82	757.4	81	27.2	51	s.	4	1.8		0	0			0	0	clear	
Huron, Dakota	28.58	725.9	29.97	761.2	60.2	15.7	96	n.	3	1.3		0	7 ks		n.	0.04	1.0	clearing	
Indianapolis, Indiana	29.19	741.4	29.99	761.7	68	20.0	90	sw.	1	0.4			fg.		calm	0	0	dense fog	
Indianola, Texas	29.97	761.2	30.00	762.0	80.8	27.1	82	se.	6	2.7		2 k	1 ks	e.	calm	0	0	fair	
Jacksboro, Texas	29.83	757.7	29.90	759.4	77	25.0	60	sw.	4	1.8		0	0			0	0	clear	
Jacksonville, Florida	29.90	759.4	29.94	760.5	78	25.6	74	sw.	3	1.3		0	0			0	0	clear	
Keokuk, Iowa	29.30	744.2	29.96	761.0	71.0	21.7	90	sw.	1	0.4			10 ks		w.	0.07	1.8	cloudy	
Key West, Florida	29.92	760.0	29.95	760.7	81.1	27.3	81	e.	9	4.0		0	7s;ks		e.	0	0	fair	
Kittyhawk, North Carolina	29.92	760.0	29.94	760.5	77	25.0	85	n.	5	2.2		hz.	0			0	0	clear	
Knoxville, Tennessee	29.04	737.6	30.08	764.0	69.8	21.0	85	calm	0	0		3 k	fg.	ne.	calm	0	0	fair	
La Crosse, Wisconsin	29.16	740.7	29.93	760.2	65	18.3	84	se.	4	1.8			fg.			0.35	8.9	dense fog	
La Mesilla, New Mexico	26.11	663.2	30.26	768.6	62.2	16.8	72	calm	0	0		1 k	0			0	0	clear	
Laredo, Texas	29.48	748.8	29.82	757.4	77.0	25.0	85	calm	0	0		0	0			0	0	clear	
Leavenworth, Kansas	29.03	737.3	29.93	760.2	74	23.3	71	se.	4	1.8		2 k	4 s	sw.	sw.	0.03	0.8	fair	
Lewiston, Idaho	29.07	738.4	29.92	760.0	52	11.1	72	ne.	1	0.4		0	0			0	0	clear	
Little Rock, Arkansas	29.65	753.1	29.97	761.2	76	24.4	85	calm	0	0		0	hz.			0	0	clear	
Los Angeleg, California	29.53	750.0	29.91	759.7	57.3	14.1	80	sw.	5	2.2		0	0			0	0	clear	
Louisville, Kentucky	29.43	747.5	30.00	762.0	73.0	23.1	84	sw.	3	1.3		9 cs	0	w.		inap.	inap.	cloudy	
Lynchburg, Virginia	29.27	743.4	29.96	761.0	75.7	24.3	69	calm	0	0		10 k	0	w.		0.12	3.0	cloudy	
Madison, Wisconsin	28.97	735.8	30.00	762.0	62	16.7	93	w.	1	0.4			fg.		calm	0.67	17.0	dense fog	
Marquette, Michigan	29.29	744.0	30.02	762.5	58	14.4	93	n.	3	1.3			10 n		calm	0.65	16.5	light rain	
Mason, Texas	28.38	720.8	30.08	764.0	72	22.2	90	calm	0	0		0	0			0	0	clear	
Memphis, Tennessee	29.68	753.9	30.02	762.5	75	23.9	82	calm	0	0		hz.	sk.	calm	calm	0.02	0.5	dense haze	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.22	742.7	29.98	761.5	65	18.3	93	calm	0	0			10s;fg		se.	0.14	3.6	cloudy	
Mobile, Alabama	29.93	760.2	30.00	762.0	75	23.9	76	nw.	4	1.8		0	0			0	0	clear	
Montgomery, Alabama	29.78	756.4	30.01	762.2	75.3	24.1	81	nw.	1	0.4		2 c	hz			0	0	clear	
Moorhead, Minnesota	29.00	736.6	30.01	762.2	54	12.2	93	ne.	3	1.3		7 k	0	n.		0	0	fair	
Morgantown, W. Virginia	28.99	736.3	29.97	761.2	66.5	19.2	88	w.	4	1.8		4 cs	2 s	w.	w.	1.37	34.8	fair	
Mt. Washington, N. H.	23.88	606.5	30.08	764.0	50	10.0	93	calm	0	0			fg		calm	0.44	11.2	foggy	
Nashville, Tennessee	29.50	749.3	30.04	763.0	69.3	20.7	92	ne.	1	0.4			fg			0.06	1.5	dense fog	
New Haven, Connecticut	29.84	757.9	29.96	761.0	63	17.2	90	n.					10 s			0	0	cloudy	
New London, Connecticut	29.89	759.2	29.94	760.5	64	17.8	90	ne.	6	2.7			10 s		ne.	0.02	0.5	cloudy	
New Orleans, Louisiana	29.95	760.7	30.01	762.2	79.5	26.4	76	sw.	5	2.2		0	fg			0	0	clear	
Newport, Rhode Island	29.88	758.9	29.92	760.0	62.5	16.9	95	n.	7	3.1			10 s		ne.	1.82	46.2	cloudy	
New River, N. Carolina					80	26.7	79	sw.			1	0	0			0	0	clear	
New Shoreham, Rhode I'd.	29.88	758.9	29.91	759.7	63	17.2	93	ne.	24	10.7			10 s			2.15	54.6	cloudy	
New York, New York	29.79	756.7	29.97	761.2	67	19.4	90	ne.	7	3.1			10s;fg			0.02	0.5	cloudy	
Norfolk, Virginia	29.89	759.2	29.92	760.0	76	24.4	76	e.	1	0.4			10 ks			0	0	cloudy	
North Platte, Nebraska	27.02	686.3	29.96	761.0	63.4	17.4	89	ne.	7	3.1		3 c	7 s	ne.	ne.	0	0	cloudy	
Olympia, Washington T'y	29.86	758.4	29.90	759.4	48	8.9	89	e.	3	1.3		0	4 s		calm	0	0	fair	
Omaha, Nebraska	28.74	730.0	29.93	760.2	70	21.1	84	e.	4	1.8		0	1 ks			inap.	inap.	clear	
Oswego, New York	29.61	752.1	29.94	760.5	63.4	17.4	92	s.	4	1.8			fg			0	0	dense fog	
Pensacola, Florida	29.97	761.2	30.00	762.0	76	24.4	82	w.	6	2.7		0	0			0	0	clear	
Philadelphia, Pa.	29.90	759.4	29.96	761.0	72	22.2	84	s.	1	0.4		hz	hz			0	0	dense haze	
Phœnix, Arizona	28.69	728.7	30.35	770.9	66	18.9	78	calm	0	0		4 k	0	n.		0	0	fair	
Pike's Peak, Colorado	18.00	457.2	30.21	767.3	36	2.2	66	sw.	36	16.1		0	0			0	0	clear	
Ploche, Nevada	24.05	610.9	30.07	763.8	59	15.0	22	s.	4	1.8		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.17	740.9	29.99	761.7	68	20.0	90	w.	2	0.9			10 s		calm	0.01	0.3	cloudy	
Port Eads, Louisiana	30.00	762.0	30.01	762.2	79.5	26.4	82	sw.	4	1.8		0	hz		calm	0	0	clear	
Port Huron, Michigan	29.24	742.7	29.93	760.2	66.7	19.3	90	n.	4	1.8			fg		calm	0	0	dense fog	
Portland, Maine	29.97	761.2	30.02	762.5	58.5	14.7	93	e.	8	3.6			10 n		calm	1.05	26.7	light rain	
Portland, Oregon	29.88	758.9	29.95	760.7	51.2	10.7	82	calm	0	0		0	1 s		nw.	0	0	clear	
Portsmouth, N. Carolina					79	26.1	82	sw.	8	3.6		0	0			0	0	clear	
Prescott, Arizona	24.81	630.2	30.00	762.0	51	10.6	57	s.	3	1.3		0	0			0	0	clear	
Punta Rassa, Florida	29.92	760.0	29.94	760.5	79.5	26.4	82	n.	4	1.8		1 c	0	calm		0	0	clear	
Red Bluff, California	29.57	751.1	29.91	757.9	57	13.9	80	nw.	4	1.8		0	1 s		calm	0.33	8.4	clear	
Rio Grande City, Texas	29.77	756.1	29.98	761.5	77	25.0	94	ca'm	0	0			fg			0.25	6.3	dense fog	
Rochester, New York	29.31	744.5	29.95	760.7	66	18.9	100	nw.	4	1.8			fg			0	0	dense fog	
Roseburg, Oregon	29.42	747.3	30.00	762.0	52.5	11.4	88	calm	0	0		1 k	0			0.25	6.3	clear	
Sacramento, California	29.84	757.9	29.92	760.0	53.3	11.8	86	se.	6	2.7		0	0			0	0	clear	
St. Louis, Missouri	29.38	746.2	29.99	761.7	68.1	20.1	93	se.	4	1.8		1 k; hz	0	se.		0.04	1.0	dense haze	
St. Paul, Minnesota	29.10	739.1	29.98	761.5	65.5	18.6	83	e.	6	2.7		8 c	0	w.		0.14	3.6	fair	
Salt Lake City, Utah	25.51	647.9	29.84	757.9	65	18.3	29	se.	6	2.7		0	0			0	0	clear	
San Antonio, Texas	29.32	744.7	30.02	762.5	75	23.9	90	calm	0	0		0	0			0	0	clear	
San Diego, California	29.77	756.1	29.84	757.9	60	15.6	81	n.	1	0.4		0	0			0	0	clear	
Sandusky, Ohio	29.29	744.0	29.98	761.5	68	20.0	84	sw.	6	2.7		0	hz			0.16	4.1	clear	
Sandy Hook, New Jersey	29.92	760.0	29.95	760.7	67.5	19.7	93	ne.	7	3.1			10 s		ne.	0.41	10.4	cloudy	
San Francisco, California	29.88	758.9	29.94	760.5	55	12.8	90	w.	12	5.4		0	fg		w.	0	0	fair	
Santa Fé, New Mexico	23.38	593.8	30.18	766.6	58.5	14.7	70	e.	3	1.3		7 k	0	sw.		0	0	fair	
Savannah, Georgia	29.86	758.4	29.95	760.7	79.8	26.6	79	calm	0	0		0	fg			0	0	clear	
Shreveport, Louisiana	29.79	756.7	30.02	762.5	75	23.9	74	sw.	1	0.4		0	0			0	0	clear	
Silver City, New Mexico	24.34	618.2	29.91	759.7	58	14.4	64	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.98	761.5	30.05	763.3	55.1	12.8	87	e.	4	1.8			10 s		calm	0.03	0.8	cloudy	
Smithville, North Carolina	29.91	759.7	29.94	760.5	80	26.7	88	w.	6	2.7		0	hz			0	0	clear	
Spokane Falls, Wash. Ter.	27.86	707.6	29.88	758.9	45	7.2	86	n.	2	0.9		0	0			0	0	clear	
Springfield, Illinois	29.30	744.2	29.99	761.7	69	20.6	90	s.	5	2.2			10s;hz			0.44	11.2	cloudy	
Springfield, Massachusetts	29.84	757.9	29.97	761.2	61.9	16.6	87	n.	6	2.7			10 s		n.	0.02	0.5	cloudy	
Stockton, Texas	27.01	686.0	30.08	764.0	68.1	20.1	81	sw.	6	2.7		0	0			0	0	clear	
St. Vincent, Minnesota	29.13	739.9	30.02	762.5	42.5	5.8	100	calm	0	0			fg			0	0	dense fog	
Thatcher's Island, Mass.	29.94	760.5	29.99	761.7	60.0	15.6	100	ne.	16	7.2			10 n		ne.	1.12	28.4	heavy rain	
Toledo, Ohio	29.25	742.9	29.95	760.7	69	20.6	84	w.	3	1.3		0	sk			2.04	51.8	dense smoke	
Tucson, Arizona	27.41	695.2	29.77	756.1	71	21.7	64	s.	2	0.9		2 k	0			0	0	clear	
Umatilla, Oregon	29.56	750.8	29.60	751.8	50.0	10.0	68	se.	5	2.2		0	0			0	0	clear	
Uvalde, Texas	29.04	737.6	29.83	757.7	76	24.4	85	calm	0	0		3 k	0	se.		0	0	clear	
Vicksburg, Mississippi	29.74	755.4	30.00	762.0	78	25.6	74	sw.	2	0.9		0	0			0	0	clear	
Visalia, California	29.52	749.8	29.88	758.9	59	15.0	61	nw.	2	0.9		0	0			0	0	clear	
Washington, D. C.	29.83	757.7	29.94	760.5	70.0	21.1	90	nw.	1	0.4		3 ck	5 s	nw.		inap.	inap.	cloudy	
Wickenburg, Arizona					59	15.0	72	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	29.86	758.4	29.92	760.0	78	25.6	97	sw.	6	2.7		hz	hz	calm	calm	0	0	dense haze	
Winnemucca, Nevada	25.53	648.5	29.86	758.4	51	10.6	66	se.	8	3.6		0	0			0	0	clear	
Wood's Holl, Mass.	29.88	758.9	29.91	759.7	62	16.7	100	ne.	6	2.7			10 n		ne.	1.89	48.0	light rain	
Yankton, Dakota	28.60	726.4	29.91	759.7	67	19.4	84	calm	0	0		2 k	0	sw.		0	0	fair	
Yuma, Arizona	29.60	751.8	29.74	755.4	72.3	22.4	76	sw.	2	0.9		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.92	760.0	29.96	761.0	85	29.4	83	ne.	4	1.8		2 c	10 ks	calm	calm	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.03	559.6			54.0	12.2	82	e.	1	0.4			10 n			0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.84	757.9	29.84	757.9	81	27.2	87	e.				0	5 ks		e.	0	0		B. Bigar.
Havana, Cuba, W. I.	29.91	759.7	29.96	761.0	82	27.8	82	calm	0	0		4 cs	4 ks	calm	calm	0.18	4.6	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.87	758.7	29.88	758.9	80.0	26.7	82	calm	0	0		5cs;ck	3 s	e.	e.	0	0	cloudy	Robert Johnstone.
Navassa, W. I.	29.77	756.1	29.85	758.2	83.5	28.6	83	ne.	13	5.8			10			0	0	cloudy	F. M. Everett.
Paramaribo, S. A.	30.04	763.0	30.04	763.0	79	26.1	83	e.			2	5 ck	0	se.		0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.44	747.8	30.00	762.0	77	25.0	89	calm	0	0		5 ck	8 ks	calm	ne.	0.56	14.2	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24		e.			3	7 cs	2 ks	e.	e.	0.67	17.		Earl Flint.
Santiago de Cuba, W. I.	29.87	758.7	29.90	759.4	80	26.7	86	nw.	2.4	1.1		4 c	2 s		ne.	0.07	1.8	cloudy	Robert Mason.
St. Thomas, W. I. ‡	29.84	757.9	29.96	761.0	83	28.3	79	se.	7	3.1		2 c	4 ks	ne.		0.50	12.7	fair	G. O. Gyllich.
York Factory, B. A.	29.79	756.7	29.84	757.9	40.0	4.4	96	s.	16	7.2		1 c	1 s	s.	s.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.				Character.	Dir'n from.		
										Up'er	Lo'er	Upper	Lower.						
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, West Is'd, Torres Strait	29.87	758.7	77	25.0	77	ese.			2-3		5							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 39° 11′, E. 6° 17′	30.07	763.8	74	23.3	63	wnw.			1		3	wnw.				2	nnw.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.77	756.1	70	21.1		var.			1		1							blue sky	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 11° 25′, E. 43° 39′	29.66	753.4	91	32.8	84	e.			1		1					sm'h		blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 17° 00′, W. 61° 45′	29.95	760.7	83	28.3	91	e.			1		4							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 3° 24′, E. 8° 42′	29.99	761.7	74	23.3	81	se.			2		6	ene.				3	sse.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant, S. 15° 00′, E. 160° 30′	29.98	761.5	76	24.4		se.			6		5	se.				2	se.	d. clouds	Capt. J. A. T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 10′, E. 21° 20′	29.80	756.9	80	26.7		wsw.			3		2	wsw				2	wsw.	d. clouds.	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 34° 11′, E. 18° 28′	30.21	767.3	64	17.8		wsw.			1-2		1	wnw.						blue sky	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	29.92	760.0	79	26.1	78	wnw.			1		1	w.						blue sky	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 50′, W. 55° 48′	30.23	767.8	49.5	9.7	89	calm			0		4	ne.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.54	750.3	87	30.6		se.			1		4	se.				1	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.81	757.2	85.5	29.7		var.			2		5							d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 36° 27′, W. 32° 15′	30.09	764.3	75	23.9		wsw.			2		2	wnw.				4	wnw.	d. clouds	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 5° 41′, E. 39° 17′	29.98	761.5	78	25.6	77	e.			3-4		3	e.				2	e.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 35° 48′, E. 10° 19′	29.92	760.0	75	23.9		wsw.			2		1					2	wsw.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Send Okosiri, Yezo, Japan	29.78	756.4	77	25.0	90	nw.			2		7	nw.				2	nw.	misty	Capt. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich Is'ds	30.05	763.5	75	23.9	64	ene.			3		5							squally	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argt. Rep.	30.06	763.5	57	13.9	93	s.			7		10							squally	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, Levuka, Fiji Islands	29.95	760.7	76	24.4	86	e.			1-2		4	se.						d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 43° 43′, E. 135° 40′	29.81	757.2	69	20.6		wsw.			2		4	sw.				1	se.	d clouds	Capt. R. E. Tracey.
H. M. S. Kingfisher																			Comm. R. H. Thornton.
H. M. S. Lapwing, S. 5° 00′, E. 106° 30′	29.85	758.2	83	28.3		ese.			3		0					2	se.	blue sky	Comm. F. H. Haygorth.
H. M. S. Lark, N. 6° 39′, W. 21° 02′	29.98	761.5	80	26.7	86	s.			5-6		10					3	ssw.	d. clouds	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.81	757.2	83.5	28.6	85	ese.			1-2		9							d. clouds	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Malabar																			
H. M. S. Minotaur																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Susa, Tunis	30.02	762.5	76	24.4	90	ene.			1		3	ene.						d. clouds	Capt. G. C. Tryon
H. M. S. Mutine, S. 48° 35′, W. 64° 50′	30.19	766.8	38	3.3		wnw.			6		9					4	wnw.	d. clouds	Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S Northampton, N. 48° 21′, W. 60° 00′	30.08	764.0	56	13.3	80	se.			5		4	se.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin, N. 48° 34′. W. 12° 57′	29.94	760.5	62	16.7		ese.			3–4		6	s.				4	e.	d. clouds	Capt. A. C. Paget.
H. M. S. Phœnix, N. 47° 50′, W. 52° 40′	30.25	768.3	52	11.1	72	s.			2		3					2	s.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton
H. M. S. Ready, N. 16° 46′, E. 96° 15′	29.78	756.4	77	25.0		calm			0		5							misty	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 6° 24′, E. 39° 18′	30.09	764.3	78.3	25.7	82	se.			3		5							d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 7° 45′, E. 40° 03′	29.63	752.6	80	26.7	82	se.			2							3	ese.	blue sky	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 46° 01′, W. 61° 34′	30.12	765 0	56	13.3	80	ese.			2		9							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	30.04	763.0	60	15.6	94	s.			1–2		10	s.						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I	29.88	758.9	82	27.8		n.			1		4							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.66	753.4	80.5	26.9	87	wsw.			3–4		7	sw.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			

GERMAN NAVAL SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

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Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.

Bengo	Carlos Candid dos Reis.
India	A. M. da Sitra.
Quanza	Carlos M. de Silva Costa.
Rio Lima	C. da Silva Costa.
Sado	G. A. de Brito Capello.
Tamega	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.

H. M. Corvette Saga	Capt. M. von Krusenstiern.
H. M. Frigate Vanadis	Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.07	763.8	77	25.0	82	nw.	5	2.2			0			0	0			clear	
N. Yard, Portsmouth, N. H.	29.96	761.0	60	15.6	88	ne.	6	2.7			10		ne.	0.2	5.			raining	
Naval Hospital, Yokohama, Japan	29.70	754.4	81.5	27.5	83	calm			0		5		w.	0	0			fair	
Adams, N. 18° 44′, W. 105° 07′	29.62	752.3	84	28.9	83	se.			6		10		se			r'gh	se.	heavy rain	
Alaska, Callao, Peru	29.99	761.7	60	15.6	100	calm			0		10			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.65	753.1	83	28.3	87	ssw.			2		8		calm	0	0	sm'h		cloudy	
Alliance, N. 73° 52′, E. 180 35′	30.13	765.3	39	3.9	100	wnw.			5-6		10		wnw.	light	light	mod.	wnw.	cloudy	
Ashuelot, Kobe, Japan	29.93	760.2	83	28.3	71	ene.			2		2		calm					clear	
Colorado, New York, N. Y.	29.94	760.5	68	20.0	84	nne.	2	0.9			10		calm	0	0			overcast	
Constitution, New London, Conn	29.87	758.7	63	17.2	94	nne.	4	1.8			10		ne.					cloudy	
Franklin, Norfolk, Va	29.86	758.4	77	25.0	100	calm	0	0			10			0	0			overcast	
Galena, Villafranca, France	29.73	755.1	74	23.3	59	sw.			1		0					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal	29.87	758.7	57	13.9	87	calm	0	0			0							clear	
Jamestown, Mare Isl'd, Cal *	29.88	758.9	55	12.8	93	calm			0		0			0	0			clear	
Kearsarge, New London, Conn	29.93	760.2	64	17.8	89	nne.			2		10					sm'h		cloudy	
Lackawanna, Mare Isl'd, Cal †	30.11	764.8	59	15.0	82	sse.			2		0							clear	
Lancaster, Portsmouth, N. H.	29.99	761.7	64	17.8	100	ne.	2	0.9			10							raining	
Marion, [S. A.* Off Buenos Ayres, La Plata,	29.84	757.9	57	13.9		se.			6		10		se.	sh's	sh's	r'gh	se.	cloudy	
Michigan, Detroit, Mich	29.90	759.4	69	20.6	85	sw.			1		0							clear	
Minnesota, Newport, R. I.	29.84	757.9	64	17.8	89	ne.			3		10		ne.			sm'h		threatening.	
Monocacy, Yokohama, Japan	29.89	759.2	83	28.3	83	w.			1		5		w.					fair	
Nipsic, Villafranca, France	29.79	756.7	75	23.9	64	sw.			1		0					sm'h		blue sky	
Onward, Callao, Peru †	30.01	762.2	60	15.6	100	sse.			1		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.89	759.2	79	26.1	86	e.			1		5		calm					fair	
Passaic, Washington, D. C.	30.01	762.2	72	22.2	90	w.			1		8		w.					cloudy	
Pensacola, N. 7° 21′, W. 82° 08′	29.94	760.5	85	29.4	95	w.			2		10		n.	sli't	sli't	long	s.	cloudy	
Por'smouth, Portsmouth, N. H.	29.97	761.2	59	15.0	100	ne.			1		10		ne.			sm'h		rainy	
Powhatan, N. 38° 36′, W. 74° 15′	29.94	760.5	74	23.3	95	nnw.			1		10							foggy	
Quinnebaug, Villafranca, France	29.77	756.1	74	23.3	55	ssw.			3		0					sm'h		clear	
Ranger, Mare Island, Cal *	29.88	758.9	57	13.9	100	sw.			1		0					sm'h		clear	
Richmond, N. 18° 26′, W. 109° 15′	29.69	754.1	79	26.1	?	ne.			6		10		ne.	1.85	47.0	mod.	ne.	squally	
Shenandoah, Maldonado, Uruguay *	30.13	765.3	57	13.9	94	ese.			4		10					mod.	se.	rainy	
St. Louis, League Island, Pa	29.69	754.1	72	22.2	85	s.	4	1.8			0			0.05	1.3			clear	
Swatara, Chefoo, China †	29.91	759.7	76	24.4	77	sse.			2		2		calm					fair	
Tennessee, New London, Conn	29.95	760.7	67	19.4	95	n.	12	5.4			10			0	0			cloudy	
Trenton, Villafranca, France *	29.76	755.9	77	25.0	58	ssw.			2		10			2 h'r	mod			cloudy	
Vandalia, New London, Conn	29.93	760.2	64	17.8	89	ne.			2		10		calm					misty	
Wabash, Boston, Mass	30.03	762.7	62	16.7	94	nne.	7	3.1			10		ne.	0.35	8.9			drizzling	
Wachusetts, Sitka, Alaska	30.02	762.5	58	14.4	94	n.			1-2		10		calm	light	light	sm'h		cloudy	
Wyoming, Port Royal, S. C.	30.29	769.4	78	25.6	86	sw.	3	1.3			0			0	0			clear	
Yantic, New London, Conn *	29.88	758.9	64	17.8	89	nne.			2		10							cloudy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
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ALLAN LINE.																	
A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 47° —', W. 71° —'.....*†..	30.07	763.8	.....	.....	.....	ene.	1	.....	8	.....	ne.	.....	.....	sm'h	.....	cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, Agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, N. 42° 34', W. 45° 38'.....	30.07	763.8	68	20.0	95	e.	6	.....	10	.....	e.	.....	.....	r'gh	e.	cloudy?.....	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng .....†..	30.25	768.3	60	15.6	76	n.	3	.....	2	.....	n.	o	o	.....	.....	fine	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Philadelphia, Penn.....*†..	30.02	762.5	73	22.8	90	ne.	1	.....	5	.....	sw.	.....	.....	.....	.....	foggy.....	.....
S. S. Pennsylvania, Capt G. H. Dodge, N. 45° 33', W. 34° 59'.....†..	30.03	762.7	65	18.3	78	ne.	5	.....	8	.....	ne.	.....	.....	mod.	ne.	cloudy.....	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. British Merchant, Capt. E. J. Moloney,‡ N. 22° 32', W. 36° 07'.....	30.12	765.0	80.2	26.8	66	ne.	3	.....	2	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Olpero, Capt. W. N. Lailey, N. 19° 19', W. 40° 54'.....	30.07	763.8	79.5	26.4	78	e.	3	.....	1	.....	.....	.....	.....	1	se.	blue sky.....	.....
Bk. Commewyne, Capt. W. Scott, N. 49° 07', W. 22° 45'.....	29.73	755.1	60	15.6	94	n.	1	.....	10	.....	.....	.....	.....	.....	.....	misty.....	.....
Bk. Coppename, Capt. A. Buchan, N. 27° 18', W. 53° 00'.....	30.04	763.0	84.0	28.9	70	sw.	2	.....	1	.....	.....	.....	.....	.....	.....	blue sky.....	.....
Bk. Glaramara, Capt. R. Morton, N. 34° 14', W. 152° 31'.....	30.37	771.4	64.5	18.1	83	ene.	6	.....	6	.....	.....	.....	.....	.....	.....	gloomy.....	.....
Bg. Hermine, Capt. S. G. Jones, N. 30° 10', W. 19° 02.....	30.24	768.1	74.2	23.4	76	nne.	4	.....	7	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bkt. Hope, Capt. Jas. Campbelle, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Island Belle, Capt. A. McBride, N. 12° 53', W. 52° 09'.....	29.99	761.7	83.2	28.4	.....	sse.	6	.....	6	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. Lochee, Capt. J. Raeburn, ‡ S. 13° 45', W. 32° 44'.....	30.21	767.3	74	23.3	81	ese.	6	.....	5	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bk. Mertola, Capt. E. W. Turner, N. 37° 05', W. 7° 16'.....	30.03	762.7	75.5	24.2	82	s.	2	.....	0	.....	.....	.....	.....	.....	.....	blue sky.....	.....
Naiad, Capt. J. Smith, S. 46° 42', W. 82° 05.....	30.43	772.9	41.3	5.2	82	w.	5	.....	9	.....	.....	.....	.....	.....	.....	overcast	.....
S. Pleione, Capt. C. H. Renant, S. 21° 36', W. 35° 46'.....	30.35	770.9	72	22.2	76	e.	5	.....	2	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Rosetta, Capt. A. E. Barlow, S. 1° 39', E. 86° 48'.....	29.82	757.4	81	27.2	83	nw.	3	.....	8	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Sierra Estrella, Capt. P. Murdoch, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. N. Gray, ‡ S. 9° 36', W. 26° 38'.....	30.11	764.8	76.5	24.7	82	ese.	6	.....	3	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Strathleven, Capt. C. W. Pearson,....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Thames, Capt. Luckhurst.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, Agent, San Francisco.																	
S. S. Newbern, Capt. E. Rogers.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., Agents, New York.																	
S. S. Gallia, Capt. W. H. P. Hains.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.																	
S. S. Hermann, Capt. H. Baur.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst. N. 46° 24', W. 35° 52'.....	30.19	766.8	61.5	16.4	71	nnw.	5	.....	2	.....	n.	sh'rs	sh'rs	r'gh	nnw; nne.	clear.....	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche N. 38° 20', W. 71° 10'.....	29.91	759.7	74.0	23.3	93	nw.	3	.....	10	.....	n.	o	o	sm'h	nw.	hazy.....	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, N. 41° 44', W. 177° 18'.....†..	30.17	766.3	64	17.8	78	w.	2	.....	2	.....	wsw.	o	o	mod.	w.	clear.....	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 48° 15', W. 174° 12'.....*†.	30.18	766.6	59	15.0	82	se.	2	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 26° 46', E. 124° 14'.....	30.05	763.3	83	28.3	79	e.	2	.....	8	.....	e.	o	o	sli't	e.	fine	.....
OREGON RAILWAY & NAVIGAT'N CO.																	
R. Van Oterendorp, Agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon, Capt. Pollmann.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO.																	
Goodall, Perkins & Co., Agents, San Francisco.																	
S. S. Ancon, Capt. J. N. Ingalls, San Francisco, Cal.....†	29.92	760.0	55	12.8	93	w.	3	.....	2	.....	w.	.....	.....	.....	.....	fair.....	J. N. Ingalls.
S. S. Dakota, Capt. ——— Victoria, B. C.....†	29.85	758.2	57	13.9	75	calm	0	.....	0	.....	.....	0	0	sm'h	nnw.	clear.....	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal.....†	29.94	760.5	56	13.3	87	w.	3	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 32° 40′, W. 117° 10′.....†	29.86	758.4	67	19.4	84	calm	0	.....	0	.....	.....	.....	.....	sm'h	nw.	pleasant.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 34° 29′, W. 120° 16′.....†	29.85	758.2	54	12.2	93	nnw.	4	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal.....†	29.93	760.2	52	11.1	86	calm.	0	.....	2	.....	w.	.....	.....	.....	.....	fair.....	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 46° 39′, W. 124° 46′.....	30.02	762.5	59	15.0	88	w.	3	.....	10	.....	w.	.....	.....	small	sw.	cloudy.....	J. C. Hunter.
PACIFIC MAIL S. S. CO.																	
Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.																	
S. S. Australia, Capt. ——— Sydney, N. S. W.....	30.00	762.0	50	10.0	86	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	A. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†	29.68	753.9	68	20.0	79	calm	0	.....	0	.....	.....	0	0	.....	.....	clear.....	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin, N. 13° 14′ W. 89° 32′.....†	29.96	761.0	81	27.2	78	e.	1	6 ck	0	se.	.....	3 h'r	3 h'r	long	ssw.	fair.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——— Panama, Panama.....†	29.99	761.7	83	28.3	91	n.	2	.....	5	.....	n.	½ h'r	½ h'r	sm'h	s.	fine.....	.....
S. S. City of Sidney, Capt. H. C. Dearborn, N. 31° 31′, W. 138° 09′.....†	30.25	768.3	68	20.0	70	ne.	5	.....	8	.....	ne.	0	0	mod.	ne.	cloudy.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Richie, 2d Offl.
S. S. Colima, Capt. R. R. Searle, N. 13° 06′, W. 89° 02′.....†..	29.90	759.4	82	27.8	96	n.	3	.....	4	.....	calm	2.03	51.6	small	ssw.	raining.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, N. 24° 33′, W. 151° 37′.....	30.20	767.1	73	22.8	90	ne.	4	.....	8?	.....	ne.	.....	.....	mod.	ne.	clear?.....	H. Webber.
RED STAR LINE.																	
Peter Wright & Sons, Agents, New York and Philadelphia.																	
S. S. Nederland, Capt. Ueberweg, N. 44° 17′, W. 39° 35′.....†	30.40	772.1	65	18.3	?	calm	0	.....	5	.....	nw.	4 h'r	4 h'r	long	ne.	fine.....	A. Fedderson, 2d Offl
S. S. Rhynland, Capt. W. G. Randall, N. 46° 41′, W. 33° 50′.....†	30.22	767.6	59	15.0	65	nnw.	6	.....	5	.....	nnw.	0	0	mod.	n.	fair.....	C. H. Grant, 2d Offl.
WHITE STAR LINE.																	
R. J. Cortis, Agent, New York.																	
S. S. Adriatic, Capt. J. W. Jennings.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 50° 20′, W. 21° 38′.....†	29.71	754.6	56	13.3	?	n.	6	.....	10	.....	ne.	6 h'rs	driz	mod.	se.	cloudy.....	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, N. 51° 35′, W. 15° 44′.....†..	30.15	765.8	59	15.0	88	se.	5	.....	5	.....	se.	0	0	sm'h	.....	d. clouds.....	.....
S. S. Republic, Capt. P. J. Irving.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass.....†	29.93	760.2	62	16.7	?	ne.	5	.....	10 n	.....	.....	2.45	62.2	.....	.....	raining.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler, Lt. Com. Nichols, Kargani Strait, Alaska.....*†	30.15	765.8	57	13.9	.....	wsw.	2	.....	10	.....	wnw.	.....	.....	.....	.....	raining.....	.....
S. Iron Cross, Capt. Randall, S. 22° 46′, E. 1° 0c′.....*	30.14	765.5	64.8	18.2	98	se.	3	.....	7?	.....	sse.	0	0	mod.	s.	overcast?...	W. Randall.
S. Pawashick, Capt. E. Fry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam, Capt. Jos. Hand, N. 40° 10′, W. 16° 40′.....†	30.12	765.0	70	21.1	80	wnw.	3	.....	5	.....	wnw.	0	0	long	nw.	fair.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 4, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.88	759.0	85.1	29.5	72	w.			6		0			0	0	clear	Raynard.
Algiers ‡			29.90	759.5	88.2	31.2	65	w.			6		0			0	0	clear	Nicolas.
La Galle ‡			29.93	760.1	81.7	27.6	79	wsw.			4		2			inap.	inap.	fair	Fonfréde.
Tunis ‡			29.98	761.6															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.93	760.2	91.8	33.2	26	nnw.			2		0			0	0	clear	Dumas.
Tebessa ‡			29.98	761.4	94.6	34.8	11	calm			0		1			0	0	very fair	Derché.
Geriville ‡					93.6	34.2	9	sw.			4		0			inap.	inap.	clear	Lonchamp.
Laghouat ‡			30.00	761.9	96.4	35.8	11	s.			3		1			0.063	1.6	very fair	Herbin.
Biskra ‡			29.98	761.4	95.0	35.0	24	nnw.			2		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.71	754.6	29.80	756.9	48.8	9.3	80	nw.	18	8.0			10			0.07	1.8	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.24	742.8	29.77	756.1	74.5	23.6	51						0			0.008	0.2	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	28.93	734.9	29.68	753.9	60.8	16.0	91	sw.	2.5	1.1			10			1.693	43.0		Dr. Wiersbicki.
Eperies	28.83	732.2	29.68	753.8	65.1	18.4	76	s.			3		10 ks		n.	1.606	28.1		Julius Mikolik.
Gratz ‡	28.51	724.1	29.71	754.7	67.8	19.9	71	s.			2		6			0.043	1.1		Andreas Rospini.
Hermannstadt	28.34	719.8	29.70	754.3	72.7	22.6	51	nw.			2		6			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.46	722.9	29.77	756.2	59.0	15.0	86	w.			3		8			0.028	0.7		The Staff.
Lemberg	28.72	729.6	29.67	753.7	68.0	20.0	62	w.			1		7			0.051	1.3		Dr. T. Stanecki.
Pola	29.72	754.9	29.83	757.7	73.2	22.9	68	sse.			2		6			0.728	18.5	thunder	I. R. Hydrographic Office.
Szathmar	29.29	743.9	29.74	755.3	66.9	19.4	52	s.			3		10			0	0		Beicht Peter, S. J.
Szegedin	29.50	749.2	29.77	756.2	65.5	18.6	80	calm			0		9			0.134	3.4		Karl Stancel.
Trieste	29.74	755.5	29.85	758.1	72.9	22.7	70	calm			0		9			0.114	2.9	cloudy	Secco.
Vienna	29.06	738.1	29.76	755.9	63.7	17.6	68	wsw.			3		8			0.165	4.2		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 8, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.04	763.0	30.14	765.5	54.6	12.6	83	ene.	16	7.2			6			0.005	0.1	d. clouds	W. Boswell.
Armagh, Observatory	29.77	756.1	30.01	762.2	56.5	13.6	81	ene.	9	4.0									S. Call.
Bidston, Liverpool Obs'y			29.94	760.5	56.0	13.3	91	nnw.	6	2.7			10					overcast	John Hartnup.
Bolton, Sharples	29.39	746.5	29.92	760.0	56.9	13.8	87	ene.	12	5.4			10					raining	Thomas Mackereth.
Bradford, Yorkshire																0.17	4.3		J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.88	758.9	64.0	17.8	65	n.			0.2		8					overcast	John McLaren.
Chatham, School M. E.	29.51	749.5	29.64	752.8	59.0	15.0	82	calm			0		8					gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.69	754.1	29.91	759.7	59.0	15.0	78	ese.			2		2					d. clouds	The Staff.
Fort Napier, Natal	27.67	702.8	29.89	759.2	75.1	23.9	59	se.			1		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.70	754.4	29.93	760.2	83.0	28.3	87	n.			1		2					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.85	758.2	63	17.2	57	n.			2		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.97	761.2	30.02	762.5	82.0	27.8	76	w.			3		5					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.89	759.2	30.10	764.5	55.3	12.9	80	ene.			4		10					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.73	755.1	29.90	759.4	56.4	13.6	80	wsw.			1		10					misty	The Staff.
Guernsey	29.65	753.1	29.87	758.7	61.5	16.4	63	ese.			1		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.88	758.9	25.92	760.0	58.7	14.8	73	nw.	3	1.3			9					threatening	The Staff.
Leicester, Museum	29.65	753.1	29.90	759.4	59.0	15.0	80	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.88	758.9	29.96	761.0	79.6	26.4	59	nw.			2		2					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.90	759.4	29.94	760.5	85.0	29.4	75	ne.			2		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.61	752.1	29.92	760.0	56.4	13.6	80	nw.			2		10					misty	The Staff.
Plymouth	29.83	757.7	29.90	759.4	61.2	16.2	75	s.			1		8					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.19	766.8	52.4	11.3	83	ne.	6	2.7			8					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.62	752.3	29.68	753.9	85.4	29.7	49	sw.			2		1					blue sky	Serg't W. H. Lyne.
Sheffield	29.66	753.4	29.94	760.5	60.8	16.0	78	ne.			1		10			0.08	2.0	squally	W. F. Cooper.
Silloth Rectory	29.94	760.5	29.97	761.2	58.9	14.9	80	e.			4		7			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.95	760.7	56.8	13.8	87	ene.	6	2.7			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss					57.7	14.3	81	nw.			1		10					foggy	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.86	758.4	29.88	758.9	69	20.6	60	e.			6		5					d. clouds	W. Newcombe.
Valencia, Observatory	29.83	757.7	29.85	758.2	61.5	16.4	61	ese.	14	6.3			10					gloomy	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.11	764.8	30.15	765.8	59	15.0	90	e.	4	1.8			10 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.10	764.5	30.16	766.1	54	12.2	96	se.	3	1.3			fg.			0	0	light fog	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.09	764.3	30.11	764.8	60	15.6	84	ne.	5	2.2		5 cs	2 s	s.		0	0	cloudy	J. McWilliams.
Fort Garry, Manitoba*	28.69	728.7	29.49	749.0	55	12.8	100	se.	2	0.9		2 k	2 ks	w.	se.	0.160	4.1	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.00	762.0	30.12	765.0	56	13.3	96	n.	4	1.8			10 n		e.	0.114	2.9	light rain	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.60	751.8	29.92	760.0	70	21.1	87	s.	6	2.7			10 s			0	0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.75	755.6	29.95	760.7	62	16.7	97	se.	11	4 9			10 n		sw.	0.29	7.4	thnd'r str'm	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.27	743.4	29.95	760.7	62	16.7	93	calm	0	0			sk.			0	0	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.28	743.7	29.96	761.0	62	16.7	95	n.	4	1.8		8 k	0	sw.		inap.	inap.	fair	H. Morgan.
Port Stanley, Ontario	29.32	744.7	29.95	760.7	60	15.6	100	ne.	1	0.4			sk.			0	0	smoky	M. Payne.
Quebec, Quebec*	29.72	754.9	30.03	762.7	60	15.6	87	e.			1		10 n		e.			light rain	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.49	749.0	29.93	760.2	62	16.7	90	n.	2	0.9		0	sk.			0.09	2.3	light smoke.	W. H. McIntyre.
Saugeen, Ontario*	29.28	743.7	29.98	761.5	60	15.6	96	se.	5	2.2			sk.			0	0	smoky	K. Stewart.
St. Andrews, N. B.	30.09	764.3	30.14	765.5	55	12.8	93	n.	3	1.3		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.12	765.0	30.17	766.3	57	13.9	06	ne.	8	3.6			10 n			inap.	inap.	light rain	T. C. Hill, C. E.
Toronto, Ontario*	29.61	752.1	29.99	761.7	61	16.1	87	w.	5	2.2		0	0			0	0	clear	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.02	762.5	30.08	764.0	60	15.6	90	e.	5	2.2		5 ck	5 k	e.	e.	0.07	1.8	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.07	763.8	30.32	770.1	57	13.9	87	ne.	1	0.4		5 k	5 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	29.84	757.9	29.87	758.7	66.0	18.9	94	e.	7.0	3.1		0	0			0	0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.16	740.7			63.1	17.3	51	w.			2	0	1			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.86	758.5	29.89	759.1	77.4	25.2	98	ese.	6.3	2.8		8 ck	0	wsw.		0	0	almost cov'd	M. Marc Dechevrens, S. J.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.71	754.6	29.76	755.8	55.6	13.1	96	nne.	20	9			10					raining	Oversergent Fischer
Fanöe	29.84	758.0	29.86	758.5	56.7	13.7	94	ne.			4		10						Overloerer Lauridsen
Godthaab, Greenland	29.77	756.1	29.81	757.2	41.5	5.3	74	s.			4		10						S. Kleinschmidt.
Stykkisholm, Iceland	30.20	767.1	30.24	768.2	52.5	11.4	69	se.			2		5						A. O. Thorlacius.
Thorshavn,	30.24	768.1	30.28	769.0	50.5	10.3	71	ene.	11	5			10						Overloerer Bergh.
Vestervig	29.86	758.4	29.95	760.7	55.0	12.8	82	ne.			6		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.21	742.0	29.83	757.6	74.8	23.8	53	nnw.			2	0	kn			0	0		M. Labroue, Director.
Alençon Normal School	29.45	747.9	30.00	761.9	61.9	16.6	83	se.			3		k	n.	w.	0	0		M. Nicot, Director.
Arras, Engineer School	29.62	752.3	29.87	758.8	60.3	15.7	67	ne.			2		kn		e.				M. Klein, Commandant.
Avignon, Normal School	29.82	757.3	29.89	759.3	64.4	18	80	nnw.			1		8		nw.	0	0	very cloudy	M. Giraud, Director.
Bar-sur-Seine	29.35	745.4	29.89	759.3	63.9	17.7	67	ene.			1		8 kn		nnw.	0	0	very cloudy.	M. Saillard, Director.
Beauvais, Normal School	29.65	753.1	29.91	759.6	62.1	16.7	64	w.			1		8		n.	0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.99	736.3	29.86	758.4	65.5	18.6	94	s.			1		5		w.	0	0	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.64	752.9	29.89	759.3	71.6	22.0	54	wsw.			1		8		w.	0	0	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.34	745.2	29.88	758.9	69.8	21	51	e.			1		5		e.	0	0	cloudy .	M. Postel, Director.
Brest, Naval Observatory	29.71	754.5	29.95	760.7	70.9	21.6	69	ese.			1		2		e.	0	0		M. de Rermaree, Dir.
Caen, Normal School	29.84	758.0	29.92	759.9	65.8	18.8	66	nw.			1		5		nw.	0	0	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					64.4	18.0	64	wnw.			3		2		ssw.	0.024	0.6	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School.	29.37	745.9	29.87	758.7	64.0	17.8	53	sw.			1		8			0	0	¾ covered	M. Grinard, Director.
Clermont-Ferrand Obs'y	28.53	724.7	29.85	758.3	64.4	18.0	67	se.			1		8		w.	0	0	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.06	738.2	29.90	759.4	70.9	21.6	58	n.			2		2		nw.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.04	737 5	29.88	759.0	60.4	15.8	71	nw.			1		5	nw.	nw.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.39	695.7	29.90	759.4	58.3	14.6	80	ne.			1	2 ck	0	w.		0	0	¼ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	28.82	731.9	29.96	760.9	66.2	19	64	w.			1		10		sw.	0	0	covered	M. Kina, Director.
Grenoble, Normal School	29.14	740.1	29.90	759.4	59.7	15.4	87	wnw.			1		sn		sw.	0	0		M. Ablard, Director.
Guéret, Normal School	28.35	720.0	29.91	759.6	60.6	15.9	91	nnw.			1	2 c	0			0	0	slightly cl'dy	M. Rivoire, Director.
Lamballe, Normal School	29.85	758.3	30.13	765.2	59.0	15	50	ne.			1				ne.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.84	757.8	29.94	760.4	69.8	21.0	82	s.			1		2		calm	0	0	¼ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.88	733.6	29.93	760.3	57.2	14.0	91	se.			1		10			0.079	2.0	covered	M. André, Director.
Mans, Normal School	29.64	752.8	29.94	760.5	64.8	18.2	63	ne.			1		8		w.	0	0	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.61	752.0	29.87	758.7	66.2	19.0	72	w.			2		10		wnw.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.77	629.1	30.00	762.1	60.1	15.6	53	w.	5.6	2.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.77	756.1	29.89	759.3	59.7	15.4	58	sse.			1		2		ssw.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.15	740.4	29.89	759.2	60.8	16	89	nw.			1		10 n			0	0	misty	M. Hasse.
Nantes, Observatory	29.78	756.3	29.94	760.4	70.0	21.1	58	ne.			0–1		4 k	wsw.	wsw.	0	0		M. Larocque, Director.
Nice	29.80	756.8	29.83	757.6	70.9	21.6	69	e.			2		10	e.	e.	0	0	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.76	756.0	29.87	758.6	71.6	22.0	56	se.	5.6	2.5			4	w.	nw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.53	572.2			44.1	6.7							5		w.	0	0	cloudy	Gen'l de Nansouty Dir.
Privas, Normal School	28.81	731.8	29.83	757.6	75.2	24	67	s.			1		8	s.	s.	0	0	very cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.07	636.8			46.9	8.3	87	w.			3	0	8 k		w.	0.008	0.2	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	29.91	759.8	29.95	760.6	73.8	23.2	88	wsw.			1		8		sw.	0.094	2.4	¾ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.69	754.1	29.90	759.4	69.8	21.0	55	ne.			1		0			0	0	clear	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.84	758.0	29.93	760.2	63.0	17.2	72	ssw.			1		5			0	0	cloudy	M. Platrier, Director.
Saint Lô, Normal School	29.86	758.5	29.94	760.5	64.6	18.1	60	n.			1		2		n.	0	0	slightly cl'dy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.75	755.6	29.91	759.8	64.2	17.9	53	nw.			1		6		nnw.	0	0		M. Renou, Director.
Toulouse, Observatory	29.26	743.2	29.98	761.6	71.1	21.7	50	wnw.			3		10			0	0	covered	M Bailland, Director.
Tours	29.72	754.8	29.91	759.8	66.6	19.2	64	ne.			1		8		n.	0	0	¾ covered	M. de Tastes.
Versailles, Observatory	29.43	747.5	29.92	760.0	64.4	18.0	53	n.			1					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.63	752.7	29.93	760.1	61.7	16.5	61	wsw.			1		6		wnw.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.97	735.9	29.83	757.6	64.0	17.8	60	wnw.			3	0	6 k		nw.	0	0		Prof. Dr. Hoh.
Berlin	29.47	748.4	29.63	752.7	58.1	14.5	99	nw.			2		10			0.161	4.1		Prof. Dr. Arndt.
Breslau	29.06	738.2	29.59	751.5	56.8	13.8	100	w.			3		10			0.772	19.6	raining	Royal University Obs'y.
Carlsruhe	29.43	747.6	29.85	758.2	64.0	17.8	76	sw.			2		9	sw.		0	0	hazy	Albert Senz.
Cassel	29.09	738.9	29.81	757.1	59.0	15.0	80	nw.			1		7	n.		0.004	0.1		Dr. H. Möhl.
Frankfort on the Main	29.47	748.5	29.83	757.5	66.9	19.4	58	nw.			1		6			0.024	0.6		Physical Society.
Friedrichshafen	28.45	722.5	29.84	758.0	64.0	17.8	75	sw.			2		6	sw.		0	0		Wilhelm, Chief Tel.
Hamburg	29.70	754 4	29.80	756.8	56.8	13.8	96	ne.			3		10			0.193	4.9	rainy	E. Preller.
Kiel	29.79	756.7	29.81	757.1	58.1	14.5	84	nne.			5		10			0.043	1.1		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.32	744.8	29.74	755.3	56.8	13.8	98	wsw.			3		10	nw.		0.287	7.3	rain and fog	H. Leppig, Asst.
Magdeburg	29.54	750.2	29.72	754.9	57.0	13.9	98	nw.			2		10 n			0.260	6.6	raining	Dr. Assmann.
Memel	29.74	755.5	29.79	756.7	68.7	20.4	81	se.			4–5	0	6 k					thndr & light'g	Issermann.
Munich	28.06	712.7	29.91	759.8	61.7	16.5	68	w.			2		8	sw.		0.240	6.1		Central Station.
Neufahrwasser	29.61	752.2	29.63	752.6	67.6	19.8	60	ese.			4		8			0	0		A. Lothes.
Neustadt, Palatinate	29.25	743.0	29.78	756.3	66.2	19	62	wsw.			1		8			0	0		Dicknether.
Stuttgart	28.90	734.0	29.77	756.1	63.9	17.7	67	w.			1		10			0.008	0.2	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.36	720.3	29.82	757.4	60.3	15.7	68	nw.			2		9	w.		0.154	3.9		Fischer.
Wustrow	29.74	755.3	29.76	755.9	54.1	12.3	98	nne.			5		10			0.197	5.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.43	747.4	29.80	756.9	84.6	29.2		s.			2.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.59	751.6	29.64	752.8	83.3	28.5	79	wsw.	28.0	12.5			7		wsw.	0	0	misty	
Deesa	29.18	741.1	29.64	752.9	86.5	30.3	57	ssw.					2		sw.	0	0	d. clouds	
Bombay	29.76	756.0	29.80	757.0	81.1	27.3	83	w.	6.0	2.7			10		w.	0	0	overcast	
Poona, Yarrowda.	27.95	709.8	29.80	757.0	77.2	25.1	67	w.	17.0	7.6			4		w.	0	0	d. clouds	
Belgaum	27.29	693.0	29.85	758.2	69.8	21.0	92	w.	11.0	4.9			8	e.	sw.	0.11	2.8	showery	
Lahore	28.78	731.0	29.50	749.2	92.1	33.4	51	calm	1.4	0.6			0			0	0	blue sky	
Roorkee	28.66	727.9	29.54	750.2	87.8	31.0	71	w.	2.1	0.9			9			0	0		
Agra	29.05	737.9	29.61	752.0	86.2	30.1	60	w.	5.1	2.3			1			0	0		
Nagpur	28.64	727.4	29.67	753.5	86.2	30.1	61	wnw.	3.5	1.6			7	w.		0	0	d. clouds	
Jubbulpore	28.35	720.0	29.70	754.3	79.6	26.4	72	w.	3.7	1.6			8			0.02	0.5	overcast	
Lucknow	29.23	742.4	29.60	751.8	84.2	29.0	70	wsw.	6.8	3.0			6	se.		0	0	blue sky	
Allahabad	29.30	744.2	29.61	752.1	84.5	29.2	73	sw.	3.5	1.6			3	e.		0	0	d. clouds	
Patna	29.44	747.7	29.62	752.2	84.6	29.2	67	w.	2.1	0.9			8	w.	w.	0	0	d. clouds	
Hazaribagh	27.64	702.1	29.63	752.7	79.6	26.4	91	wnw.	9.5	4.2			9	w.	e.	0	0		
Cuttack	29.56	750.9	29.64	752.9	86.2	30.1	74	calm	0.3	0.1			8			0	0	d. clouds	
Calcutta, Alipore	29.59	751.5	29.61	752.0	83.5	28.6	80	wnw.	9.0	4.0			10		w.	0.09	2.3	overcast	
Dhubri	29.47	748.6	29.59	751.6	80.1	26.7	93	calm	0.3	0.1			8	w.	w.	0.02	0.5	d. clouds	
Chittagong	29.56	750.9	29.65	753.2	81.1	27.3	90	ssw.	4.1	1.8			9			0	0	d. clouds	
Sibsagar	29.29	744.0	29.62	752.4	82.5	28.1	89	e.	3.6	1.6			10	sw.	sw.	1.57	39.9	d. clouds	
Jeypore	28.21	716.5	29.63	752.5	85.9	29.9	46	wsw.	5.4	2.4			2		wsw.	0	0	d. clouds	
Zanzibar, Africa			29.99	761.7	85.0	29.4	41	sse.	4	1.8			1			0	0	blue sky	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.52	749.7	29.92	759.9	68.9	20.5	80	calm	0	0			9			0.039	1.0		Prof. Giovanni Clodig.
Milan	29.32	744.6	29.82	757.4	72.5	22.5	53	w.	5.6	2.5			6	sw.		0	0		Prof. Schiaparelli.
Padua	29.70	754.4	29.80	757.0	71.8	22.1	63	nnw.	3.8	1.7			5	ssw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	28.91	734.4	29.80	756.9	68.9	20.5	70	s.	3.1	1.4			8	ssw.		0	0		Prof. P. F. Denza.
Genoa	29.67	753.7	29.87	758.6	69.3	20.7	70	se.	8.7	3.9			10	se.		0	0		Prof. G. M. Garibaldi.
Mondovi	27.94	709.7	29.81	757.1	64.8	18.2	73	w.			2		8			0	0		Prof. D. C. Bruno.
Pesaro	29.79	756.6	29.84	757.8	73.9	23.3	59	w.	9.4	4.2			6	w.		0	0		Prof. Luigi Guidi.
Florence	29.62	752.3	29.87	758.6	73.4	23.0	62	w.			3		10	sw.		0	0		Prof. Costantino Pitter.
Leghorn	29.80	756.9	29.88	759.0	72.7	22.6	62	sw.	7.4	3.3			9			0.028	0.7		Prof. P. Monte.
Rome	29.74	755.5	29.91	759.8	74.5	23.6	49	sw.					7			0	0		Prof. P. S. Ferrari.
Lecce	29.66	753.4	29.91	759.7	80.2	26.8	50	ese.	8.1	3.6			7			0	0		Prof. C. de Giorgi.
Cosenza	29.07	738.3	29.92	759.9	72.5	22.5	63	se.	3.1	1.4			3	e.		0	0		Prof. D. Conti.
Cagliari	29.71	754.7	29.90	759.4	75.9	24.4	65	calm			0		7	nw.		0	0		Prof. A. Pacinotti.
Palermo	29.71	754.7	29.95	760.7	81.7	27.6	29	w.	5.6	2.2			0			0	0		Prof. G. Ciacciatore.
Syracuse	29.88	758.9	29.92	760.0	76.6	24.8	52	sw.	6.3	2.8			3	w.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.42	747.3	29.93	760.3	70.2	21.2	73	wsw.	5.6	2.2			10	w.		0.232	5.9		Prof. F. Brioschi.
Stelvio	22.13	562.0			44.1	6.7	64	se.			4	0	2 ks			0.205	5.2		Prof. P. F. Denza.
Valdobbia	22.14	562.4			43.7	6.5	81	s.			2		10 km	nw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.87	758.7	29.89	759.2	77.0	25.0	72	nne.	5.4	2.4		0	0			0	0	clear	K. Sasaki.
Kioto	29.75	755.6	29.92	759.9	75.1	23.9	60	ene.	4.8	2.1		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.77	756.1	29.97	761.2	76.5	24.7	81	sw.	0.4	0.2		0	0			0	0	clear	S. Takehayashi.
Niigata	29.90	759.4	29.94	760.5	76.8	24.9	80	e.	1.3	0.6		1 ck	0			0	0	clear	
Nobiru	29.91	759.7	29.93	760.2	74.4	23.6	87	nw.	2.5	1.1		0	0			0	0	clear	
Supporo	29.78	756.4	29.85	758.2	68.5	20.3	94	calm	0	0			2			0	0		
Tokei Obs'y, Yeddo	29.87	758.7	29.94	760.5	80.4	26.9	88	calm	0	0			10 s,ks		se.	0	0	cloudy	The Staff.
Wakayama	29.87	758.7	29.92	759.9	80.1	26.7	80	n.	0.4	0.2		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.94	760.5	30.13	765.3	75.0	23.9	57	w.	5.5	2.5		0	2		wsw.	0	0	fine	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.7	29.91	759.7	60.8	16.0	91	calm	0	0		3	6	e.	e.	0.555	14.1	very cloudy	Vicente Fernandez.
Leon	24.41	620.0	30.03	762.6	64.2	17.9	90	ne.			1	5 c	0	nw.		0.808	20.5	very cloudy	Prof. M. Leal.
Mazatlan	29.56	750.8	29.82	757.3	78.3	25.7	84	ene.	0.9	0.4		10 cs	0	se.		1.339	34.0	covered	F. Quijano, C. E.
Mexico, Central Obs'y	23.12	587.1	30.10	764.5	59.2	15.1	88	calm	0	0		1 c	7 kn		e.	0.016	0.4	cloudy	The Staff.
Morelia	24.06	611.1	30.11	764.8	56.1	13.4	75	nw.			3	3	0	s.		inap.	inap.	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.92	607.5	29.88	759.0	61.5	16.4	94	calm			0		10 n		se.	0.725	18.4	covered	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.8	30.17	766.3	54.5	12.5	68	calm	0	0		0	1		e.	0.150	3.8	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.55	572.7	30.10	764.5	57.2	14.0	84	se.	1.7	0.8		3 cs	0	se.		inap.	inap.	clear	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.87	758.8	29.87	758.8	63.7	17.6		wnw.			3					0	0		
Groningen	29.80	757.0	29.86	758.4	58.6	14.8		ne.			1					0.039	1.0		
Helder	29.86	758.5	29.86	758.5	58.8	14.9		ne.			1					0.240	6.1		
Hellevoetsluis	29.86	758.4	29.86	758.4	68.0	20.0	78	nw.			1					0.150	3.8		
Utrecht	29.82	757.3	29.86	758.5	64.2	17.9	69	nnw.			1		5			0.217	5.5	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
NORWEGIAN SERIES.																			
Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.03	762.7	30.09	764.3	62.2	16.8	48	wnw.	7.4	3.3			0			0	0		
Christiania	29.96	761.0	30.11	764.7	59.4	15.2	59	nne.	11	5			6			0.028	0.7		
Gjæsvær	30.30	769.7	30.33	770.3	42.4	5.8		wnw.			6		10						
Lodingen	30.29	769.4	30.34	770.6	49.8	9.9	69	n.			6		0			0	0		
PORTUGUESE SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.11	764.8	30.26	768.6	67.6	19.8	87	n.	6.3	2.8			5			0	0		Dr. J. A. Sampaio.
Campo Major	29.05	737.9	30.01	762.3	78.6	25.9	26	wnw.	9.8	4.4			10			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.15	765.9	30.24	768.1	75.7	24.3	73	ssw.	1.3	0.6			7			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.77	756.1	30.12	765.1	69.4	20.8	70	sw.	17.4	7.8			1			0.059	1.5		The Staff.
Ponta Delgada, Azores	30.23	767.8	30.30	769.6	81.7	27.6	72	ne.	6.3	2.8			10			0	0		
RUSSIAN SERIES.																			
Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.56	725.3	29.61	752.1	55.9	13.3	86	nne.	13	6			10 k						Capt. Lasarew.
Archangel	30.16	766.0	30.18	766.5	53.4	11.9	75	w.	13	6			10					light clouds	Capt. Sseliwerstow.
Astrakhan	29.98	761.6	29.90	759.5	87.3	30.7	31	ese.	4	2		0	3 k						Capt. Wisganow.
Barnaul ‡	28.93	734.7	29.41	746.9	61.7	16.5	81	s.	9	4			10					raining	Meteorological Obs'y.
Dorpat	29.85	758.1	30.08	764.1	66.2	19.0	68	ene.	9	4		8 ck	0						Observatory.
Ekaterinburg	28.87	733.3	29.82	757.3	55.9	13.3	46	wnw.	18	8		9 c;ck	0					solar halo	Meteorological Obs'y.
Kasan	29.77	756.2	30.04	762.9	66.6	19.2	38	nne.	7	3		0	0						Observatory.
Kertch	29.07	753.6	29.69	754.1	82.6	28.1	57	se.	7	3		0	0			0	0		Lagorio & Sastyrez.
Kieff	29.10	739.2	29.69	754.2	82.4	28.0	27	e.	11	5		c;cs	9 ks						Observatory.
Lugan	29.66	753.3	29.85	758.2	89.6	32.0	30	s.	13	6			4						Meteorological Obs'y.
Moscow	29.60	751.9	30.00	763.5	66.7	19.3	65	ssw.	4	2		0	3 ks						Meteorological Obs'y.
Nikolaiev	29.61	752.1	29.68	753.9	90.5	32.5	34	ese.	31	14		0	3 kn						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.58	751.3	29.67	753.5	64.2	17.9	92	e.			2		10 n			0	0	h'vy clouds.	Lieut. Iwanow.
Pekin, China	29.75	755.6	29.89	759.2	68.9	20.5	89	calm	0	0		0	0			0.630	16.0		Physical Observatory.
St. Petersburg	30.18	766.5	30.19	766.9	63.7	17.6	73	ene.	7	3		cs	3 ks;k						Central Physical Obs'y.
Tashkend, Laboratory	28.32	719.3	29.83	757.7	71.6	22.0	65	calm	0	0			3						Teich, A. M.
Tiflis	28.50	723.8	29.83	757.6	84.4	29.1	38	se.	13	6		0	4 k						Physical Observatory.
Warsaw	29.22	742.3	29.63	752.6	65.3	18.5	63	sse.	22	10		0	8 ks						Astronomical Obs'y.
Wilna	29.45	747.9	29.85	758.2	73.2	22.9	66	ese.	2	1			8						Berg, Assistant.
Yeniseisk	29.29	743.9	29.57	751.0	51.4	10.8	80	w.	2	1			10					raining	M. O. Marks.
SCOTTISH SERIES.																			
Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.08	764.0	53.5	11.9	97	e.			4		10 s			0.02	0.5	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			30.12	765.0	58	14.4	94	e.			4	0	0			0	0	clear	J. Youngclause
North Unst, Shetland Isl'ds			30.18	766.6				n.			1		7						Robert Burnet.
SPANISH SERIES.																			
Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.72	754.8	29.82	757.5	73.8	23.2	67	ene.	0.7	0.3		c	0			0	0	clear	Antonio Rave, Directon
Bilbao, Met. Obs'y	29.95	760.7	30.01	762.1	71.1	21.7	56	n.	1.1	0.5		3	2	n.		0	0	cloudy	Prof. Manuel de Navera.
Burgos, Met. Obs'y	27.00	687.3			69.4	20.8	70	sw.	4.9	2.2			0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.76	705.2	29.89	759.3	78.4	25.8	23	w.	12.1	5.4		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	29.72	755.0	29.87	758.6	95.0	35.0	31	ese.	3.1	1.4		0	0			0	0	clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.01	736.9	29.89	759.3	63.5	17.5	83	s.	18.6	8.3			10					sprinkling	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.86	758.5	29.93	760.1	79.6	26.4	87	se.	1.8	0.8		3 c	k	w.		0.020	0.5	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.84	757.8	29.89	759.1	82.6	28.1	95	se.	7.0	3.2			9 kn		w.	0.13	3.3	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.03	762.7	30.13	765.2	75.6	24.2	67	w.	11.0	4.9		0	7		w.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W.I	29.88	758.9	29.97	761.2	80.6	27.0	91	se.	0	0		2 k	3 k	e.	e.	0	0		E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.73	755.0	29.86	758.4	80.9	27.1	89	nw.	0	0		6 ck	0	sse.		0.04	1.0	cloudy	José L. Fastovra.
SWEDISH SERIES.																			
Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.31	769.9	30.35	770.9	59.0	15.0	62	n.			2		0			0	0		
Umea	30.26	768.5	30.31	769.8	59.4	15.2	62	se.			4		0			0	0		
Hernosand	30.28	769.2	30.34	770.5	55.6	13.1	76	ene.			4		2			0	0		
Stockholm	29.86	758.4	30.04	762.9	53.6	12.0	98	e.			6		10			0.063	1.6	raining	
Wisby	29.81	757.2	29.87	758.7	62.6	17.0	84	e.			6		7			0.004	0.1		
Sub-Series.																			
Upsala	30.00	761.9	30.08	764.1	57.7	14.3	64	nne.	12.5	5.6			10		ne.	0.232	5.9	raining	S. G. Fineman.
SWISS SERIES.																			
Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.50	724.0	29.91	759.6	63.3	17.4	65	s.			1		9			0	0	covered	The Observatory.
Zurich ‡	28.27	718.0	29.87	758.7	64.4	18.0	66	w.			2		2			0	0	clear	The Observatory.
TURKISH SERIES.																			
Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.69	754.0	84.2	29.0	46	sw.	8	3.5			1		sw.	0	0		The Observatory.
Valona			30.02	762.4	73.8	23.2		nw.			1		2			0.32	8.	slightly cld'y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.75	755.7	90.1	32.3	56	sw.			3	0	1 k		sw.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.00	762.0	30.08	764.0	68	20.0	70	se.	6	2.7			10 s			0	0	cloudy	
Alpena, Michigan	29.27	743.4	29.94	760.5	64.5	18.1	93	calm	0	0		10 cs	fg.			0	0	cloudy	
Atlanta, Georgia	28.86	733.0	30.04	763.0	74.2	23.4	74	ne.	7	3.1		0	0			0	0	clear	
Atlantic City, New Jersey	30.09	764.3	30.10	764.5	69	20.6	78	e.	8	3.6			10 s		calm	0	0	cloudy	
Augusta, Georgia	29.82	757.4	30.01	762.2	75.0	23.9	76	calm	0	0		0	0			inap	inap.	clear	
Baltimore, Maryland	30.03	762.7	30.08	764.0	73	22.8	84	s.	6	2.7			10s;fg		se.	0.08	2.0	threatening.	
Barnegat, New Jersey	30.07	763.8	30.09	764.3	67.2	19.6	84	e.	9	4.0			10 s		ne.	0	0	cloudy	
Bismarck, Dakota	27.77	705.3	29.60	751.8	60	15.6	93	n.	3	1.3			10 s		sw.	0.02	0.5	cloudy	
Boise City, Idaho	27.09	688.1	29.93	760.2	55.0	12.8	69	nw.	4	1.8			10 s		w.	inap.	inap.	cloudy	
Boston, Massachusetts	29.97	761.2	30.13	765.3	60.2	15.7	86	ne.	8	3.6		0	9 ks		ne.	0.05	1.3	clearing	
Brackettville, Texas	28.73	729.7	29.73	755.1	78	25.6	82	e.	8	3.6		0	5 s		se.	0	0	fair	
Brownsville, Texas	29.84	757.9	29.88	758.9	80	26.7	91	calm	0	0		hz.	3 ks		se.	0	0	dense haze	
Buffalo, New York	29.27	743.4	29.99	761.7	68.5	20.3	80	sw.	1	0.4		4 c	fg.			0	0	fair	
Burlington, Vermont	29.72	754.9	30.01	762.2	63.7	17.6	82	s.	13	5.8		2 ck	8 s	w.	s.	0.03	0.8	cloudy	
Cairo, Illinois	29.57	751.1	29.97	761.2	77.1	25.1	76	s.	5	2.2		0	hz			0	0	clear	
Campo, California	27.25	692.1	29.82	757.4	49	9.4	80	w.	2	0.9			8 s		w.	0	0	cloudy	
Camp Thomas, Arizona	27.03	686.5			74	23.3	55	ne.			1		9 ks			0	0	cloudy	
Cape Henry, Virginia	30.02	762.5	30.04	763.0	77	25.0	82	e.	10	4.5			10 s			0	0	cloudy	
Cape May, New Jersey	30.05	763.3	30.08	764.0	70	21.1	76	ne.	6	2.7			fg.			0	0	dense fog	
Castroville, Texas	29.13	739.9	29.80	756.9	81	27.2	74	s.	2	0.9			10 s			0	0	cloudy	
Cedar Keys, Florida	29.95	760.7	29.97	761.2	80	26.7	88	e.	8	3.6		0	0			0	0	clear	
Champaign, Illinois	29.08	738.6	29.84	757.9	69.0	20.6	90	s.	12	5.4		2 c	0	s.		0.80	20.3	clear	
Charleston, S. Carolina	29.95	760.7	30.01	762.2	82	27.8	82	s.	4	1.8		0	0			0	0	clear	
Charlotte, N. Carolina	29.17	740.9	30.05	763.3	73.8	23.2	55	ne.	5	2.2		2 c	hz.			0	0	clear	
Chattanooga, Tennessee	29.23	742.4	30.06	763.5	69.5	20.8	98	calm	0	0			fg.		calm	0.02	0.5	dense fog	
Cheyenne, Wyoming	23.86	606.0	29.82	757.4	62.3	16.8	23	sw.	6	2.7		1 cs	0	sw.		0	0	clear	
Chicago, Illinois	29.22	742.2	29.93	760.2	68.0	20.0	84	n.	10	4.5			10 n		sw.	0.22	5.6	light rain	
Chincoteague, Virginia	30.05	763.3	30.07	763.8	72	22.2	84	se.	11	4.9		0	sk.		calm	0	0	dense smoke.	
Cincinnati, Ohio	29.33	745.0	29.99	761.7	75	23.9	82	se.	2	0.9		10 cs	0			0	0	cloudy	
Cleveland, Ohio	29.25	742.9	29.99	761.7	68.3	20.2	79	se.	6	2.7		10 c	hz.	w.		0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.13	739.9	29.99	761.7	71	21.7	84	se.	1	0.4		0	9 s		w.	0	0	cloudy	
Concho, Texas	28.01	711.4	29.95	760.7	75	23.9	88	se.	8	3.6		0	8 s			0	0	cloudy	
Corsicana, Texas	29.52	749.8	29.99	761.7	77	25.0	76	s.	2	0.9		0	2 ks		s.	0	0	clear	
Davenport, Iowa	29.16	740.7	29.82	757.4	72	22.2	76	s.	8	3.6		5 k	3 ks	w.	w.	1.61	40.9	cloudy	
Dayton, Washington T'y	28.08	713.2	29.89	759.2	56.5	13.6	71	sw.	10	4.5		0	7 s		w.	0	0	fair	
Deadwood, Dakota	25.20	640.1	29.90	759.4	56	13.3	93	calm	0	0			fg.			0	0	light fog	
Decatur, Texas	28.70	729.0	29.80	756.9	78	25.6	65	se.	10	4.5		0	0			0	0	clear	
Delaware Breakwater, Del.	30.07	763.8	30.09	764.3	70	21.1	78	se.	14	6.3			10 s		se.	0	0	cloudy	
Denison, Texas	29.15	740.4	29.96	761.0	75	23.9	71	sw.	6	2.7		0	0			0	0	clear	
Denver, Colorado	24.58	624.3	29.80	756.9	65.2	18.4	75	se.	8	3.6		0	0			0	0	clear	
Des Moines, Iowa	28.78	731.0	29.70	754.4	73.5	23.1	71	sw.	8	3.6		0	4 k		w.	0.05	1.3	fair	
Detroit, Michigan	29.25	742.9	29.97	761.2	73.7	23.2	76	calm	0	0			10 s		calm	0	0	cloudy	
Dodge City, Kansas	27.22	691.4	29.81	757.2	73	22.8	53	s.	16	7.2		0	0			0	0	clear	
Dubuque, Iowa	29.04	737.6	29.76	755.9	69.7	20.9	76	se.	10	4.5			10 s		s.	0.22	5.6	cloudy	
Duluth, Minnesota	28.87	733.3	29.58	751.3	65	18.3	84	s.	6	2.7		0	9 s		sw.	0.40	10.2	cloudy	
Eagle Pass, Texas	29.11	739.4	29.94	760.5	78.0	25.6	88	se.	1	0.4		0	0			0	0	clear	
Eagle Rock, Idaho	25.14	638.5	29.99	761.7	54	12.2	39	sw.	20	8.9			10 s		sw.	0	0	cloudy	
Eastport, Maine	30.06	763.5	30.14	765.5	57	13.9	86	ne.	3	1.3		0	0			0	0	clear	
El Paso, Texas	26.10	662.9	29.85	758.2	68.4	20.2	70	w.	2	0.9		0	2 s			0	0	clear	
Erie, Pennsylvania	29.26	743.2	29.98	761.5	68	20.0	78	s.	7	3.1		hz.	0			0	0	clear	
Escanaba, Michigan	29.14	740.1	29.80	756.9	66	18.9	90	se.	5	2.2			10 s		calm	inap.	inap.	cloudy	
Florence, Arizona	28.25	717.5	29.85	758.2	79.1	26.2	74	calm	0	0		0	8 ks		ne.	0	0	cloudy	
Fort Apache, Arizona																			
Fort Assinnaboine, Montana	26.92	683.8	29.73	755.1	50	10.0	86	w.	6	2.7			10 n		w.	inap.	inap.	light rain	
Fort Bennett, Dakota	27.87	707.9	29.41	747.0	64	17.8	93	n.	3	1.3		1 k	0			0	0	clear	
Fort Benton, Montana	27.03	686.5	29.89	759.2	44	6.7	100	se.	4	1.8			10 n		se.	0.18	4.6	light rain	
Fort Buford, Dakota	27.66	702.6	29.68	753.9	52	11.1	80	nw.	8	3.6		8 cs	0	w.		0	0	cloudy	
Fort Custer, Montana	26.55	674.4	29.79	756.7	55	12.8	67	n.	3	1.3			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.17	639.3	30.13	765.3	64	17.8	60	sw.	4	1.8		0	0			0	0	clear	
Fort Elliott, Texas	27.13	689.1	30.32	770.1	71	21.7	59	se.	14	6.3		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.33	745.0	29.88	758.9	76.5	24.7	56	s.	4	1.8		0	0			0	0	clear	
Fort Grant, Arizona					67	19.4	68	s.	3	1.3		0	8 s		s.	0	0	cloudy	
Fort Griffin, Texas	28.61	726.7	29.81	757.2	78.0	25.6	58	se.	6	2.7		0	0			0	0	clear	
Fort Keogh, Montana	27.13	689.1	29.67	753.6	55	12.8	74	se.	9	4.0			10 s		se.	0	0	cloudy	
Fort Macon, North Carolina	30.04	763.0	30.05	763.3	79	26.1	91	s.	2	0.9		5 c;k	0	calm;s		0.02	0.5	fair	
Fort McKavett, Texas	27.59	700.8	29.40	746.7	72.9	22.7	81	e.	8	3.6		0	0			0	0	clear	
Fort Missoula, Montana	26.50	673.1	30.02	762.5	50	10.0	74	nw.	1	0.4			10 ks			0.01	0.3	cloudy	
Fort St. Michaels																			
Fort Shaw, Montana	26.17	664.7	29.77	756.1	46	7.8	93	nw.	4	1.8			10 s		calm	0.21	5.3	cloudy	
Fort Sill, Indian Territory	28.66	728.0	29.92	760.0	76.2	24.6	54	s.	3	1.3		0	0			0	0	clear	
Fort Stevenson, Dakota	27.75	704.8	29.62	752.3	56	13.3	93	sw.	4	1.8		0	2 s		sw.	0	0	clear	
Fort Verde, Arizona					68	20.0	90	se.			2		10 s		se.	0	0	cloudy	
Fredericksburg, Texas	28.21	716.5	29.70	754.4	75	23.9	88	calm	0	0		2 k	0	sw.		0	0	fair	
Galveston, Texas	29.93	760.2	29.97	761.2	81.7	27.6	75	s.	6	2.7		0	2 k		s.	0	0	clear	
Grand Haven, Michigan	29.24	742.7	29.91	759.7	71.0	21.7	87	sw.	12	5.4			10 s		sw.	0	0	threatening.	
Hatteras, North Carolina	30.01	762.2	30.03	762.7	78	25.6	88	s.	6	2.7		2 c	2 s			0.02	0.5	fair	
Helena, Montana	25.56	649.2	29.95	760.7	50	10.0	72	s.	4	1.8			10 s		calm	0.36	9.1	cloudy	
Henrietta, Texas	28.88	733.5	29.74	755.4	80	26.7	62	se.	12	5.4		0	0			0	0	clear	
Huron, Dakota	28.11	714.0	29.50	749.3	66	18.9	93	se.	7	3.1		0	1 s			0.02	0.5	clear	
Indianapolis, Indiana	29.16	740.7	29.96	761.0	72	22.2	84	s.	2	0.9			10s;ks		c;nw	0.13	3.3	cloudy	
Indianola, Texas	29.92	760.0	29.95	760.7	80.2	26.8	88	s.	6	2.7		0	2 ks		calm	inap.	inap.	clear	
Jacksboro, Texas	28.74	730.0	29.81	757.2	78	25.6	64	s.	9	4.0		0	2 s		calm	0	0	clear	
Jacksonville, Florida	29.95	760.7	29.99	761.7	78	25.6	82	e.	2	0.9		0	0			0	0	clear	
Keokuk, Iowa	29.15	740.4	29.81	757.2	72.4	22.7	84	se.	10	4.5		0	0			0.41	10.4	clear	
Key West, Florida	29.91	759.7	29.94	760.5	83.3	28.5	80	ne.	3	1.3		0	2 k;ks		ne.	0.89	22.6	clear	
Kittyhawk, North Carolina	30.03	762.7	30.05	763.3	76	24.4	85	se.	5	2.2		2 cs	4 ks			0.02	0.5	fair	
Knoxville, Tennessee	29.06	738.1	30.10	764.5	66.8	19.3	81	calm	0	0		0	c			0	0	clear	
La Crosse, Wisconsin	28.90	734.0	29.67	753.6	72	22.2	76	s.	20	8.9		0	0			0.17	4.3	clear	
La Mesilla, New Mexico	26.05	661.7	30.20	767.1	64.0	17.8	78	calm	0	0		6 ck	0	s.		0	0	fair	
Laredo, Texas																			
Leavenworth, Kansas	28.87	733.3	29.77	756.1	79	26.1	54	sw.	20	8.9		3 ck	0	sw.		0	0	fair	
Lewiston, Idaho	28.97	735.8	29.82	757.4	57	13.9	86	ne.	1	0.4			10 s		calm	0.04	1.0	cloudy	
Little Rock, Arkansas	29.62	752.3	29.94	760.5	76	24.4	76	s.	2	0.9		0	0			0	0	clear	
Los Angeles, California	29.48	748.8	29.86	758.4	58.0	14.4	80	se.	3	1.3		0	0			0	0	clear	
Louisville, Kentucky	29.37	746.0	29.94	760.5	74.5	23.6	76	se.	5	2.2		9 cs	0			0	0	cloudy	
Lynchburg, Virginia	29.37	746.0	30.06	763.5	74	23.3	82	nw.	1	0.4		0	0			0.52	13.2	clear	
Madison, Wisconsin	28.80	731.5	29.83	757.7	68	20.0	93	se.	23	10.3		2 ck	1 s	w.	w.	0.60	15.2	fair	
Marquette, Michigan	29.03	737.3	29.76	755.9	60	15.6	93	se.	8	3.6			10 s		se.	0.02	0.5	threatening.	
Mason, Texas	28.29	718.6	29.99	761.7	74	23.3	79	calm	0	0		0	0			0	0	clear	
Memphis, Tennessee	29.64	752.8	29.98	761.5	77	25.0	76	calm	0	0		hz.	hz.	calm	calm	0	0	dense haze	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.14	740.1	29.90	759.4	67	19.4	90	s.	11	4.9			10 n		sw.	0.26	6.6	light rain	
Mobile, Alabama	29.89	759.2	29.96	761.0	77.0	25.0	82	w.	4	1.8		0	hz			0	0	clear	
Montgomery, Alabama	29.77	756.1	30.00	762.0	75	23.9	85	ne.	1	0.4		hz.	0			0	0	clear	
Moorhead, Minnesota	28.51	724.1	29.52	749.8	66	18.9	93	ne.	10	4.5		0	3 s			1.16	29.5	fair	
Morgantown, W. Virginia	29.04	737.6	30.00	762.0	66.0	18.9	87	calm	0	0		0	9 s		nw.	0	0	cloudy	
Mt. Washington, N. H.	23.93	607.8	30.13	765.3	46.0	7.8	80	nw.	21	9.4		6 c	8 s	nw.	nw	0	0	fair	
Nashville, Tennessee	29.40	748.3	30.00	762.0	75.5	24.2	89	calm	0	0			fg			inap.	inap.	dense fog	
New Haven, Connecticut	29.98	761.5	30.09	764.3	64	17.8	84	ne.	5	2.2			10 s			0	0	cloudy	
New London, Connecticut	30.07	763.8	30.12	765.0	64	17.8	90	ne.	4	1.8		5 k	3 s	calm	calm	0	0	cloudy	
New Orleans, Louisiana	29.93	760.2	29.99	761.7	82.5	28.1	74	nw.	4	1.8		hz.	hz			0	0	dense haze.	
Newport, Rhode Island	30.05	763.3	30.10	764.5	62	16.7	90	n.	7	3.1			10 s		ne.	0	0	cloudy	
New River, N. Carolina					83	28.3	74	s.			1	3 cs	0			0	0	clear	
New Shoreham, Rhode I'd	30.08	764.0	30.10	764.5	62.0	16.7	78	ne.	20	8.9			10 s		se.	0	0	cloudy	
New York, New York	29.94	760.5	30.12	765.0	64.5	18.1	86	e.	6	2.7			10 s			0	0	cloudy	
Norfolk, Virginia	30.02	762.5	30.05	763.3	76	24.4	76	se.	3	1.3		0	4 s; hz			0	0	fair	
North Platte, Nebraska	26.72	678.7	29.66	753.4	63.5	17.5	73	sw.	6	2.7		0	0			0	0	clear	
Olympia, Washington T'y	29.77	756.1	29.81	757.2	57.0	13.9	86	s.	7	3.1			10 s		calm	0	0	cloudy	
Omaha, Nebraska	28.48	723.4	29.67	753.6	75.4	24.1	59	s.	11	4.9		0	7 s		sw.	0	0	cloudy	
Oswego, New York	29.04	752.8	29.97	761.2	67.1	19.5	90	s.	6	2.7		hz	sk			0	0	dense haze.	
Pensacola, Florida	29.93	760.2	29.96	761.0	76	24.4	82	nw.	5	2.2		0	0			0	0	clear	
Philadelphia, Pa	30.04	763.0	30.10	764.5	66	18.9	84	s.	5	2.2			10 s		s.	0.01	0.3	cloudy	
Phœnix, Arizona	28.58	725.9	30.30	769.6	72	22.2	97	e.	2	0.9		4 k	4 s	s.	s.	0.16	4.1	cloudy	
Pike's Peak, Colorado	17.87	453.9	30.08	764.0	35	1.7	66	sw.	35	15.6		0	0			0	0	clear	
Pioche, Nevada	23.91	607.3	29.93	760.2	54	12.2	38	calm	0	0		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.22	742.2	30.04	763.0	68.5	20.3	83	n.	1	0.4		1 c	0	w.		0	0	clear	
Port Eads, Louisiana	29.97	761.2	29.98	761.5	79.9	26.6	82	nw.	6	2.7		0	hz		calm	0	0	clear	
Port Huron, Michigan	29.26	743.2	29.95	760.7	66.1	18.9	93	se.	5	2.2		10 cs	fg.	calm	calm	inap.	inap.	cloudy	
Portland, Maine	30.08	764.0	30.13	765.3	60.5	15.8	87	ne.	5	2.2			10 s		nw.	0.18	4.6	cloudy	
Portland, Oregon	29.87	758.7	29.94	760.5	58.9	14.9	84	se.	4	1.8			10 s		sw.	inap.	inap.	cloudy	
Portsmouth, N. Carolina					80	26.7	79	sw.	6	2.7		0	2 ks		calm	0.04	1.0	clear	
Prescott, Arizona	24.62	625.3	29.81	757.2	63	17.2	75	s.	3	1.3			10 s		se.	0.20	5.1	cloudy	
Punta Rassa, Florida	29.92	760.0	29.93	760.2	79	26.1	82	ne.	6	2.7		0	0			0	0	clear	
Red Bluff, California	29.48	748.8	29.82	757.4	65.5	18.6	48	n.	11	4.9		0	0			0	0	clear	
Rio Grande City, Texas	29.70	754.4	29.91	759.7	77	25.0	90	se.	4	1.8		0	0			0	0	clear	
Rochester, New York	29.36	745.7	30.00	762.0	66	18.9	90	w.	6	2.7			fg			0	0	dense fog	
Roseburg, Oregon	29.50	749.3	30.08	764.0	58	14.4	90	calm	0	0			10 ks			0	0	cloudy	
Sacramento, California	29.72	754.9	29.80	756.9	53.5	11.9	86	sw.	4	1.8		0	0			0	0	clear	
St. Louis, Missouri	29.30	744.2	29.91	759.7	74.1	23.4	82	s.	7	3.1		4 cs	0	s.		0	0	fair	
St. Paul, Minnesota	28.74	730.0	29.62	752.3	69.1	20.6	90	e.	4	1.8		1 c	hz			0	0	clear	
Salt Lake City, Utah	25.43	645.9	29.76	755.9	60	15.6	32	ne.	2	0.9		6 k	0	sw.		0	0	fair	
San Antonio, Texas	29.24	742.7	29.94	760.5	77.6	25.3	88	s.	3	1.3		0	5 k		s.	0	0	fair	
San Diego, California	29.72	754.9	29.79	756.7	63.5	17.5	68	sw.	5	2.2			10 s		s.	0	0	cloudy	
Sandusky, Ohio	29.28	743.7	29.97	761.2	73	22.8	84	se.	8	3.6			10 s			0.02	0.5	cloudy	
Sandy Hook, New Jersey	30.09	764.3	30.12	765.0	67.0	19.4	84	se.	8	3.6			10 s		se.	0	0	cloudy	
San Francisco, California	29.78	756.4	29.84	757.9	55	12.8	86	w.	3	1.3		0	0			0	0	clear	
Santa Fé, New Mexico	23.13	587.5	29.93	760.2	62	16.7	65	se.	3	1.3		0	0			0	0	clear	
Savannah, Georgia	29.91	759.7	30.00	762.0	79.5	26.4	93	s.	1	0.4		0	fg			0	0	clear	
Shreveport, Louisiana	29.74	755.4	29.97	761.2	75	23.9	71	calm	0	0		0	0			0	0	clear	
Silver City, New Mexico	24.20	614.7	29.77	756.1	60	15.6	77	nw.	2	0.9		5 cs	2 s	calm	calm	0	0	fair	
Sitka, Alaska	30.03	762.7	30.10	764.5	55.1	12.8	81	s.	5	2.2		7 k	0	s.		0	0	fair	
Smithville, North Carolina	29.99	761.7	30.03	762.7	80	26.7	82	sw.	6	2.7		3 k	5 s			0	0	fair	
Spokane Falls, Wash. Ter.	27.75	704.8	29.77	756.1	47	8.3	86	nw.	4	1.8			10 s			0	0	cloudy	
Springfield, Illinois	29.22	742.2	29.91	759.7	70.2	21.2	90	se.	12	5.4		0	6 k; sk		se.	0.64	16.3	fair	
Springfield, Massachusetts	29.98	761.5	30.11	764.8	63.1	17.3	90	ne	4	1.8			10 s		ne.	0	0	cloudy	
Stockton, Texas	26.89	683.0	29.96	761.0	72.2	22.3	76	s.	10	4.5		0	0			0	0	clear	
St. Vincent, Minnesota	28.69	728.7	29.58	751.3	58	14.4	100	calm	0	0			fg.			0.37	9.4	dense fog	
Thatcher's Island, Mass	30.10	764.5	30.16	766.1	60.0	15.6	100	ne.	12	5.4			10 s		e.	1.42	36.1	cloudy	
Toledo, Ohio	29.25	742.9	29.95	760.7	70	21.1	93	w.	1	0.4			10 s; fg		w.	0.39	9.9	cloudy	
Tucson, Arizona	27.30	693.4	29.66	753.4	78	25.6	66	se.	6	2.7		0	6 ks			inap.	inap	cloudy	
Umatilla, Oregon	29.49	749.0	29.90	759.4	59.7	15.4	60	w.	10	4.5		4 cs	5 s	calm	w.	0	0	cloudy	
Uvalde, Texas	28.96	735.6	29.74	755.4	78	25.6	70	se.	2	0.9			1c ks		s.	0	0	cloudy	
Vicksburg, Mississippi	29.73	755.1	29.99	761.7	79	26.1	75	sw.	6	2.7		0	0			0	0	clear	
Visalia, California	29.38	746.2	29.75	755.6	53.5	11.9	74	nw.	2	0.9		0	0			0	0	clear	
Washington, D. C.	29.96	761.0	30.07	763.8	72.5	22.5	97	e.	6	2.7			10 s; fg			0	0	cloudy	
Wickenburg, Arizona					77	25.0	60	calm			0	0	8 s			inap.	inap.	cloudy	
Wilmington, N. Carolina	29.97	761.2	30.03	762.7	79	26.1	91	calm	0	0		5 k	0	nw.		inap.	inap.	fair	
Winnemucca, Nevada	25.53	648.5	29.86	758.4	39	3.9	46	sw.	6	2.7		0	0			0	0	clear	
Wood's Holl, Mass	30.06	763.5	30.10	764.5	61	16.1	93	ne.	8	3.6			10 s		ne.	0.25	6.3	cloudy	
Yankton, Dakota	28.23	717.0	29.54	750.3	68	20.0	84	calm	0	0		0	0			0	0	clear	
Yuma, Arizona	29.46	748.3	29.60	751.8	71.9	22.2	62	nw.	3	1.3		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I. ‡	29.98	761.5	30.00	762.0	84	28.9	87	ne.	3	1.3		5 ck	10 ks	calm		0	0		J. A. Racker.
Bogota, U. S. Columbia	22.06	560.3			53.5	11.9	82	calm	0	0			8 n		nw.	0.24	6.1	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.85	758.2	29.85	758.2	80	26.7	90	e.				0	5 ks		ese.	0	0		B. Bigar.
Havana, Cuba, W. I.	29.91	759.7	29.96	761.0	82	27.8	82	calm	0	0		4 cs	4 ks	calm	calm	0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.93	760.2	29.94	760.5	82.0	27.8	72	ese.	4	1.8		1 cs	0			0	0		Robert Johnstone.
Navassa, W. I.	29.83	757.7	29.91	759.7	84	28.9	75	e.	10	4.5		5 cs; k	5 kn	ne.	e.	0	0	cloudy	F. M. Everett.
Paramaribo, S. A.	30.04	763.0	30.05	763.3	79	26.1	87	se.			2	3 c	5 k	e.	e.	0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.51	749.5	30.07	763.8	73	22.8	100	calm			0		10 n		calm	1.55	39.4	raining	Francesco J. Cisneros.
Rivas, Nicaragua					74.5	23.6		sw.			1	7 ck	0	se.		0	0		Earl Flint.
Santiago de Cuba, W. I.	29.90	759.4	29.93	760.2	81	27.2	82	se.	4.8	2.1		2 c	4 ks		se.	0.06	1.5	fair	Robert Mason.
St. Thomas, W. I. ‡	29.89	759.2	30.01	762.2	82	27.8	83	ne.	5	2.2		0	4 ks			0	0	clear	G. O. Gyllich.
York Factory, B. A.	29.60	751.8	29.65	753.1	38.0	3.3	95	s.	10	4.5		0	1 s		sw.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, West Id., Torres Strait	29.95	760.7	76.8	24.9	81	ese.			3-4		3							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Port Mahon, Minorca, Spain	29.90	759.4	79	26.1	69	sse.			1		8	sse.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.71	754.6	84	28.9		sw.			2-4		4	ne.						squally	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 11° 25′, E. 43° 39′	29.69	754.1	91	32.8	76	se.			2		0					sm'h		blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 17° 00′, W. 61° 45′	29.98	761.5	82	27.8	87	ne.			1		4							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 4° 01′, E. 9° 53′	29.98	761.5	72	22.2	90	ese.			1-2		9	ese.				4	sse.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant, S. 17° 10′, E. 159° 00′	29.99	761.7	74	23.3		se.			2		3	se.				1	se.	d. clouds	Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 37° 47′, E. 20° 56′	29.85	758.2	80	26.7		wnw.			2		3	wsw.				1	wnw.	d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 34° 11′, E. 18° 28′	30.01	762.2	60	15.6		nw.			1-3		8	wnw.						squally	Capt C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.00	762.0	79.5	26.4	80	nnw.			1		1	nnw.						blue sky	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 50′, W. 55° 48′	30.24	768.1	52.5	11.4	86	calm			0		7	w.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.53	750.0	90	32.2		se.			1		2	se.				1	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.85	758.2	81.5	27.5		var.			2-4		10							thnd'r storm	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 38° 15′, W. 30° 50′	30.21	767.3	72	22.2		ene.			3		10	wnw.				3	nnw.	d. clouds	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 5° 20′, E. 41° 34′	29.98	761.5	78	25.6	82	se.			4		7	se.				2	se.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19′	29.91	759.7	74	23.3		ene.			3-4		2					3	ene.	squally	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Matsumæ, Yezo, Japan	29.87	758.7	75	23.9	81	nnw.			2		2					3	w.	d. clouds	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich I'ds	30.06	763.5	73	22.8	76	ne.			2-5		5	w.						showery	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argentine Rep	30.01	762.2	59	15.0	87	e.			6		10							squally	Capt. L. F. Jones
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, Levuka, Fiji Islands	30.04	763.0	76	24.4	86	se.			1		3	se.						d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 43° 09′ E. 136° 30′	29.85	758.2	71	21.7		sw.			3-4		5	sw.				3	sw.	d. clouds	Capt. R. E. Tracey.
H. M. S. Kingfisher																			Comm. R. H. Thornton.
H. M. S. Lapwing, Batavia, Java	29.77	756.1	82	27.8		ne.			2		0							blue sky	Comm. F. H. Haygorth.
H. M. S. Lark, N. 6° 27′, W. 19° 02′	30.08	764.0	83	28.3	74	sse.			3		4					2	ssw.	d. clouds	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.75	755.6	80.8	27.1	89	se.			1		6							d. clouds	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Susa, Tunis	29.94	760.5	80	26.7	91	var.			1		3	ese.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, S. 50° 04′, W. 66° 30′	30.15	765.8	40	4.4	73	sw.			6		2					6	sw.	d. clouds	Capt. F. Edwards.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, N. 46° 06′, W. 61° 37′	30.10	764.5	59	15.0	90	ne.			2		10							d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin, N. 49° 22′, W. 10° 32′	29.73	755.1	60	15.6		e.			6		10					6	e.	showery	Capt. A. C. Paget.
H. M. S. Phœnix, N. 47° 34′, W. 52° 41′	30.23	767.8	55	12.8	93	e.			1		4	e.				sm'h		d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready, N. 16° 46′, E. 96° 15′	29.76	755.9	79	26.1		sw.			2		6							misty	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Oriebar.
H. M. S. Ruby, S. 6° 24′, E. 39° 18′	30.07	763.8	79.3	26.3	78	se.			3		5							d. clouds	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 8° 56′, E. 40° 05′	29.61	752.1	78	25.6	86	sse.			2							2	ese.	blue sky	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	30.05	763.3	57	13.9	100	sse.			2		10	sse.						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.88	758.9	82	27.8		ene.			1		3							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.60	751.8	80.5	26.9	87	wsw.			4-5		3	sw.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo																			Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza																			Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega																			P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.02	762.5	78	25.6	82	nw.	2	0.9			0			0	0			clear	
N. Yard, Portsmouth, N. H.	30.10	764.5	63	17.2	72	ne.	5	2.2		10 c	0	ne.		0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.76	755.9	80	26.7	89	calm			0		2		se.	0	0			hazy	
Adams, N. 17° 43′, W. 103° 09′	29.68	753.9	80	26.7	91	nne.			1		8		calm			long	sw.	fair	
Alaska, Callao, Peru	29.96	761.0	60	15.6	100	sse.			1		10			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.79	756.7	83	28.3	87	calm			0		8		calm			sm'h		cloudy	
Alliance, N. 73° 20′, E. 18° 30′	30.34	770.6	38	3.3	100	wnw.			1		10			0	0	sm'h		cloudy	
Ashuelot, Kobe, Japan	29.91	759.7	84	28.9	68	calm			0		2		calm					clear	
Colorado, New York, N. Y.	30.04	763.0	67	19.4	84	ese.	1	0.4			10		calm	0	0			misty	
Constitution, New London, Conn.	30.04	763.0	62	16.7	94	ne.	5	2.2			8		ne.					fair	
Franklin, Norfolk, Va.	29.97	761.2	76	24.4	?	ene.	6	2.7			2		e.	0	0			fair	
Galena, Leghorn, Italy	29.87	758.7	71	21.7	71	sw.			1		8					sm'h		cloudy	
Independence, N. Yard, Mare I'd, Cal.	29.86	758.4	56	13.3	75	calm	0	0			0							clear	
Jamestown, Mare Isl'd, Cal *	29.84	757.9	58	14.4	100	calm			0		0			0	0			clear	
Kearsarge, New London, Conn.	30.10	764.5	63	17.2	89	n.			2		10		ne.			sm'h		cloudy	
Lackawanna, Mare Isl'd, Cal †	30.03	762.7	59	15.0	94	sw.			1		0							clear	
Lancaster, Portsmouth, N. H.	30.10	764.5	61	16.1	94	ne.	6	2.7			10			0	0			overcast	
Marion, [S. A.* Off Buenos Ayres, La Plata,	29.82	757.4	59	15.0		ene.			6		10		e.			mod	e.	cloudy.	
Michigan, Detroit, Mich.	29.88	758.9	69	20.6	95	w.			1		10		w.					cloudy	
Minnesota, Newport, R. I.	30.11	764.8	62	16.7	94	nne.			4		10		nne.			sm'h		overcast	
Monocacy, Yokohama, Japan	29.95	760.7	83	28.3	87	calm			0		5		calm					fair	
Nipsic, Villafranca, France	29.83	757.7	74	23.3	68	e.			1		10					sm'h		overcast	
Onward, Callao, Peru †	30.03	762.7	59	15.0	100	sse.			2		10		nw.			long	w.	misty	
Palos, Hong Kong, China	29.84	757.9	81	27.2	82	e.			1		8		se.					fair	
Passaic, Washington, D. C.	30.11	764.8	73	22.8	95	e.			2		10		e.					cloudy	
Pensacola, N. 7° 08′, W. 80° 06′	29.91	759.7	79	26.1	86	ne.			0–1		5?			c	0	sm'h		cloudy?	
Portsmouth, Portsmouth, N. H.	30.12	765.0	58	14.4	94	ne.			1		10					sm'h		overcast	
Powhatan, N. 35° 43′, W. 74° 53′	30.11	764.8	75	23.9	90	sw.			2		8		sw.			light	s.	cloudy	
Quinnebaug, Villafranca, France	29.83	757.7	72	22.2	71	se.			2		10					sm'h		overcast	
Ranger, Mare Island, Cal. *	29.79	756.7	58	14.4	94	ssw.			1		0					sm'h		clear	
Richmond, N. 17° 40′, W. 107° 34′	29.76	755.9	81	27.2	96	ssw.			6		8		sw.	3.56	90.4	mod.	ese.	squally	
Shenandoah, Maldonado, Uruguay *	30.14	765.5	56	13.3	94	ese.			3		8					sm'h		fair	
St. Louis, League Island, Pa.	29.82	757.4	70	21.1	80	se.	7	3.1			8		se.	0.04	1.0			cloudy	
Swatara, Chefoo, China †	29.88	758.9	77	25.0	86	sw.			1		5		sw.					fair	
Tennessee, New London, Conn.	30.13	765 3	64	17.8	100	nne.	7	3.1			8			0	0			cloudy	
Trenton, Villafranca, France *	29.82	757.4	74	23.3	72	calm			0		10			1 h'r	1 h'r			cloudy	
Vandalia, New London, Conn.	30.09	764.3	63	17.2	83	nne.			2		8		ne.					fair	
Wabash, Boston, Mass.	30.09	764.3	63	17.2	89	ne.	8	3.6			8		ne.	0	0			cloudy	
Wachusetts, Sitka, Alaska	30.06	763.5	58	14.4	82	wnw.			1		10		calm	light	light			cloudy	
Wyoming, Port Royal, S. C.	30.33	770.4	79	26.1	91	wsw.	5	2.2			8		wsw.					cloudy	
Yantic, New London, Conn. *	30.06	763.5	63	17.2	89	nne.			3		8							cloudy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 48° 23′ W. 69° —′ *†	30.22	767.6				calm	0		8		ese.			sm'h		fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	G. Gapon, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 40° 53′, W. 51° 02′	29.99	761.7	79	26.1	91	e.	3		2		e.			mod.	e.	clear	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng. †	29.85	758.2	59	15.0	76	nw.	3		8		nw.	0	0			cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Cape Henlopen, Del. *†	30.16	766.1	76	24.4	91	e.	2		10		e.			sm'h		cloudy	
S. S. Pennsylvania, Capt. G. H. Dodge, N. 47° 12′, W. 29° 01′ †	30.23	767.8	62	16.7	61	nne.	5		8		nne.			mod.	ene.	cloudy	C. Rodman, 3d Off.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, E. J. Moloney, N. 25° 02′, W. 36° 55′ ‡	30.22	767.6	80	26.7	74	n.	3		2							d. clouds	
S. S. Cipero, Capt. W. N. Lailey, N. 17° 25′, W. 43° 42′	30.10	764.5	80.2	26.8	82	ene.	3		4					2	e.	d. clouds	
Bk. Commewyne, Capt. W. Scott, N. 49° 21′, W. 18° 22′	29.67	753.6	58.7	14.8	76	wnw.	6		4							d. clouds	
Bk. Coppename, Capt. A. Buchan, N. 28° 09′, W. 51° 35′	30.16	766.1	83.5	28.6	71	s.	3		3							blue sky	
Bk. Haramara, Capt. R. Morton, N. 36° 54′, W. 152° 09′ ‡	30.47	773.9	60	15.6	100	ene.	5		6							squally	
Bg. Hermine, Capt. S. G. Jones, N. 28° 09′, W. 20° 13′	30.27	768.8	74.7	23.7	84	nne.	5		3							d. clouds	
Bkt. Hope, Capt. J. Campbell N. 19° 05′, W. 33° 00′ ‡	30.09	764.3	77.5	25.3	93	nne.	4		1							blue sky	
Island Belle, Capt. A. McBride, N. 12° 24′, W. 52° 23′	30.06	763.5	83	28.3		se.	3		4							d. clouds	
S. Lochee, Capt. J. Raeburn, S. 17° 32′, W. 33° 56′ ‡	30.32	770.1	75.4	24.1	68	ese.	6		4							misty	
Bk. Mertola. Capt. E. W. Turner,																	
Naiad, Capt. J. Smith, S. 43° 52′, W. 81° 44′	30.53	775.4	45.9	7.7	93	se.	5		7							drizzling	
S. Pielone, Capt. C. H. Renant, S. 24° 59′, W. 35° 25′	30.44	773.2	69.5	20.8	75	ene.	5		7							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow, N. 1° 51′, E. 83° 48′	29.90	759.4	81.5	27.5	83	nne.	2		4							d. clouds	
Sierra Estrella, Capt. P. Murdock,																	
Bk. Shun Lee, Capt. J. N. Gray, S. 6° 42′, W. 27° 00′ ‡	30.10	764.5	75.5	24.2	88	ese.	4		5						se;e	showery	
S. S. Strathleven, Capt. C. W. Pearson, Hong Kong, China	29.84	757.9	83.5	28.6	87	ne.	3		6							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers																	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Galia, Capt. W. H. P. Hains Queenstown, Ireland	30.02	762.5	58	14.4		ene.	5		5		ne.	0	0			fine	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
S. S. Hermann, Capt. H. Baur,																	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst, N. 47° 42′, W. 30° 00′	30.28	769.1	57.0	13.9	75	nw.	6		8		nw.	0	0	r'gh	nnw.	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer																	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 39° 36′, W. 66° 12′	29.96	761.0				n.	2		2		n.	0	0	mod.	ene.	clear	Englehart & von [Goesset.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 41° 29′, E. 177° 58 †	29.95	760.7	68	20.0	90	s.	5		10		s.	rain	rain	mod.	s.	overcast	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 48° 22′, W 167° 51′ *†	30.32	770.1	58	14.4	88	ene.	2		10					mod.	se.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 28° 58′, E. 129° 16′	30.00	762.0	82	27.8	87	e.	3		10		e.	0	0	sli't	sse.	fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	C. W. Pohl, 1st Officer.
S. S. Oregon, Capt. Pollmann N. 39° 59′, W. 124° 07′ †	29.98	761.5	55	12.8	93	nnw.	6		2		nnw.			r'gh	nw.	clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.				Character.	Direction.		
								Up'er	Lo'er	Upper.	Lower.						
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancom, Capt. J. N. Ingalls, San Francisco, Cal.....†	29.80	756.9	53	11.7	86	sw.	1	.....	1	.....	w.	.....	.....	.....	.....	fair.....	J. N. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound, Washington Territory..†	29.85	758.2	57	13.9	75	calm	0	.....	0	.....	.....	0	0	sm'h	nnw.	clear.....	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal.....†	29.84	757.9	55	12.8	87	sw.	2	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orazaba, Capt. Z. B. Johnson, N. 33° 38′, W. 118° 10′.....†	29.72	754.9	68	20.0	79	sw.	6	.....	8	.....	sw.	.....	.....	long	sw.	cloudy.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 36° —′, W. 120° 37′.....†	29.85	758.2	53	11.7	93	wnw.	3	.....	0	.....	.....	.....	.....	mod.	w.	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal.....†	29.83	757.7	51	10.6	93	calm	0	.....	2	.....	.....	0	0	.....	.....	fair.....	G. Debney.
S. S. Victoria, H. M. Hayward, N. 43° 09′, W. 124° 46′.....†	30.10	764.5	59	15.0	100	sw.	2	.....	10	.....	sw.	.....	.....	small	sw.	drizzling.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J Bulloy, Supt. New York.*																	
S. S. Australia, Capt. ——, Sydney, N. S. W.....	30.06	763.5	55	12.8	80	wsw.	1	.....	5?	.....	wsw.	.....	.....	.....	.....	clear?.....	U. Bannermann, 2d Offi.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†	29.87	758.7	62	16.7	77	calm	0	.....	0	.....	.....	0	0	.....	.....	clear.....	W. H. Hawes, 2d Offi.
S. S. City of Panama, Capt. D. S. Austin, N. 11° 34′, W. 87° 04′.....†	29.96	761.0	85	29.4	49	sse.	1	.....	10 n	.....	se.	10 h'r	10 h'r	long	s.	raining.....	W. H. T. Titus. Thos. Martensen.
S. S. City of Peking, Capt. G. G. Barry...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama.....†	29.93	760.2	84	28.9	91	n.	2	.....	2	.....	n.	1 h'r	1 h'r	sm'h	s.	fine.....	.....
S. S. City of Sydney, Capt. H. C. Dearborn, † N. 33° 42′, W. 133° 11′.....	30.27	768.8	66	18.9	68	n.	4	.....	10	.....	nne.	0	0	mod.	ne.	cloudy.....	E. L. Saik. A. L. Ritchie, 2d Offi.
S. S. City of Tokio, Com. J. Maury.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Colima, R. R. Searle, San Jose, Guatemala.....†	29.91	759.7	79	26.1	95	nnw.	2	.....	6	.....	ne.	0.05	1.3	mod.	sw.	gloomy.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 35° 22′, W. 121° 40.....†	29.82	757.4	59	15.0	100	nw.	7	.....	10	.....	nw.	0	0	h'vy	nw.	cloudy.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, N. 22° 04′, W. 156° 07′.....	30.15	765.8	75	23.9	77	ne.	4	.....	8?	.....	ne.	.....	.....	mod.	ne.	clear?.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 42° 34′, W. 45° 53′.....†	30.10	764.5	76	24.4	86	s.	1	.....	8	.....	w.	0	0	sm h	.....	gloomy.....	A. Feddersen, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, N. 47° 56′, W. 26° 54′.....†	30.30	769.6	58	14.4	70	nw.	6	.....	5	.....	nnw.	0.05	1.3	long	nnw.	fair.....	C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 40° 30′, W. 68° 33′.....†	30.10	764.5	63	17.2	.....	n.	4	.....	fg	.....	.....	0	0	sm'h	.....	foggy.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 51° 10′, W. 13° 20′.....†	29.64	752.8	60	15.6	?	se.	6	.....	10	.....	se.	13 hrs	h'vy	mod.	se.	cloudy.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 51° 11′, W. 24° 50′.....†	29.94	760.5	58	14.4	82	wnw.	7	.....	8	.....	wnw.	h'vy	h'vy	conf	se; nw.	raining.....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass.....†	30.06	763.5	61	16.1	100	ne.	4	.....	10 n	.....	.....	0.05	1.3	.....	.....	cloudy.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols, Kaigani Strait, Alaska.....*†	30.03	762.7	56	13.3	.....	w.	2	.....	0	.....	.....	.....	.....	.....	.....	blue sky.....	.....
S. Iron Cross, Capt. Randall, S. 21° 32′, W. 0° 30′.....*..	30.16	766.1	65.4	18.6	100	se.	4	.....	6	.....	sse.	0	0	mod.	s.	d. clouds.....	W. Randall. E. Fry.
S. Pawshick, Capt. E. Fry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, N. 39° 14′, W. 13° 19′.....†	30.12	765.0	70	21.1	70	sw.	6	.....	8	.....	wnw.	0	0	mod.	nw.	cloudy.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer. U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 5, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours		Weather	Observers.
												Up'er	Lo'er	Upper.	Lower				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.86	758.5	83.1	28.4	66	w.			3		1			0	0	very fair	Raynard.
Algiers ‡			29.88	758.9	82.0	27.8	71	w.			5		0			0	0	clear	Nicolas.
La Calle ‡			29.91	759.6	88.2	31.2	63	ese.			1		1			0	0	very fair	Fonfréde.
Tunis ‡			29.97	761.1															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.91	759.8	85.1	29.5	27	n.			1		0			0	0	clear	Dumas.
Tebessa ‡			29.94	760.4	92.1	33.4	10	nnw.			4		2			0	0	fair	Derché.
Geriville ‡					92.1	33.4	10	nw.			2		0			inap.	inap.	clear	Lonchamp.
Laghouat ‡			29.96	760.9	93.9	34.4	13	sw.			2		2			0	0	fair	Herbin.
Biskra ‡			29.95	760.6	99.0	37.2	17	nnw.			2		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.18	766.6	30.27	768.8	41.1	5.1	80	nw.	5	2.2			2			0.12	3.0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.30	744.1	29.83	757.6	69.8	21.0	67	s.			2		6			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.09	738.9	29.84	757.9	64.8	18.2	71	sw.	3.1	1.4			10			0	0		Dr. Wiersbicki.
Eperies	28.92	734.5	29.77	756.1	66.2	19.0	57	n.			2	c	9 ks			0	0		Julius Mikolik.
Gratz ‡	28.63	727.3	29.84	758.0	66.9	19.4	84	wsw.			1		10			0.083	2.1		Andreas Rospini.
Hermannstadt	28.39	721.1	29.77	756.1	68.5	20.3	55	nw.			3		5			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.47	723.0	29.77	756.2	63.7	17.6	84	e.			1		2			0	0	clear	The Staff.
Lemberg	28.74	730.0	29.71	754.5	59.7	15.4	85	nw.			2		10			0.969	24.6		Dr. T. Stanecki.
Pola	29.74	755.5	29.85	758.2	75.0	23.9	75	s.			1		7			0	0		I. R. Hydrographic Office.
Szathmar	29.34	745.3	29.80	756.8	64.4	18.0	76	w.			2		3			0	0		Beicht Peter, S. J.
Szegedin	29.54	750.3	29.81	757.2	69.4	20.8	70	calm			0		6			0	0		Karl Stancel.
Trieste	29.79	756.6	29.89	759.2	63.9	17.7	95	calm			0		10			0.102	2.6	raining	Secco.
Vienna	29.15	740.5	29.85	758.2	65.5	18.6	62	se.			1		0			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Aberdeen	29.80	756.9	29.90	759.4	55.0	12.8	68	nnw.	15	6.7			6			0.175	4.4	d. clouds	W. Boswell.
Armagh, Observatory	29.59	751.6	29.82	757.4	54.7	12.6	86	ne.	8	3.6			10					gloomy	S. Call.
Bidston, Liverpool Obs'y			29.77	756.1	58.1	14.5	66	e.	19	8.5			10					overcast	John Hartnup.
Bolton, Sharples	29.23	742.4	29.76	755.9	57.3	14.1	70	e.	6	2.7			9					overcast	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.36	745.7	29.75	755.6	58.6	14.8	65	ne.			2		10			0.03	0.8	overcast	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.71	754.6	60.0	15.6	79	e.			0.6		10					overcast	John McLaren.
Chatham, School M. E.	29.62	752.3	29.75	755.6	61.3	26.3	83	ne.			1		8					gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.32	744.7	29.54	750.3	56.7	13.7	93	ese.			6		10					raining	The Staff.
Fort Napier, Natal	27.47	697.7	29.69	754.1	70.0	21.1	63	se.			1		10					raining	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.75	755.6	29.98	761.5	82.0	27.8	87	w.			1		3					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.59	751.6	55	12.8	68	e.			3		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.95	760.7	30.00	762.0	80.6	27.0	76	w.			2		4					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.67	753.6	29.87	758.7	57.1	13.9	69	ene.			2		10					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.55	750.6	29.72	754.9	60.1	15.6	78	ene.			1		9					overcast	The Staff.
Guernsey	29.33	745.0	29.55	750.6	59	15.0	81	ese.			3		10					raining	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.68	753.9	29.72	754.9	59.5	15.3	73	ene.	12	5.4			10					misty	The Staff.
Leicester, Museum	29.50	749.3	29.75	755.6	59.3	15.2	69	ne.			2		10					overcast	J. C. Smith.
Malta, Mediterranean	29.78	756.4	29.86	758.4	83.4	28.6	69	s.			3		0					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.99	761.7	30.04	763.0	87.5	30.8	73	e.			1		7					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.49	749.0	29.72	754.9	57.2	14.0	77	e.			2		10					threatening	The Staff.
Plymouth	29.48	748.8	29.55	750.6	56.8	13.8	89	e.			3		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			29.94	760.5	53.2	11.5	81	ne.	17	7.6			3					d. clouds	Rev. C. Clouston, L.L.D
Scutari Cemetery, Turkey	29.71	754.6	29.78	756.4	83.0	28.3	53	sw.			2		4					d. clouds	Serg't W. H. Lyne.
Sheffield	29.51	749.5	29.79	756.7	60.2	15.7	70	ne.			2		9			0.11	2.8	overcast	W. F. Cooper.
Silloth Rectory	29.78	756.4	29.81	757.2	59.0	15.0	68	e.			2		8			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.80	756.9	59.0	15.0	64	ene.	15	6.7			7					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss					57.4	14.1	87	ne.			3		9					d. clouds	Rev. C. H. Griffiths, F.M.S
Truro, Royal Institution	29.48	748.8	29.49	749.0	56	13.3	93	se.			7		10					raining	W. Newcombe.
Valencia, Observatory	29.58	751.3	29.60	751.8	58.2	14.6	76	ene.	31	13.9			10					gloomy	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.16	766.1	30.20	767.1	58	14.4	94	calm	0	0			10 n			0.13	3.3	threatening	H. J. Cundall, C. E.
Chatham, N. B.*	30.19	766.8	30.25	768.3	56	13.3	93	calm	0	0		2 k	8 ks	n.	n.	0	0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.09	764.3	30.12	765.0	60	15.6	84	s.	12	5.4		5 k	5 s	s.	s.	0.09	2.3	cloudy	J. McWilliams.
Fort Garry, Manitoba*	28.99	730.3	29.99	761.7	46	7.8	93	nw.	3	1.3			10 n			0.020	0.5	light rain	James Stewart.
Fredericton, N. B.																			Prof. Harrison
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.07	763.8	30.20	767.1	59	15.0	90	n.	4	1.8		8 k	2 ks	n.		0.066	1.7	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.62	752.3	29.93	760.2	74	23.3	84	s.	8	3.6		8 k	0	s.		0.03	0.8	fair	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.80	756.9	30.00	762.0	66	18.9	97	s.	10	4.5			10 s		s.	0.23	5.8	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.18	741.2	29.84	757.9	72	22.2	81	s.	8	3.6		2 k	hz.	sw.		0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.31	744.5	29.97	761.2	74	23.3	95	s.	9	4.0		5 ck	0	sw.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.34	745.2	29.95	760.7	73	22.8	93	sw.	5	2 2		2 ck	0	sw.		inap.	inap.	clear	M. Payne.
Quebec, Quebec*	29.76	755.9	30.08	764.0	61	16.1	87	e.			3		10 n		e	0.13	3.3	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.46	748.3	29.90	759.4	65	18.3	93	e.	5	2.2			sk.			0.05	1.3	dense smoke	W. H. McIntyre.
Saugeen, Ontario*	29.16	740.7	29.83	757.7	78	25.6	67	s.	24	10.7			sk.			0	0	smoky	K. Stewart.
St. Andrews, N. B.	30.15	765.8	30.20	767.1	55	12.8	96	se.	4	1.8			fg.			0	0	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.13	765.3	30.18	766.6	58	14.4	90	ne.	8	3.6			10 n		ne.	0.44	11.2	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.57	751.1	29.94	760.5	73	22.8	81	sw.	7	3.1		5 cs	2 k	w.	sw.	0	0		Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.15	765.8	30.21	767.3	54	12.2	96	nw.	2	0.9		10 k	fg.	w.		0	0	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.06	763.5	30.31	769.9	52	11.1	100	se.					10 n			0.10	2.5	raining	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Cape St. Francis Lt. House†	29.73	755.1	29.76	755.9	62.0	16.7	82	sw.	15.8	7.1		0	1 k			0.020	0.5	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.08	738.6			57.7	14.3	56	nnw.			6	4	4			0	0	cloudy	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.87	758.6	29.89	759.3	78.3	25.7	97	e.	2.7	1.2		8 ck	0	wsw.		0.012	0.3	almost cov'd	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.60	751.9	29.65	753.1	57.6	14.2	96	sse.	22	10			10						Oversergent Fischer
Fanöe	29.52	749.8	29.54	750.3	59.2	15.1	90	e.			2		9						Overloerer Lauridsen
Godthaab, Greenland	30.02	762.5	30.06	763.6	37.8	3.2	95	s.			7		10					raining	S. Kleinschmidt.
Stykkisholm, Iceland	30.22	767.5	30.26	768.6	53.6	12.0	84	calm			0		8						A. O. Thorlacius.
Thorshavn	30.04	762.9	30.07	763.8	50.9	10.5	84	ne.	13	6			10						Overloerer Bergh.
Vestervig	29.48	748.8	29.57	751.1	58.6	14.8	98	ne.			6		10					rain and fog.	Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.18	741.2	29.80	756.9	72.7	22.6	66	nw.			1		8			0.024	0.6	raining	M. Labroue, Director.
Alençon Normal School	29.14	740.1	29.69	754.1	59.0	15	89	se.			3		n	n.	s.	0.031	0.8		M. Nicot, Director.
Arras, Engineer School	29.46	748.2	29.71	754.5	63.7	17.6	55	s.				0	k		sw.				M. Klein, Commandant.
Avignon, Normal School	29.75	755.6	29.83	757.6	70.5	21.4	72	n.			1		8		nw.	0.020	0.5	very cloudy	M. Giraud, Director.
Bar-sur-Seine	29.18	741.2	29.72	754.8	67.5	19.7	71	se.			1	0	8 kn			0	0	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.45	748.1	29.71	754.7	64.2	17.9	56	e.			1		8		sw.	0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.89	733.9	29.76	755.8	63.9	17.7	83	w.			1		10		w.	0	0	covered	M. Gobin, Director.
Bordeaux, Observatory	29.48	748.7	29.73	755.2	63.9	17.7	83	sw.			1		10		wsw.	0.150	3.8	raining	M. Rayet, Director.
Bourges, Normal School	29.10	739.2	29.64	752.9	60.8	16	79	se.			1		10		se.			raining	M. Postel, Director.
Brest, Naval Observatory	29.34	745.2	29.58	751.4	64.0	17.8	82	w.			2		9		w.	0.413	10.5	hailing	M. de Rermarse, Dir.
Caen, Normal School	29.54	750.4	29.62	752.3	58.6	14.8	98	sse.			1		8		sse.	0.031	0.8	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					65.1	18.4	69	s.			3		2		nw.	0.008	0.2	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.23	742.4	29.72	754.9	66.2	19	47	s.			2		2			0	0	¼ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.39	721.0	29.71	754.6	60.8	16.0	79	s.			1		10			0	0	light rain	M. Alluard, Director.
Cluny, Normal School	28.92	734.6	29.72	755.0	64.0	17.8	72	s.			3		4	sw.		0	0		M. de Villemontée, Dir.
Commercy, Normal School	28.89	733.9	29.74	755.3	61.5	16.4	64	w.			1		5	w.	w.	0.16	4.	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.34	694.4	29.81	757.2	64.0	17.8	65	n.			1	0	2 n		s.	0	0	¼ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	28.79	731.3	29.93	760.3	73.9	23.3	40	sw.			2		10		sw.	0	0	covered	M. Kina, Director.
Grenoble, Normal School	29.02	737.1	29.77	756.2	63.0	17.2	76	nw.			1		n		s.	0.028	0.7		M. Ablard, Director.
Guéret, Normal School	28.16	715.3	29.71	754.6	57.0	13.9	93	sw.			1		10		ne.	0.067	1.7	light rain	M. Rivoire, Director.
Lamballe, Normal School	29.37	745.9	29.64	752.8	50.9	10.5	86	nw.			2				nw.	0.449	11.4		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.50	749.3	29.60	751.9	64.4	18.0	80	sw.			4		10	e.	sw.	0.512	13.0	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.74	729.9	29.78	756.3	60.6	15.9	73	s.			1		10		w.	0.008	0.2	covered	M. André, Director.
Mans, Normal School	29.35	745.6	29.66	753.3	61.0	16.1	87	sso.			1		10		s.	0	0	covered	M. Piboen, Director.
Marseille, Observatory	29.56	750.8	29.82	757.4	75.9	24.4	45	sw.			1		10		sw.	0.094	2.4		M. Stephan, Director.
Montlouis l'Instituteur	24.70	627.5	29.94	760.5	57.7	14.3	64	sw.	13	5.8			7			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.67	753.7	29.80	756.9	58.3	14.6	52	ese.			3		5		s.	0	0	cloudy	M. Pourle, Director.
Nancy, Normal School	29.02	737.2	29.77	756.1	64.4	18	65	nw.			1	5 ck	0	nw.		0	0	cloudy	M. Hasse.
Nantes, Observatory	29.50	749.4	29.67	753.5	63.5	17.5	90	sw.			0–1		10	ssw.	wsw.	0.059	1.5	rainy	M. Larocque, Director.
Nice	29.84	757.0	29.84	757.8	72.3	22.4	71	se.			3		5	w.	se.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	29.57	751.1	29.67	753.7	73.8	23.2	62	se.	9.4	4.2			4		wsw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.43	569.7			41.5	5.3							10		w.	0.469	11.9	rainy	Gen'l de Nansouty Dir.
Privas, Normal School	28.77	730.8	29.81	757.1	66.2	19	72	s.			3		10	s.	s.	0.39	10.	raining	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.92	632.9			48.4	9.1	100	sw.			8		10			0	0	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.70	754.4	29.73	755.2	64.4	18.0	90	w.			1		10		sw.	0.189	4.8	covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.43	747.6	29.65	753.0	62.2	16.8	96	sw.			1		10			0	0	raining	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.63	752.6	29.72	754.8	57.2	14	78	se.			1		5			0	0	cloudy	M. Platrier, Director.
Saint Lô, Normal School	29.45	748.1	29.61	752.1	60.8	16	89	se.			4		10		se.	0	0	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.54	750.4	29.71	754.6	64.0	17.8	65	se.			1		10		ssw.	0	0		M. Renou, Director.
Toulouse, Observatory	29.09	738.9	29.81	757.2	68.0	20.0	67	nw.			4		10	se.		0.402	10.2	covered	M. Baillard, Director.
Tours	29.48	748.7	29.67	753.7	60.1	15.6	91	s.			1		10		sse.	0.126	3.2	rainy	M. de Tastes.
Versailles, Observatory	29.23	742.5	29.72	755.0	61.5	16.4	72	e.			1					0.236	6.0		Dr. A. Bérigny, Director.
Sun-Series.																			
Paris, Montsouris Obs'y	29.43	747.4	29.72	754.8	62.8	17.1	66	se.			1		10		ssw.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.95	735.4	29.81	757.2	65.7	18.7	46	ssw.			2	0	3 k		sw.	0	0		Prof. Dr. Hob.
Berlin	29.56	750.7	29.72	754.9	68.2	20.1	56	sw.			3		7			0.319	8.1		Prof. Dr. Arndt.
Breslau	29.33	745.0	29.86	758.4	66.9	19.4	56	sw.			2		4			0.429	10.9		Royal University Obs'y.
Carlsruhe	29.34	745.1	29.75	755.6	65.3	18.5	65	sw.			1		0			0.157	4.0		Albert Senx.
Cassel	29.02	737.0	29.73	755.2	63.3	17.4	62	ssw.			4		5	sw.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.39	746.5	29.74	755.4	66.7	19.3	52	sw.			1		3			0.067	1.7		Physical Society.
Friedrichshafen	28.37	720.6	29.77	756.2	62.2	16.8	82	ssw.			2		2	sw.		0	0		Wilhelm, Chief Tel.
Hamburg	29.56	750.9	29.66	753.3	59.7	15.4	89	sw.			3		8			0.220	5.6	raining	E. Preller.
Kiel	29.59	751.6	29.61	752.0	60.3	15.7	82	sw.			4		7			0.374	9.5		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.35	745.5	29.76	755.9	66.2	19.0	52	sw.			3		4	wsw.		0.291	7.4		H. Leppig, Asst.
Magdeburg	29.52	749.9	29.71	754.5	64.0	17.8	65	sw.			1	cs	7 ks		sw.	0.173	4.4		Dr. Assmann.
Memel	29.92	760.0	29.97	761.2	68.5	20.3	83	w.			2		9 osk						Issermann.
Munich	28.00	711.3	29.85	758.3	66.0	18.9	54	calm			0		3	s.		0	0		Central Station.
Neufahrwasser	29.83	757.7	29.85	758.1	67.6	19.8	61	ssw.			3		5			0.087	2.2		A. Lothes.
Neustadt, Palatinate	29.23	742.5	29.76	755.8	66.6	19.2	62	calm			0		5	ssw.		0	0		Dicknether.
Stuttgart	28.82	732.1	29.69	754.1	65.3	18.5	71	n.			1		6	sw.		0.075	1.9		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.28	718.3	29.74	755.4	65.7	18.7	52	s.			2		5	sw.		0.020	0.5		Fischer.
Wustrow	29.66	753.4	29.69	754.0	62.6	17.0	79	s.			4	0	8 k			0.051	1.3		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.47	748.5	29.84	758.0	84.7	29.3		sw.			1.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.62	752.3	29.67	753.6	83.7	28.7	80	ssw.	26.0	11.6			7		wsw.	0	0	d. clouds	
Deesa	29.22	742.2	29.68	754.0	85.9	29.9	58	sw.					6	sw.	sw.	0	0	d. clouds	
Bombay	29.77	756.2	29.81	757.2	82.4	28.0	79	w.	13.0	5.8			10	wnw.		0.54	13.7	overcast	
Poona, Yarrowda.	27.96	710.2	29.82	757.3	78.0	25.6	63	wnw.	22.0	9.8			8	w.	w.	0	0	d. clouds	
Belgaum	27.30	693.4	29.85	758.1	73.7	23.2	79	sw.	7.0	3.1			2		sw.	0	0	d. clouds	
Lahore	28.83	732.3	29.55	750.5	93.1	33.9	50	calm	1.2	0.5			0			0	0	blue sky	
Roorkee	28.69	728.8	29.57	751.0	88.2	31.2	75	w.	1.4	0.6			4			0.02	0.5		
Agra	29.09	738.8	29.64	752.9	87.2	30.7	59	w.	3.8	1.7			2			0	0		
Nagpur	28.68	728.3	29.70	754.5	85.7	29.8	60	n.	3.5	1.6			9		nw.	0	0	d. clouds	
Jubbulpore	28.36	720.4	29.70	754.4	84.0	28.9	59	calm	2.8	1.2			4			0	0	d. clouds	
Lucknow	29.28	743.7	29.65	753.1	87.6	30.9	59	wsw.	5.3	2.4			7	ene.		0	0	blue sky	
Allahabad	29.34	745.1	29.64	752.9	85.2	30.1	67	sw.	1.1	0.5			8			0	0	d. clouds	
Patna	29.49	749.0	29.67	753.5	84.4	29.1	78	w.	8.1	3.6			10	w.	w.	0	0	overcast	
Hazaribagh	27.67	702.8	29.65	753.1	82.6	28.1	59	nw.	5.5	2.5			3		nw.	0	0		
Cuttack	29.59	751.6	29.67	753.6	78.7	25.9	70	calm	0.4	0.2			9			1.68	42.7	d. clouds	
Calcutta, Alipore	29.62	752.5	29.65	753.0	80.8	27.1	89	e.	3.0	1.3			9		n.	0	0	gloomy	
Dhubri	29.53	750.1	29.65	753.2	80.4	26.9	89	calm	0.6	0.3			6			0.04	1.0	d. clouds	
Chittagong	29.60	751.7	29.69	754.0	81.7	27.6	88	sw.	3.6	1.6			9			0	0	d. clouds	
Sibsagar	29.33	744.9	29.66	753.4	82.3	27.9	90	ssw.	1.8	0.8			10	w.	w.	0.18	4.6	d. clouds	
Jeypore	28.25	717.5	29.66	753.4	87.9	31.1	49	wnw.	3.7	1.6			4		nw.	0	0	d. clouds	
Zanzibar, Africa			29.96	761.0	84.7	29.3	58	sse.	6	2.7			3			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.47	748.5	29.87	758.7	68.2	20.1	69	calm	0	0			10			1.626	41.3		Prof. Giovanni Clodig.
Milan	29.36	745.8	29.87	758.6	72.9	22.7	58	s.	3.1	1.4			3	sse.		0	0		Prof. Schiaparelli.
Padua	29.75	755.6	29.85	758.2	70.7	21.5	60	ene.	2.5	1.1			6	nne.		0.016	0.4		Prof. Dott. Lorenzoni.
Moncalieri	28.95	735.4	29.84	757.9	69.4	20.8	69	sse.	1.8	0.8			5	s.		0.047	1.2		Prof. P. F. Denza.
Genoa	29.69	754.1	29.88	759.0	71.2	21.8	65	se.	6.3	2.8			2	se.		0.539	13.7		Prof. G. M. Garibaldi.
Mondovi	27.97	710.4	29.84	757.8	67.3	19.6	64	nw.			4		4			0.028	0.7		Prof. D. C. Bruno.
Pesaro	29.80	756.9	29.85	758.1	73.4	23.0	57	e.	10.5	4.7			5	w.		0.118	3.0		Prof. Luigi Guidi.
Florence	29.59	751.6	29.84	757.9	74.3	23.5	55	sw.			2		5			0	0		Prof. Costantino Pitter.
Leghorn	29.77	756.1	29.85	758.2	71.6	22.0	67	wnw.	4.3	1.9			2			0	0		Prof. P. Monte.
Rome	29.68	753.8	29.85	758.1	80.1	26.7	43	w.					6			0	0		Prof. P. S. Ferrari.
Lecce	29.61	752.2	29.86	758.5	81.5	27.5	58	s.	11.9	5.3			3	se.		0	0		Prof. C. de Giorgi.
Cosenza	28.99	736.3	29.84	757.9	77.4	25.2	64	sse.	1.8	0.8			2	s.		0	0		Prof. D. Conti.
Cagliari	29.65	753.2	29.84	757.9	82.6	28.1	27	wnw.			2		0			0	0		Prof. A. Pacinotti.
Palermo	29.60	751.8	29.84	757.8	86.5	30.3	39	sw.	14.3	6.4			3	wsw.		0	0		Prof. G. Ciacciatore.
Syracuse	29.78	756.5	29.83	757.6	83.1	28.4	62	s.	15.0	6.7			7	ssw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.34	745.3	29.85	758.3	74.1	23.4	70	wsw.	1.3	0.6			1	e.		0	0		Prof. F. Brioschi.
Stelvio	22.11	561.6			43.5	6.4	76	w.			2	7 cks	0	s.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.15	562.7			45.0	7.2	81	nw.			2		10 k	nw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.88	758.9	29.90	759.4	79.6	26.4	82	wsw.	0.5	0.2		6cs;ck	0			0	0	fair	K. Sasaki.
Kioto	29.79	756.6	29.96	761.0	78.6	25.9	75	s.	2.2	1.0		ck	7 s			0	0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.76	755.9	29.95	760.7	78.0	25.6	85	w.	0.9	0.4		0	0			0	0	clear	S. Takehayashi.
Niigata	29.90	759.4	29.93	760.2	77.6	25.3	83	s.	2.1	0.9		3ck;cs	0	sw.		0.060	1.5	fair	
Nobiru	29.92	759.9	29.93	760.2	76.3	24.6	93	sw.	8.8	3.9		ck	10 s		sw.	0.005	0.1	cloudy	
Supporo	29.75	755.6	29.81	757.2	72.1	22.3	84	se.	15.0	6.7			9			0	0		
Tokei Obs'y, Yeddo	29.88	758.9	29.95	760.7	78.7	25.9	85	ssw.	3.5	1.6		2 cs	1 s;ks			0	0	fair	The Staff.
Wakayama	29.91	759.7	29.96	761.0	78.7	25.9	74	s.	1.5	0.7		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.00	762.0	30.19	766.9	71.1	21.7	69	ese.	19.5	8.7		0	5		se.	0	0	squally	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.65	600.7	29.86	758.7	60.8	16.0	91	calm	0	0		0	9		e.	0.874	22.2	very cloudy	Vicente Fernandez.
Leon	24.42	620.3	30.04	763.0	64.1	17.8	90	nw.			1	9 ck	0	nw.		0.028	0.7	very cloudy	Prof. M. Leal.
Mazatlan	29.57	751.2	29.83	757.7	75.0	23.9	98	e.	11.0	4.9			10 n		se.	1.890	48.0	covered	F. Quijano, C. E.
Mexico, Central Obs'y	23.08	586.1	30.05	763.2	58.3	14.6	88	calm			0		9 kn		e.	0.295	7.5	very cloudy	The Staff.
Morelia	24.06	611.2	30.12	765.2	56.3	13.5	74	n.			3	4	1	sw.	s.	0	0	½ cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.88	606.6	29.78	756.5	63.1	17.3	93	calm			0		10 ns		se.	0.980	24.9	covered	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.8	30.14	765.6	55.6	13.1	41	ne.	0.9	0.4		0	7		e.	inap.	inap.	cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.53	572.3	30.07	763.9	58.8	14.9	93	e.	0.9	0.4		0	9 ns		se.	0.079	2.0	very cloudy	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.73	755.2	29.73	755.2	65.1	18.4		w.			2					0.016	0.4		
Groningen	29.55	750.6	29.61	752.0	60.8	16.0		w.			1					0.134	3.4		
Helder	29.65	753.1	29.65	753.1	57.9	14.4		nw.			4					0.063	1.6		
Hellevoetsluis	29.71	754.5	29.71	754.5	62.8	17.1	80	wnw.			3					0.094	2.4		
Utrecht	29.65	753.1	29.70	754.3	63.0	17.2	88	wsw.			2		8			0.035	0.9	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES.																			
Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.72	755.0	29.79	756.6	65.1	18.4	57	e.	6.0	2.7			7			0	0		
Christiania	29.76	756.0	29.91	759.7	57.9	14.4	76	nne.	25	11			10			0.559	14.2		
Gjæsvær	30.28	769.2	30.31	769.8	42.3	5.7		calm			0		10						
Lodingen	30.13	765.3	30.18	766.5	54.9	12.7	70	ne.			2		0			0	0		
PORTUGUESE SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.11	764.9	30.26	768.7	66.6	19.2	79	nne.	2.5	1.1			6			0	0		Dr. J. A. Sampaio.
Campo Major	29.00	736.5	29.97	761.3	70.7	21.5	39	w.	10.5	4.7			8			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.08	763.9	30.16	766.1	75.7	24.3	73	wnw.	0.7	0.3			7			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.71	754.5	30.06	763.6	69.3	20.7	42	wnw.	13.6	6.1			7			0.024	0.6		The Staff.
Ponta Delgada, Azores	30.22	767.6	30.28	769.0	73.0	22.8	60	calm	0	0			3			0	0		
RUSSIAN SERIES.																			
Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.67	728.3	29.71	754.7	64.0	17.8	44	w.	18	8		1 c	0						Capt. Lasarew.
Archangel	30.20	767.0	30.22	767.5	44.4	6.9	76	nw.	9	4			10						Capt. Sseliwerstow.
Astrakhan	29.95	760.8	29.87	758.7	83.1	28.4	45	sse.	4	2		0	2 k						Capt. Wisganow.
Barnaul ‡	29.25	743.0	29.74	755.5	54.3	12.4	63	sw.	0	0			5						Meteorological Obs'y.
Dorpat	29.84	758.0	30.08	764.0	65.1	18.4	73	ne.	9	4		8 ck	0						Observatory.
Ekaterinburg	28.82	732.1	29.78	756.5	48.9	9.4	61	nw.	13	6			10						Meteorological Obs'y.
Kasan	29.67	753.5	29.93	760.1	65.5	18.6	38	nnw.	4	2		0	1						Observatory.
Kertch	29.71	754.5	29.72	755.0	79.0	26.1	64	n.	7	3		0	6 k			0	0		Lagorio & Sastyrez.
Kieff	29.02	737.1	29.61	752.1	81.3	27.4	61	ese.	7	3		0;ck;cs	9 ks;n						Observatory.
Lugan	29.55	750.5	29.74	755.4	88.3	31.3	28	ese.	22	10			7					light clouds	Meteorological Obs'y.
Moscow	29.58	751.3	30.04	762.9	64.6	18.1	52	sw.	7.8	3.5		0	5 ks						Meteorological Obs'y.
Nikolaiev	29.66	753.4	29.73	755.2	78.6	25.9	51	s.	13	6		0	2 kn						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.61	752.2	29.70	754.4	59.2	15.1	92	calm			0		10 n			0.787	20.0	thnd'r str'm	Lieut. Iwanow.
Pekin, China	29.78	756.3	29.92	759.9	74.3	23.5	83	calm	0	0		0	7 n			0	0		Physical Observatory.
St. Petersburg	30.13	765.4	30.15	765.8	64.2	17.9	57	ene.	9	4		c	1 ks						Central Physical Obs'y.
Tashkend, Laboratory	28.35	720.2	29.87	758.6	74.1	23.4	61	calm	0	0			1						Teich, A. M.
Tiflis	28.42	721.9	29.75	755.6	86.2	30.1	39	se.	2	1		0	1 k						Physical Observatory.
Warsaw	29.42	747.3	29.83	757.7	66.0	18.9	65	nnw.	7	3		ck	10 s						Astronomical Obs'y.
Wilna	29.45	747.9	29.85	758.2	73.8	23.2	64	e.	4	2			7						Berg, Assistant.
Yeniseisk	29.40	746.8	29.69	754.1	44.4	6.9	86	w.	4	2			2						M. O. Marks.
SCOTTISH SERIES.																			
Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.87	758.7	53.0	11.7	90	e.			2		10 k			0.04	1.0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.95	760.7	55	12.8	93	ene.			4	5	0	ne.		0	0	d. clouds	J. Youngclause
North Unst, Shetland Isl'ds			29.77	756.1				n.			4		10						Robert Burnet.
SPANISH SERIES.																			
Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.67	753.6	29.77	756.2	78.4	25.8	69	s.	1.3	0.6		ck	0			0	0		Antonio Rave, Director.
Bilbao, Met. Obs'y	29.80	757.0	29.86	758.4	65.8	18.8	73	nw.	2.7	1.2			10			0.193	4.9	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.94	684.2			62.2	16.8	53	sw.	9.6	4.3			4			0.236	6.0		Domingo Martin.
Madrid, Royal Obs'y	27.07	702.8	29.82	757.3	72.7	22.6	44	w.	26.2	11.7		0	4			0.024	0.6		The Staff.
Murcia, Met. Obs'y ‡	29.68	753.8	29.82	757.4	93.0	33.9	47	ne.	1.8	0.8		5	4	ene.		0	0	almost cov'd	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.93	734.8	29.81	757.1	64.6	18.1	72	sw.	17.4	7.8			7			0.504	12.8	cloudy	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.91	759.8	29.98	761.5	77.2	25.1	86	sse.	3.6	1.6		8ck;cs	1 k	w.		0.709	18.0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.75	755.6	29.80	756.9	83.9	28.8	82	sw.	12.8	5.8		7 c	0	w.		0	0	cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.94	760.4	30.03	762.8	73.4	23.0	73	w.	11.9	5.3		0	9		nw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.89	759.3	30.02	762.6	78.4	25.8	95	ne.	0	0		3 k	4 kn	se.	se.	1.063	27.0	cloudy	E. Cudea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.67	753.7	29.81	757.1	80.0	26.7	83	nnw.	4.5	2.0		4 cs	2 k	e.	nnw.	0	0	cloudy	José L. Fastovra.
SWEDISH SERIES.																			
Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.24	768.1	30.28	769.1	61.5	16.4	61	calm			0		0			0	0		
Umea	30.21	767.3	30.26	768.6	61.5	16.4	54	e.			2		0			0	0		
Hernosand	30.23	767.8	30.28	769.1	58.1	14.5	73	ne.			4		1			0	0		
Stockholm	29.83	757.6	30.00	762.1	57.9	14.4	87	e.			6		10			0.205	5.2		
Wisby	29.81	757.2	29.87	758.7	64.8	18.2	84	sse.			4		10			0.134	3.4		
Sub-Series.																			
Upsala	29.92	759.9	30.00	762.1	61.7	16.5	80	ene.	12.3	5.5			8		e.	0.067	1.7		S. G. Fineman.
SWISS SERIES.																			
Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.40	721.3	29.79	756.6	66.7	19.3	51	nw.			1		7			0.232	5.9	cloudy	The Observatory.
Zurich ‡	28.19	715.9	29.78	756.5	66.9	19.4	60	sw.			1		2			0.181	4.6	clear	The Observatory.
TURKISH SERIES.																			
Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.84	757.8	81.7	27.6	46	s.	10	4.5			5		sw.	0	0		The Observatory.
Valona			30.04	762.9	76.3	24.6		w.			1		2			0	0	slightly cld'y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.78	756.4	88.0	31.1	55	nw.			2	0	3 k			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.05	763.3	30.13	765.3	69	20.6	84	s.	5	2.2			10 ks		s.	0.55	14.0	cloudy	
Alpena, Michigan	29.12	739.6	29.79	756.7	77.8	25.4	72	sw.	9	4.0		0	8 ks		w.	inap.	inap.	fair	
Atlanta, Georgia	28.99	736.3	30.17	766.3	75.5	24.2	78	e.	5	2.2		0	0			0	0	clear	
Atlantic City, New Jersey	30.19	766.8	30.20	767.1	71.8	22.1	90	s.	10	4.5		2 ck	0	calm		0	0	clear	
Augusta, Georgia	29.98	761.5	30.17	766.3	77.0	25.0	85	se.	3	1.3		0	0			0	0	clear	
Baltimore, Maryland	30.12	765.0	30.17	766.3	75	23.9	85	s.	5	2.2			10s;fg		calm	0	0	cloudy	
Barnegat, New Jersey	30.17	766.3	30.19	766.8	72.0	22.2	84	s.	6	2.7		4 ck	2 s	calm	calm	0	0	fair	
Bismarck, Dakota	28.17	715.5	30.00	762.0	45	7.2	76	nw.	20	8.9			10 s		nw.	0.12	3.0	cloudy	
Boise City, Idaho	27.16	689.9	30.00	762.0	46.5	8.1	71	calm	0	0			10 s		calm	inap.	inap.	cloudy	
Boston, Massachusetts	30.04	763.0	30.20	767.1	61.5	16.4	92	s.	8	3.6			10s;fg			0	0	threatening.	
Brackettville, Texas	28.69	728.7	29.67	753.6	79	26.1	77	e.	15	6.7			10 s		se.	0	0	cloudy	
Brownsville, Texas	29.83	757.7	29.87	758.7	80	26.7	88	s.	7	3.1		0	0			0	0	clear	
Buffalo, New York	29.29	744.0	30.01	762.2	76.5	24.7	68	sw.	5	2.2		7k;cs	0	nw.		0	0	fair	
Burlington, Vermont	29.78	756.4	30.06	763.5	66.3	19.1	92	se.	17	7.6			10 n		w.	0.48	12.2	light rain	
Cairo, Illinois	29.65	753.1	30.05	763.3	79.2	26.2	74	s.	4	1.8		0	0			0	0	clear	
Campo, California	27.21	691.1	29.78	756.4	50.6	10.3	74	sw.	4	1.8			10 s		w.	0	0	cloudy	
Camp Thomas, Arizona	26.95	684.5			67	19.4	93	calm			0		9 ks		se.	0.38	9.7	cloudy	
Cape Henry, Virginia	30.18	766.6	30.20	767.1	74	23.3	97	calm	0	0			fg			0	0	dense haze	
Cape May, New Jersey	30.17	766.3	30.20	767.1	73	22.8	84	se.	10	4.5		1 k	fg.			0	0	clear	
Castroville, Texas	29.09	738.9	29.76	755.9	81	27.2	79	se.	6	2.7			10 s		s.	0	0	cloudy	
Cedar Keys, Florida	30.06	763.5	30.08	764.0	77	25.0	85	ne.	7	3.1		0	0			0	0	clear	
Champaign, Illinois	29.15	740.4	29.91	759.7	72.8	22.7	79	s.	11	4.9		0	hz.			0	0	clear	
Charleston, S. Carolina	30.10	764.5	30.16	766.1	81	27.2	88	ne.	4	1.8		0	0			0	0	clear	
Charlotte, N. Carolina	29.24	742.7	30.22	767.6	74.8	23.8	79	ne.	3	1.3		0	hz.			0	0	clear	
Chattanooga, Tennessee	29.34	745.2	30.17	766.3	71.0	21.7	84	calm	0	0		1 cs	fg.	calm		0	0	clear	
Cheyenne, Wyoming	24.02	610.1	29.99	761.7	49.1	9.5	74	n.	6	2.7			10 s			0	0	cloudy	
Chicago, Illinois	29.18	741.2	29.89	759.2	76.3	24.6	65	sw.	13	5.8		3 c	0	w.		0.06	1.5	fair	
Chincoteague, Virginia	30.17	766.3	30.19	766.8	73	22.8	90	se.	13	5.8		0	2 ks		calm	0	0	fair	
Cincinnati, Ohio	29.41	747.0	30.07	763.8	75.5	24.2	76	se.	2	0.9		3 c	fg.	e.		0.54	13.7	clear	
Cleveland, Ohio	29.31	744.5	30.05	763.3	74.6	23.7	68	s.	8	3.6		1 c	0			0	0	clear	
Coleman City, Texas																			
Columbus, Ohio	29.22	742.2	30.08	764.0	71	21.7	75	se.	4	1.8		0	0			0.07	1.8	clear	
Concho, Texas	27.95	709.9	29.89	759.2	75	23.9	82	se.	10	4.5		4 k	0	s.		0	0	fair	
Corsicana, Texas	29.50	749.3	29.97	761.2	74	23.3	69	calm	0	0		0	0			0	0	clear	
Davenport, Iowa	29.18	741.2	29.84	757.9	77	25.0	64	sw.	12	5.4		4 cs	0	sw.		0.03	0.8	fair	
Dayton, Washington T'y	28.25	717.5	30.06	763.5	54.5	12.5	71	calm	0	0			10 n		sw.	0.16	4.1	light rain	
Deadwood, Dakota	25.34	643.6	30.04	763.0	43	6.1	86	ne.	8	3.6			fg.			0.20	5.1	foggy	
Decatur, Texas	28.68	728.5	29.78	756.4	77	25.0	64	se.	12	5.4		0	0			0	0	clear	
Delaware Breakwater, Del.	30.18	766.6	30.20	767.1	71	21.7	94	se.	18	8.0			10 s		se.	0	0	cloudy	
Denison, Texas	29.15	740.4	29.96	761.0	77	25.0	60	s.	8	3.6		0	0			0	0	clear	
Denver, Colorado	24.76	628.9	30.00	762.0	55.8	13.2	67	n.	9	4.0			10 s		n.	0	0	cloudy	
Des Moines, Iowa	28.82	732.0	29.73	755.1	77	25.0	57	sw.	12	5.4		0	5 k		sw.	0	0	fair	
Detroit, Michigan	29.28	743.7	30.00	762.0	75.9	24.4	74	s.	6	2.7		0	sk.			0	0	clear	
Dodge City, Kansas	27.21	691.1	29.80	756.9	70	24.4	62	sw.	15	6.7		7 cs	0			0	0	fair	
Dubuque, Iowa	29.08	738.6	29.80	756.9	77.2	25.1	64	s.	8	3.6		5 k	hz.	sw.		0	0	fair	
Duluth, Minnesota	29.02	737.1	29.73	755.1	64	17.8	90	sw.	4	1.8		2 ck	3 s	sw.	sw.	0.09	2.3	fair	
Eagle Pass, Texas	29.07	738.4	29.90	759.4	80.0	26.7	79	se.	10	4.5			10 s		se.	0	0	cloudy	
Eagle Rock, Idaho	25.12	638.0	29.97	761.2	40	4.4	54	sw.	4	1.8			10 s		sw.	0	0	cloudy	
Eastport, Maine	30.15	765.8	30.22	767.6	54	12.2	86	calm	0	0		5 cs	fg.	nw.	ne.	0	0	fair	
El Paso, Texas	26.06	661.9	29.81	757.2	69.2	20.7	90	ne.	1	0.4			10 s			0.01	0.3	cloudy	
Erie, Pennsylvania	29.30	744.2	30.03	762.7	78	25.5	62	s.	12	5.4		5 k	0	sw.		0	0	fair	
Escanaba, Michigan	29.00	736.6	29.66	753.4	73	22.8	82	s.	7	3.1		5 k	5 s	w.	calm	0.28	7.1	cloudy	
Florence, Arizona	28.16	715.3	29.76	755.9	69.2	20.7	97	se.	8	3.6		0	0			0.31	7.9	clear	
Fort Apache, Arizona	24.80	629.9	29.71	754.6	56	13.3	100	sw.	3	1.3			10 n		calm	1.37	34.8	heavy rain	
Fort Assinnaboine, Montana	27.32	693.9	30.13	765.3	36	2.2	82	ne.	2	0.9		0	4 s		calm	0.22	5.6	fair	
Fort Bennett, Dakota	28.35	720.1	29.89	759.2	53	11.7	80	n.	20	8.9			10 s		n.	0	0	cloudy	
Fort Benton, Montana	27.26	692.4	30.12	765.0	40	7.8	63	se.	5	2.2		0	0			0.12	3.0	clear	
Fort Buford, Dakota	28.08	713.2	30.08	764.0	34	1.1	100	w.	6	2.7		0	0			0	0	clear	
Fort Custer, Montana	26.89	683.0	30.13	765.3	42	5.6	72	n.	4	1.8			10 s		calm	0.08	2.0	cloudy	
Fort Davis, Texas	25.10	637.5	30.00	763.5	65	18.3	75	se.	6	2.7		0	0			0	0	clear	
Fort Elliott, Texas	27.10	688.3	30.29	769.4	74	23.3	59	s.	16	7.2		0	c			0	0	clear	
Fort Gibson, Indian T'y	29.36	745.7	29.90	759.4	78.5	25.8	58	s.	8	3.6		0	sk.			0	0	clear	
Fort Grant, Arizona					62	16.7	90	calm	0	0			10 s		s.	0.65	16.5	cloudy	
Fort Griffin, Texas	28.59	726.2	29.79	756.7	77.4	25.2	79	se.	9	4.0		0	0			0	0	clear	
Fort Keogh, Montana	27.56	700.0	30.10	764.5	38	3.3	92	nw.	2	0.9		0	0			0.08	2.0	clear	
Fort Macon, North Carolina	30.17	766.3	30.18	766.6	78	25.6	91	se.	3	1.3		2 c	0	calm		0	0	clear	
Fort McKavett, Texas	27.67	702.8	29.49	749.0	75.1	23.9	77	se.	4	1.8			8 ks		se.	0	0	cloudy	
Fort Missoula, Montana	26.68	677.7	30.20	767.1	48	8.9	71	ne.	5	2.2			10 ks			0.24	6.1	threatening	
Fort St. Michaels																			
Fort Shaw, Montana	26.48	672.6	30.08	764.0	40	4.4	73	ne.	8	3.6		0	8 s		ne.	0.06	1.5	cloudy	
Fort Sill, Indian Territory	28.66	728.0	29.91	759.7	79.5	26.4	66	s.	18	8.0		0	0			0	0	clear	
Fort Stevenson, Dakota	28.17	715.5	29.04	737.6	43	6.1	76	nw.	14	6.3			10 s		nw.	0	0	cloudy	
Fort Verde, Arizona					65.1	18.4	89	sw.			2	0	9 s		sw.	1.20	30.5	cloudy	
Fredericksburg, Texas	28.18	715.8	29.66	753.4	75	23.9	90	s.	8	3.6			10 ks		s.	0	0	cloudy	
Galveston, Texas	29.92	760.0	29.96	761.0	82.2	27.9	75	s.	11	4.9		0	2 k		s.	0	0	clear	
Grand Haven, Michigan	29.18	741.2	29.85	758.2	76.0	24.4	79	se.	18	8.0		5 k	0	w.		0.26	6.6	fair	
Hatteras, North Carolina	30.19	766.8	30.21	767.3	77	25.0	90	calm	0	0		hz.	hz.			0.01	0.3	dense haze	
Helena, Montana	25.81	655.6	30.20	767.1	45	7.2	76	s.	8	3.6			10 s		calm	0.80	20.3	cloudy	
Henrietta, Texas	28.86	733.0	29.72	754.9	80	26.7	62	se.	16	7.2		0	0			0	0	clear	
Huron, Dakota	28.50	723.9	29.89	759.2	55.1	12.3	86	n.	16	7.2			10 n		n.	0.01	0.3	light rain	
Indianapolis, Indiana	29.21	741.9	30.01	762.2	77	25.0	69	se.	4	1.8		0	hz.		calm	0	0	clear	
Indianola, Texas	29.88	758.9	29.91	759.7	79.4	26.3	91	s.	7	3.1		0	3 ks		calm	0.37	9.4	fair	
Jacksboro, Texas	28.73	729.7	29.80	756.9	77	25.0	76	s.	8	3.6		0	0			0	0	clear	
Jacksonville, Florida	30.07	763.8	30.11	764.8	79	26.1	88	e.	3	1.3		1 k	0			0	0	clear	
Keokuk, Iowa	29.20	741.7	29.86	758.4	80.0	26.7	58	s.	16	7.2		0	0			0	0	clear	
Key West, Florida	29.94	760.5	29.97	761.2	82.8	12.8	83	e.	4	1.8		5 ck	2 ks	s.	e.	0.77	19.6	fair	
Kittyhawk, North Carolina	30.21	767.3	30.23	767.8	75	23.9	97	calm	0	0		hz.	fg;hz			0	0	dense haze	
Knoxville, Tennessee	29.17	740.9	30.21	767.3	69.5	20.8	75	ne.	1	0.4		0	sk.		calm	0	0	clear	
La Crosse, Wisconsin	28.96	735.6	29.73	755.1	75	23.9	71	se.	8	3.6			10 n			0.06	1.5	light rain	
La Mesilla, New Mexico	26.03	661.2	30.18	766.6	68.5	20.3	79	calm	0	0			10 s			0	0	cloudy	
Laredo, Texas																			
Leavenworth, Kansas	28.94	735.1	29.84	757.9	77	25.0	60	s.	12	5.4		0	0			0	0	clear	
Lewiston, Idaho	29.15	740.4	30.00	762.0	55	12.8	64	calm	0	0			10 n		calm	0.20	5.1	light rain	
Little Rock, Arkansas	29.67	753.6	29.99	761.7	77	25.0	76	se.	1	0.4		hz.	hz.			0	0	dense haze	
Los Angeles, California	29.46	748.3	29.84	757.9	58.3	14.6	86	sw.	4	1.8		0	6 s		sw.	0	0	fair	
Louisville, Kentucky	29.47	748.5	30.04	763.0	79.0	26.1	62	s.	3	1.3		4 cs	hz.			0.01	0.3	fair	
Lynchburg, Virginia	29.49	749.0	30.18	766.6	76.6	24.8	76	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	28.79	731.3	29.82	757.4	74	23.3	73	sw.	5	2.2		4 ck	0	sw.		0	0	fair	
Marquette, Michigan	28.87	733.3	29.60	751.8	75	23.9	64	w.	18	8.0			10 s		sw.	0.73	18.5	cloudy	
Mason, Texas	28.26	717.8	29.93	760.2	77	25.0	79	se.	6	2.7			8 s		se.	0	0	cloudy	
Memphis, Tennessee	29.70	754.4	30.04	763.0	80	26.7	67	calm	0	0		hz.	hz.	calm	calm	0	0	dense haze	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.06	738.1	29.82	757.4	77	25.0	69	s.	16	7.2		2 c	3 ks	nw.	w.	0.02	0.5	fair	
Mobile, Alabama	30.00	762.0	30.06	763.5	82.0	27.8	88	e.	2	0.9		2 k	2 ks		nw.	0.25	6.3	fair	
Montgomery, Alabama	29.88	758.9	30.11	764.8	76.1	24.5	71	se.	1	0.4		0	0			0	0	clear	
Moorhead, Minnesota	28.90	734.0	29.91	759.7	46	7.8	93	nw.	12	5.4		0	5 s		nw.	1.41	35.8	fair	
Morgantown, W. Virginia	29.13	739.9	30.09	764.3	67.2	19.6	90	e.	1	0.4		3 ck	fg	nw.		0	0	fair	
Mt. Washington, N. H.	24.00	609.6	30.20	767.1	49.7	9.8	96	nw.	36	16.1			fg		nw.	0.18	4.6	dense fog	
Nashville, Tennessee	29.56	750.8	30.10	764.5	76.5	24.7	71	calm	0	0		0	0			0	0	clear	
New Haven, Connecticut	30.06	763.5	30.18	766.6	69	20.6	84	s.	7	3.1			10 s			0	0	cloudy	
New London, Connecticut	30.17	766.3	30.22	767.6	65	18.3	100	sw.	11	4.9			10s;fg		sw.	0	0	cloudy	
New Orleans, Louisiana	29.98	761.5	30.04	763.0	80.2	26.8	88	e.	4	1.8		hz	hz			0	0	dense haze.	
Newport, Rhode Island	30.19	766.8	30.24	768.1	64.0	17.8	90	se.	9	4.0			10 s		calm	0	0	cloudy	
New River, N. Carolina					80	26.7	74	calm			0	0	5 ks			0	0	fair	
New Shoreham, Rhode I'd.	30.19	766.8	30.22	767.6	64.2	17.9	90	s.	10	4.5			10 s		s.	0	0	cloudy	
New York, New York	30.02	762.5	30.20	767.1	68	20.0	93	s.	5	2.2			10s;fg		sw.	0	0	cloudy	
Norfolk, Virginia	30.17	766.3	30.20	767.1	75	23.9	90	calm	0	0			fg			0	0	dense fog	
North Platte, Nebraska	26.94	684.3	29.88	758.9	59.4	15.2	68	n.	20	8.9			10 s			inap.	inap.	cloudy	
Olympia, Washington T'y	30.05	763.3	30.09	764.3	48.0	8.9	93	s.	2	0.9		0	1 s		calm	0	0	clear	
Omaha, Nebraska	28.54	724.9	29.73	755.1	83	28.3	57	s.	17	7.6			10 ks		s.	0	0	cloudy	
Oswego, New York	29.66	753.4	30.00	762.0	75.1	23.9	76	s.	4	1.8			10 s		w	0	0	cloudy	
Pensacola, Florida	30.03	762.7	30.06	763.5	82	27.8	91	e.	6	2.7		0	5 s		e.	0	0	fair	
Philadelphia, Pa	30.14	765.5	30.20	767.1	69	20.6	90	sw.	5	2.2		hz	hz			0	0	dense haze.	
Phœnix, Arizona	28.63	727.2	30.40	772.1	60	15.6	65	w.	4	1.8		0	0			0.34	8.6	clear	
Pike's Peak, Colorado	17.79	451.9	30.00	762.0	35	1.7	92	sw.	12	5.4			fg		sw.	0.07	1.8	dense fog	
Ploche, Nevada	23.91	607.3	29.93	760.2	53	11.7	69	s.	1	0.4		9 k	0	sw.		0	0	cloudy	
Pittsburg, Pennsylvania	29.30	744.2	30.12	765.0	72	22.2	82	calm	0	0		9 k;ck	0	nw.		0	0	cloudy	
Port Eads, Louisiana	30.04	763.0	30.05	763.3	81.0	27.2	81	se.	6	2.7		0	1 k;hz		se.; c	0	0	clear	
Port Huron, Michigan	29.26	743.2	29.95	760.7	74.8	23.8	76	s.	13	5.8		0	0			0	0	clear	
Portland, Maine	30.13	765.3	30.18	766.6	61.5	16.4	87	se.	10	4.5			10 s		calm	0.04	1.0	cloudy	
Portland, Oregon	30.03	762.7	30.10	764.5	51.9	11.1	90	nw.	1	0.4		0	1 k		nw.	0.02	0.5	clear	
Portsmouth, N. Carolina					79	26.1	88	ne.	1	0.4		3 k	2 k	w.	ne.	0	0	fair	
Prescott, Arizona	24.51	622.5	29.70	754.4	57	13.9	83	sw.	8	3.6		0	3 ks		s.	1.10	27.9	clear.	
Punta Rassa, Florida	29.98	761.5	29.99	761.7	81	27.2	82	ne.	9	4.0		1 c	1 ks	n.	ne.	0	0	clear	
Red Bluff, California	29.39	746.5	29.73	755.1	69.0	20.6	41	n.	25	11.2		0	0			0	0	clear	
Rio Grande City, Texas	29.67	753.6	29.88	758.9	78	25.6	91	se.	8	3.6		0	0			0	0	clear	
Rochester, New York	29.36	745.7	30.00	762.0	76	24.4	60	w.	10	4.5			10 ks		w.	0	0	cloudy	
Roseburg, Oregon	29.52	749.8	30.10	764.5	54.5	12.5	88	calm	0	0		0	0			0	0	clear	
Sacramento, California	29.59	751.6	29.67	753.6	68.2	20.1	42	n.	10	4.5		0	0			c	0	clear	
St. Louis, Missouri	29.38	746.2	29.99	761.7	80.0	26.7	65	s.	10	4.5		hz	hz			0	0	dense haze	
St. Paul, Minnesota	28.86	733.0	29.74	755.4	71.9	22.2	84	nw.	6	2.7			10 s		w.	0	0	threatening.	
Salt Lake City, Utah	25.44	546.2	29.77	756.1	53	11.7	36	calm	0	0		3 k	0	w.		0	0	clear	
San Antonio, Texas	29.20	741.7	29.90	759.4	78.2	25.7	91	e.	5	2.2			9 ks		s.	0	0	cloudy	
San Diego, California	29.68	753.9	29.75	755.6	62.1	16.7	78	s.	7	3.1		0	2 s			0	0	clear	
Sandusky, Ohio	29.32	744.7	30.01	762.2	75	23.9	71	sw.	17	7.6		0	0			0.44	11.2	clear	
Sandy Hook, New Jersey	30.16	766.1	30.19	766.8	70.0	21.1	90	sw.	6	2.7		2 k	hz	calm	calm	0	0	clear	
San Francisco, California	29.62	752.3	29.68	753.9	58	14.4	86	sw.	1	0.4		0	fg		sw.	0	0	clear	
Santa Fé, New Mexico	23.15	588.0	29.95	760.7	58	14.4	84	se.	3	1.3			10 s		calm	0.13	3.3	cloudy	
Savannah, Georgia	30.04	763.0	30.13	765.3	80	26.7	88	se.	2	0.9		3 k	0	se.		0	0	fair	
Shreveport, Louisiana	29.77	756.1	30.00	762.0	74.5	23.6	82	calm	0	0		0	0.			0	0	clear	
Silver City, New Mexico	24.12	612.6	29.69	754.1	63	17.2	83	calm	0	0			10 n		calm	0.03	0.8	light rain	
Sitka, Alaska	29.88	758.9	29.94	760.5	55.1	12.8	87	e.	5	2.2			10 n		calm	0.22	5.6	light rain	
Smithville, North Carolina	30.15	765.8	30.19	766.8	80	26.7	82	s.	4	1.8		0	0			0	0	clear	
Spokane Falls, Wash. Ter.	27.96	710.2	29.98	761.5	50	10.0	93	n.	3	1.3			10 n			0.47	11.9	light rain	
Springfield, Illinois	29.27	743.4	29.96	761.0	75.5	24.2	61	s.	9	4.0		hz	hz			0	0	dense haze.	
Springfield, Massachusetts	30.05	763.3	30.17	766.3	67.0	19.4	93	s.	3	1.3			10 s			0	0	cloudy	
Stockton, Texas	26.82	681.2	29.90	759.4	73.6	23.1	90	se.	16	7.2		2 c	2 s	calm	se.	0	0	fair	
St. Vincent, Minnesota	28.99	736.3	29.88	758.9	45	7.2	83	nw.	16	7.2			9 s		nw.	0.08	2.0	cloudy	
Thatcher's Island, Mass	30.16	766.1	30.22	767.6	63	17.2	100	s.	7	3.1			10 s		e.	0	0	cloudy	
Toledo, Ohio	29.29	744.0	29.99	761.7	73	22.8	82	sw.	9	4.0		0	sk			0.43	10.9	clear	
Tucson, Arizona	27.18	690.4	29.54	750.3	66	18.9	93	s.	6	2.7			10 n			1.60	40.6	heavy rain	
Umatilla, Oregon	29.70	754.4	30.11	764.8	52.3	11.3	92	sw.	2	0.9			10 s		nw.	0.43	10.9	cloudy	
Uvalde, Texas	28.85	732.8	29.63	752.6	78	25.6	82	calm	6	0			10 ks		se.	0	0	cloudy	
Vicksburg, Mississippi	29.78	756.4	30.04	763.0	77	25.0	76	s.	5	2.2		0	0			0	0	clear	
Visalia, California	29.27	743.4	29.63	752.6	61.3	16.3	61	e.	4	1.8		0	0			0	0	clear	
Washington, D. C.	30.06	763.5	30.17	766.3	75.2	24.0	96	s.	3	1.3			10s;fg			0	0	cloudy	
Wickenburg, Arizona					62	16.7	81	calm			0		fg			0.39	9.9	foggy	
Wilmington, N. Carolina	30.12	765.0	30.18	766.6	78	25.6	90	calm	0	0		0	sk		calm	0	0	dense smoke	
Winnemucca, Nevada	25.53	648.5	29.86	758.4	53	11.7	49	ne.	8	3.6		5 ck	0	sw.		0	0	fair	
Wood's Holl, Mass	30.19	766.8	30.23	767.8	62	16.7	93	s.	7	3.1			10 s		w.	0	0	cloudy	
Yankton, Dakota	28.58	725.9	29.89	759.2	63	17.2	73	n.	18	8.0			10 s		sw.	0.12	3.0	cloudy	
Yuma, Arizona	29.44	747.8	29.58	751.3	61.6	16.4	78	nw.	4	1.8			10 s		nw.	0	0	cloudy	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	30.00	762.0	30.02	762.5	86	30.0	84	ne.	3	1.3		5 k	10 ks	calm		0	0		J. A. Racker.
Bogota, U. S. Columbia	22.07	560.6			53.2	11.8	74	se.	2	0.9		5 k	5 s; ks	sw.		0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.86	758.4	29.86	758.4	80	26.7	90	e.				2 c	2 ks		ese.	0	0		B. Bigar.
Havana, Cuba, W. I.	29.95	760.7	30.00	762.0	79	26.1	77	calm	0	0		2 cs	8 ks	calm	calm	0.19	4.8	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.99	761.7	30.00	762.0	80.0	26.7	75	calm	0	0		3 cs	2 ks	e.		0.01	0.3	squally	Robert Johnstone.
Navassa, W. I.	29.92	760.0	30.00	762.0	83	28.3	79	e.	9	4.0		8 ck	2 kn	ne.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	30.06	763.5	30.06	763.5	80	26.7	82	se.			2	0	4 k		e.	0.210	5.3	fair	Dr. O. J. Hering.
Puerto Berrio, U. S. Col'mba	29.49	749.0	30.05	763.3	80	26.7	80	calm			0	2 c	1 s	calm	ne.	0.12	3.0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24		sw.			1	3 ck	4 ks	se.	ne.	0.39	10.		Earl Flint.
Santiago de Cuba, W. I.	29.98	761.5	30.01	762.2	80	26.7	82	calm	0	0		2 c	2 k	n.		0.05	1.3	fair	Robert Mason.
St. Thomas, W. I.‡	29.85	758.2	29.97	761.2	82	27.8	79	ne.	7	3.1		2 c	6 ks	nw.		0.06	1.5	cloudy	G. O. Gyllich.
York Factory, B. A.	29.77	756.1	29.82	757.4	39.0	3.9	95	w.	13	5.8		3 k	3 s	w.	w.	0	0	cloudy	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, West Is'd, Torres Strait	29.95	760.7	76.8	24.9	78	se.			3-4		6							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Port Mahon, Minorca, Spain	29.88	758.9	78	25.6	77	sse.			2-3		9	sse.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.83	757.7	74	23.3		nne.			2		3	ne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 11° 25′, E. 43° 39′	29.72	754.9	90	32.2	80	nne.			2		0					sm'h		blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott. Comm. G. W. Hand.
H. M. S. Beacon																			Capt. E. B. Pusey.
H. M. S. Bittern																			
H. M. S. Blanche, N. 17° 00′, W. 61° 45′	29.99	761.7	82	27.8	87	s.			1		8							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 4° 36′, E. 11° 43′	30.00	762.0	70.5	21.4	85	calm			0		10	calm				4	sse.	d. clouds	Capt. F. W. Richards. Capt. G. R. Hope.
H. M. S. Champion																			
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant, S. 19° 10′, E. 158° 00′	30.01	762.2	71	21.7		se.			3		2	se.				2	se.	d. clouds	Capt. J. A. T. Bruce. Capt. F. A. Wetherall.
H. L. S. Cruiser																			
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 37° 47′, E. 20° 56′	29.84	757.9	78	25.6		calm			0		0					1	wnw.	blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 34° 11′, E. 18° 28′	29.95	760.7	58	14.4		nw.			1-4		9	wnw.						squally	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.08	764.0	80	26.7	81	ssw.			1		3	ssw.						d. clouds.	Capt. T. Barnardiston. Capt. Hulton.
H. M. S. Dragon																			
H. M. S. Druid, N. 47° 42′, W. 56° 00′	30.16	766.1	58	14.4	93	ne.			2-4		10	nne.						squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.50	749.3	90	32.2		se.			1		2	se.				1	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.80	756.9	84	28.9		sw.			1-2		5							d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 39° 40′, W. 30° 00′	30.18	766.6	70	21.1		e.			3-4		10	w.				2	ne.	d. clouds	Comm. C. Johnstone. Capt. W. H. Maxwell.
H. M. S. Emerald																			
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 5° 19′, E. 43° 56′	29.95	760.7	77	25.0	86	ese.			3-4		10					3	e.	overcast	Capt. R. D. King.
H. M. S. Falcon, N. 35° 48′, E. 10° 19′	29.84	757.9	81	27.2		nne.			3-4		3					3	nne.	d. clouds	Capt. W. H. C. Selby. Capt. W. C. Karslake.
H. M. S. Fantome																			Capt. P. Aldrich.
H. M. S. Fawn																			Comm. R. N. Custance.
H. M. S. Flamingo																			
H. M. S. Flying Fish, Hakodate, Yezo, Japan	29.83	757.7	77	25.0	82	se.			1		7	se.						showery	Capt. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich Is'ds	30.03	762.7	74	23.3	72	ese.			1		4	s.						showery	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argt. Rep.	30.07	763.8	55	12.8	87	s.			4		10							overcast	Capt. L. F. Jones. Comm. J. Ingles.
H. M. S. Griffon																			
H. M. S. Hecla																			Capt. T. L. H. Ward. Capt. J. L. Way.
H. M. S. Humber																			
H. M. S. Inconstant, Levuka, Fiji Islands	29.95	760.7	77	25.0	86	ese.			2		6	se.						d. clouds	Capt. C. C. P. Fitzgerald. Capt. E. H. Seymour.
H. M. S. Iris																			
H. M. S. Iron Duke, N. 42° 02′, E. 138° 45′	29.82	757.4	73	22.8		ssw.			5-6		6	sw.				5	sw.	squally	Capt. R. E. Tracey. Comm. R. H. Thornton.
H. M. S. Kingfisher																			
H. M. S. Lapwing, Batavia, Java	29.79	756.7	83	28.3		w.			1		2	w.						d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, N. 5° 33′, W. 18° 59′	30.05	763.3	81	27.2	78	sw.			2-3		8					2	ssw.	d. clouds	Capt. S. Grove. Capt. C. J. Brownrigg.
H. M. S. Lily																			
H. M. S. London																			
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.73	755.1	82.5	28.1	84	se.			1		4	e.						d. clouds	Capt. A. Carpenter. Capt. W. N. Lang.
H. M. S. Midge																			
H. M. S. Malabar																			Capt. H. H. Rawson.
H. M. S. Minotaur																			
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Susa, Tunis	29.91	759.7	84	28.9	87	e.			2		0							blue sky	Capt. G. C. Tryon
H. M. S. Mutine, S. 51° 35′, W. 68° 15′	29.82	757.4	42	5.6	83	wsw.			7		7					4	wsw.	d. clouds	Capt. F. Edwards.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S Northampton, N. 46° 03′, W. 63° 08′	30.12	765.0	59	15.0	97	nne.			2		fg.							foggy	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin, N. 49° 12′. W. 9° 06′	29.48	748.8	59	15.0		w.			4		7	w.				5	w.	d. clouds	Capt. A. C. Paget.
H. M. S. Phœnix, N. 47° 34′, W. 52° 41′	30.15	765.8	54	12.2	86	ene.			2		10					sm'h		raining	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton
H. M. S. Ready, N. 16° 24′, E. 96° 16′	29.74	755.4	82	27.8		sw.			3		4	sw.				2	sw.	d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 6° 24′, E. 39° 18′	30.06	763.5	79.3	26.3	78	se.			3		5							d. clouds	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 9° 22′, E. 41° 22′	29.57	751.1	79	26.1	86	sse.			2–3							2	e.	blue sky	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 46° 01′, W. 61° 34′	30.18	766.6	59	15.0	87	n.			1		10							overcast	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	30.02	762.5	60	15.6	94	s.			1		10	sse.						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I	29.99	761.7	81	27.2		nnw.			1		2							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.67	753.6	81.5	27.5	87	w.			3		4	sw.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela India	30.04	763.1	72.3	22.4	76	var.			1		10					1		overcast	Carlos Candid dos Reis.
Quanza, N. 14° 54′, W. 23° 34′																			A. M. da Sitra.
Rio Lima	29.97	761.3	81.5	27.5	74	ne.			1		2	n.				1	sw.	d. clouds	Carlos M. de Silva Costa.
Sado																			C. da Silva Costa.
Tamega, Macao, China																			G. A. de Brito Capello.
	29.82	757.4	80.6	27.0	92	se.			2		7			1 h'r	1 h'r			d. clouds	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Uppor.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.11	764.8	83	28.3	87	e.	4	1.8			8		se.	0	0			f air	
N. Yard. Portsmouth, N. H.	30.19	766.8	69	20.6	61	ne.	7	3.1		10 c	0	sse.		0.2	5.			cloudy	
Naval Hospital, Yokohama, Japan	29.76	755.9	80	26.7	78	ssw.			3		0			0	0			clear	
Adams, N. 16° 46′, W. 100° 04′	29.66	753.4	80	26.7	91	ne.			2		10		ne.			long	sw.	cloudy	
Alaska, Callao, Peru	29.95	760.7	60	15.6	94	sse.			1		5			0	0	sm'h		fair	
Alert, Yokohama, Japan *	29.80	756.9	82	27.8	79	s.			2		0					sm'h		clear	
Alliance, N. 72° 52′, E. 17° 28′	30.30	769.6	41	5.0	91	se.			1		10			0	0	sm'h		overcast	
Ashuelot, Kobe, Japan	29.96	761.0	81	27.2	87	w.			3		2		sw.					clear	
Colorado, New York, N. Y.	30.17	766.3	69	20.6	90	s.	10	4.5			10		sw.	0	0			overcast	
Constitution, New London, Conn	30.14	765.5	65	18.3	?	s.	2	0.9			10		s.					raining	
Franklin, Norfolk, Va	30.15	765.8	75	23.9	?	calm	0	0			10			0	0			foggy	
Galena, Leghorn, Italy	29.86	758.4	72	22.2	71	nw.			1		0							clear	
Independence, N. Yard, Mare I'd, Cal	29.58	751.3	60	15.6	82	calm	0	0			0							clear	
Jamestown, Mare Isl'd, Cal *	29.64	752.8	61	16.1	94	wsw.			1		0			0	0			clear	
Kearsarge, New London, Conn	30.21	767.3	66	18.9	94	ssw.			2		10					sm'h		misty	
Lackawanna, Mare Isl'd, Cal †	29.86	758.4	64	17.8	89	sw.			1		0							clear	
Lancaster, Portsmouth, N. H.	30.13	765.3	63	17.2	94	ssw.	2	0.9			10			1.00	25.4			raining	
Marion, [S. A.* Off Buenos Ayres, La Plata,	29.83	757.7	54	12.2		ssw.			4		10		calm	light	light	sm'h		cloudy	
Michigan, Detroit, Mich	29.89	759.2	72	22.2	90	s.			2		2		s.					fair	
Minnesota, Newport, R. I.	30.19	766.8	65	18.3	89	sse.			2		10					sm'h		cloudy	
Monocacy, Yokohama, Japan	29.96	761.0	82	27.8	87	ssw.			2		2		sw.					clear	
Nipsic, Villafranca, France	29.83	757.7	74	23.3	72	sse.			2		5					sm'h		d. clouds	
Onward, Callao, Peru †	30.00	762.0	59	15.0	100	se.			2		8					long	w.	cloudy	
Palos, Hong Kong, China	29.83	757.7	82	27.8	83	ese.			2		8		s;e					showery	
Passaic, Washington, D. C.	30.19	766.8	75	23.9	95	se.			1		10		se.					overcast	
Pensacola. Panama, Panama	29.95	760.7	81	27.2	87	calm			0		8			h'vy	h'vy	sm'h		fair	
Portsmouth, Portsmouth, N. H.	30.17	766.3	61	16.1	100	s.			2		10					sm'h		drizzling	
Powhatan. N. 33° 15′, W. 74° 30′	30.18	766.6	81	27.2	91	se.			2		2		e.			light	s.	fair	
Quinnebaug, Villafranca, France	29.84	757.9	74	23.3	68	se.			1		5					sm'h		fair	
Ranger, Mare Island, Cal	29.63	752.6	65	18.3	78	s.			0–1		0					sm'h		clear	
Richmond, N. 16° 43′, W. 105° 32′	29.82	757.4	82	27.8	91	sw.			3		5?		sw.	1.29	32.8	long	sw.	cloudy?	
Shenandoah, Maldonado, Uruguay *	30.01	762.2	58	14.4	94	wsw.			1		10					sm'h		cloudy	
St. Louis, League Island, Pa	29.96	761.0	71	21 7	85	s.	2	0.9			10		s.	0	0			cloudy	
Swatara, Chefoo, China †	29.92	760.0	76	24.4	86	ene.			2		8		e.					cloudy	
Tennessee, New London, Conn	30.21	767.3	67	19.4	100	ssw.	10	4.5			10			0.03	0.8			drizzling	
Trenton, Villafranca, France *	29.81	757.2	74	23.3	72	e.			1–2		5			0	0			fair	
Vandalia. New London, Conn.	30.18	766.6	66	18.9	94	sw.			2		10		calm					drizzling	
Wabash, Boston, Mass.	30.19	766.8	65	18.3	89	sw.	13	5.8			10		calm	0	0			misty	
Wachusetts. Sitka, Alaska *	30.01	762.2	58	14.4	88	se.			1		10		calm	0	0			overcast	
Wyoming. Port Royal, S. C.	30.46	773.7	80	26.7	87	ne.	4	1.8			2		e.	0	0			fair	
Yantic, New London, Conn *	30.16	766.1	66	18.9	94	s.			2		10							drizzling	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 49° —′, W. 63° —′ *†	30.46	773.7				ese.	2		8		se.			sm'h		cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 40° 39′, W. 57° 22′	30.05	763.3	74	23.3	95	wnw.	3		10		w.			sm'h		overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng. †	29.91	759.7	58	14.4	76	e.	3		2		e.	light	light			clear	C. W. Walker, 2d Offi.
S. S. Ohio, Capt. H. Morrison, N. 39° 17′, W. 69° 12′ *†	30.33	770.4	68	20.0	90	nne.	1		10		nne.			mod.	ene.	cloudy	
S. S. Pennsylvania, Capt. G. H. Dodge, N. 48° 57′, W. 22° 03′ †	29.85	758.2	63	17.2	73	nne.	5		5		nne.			mod.	n.	fair	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, N. 31° 41′, W. 16° 11′	30.19	766.8	74	23.3	86	nne.	3		4						nw.	blue sky	
S. British Merchant, Capt. E. J. Moloney, ‡ N. 27° 45′, W. 37° 19′	30.27	768.8	81.2	27.3	70	ene.	3		3							d. clouds	
S. S. Cipero, Capt. W. N. Lailey, N. 15° 47′, W. 46° 45′	30.07	763.8	82	27.8	79	ene.	3		5					2	ene.	d. clouds	
Bk. Commeywyne, Capt. W. Scott, N. 50° 22′ W. 14° 46′	29.44	747.8	59.4	15.2	88	ne.	5		10							drizzling	
Bk. Coppename, Capt. A. Buchan, N. 28° 46′, W. 51° 10′	30.14	765.5	85.0	29.4	68	s.	1		1							blue sky	
Bk. Glaramara, Capt. R. Morton, N. 39° 02′. W. 15° 56′ ‡	30.40	772.1	58	14.4	100	ne.	4		6							showery	
Bg. Hermine, Capt. S. G. Jones, N. 26° 04′, W. 21° 22′	30.21	767.3	74	23.3	76	ne.	5		5							d. clouds	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride, N. 11° 32′, W. 53°, 17′	30.03	762.7	85	29.4		e.	2		1							blue sky	
S. Lochee, Capt. J. Raeburn, S. 21° 50′, W. 34° 44′ ‡	30.35	770.9	71	21.7	85	e.	6		3							d. clouds	
Bk. Mertola, Capt. E. W. Turner																	
Naiad, Capt. J. Smith, S. 41° 13′, W. 79° 53′	30.43	772.9	45.7	7.6	80	ese.	5		9							overcast	
S. Pleione, Capt. C. H. Renant, S. 28° 00′, W. 33° 52′	30.41	772.4	68	20.0	79	ne.	4		4							d. clouds	
Queen of Cambria, M. Parry																	
Sierra Estralla, Capt. P. Murdoch																	
Bk. Shun Lee, Capt. J. N. Gray, ‡ S. 3° 53′, W. 27° 10′	30.07	763.8	76.3	24.6	83	e.	4		2							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson Off Hong Kong	29.77	756.1	81.0	27.2	98	e.	3		5							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA, AND MEXICAN S. S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern. Capt. E. Rogers																	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains, N. 51° 13′, W. 16° 28′	29.64	752.8	57	13.9		ne.	6		10		ne.	0	0	mod.	e.	cloudy	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
S. S. Hermann, Capt. H. Baur																	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jungst, N. 48° 28′, W. 23° 32′	29.91	759.7	62.0	16.7	91	nw.	5–6		8		nw.	1 h'r	sh'rs	cross	n.	cloudy	T. Jüngst.
S. S. Leipsic, Capt. F. Pfeiffer																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 40° 30′, W. 61° 36′	30.11	764.8	72.5	22.5	95	ne.	5		10		ne.	0	0	mod.	ne.	cloudy	Englehart and von Goessel
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 40° 57′, E. 174° 06′ †	29.46	748.3	68	20.0	84	sw.	7		10		sw.	rain	rain	high	sw.	overcast	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 48° 11′, W. 161° 44′ *†	30.44	773.2	58	14.4	88	n.	4		10		n.			mod.	nne.	foggy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 31° 28′, E. 132° 56′	29.93	760.2	83	28.3	75	se.	2		1		e.	0	0	mod.	ese.	fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann, N. 44° 14′, W. 124° 35′ †	30.03	762.7	58	14.4	94	nnw.	2		0					mod.		clear	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO.																	
Goodall, Perkins & Co., Agents, San Francisco.																	
S. S. Ancon, Capt. J. N. Ingalls, San Francisco, Cal.†	29.68	753.9	56	13.3	87	calm	0		0							clear	J. N. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound.†	30.17	766.3	57	13.9	75	s.	2		0			0	0	sm'h	nnw.	clear	
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal.†	29.72	754.9	57	13.9	87	sw.	2		0							clear	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 34° 35′, W. 120° 39′.†	29.72	754.9	56	13.3	87	w.	5		8		sw.			mod.	sw.	cloudy	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal.†	29.72	754.9	55	12.8	93	sw.	1		0							clear	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal.†	29.67	753.6	54	12.2	87	n.	2		2							fair	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 39° 43′, W. 124° 10′.†	29.86	758.5	56	13.3	87	nw.	5		0					h'vy	nw.	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO.																	
Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.																	
S. S. Australia, Capt. ——, Sydney, N. S. W.†	30.21	767.3	48	8.9	100	calm	0		2							clear	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.†	30.16	766.1	64	17.8	73	sw.	3		10			0	0			overcast	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry																	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, Panama, Panama.†	29.91	759.7	84	28.9	87	n.	2		5		n.	0	0	sm'h	s.	fine	
S. S. City of Sidney, Capt. H. C. Dearborn, N. 35° 38′, W. 128° 28′.†	30.03	762.7	62	16.7	83	nnw.	7		8		n.	0	0	very h'vy	n.	cloudy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury																	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, N. 14° 48′, W. 94° 29′.†	29.93	760.2	80	26.7	87	w.	3		7		w.	0.02	0.5	mod.	con	cloudy	R. R. Searle.
S. S. Grenada. Capt. M. Connolly N. 31° 23′, W. 119° 45′.†	29.78	756.4	60	15.6	100	sw.	3		10		sw.	0	0	long	wnw.	misty	M. Connolly.
S. S. Zelandia, Capt. H. Webber, N. 19° 48′, W. 158° 24′	30.09	764.3	77	25.0	82	n.	3		5?		ne.			mod.	ne.	overcast?	H. Webber.
RED STAR LINE.																	
Peter Wright & Sons, Agents, New York and Philadelphia.																	
S. S. Nederland. Capt. Ueberweg, N. 42° 17′, W. 51° 44′.†	30.26	768.6	71	21.7	71	calm	0		10			0	0	sm'h		dense fog	A. Fedderson, 2d Off
S. S. Rhynland, Capt. W. G. Randall, N. 49° 01′, W. 19° 14′.†	29.71	754.6	59	15.0	82	n.	6		10		n.	0.1	3.	high	n.	cloudy	C. H. Grant, 2d Off.
WHITE STAR LINE.																	
R. J. Cortis, Agent, New York.																	
S. S. Adriatic, Capt. J. W. Jennings																	R. Horsfall.
S. S. Britannic, Capt. H. Perry. N. 40° 59′, W. 61° 35′.†	30.18	766.6	72	22.2		ne.	3		8		e.	0	0	mod.	ne.	cloudy	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, N. 49° 58′, W. 33° 07′.†	30.31	769.9	54	12.2	87	nw.	3		8		nw.	shr's	sh'rs	mod.	nw.	showery	
S. S. Republic. Capt. P. J. Irving																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass.†	30.19	766.8	62	16.7	100	sse.	4		10 n			0	0			cloudy	
Golden Fleece																	
Hassler, Lt. Com. Nichols, Kargani Strait, Alaska.*†	30.14	765.5	56	13.3		wsw.	2		10							raining	
S. Iron Cross, Capt. Randall, S. 19° 35′, W. 2° 2c′.*	30.14	765.5	65.5	18.6	97	se.	5		4		se.	sli't	sl't	mod.	sse.	d. clouds	W. Randall.
S. Pawashick, Capt. E. Fry																	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal.†	30.10	764.5	72	22.2	55	nnw.	6		5		nw.	light	light			fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 6, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.92	760.0	77.7	25.4	76	w.			5		4			0	0	cloudy	Raynard.
Algiers ‡			29.95	760.7	81.3	27.4	77	w.			6		10			inap.	inap.	covered	Nicolas.
La Calle ‡			29.97	761.1	88.2	31.2	64	w.			1		5			0	0	cloudy	Fonfréde.
Tunis ‡			29.99	761.7															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.94	760.5	85.1	29.5	30	n.			2		3			0	0	pretty fair	Dumas.
Tebessa ‡			29.94	760.5	74.8	23.8	35	sse.			5		0			0	0	clear	Derché.
Tebessa ‡					91.0	32.8	11	nw.			7		0			0	0	clear	Lonchamp.
Geriville ‡			29.95	760.6	99.7	37.6	13	nw.			4		0			0	0	clear	Herbin.
Laghouat ‡			29.94	760.4	99.7	37.6	18	se.			5		10			0	0	covered	Malan.
Biskra ‡																			
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.34	770.6	30.43	772.9	48.5	9.2	79	ssw.	4	1.8			4			0.03	0.8	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.35	745.4	29.87	758.8	74.5	23.6	56	s.			3		8			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.17	741.0	29.92	759.9	69.4	20.8	58	s.	3.1	1.4			4			0	0		Dr. Wiersbicki.
Eperies	29.01	736.9	29.86	758.5	69.8	21.0	62	se.			2	2 cs	0			0	0		Julius Mikolik.
Gratz ‡	28.63	727.2	29.83	757.7	69.8	21.0	82	se.			2		2			0	0		Andreas Rospini.
Hermannstadt	28.50	724.0	29.87	758.7	73.8	23.2	44	nw.			1		4			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.50	723.8	29.79	756.6	65.8	18.8	79	ene.			1		5			0	0	fair	The Staff.
Lemberg	28.90	734.1	29.87	758.7	61.2	16.2	86	nw.			1		10			0	0		Dr. T. Stanecki.
Pola	29.83	757.7	29.94	760.5	74.3	23.5	79	sse.			3		9			0	0		I. R. Hydrographic Office.
Szathmar	29.46	748.3	29.91	759.7	71.2	21.8	53	w.			3		4			0	0		Beicht Petér, S. J.
Szegedin	29.63	752.7	29.90	759.5	73.8	23.2	58	calm			0		0			0	0		Karl Stancel.
Trieste	29.85	758.2	29.95	760.8	64.9	18.3	100	n.			1		10			0.146	3.7	cloudy	Secco.
Vienna	29.17	741.0	29.87	758.6	68.2	20.1	74	se.			2		7			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 11, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.34	745.2	29.44	747.8	58.0	14.4	81	nw.	5	2.2			9			0.180	4.6	overcast	W. Boswell.
Armagh, Observatory	29.33	745.0	29.55	750.6	54.2	12.3	86	nnw.	3	1.3			10					gloomy	S. Call.
Bidston, Liverpool Obs'y			29.52	749.8	56.3	13.5	74	nw.	9	4.0			10					overcast	John Hartnup.
Bolton, Sharples	28.99	736.3	29.52	749.8	51.7	10.9	89	nnw.					10					raining	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.17	740.9	29.56	750.8	54.7	12.6	77	ne.			1		10			0.02	0.5	overcast	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.51	749.5	63.0	17.2	75	sw.			2.0		9					overcast	John McLaren.
Chatham, School M. E.	29.49	749.0	29.62	752.3	61.6	16.4	80	sw.			2		8			blank	blank	d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.30	744.2	29.52	749.8	60.9	16.1	80	sse.			2		5					d. clouds	The Staff.
Fort Napier, Natal	27.68	703.1	29.89	759.2	65.2	18.4	63	se.			2		6						Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.65	753.1	29.88	758.9	85.0	29.4	87	se.			1		4					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.63	752.6	60	15.6	70	ne.			2		8					d. clouds	J. O'Donaghue.
Gibraltar, Mediterranean	29.94	760.5	29.99	761.7	76.6	24.8	85	w.			4		5					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.26	743.2	29.46	748.3	54.4	12.4	82	ene.			2		10					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.40	746.7	29.56	750.8	61.2	16.2	75	sw.			1		4					showery	The Staff.
Guernsey	29.32	744.7	29.54	750.3	57.5	14.2	84	se.			2		8					raining	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.53	750.0	29.57	751.1	62.0	16.7	72	s.	17	7.6			6					d. clouds	The Staff.
Leicester, Museum	29.26	743.2	29.51	749.5	53.0	11.7	97	n.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.87	758.7	29.94	760.5	79.4	26.3	80	ne.			2		0					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.00	762.0	30.04	763.0	83.0	28.3	81	ne.			3		4			blank	blank	d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.30	744.2	29.53	750.0	59.7	15.4	70	ssw.			4		9			blank	blank	squally	The Staff.
Plymouth	29.44	747.8	29.51	749.5	61.0	16.1	85	se.			2		2					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.46	748.3	56	13.3	94	ne.	16	7.2			10					drizzling	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.82	757.4	29.88	758.9	84.6	29.2	58	sw.			1		1					d. clouds	Serg't W. H. Lyne.
Sheffield	29.26	743.2	29.53	750.0	53.3	11.8	94	ene.			1		10			0.02	0.5	overcast	W. F. Cooper.
Silloth Rectory	29.47	748.5	29.50	749.3	57.4	14.1	86	sw.			2		8			0.390	9.9	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.53	750.0	55.0	12.8	80	nne.	1	0.4			10					drizzling	Rev. S. J. Perry.
Stratfield Turgiss					63.9	17.7	61	sw.			4		4					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.48	748.8	29.49	749.0	66	18.9	59	s.			4		4					d. clouds	W. Newcombe.
Valencia, Observatory	29.59	751.6	29.62	752.3	58.1	14.5	76	nne.	12	5.4			10					misty	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.03	762.7	30.07	763.8	60	15.6	93	s.	6	2.7			10 n			0.03	0.8	threatening	H. J. Cundall, C. E.
Chatham, N. B.*	29.94	760.5	30.00	762.0	60	15.6	93	s.	8	3.6			10 s		s.	0.01	0.3	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.84	757.9	29.86	758.4	63	17.2	90	sw.	20	8.9			10 s		sw.	0.44	11.2	cloudy	J. McWilliams.
Fort Garry, Manitoba*	29.37	746.0	30.23	767.8	31	— 0.6	96	sw.	1	0.4		2 ck	5 s	sw.	sw.	0.040	1.0	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.99	761.7	30.11	764.8	59	15.0	96	n.	2	0.9		8 k	0			0	0	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.71	754.6	30.03	762.7	75	23.9	84	s.	4	1.8			10 s		calm	0	0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.79	756.7	29.98	761.5	77	25.0	76	sw.	12	5.4		0	8 ks			0.20	5.1	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.36	745.7	30.02	762.5	69	20.6	93	calm	0	0		5 k	sk.	w.		0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.42	747.3	30.08	764.0	76	24.4	95	sw.	2	0.9		10 ck	0	nw.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.46	748.3	30.07	763.8	73	22.8	93	sw.	4	1.8		5 ck?	0	w.		0	0	cloudy?	M. Payne.
Quebec, Quebec*	29.62	752.3	29.94	760.5	67	19.4	93	se.			1		10 n		se.	0.18	4.6	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.58	751.3	30.03	762.7	68	20.0	93	w.	1	0.4			sk.			0	0	smoky	W. H. McIntyre.
Saugeen, Ontario*	29.32	744.7	30.00	762.0	75	23.9	82	w.	3	1.3			sk.			0	0	smoky	K. Stewart.
St. Andrews, N. B.	29.97	761.2	30.02	762.5	57	13.9	99	s.	2	0.9			fg.			0.20	5.1	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.05	763.3	30.10	764.5	56	13.3	86	nw.	4	1.8			10 s			0.01	0.3	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.69	754.1	30.05	763.3	75	23.9	76	sw.	3	1.3		8 cs	sk.	w.		0	0	fair	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.02	762.5	30.09	764.3	56	13.3	100	sw.	4	1.8			10 n		sw.	0.12	3.0	light rain	Lt. F. E. Wilmot, R. N.
SUB-SERIES.																			
St. Johns, Newfoundland	29.87	758.7	30.12	765.0	53	11.7	100	se.				fg.	fg.			1.80	45.7	foggy	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.16	766.1	30.19	766.8	60.2	15.7	76	sw.	18.3	8.2		0	2 k			0.060	1.5	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.29	744.0			61	16.1	49	ese.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
SUB-SERIES.																			
Zi-Ka-Wei, near Shanghai	29.78	756.5	29.81	757.1	76.1	24.5	93	se.	10.7	4.8		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.79	756.7	29.84	757.9	62.8	17.1	82	sse.	16	7			9						Oversergent Fischer
Fanöe	29.68	753.9	29.70	754.4	60.3	15.7	85	sse.			4		9						Overloerer Lauridsen
Godthaab, Greenland	29.91	759.7	29.95	760.8	41.9	5.5	91	s.			4		10					raining	S. Kleinschmidt.
Stykkisholm, Iceland	30.01	762.2	30.05	763.3	53.6	12.0	84	calm			0		5						A. O. Thorlacius.
Thorshavn	29.66	753.3	29.69	754.2	51.6	10.9	79	ne.	13	6			10						Overloerer Bergh.
Vestervig	29.63	752.6	29.72	754.9	61.2	16.2	83	se.			4		10					raining	Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.05	737.9	29.67	753.6	74.8	23.8	40	sse.			1	2 cs	0	sw.		0.008	0.2	slightly cl'dy	M. Labroue, Director.
Alençon Normal School	29.10	739.1	29.65	753.1	63.0	17.2	73	se.			3	0	k	w.	s.	0.16	4.		M. Nicot, Director.
Arras, Engineer School	29.44	747.8	29.69	764.2	62.6	17.0	65	s.			0		km		ssw.				M. Klein, Commandant.
Avignon, Normal School	29.80	756.9	29.88	758.9	73.6	23.1	72	n.			1		8		nw.	1.118	28.4	very cloudy	M. Giraud, Director.
Bar-sur-Seine	29.20	741.6	29.73	755.2	68.2	20.1	54	se.			1		5		s.	0.059	1.5	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.44	747.7	29.69	754.2	66.0	18.9	58	ssw.			2		8		sw.	0.110	2.8	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.89	733.9	29.77	756.1	62.2	16.8	75	sse.			3		10		sse.			raining	M. Gobin, Director.
Bordeaux, Observatory	29.39	746.4	29.64	752.8	71.8	22.1	34	sw.			3		8		ssw.	0.075	1.9	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.10	739.1	29.63	752.7	75.6	24.2	25	sw.			1		8		sw.	0.031	0.8	very cloudy.	M. Postel, Director.
Brest, Naval Observatory	29.27	743.4	29.51	749.6	60.4	15.8	83	ese.			1		7		e.	0.039	1.0		M. de Rermaree, Dir.
Caen, Normal School	29.52	749.7	29.59	751.6	64.0	17.8	76	s.			1		8		s.	0	0	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					68.4	20.2	64	s.			4		2		s.	0.051	1.3	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.24	742.6	29.73	755.1	65.1	18.4	44	s.			1		2			0.236	6.0	¼ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.36	720.3	29.66	753.3	68.7	20.4	54	e.			1		8			0.189	4.8	¾ covered	M. Alluard, Director.
Cluny, Normal School	28.93	734.8	29.74	755.3	65.8	18.8	71	s.			1		3		sw.	0.51	13.		M. de Villemontée, Dir.
Commercy, Normal School	28.90	734.1	29.74	755.3	65.1	18.4	60	ese.			1		2	ese.	ese.	0.067	1.7	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.35	694.7	29.81	757.2	66.2	19	68	n.			1	0	5 k		s.	1.50	38.	½ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	28.77	730.7	29.91	759.7	70.5	21.4	73	se.			2		10		se.	0.047	1.2	covered	M. Kina, Director.
Grenoble, Normal School	29.01	736.9	29.76	755.8	66.6	19.2	64	ene.			1	0	k			0.559	14.2		M. Ablard, Director.
Guéret, Normal School	28.15	714.9	29.67	753.5	69.1	20.6	74	s.			2	0	2 s			0	0	slightly cl'dy	M. Rivoire, Director.
Lamballe, Normal School	29.37	746.0	29.64	752.8	58.1	14.5	84	se.			4		10		se.			raining	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.37	746.0	29.47	748.6	56.8	13.8	91	e.			2		10	se.	e.	0.047	1.2	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.72	729.4	29.76	755.8	61.3	16.3	87	ese.			1		10		s.	0.370	9.4	covered	M. André, Director.
Mans, Normal School	29.34	745.2	29.64	752.8	66.0	18.9	53	s.			1		2		sw.	0.134	3.4	slightly cl'dy	M. Piboen, Director.
Marseille, Observatory	29.52	749.8	29.78	756.5	75.0	23.9	69	e.			2–3		10		sse.	0.047	1.2		M. Stephan, Director.
Montlouis l'Instituteur	24.65	626.1	29.89	759.1	61.2	16.2	24	sw.	18.6	8.3			5			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.64	752.8	29.76	756.0	63.3	17.4	96	ese.			3		8		se.	0	0	foggy	M. Pourie, Director.
Nancy, Normal School	29.05	737.8	29.79	756.7	63.0	17.2	67	s.			1	5 ck	0			0.244	6.2	cloudy	M. Hasse.
Nantes, Observatory	29.43	747.4	29.59	751.5	64.2	17.9	71	s.			2–3		10		s.	0.559	14.2		M. Larocque, Director.
Nice	29.87	758.6	29.90	759.4	66.4	19.1	87	e.			2		10	e.	e.			light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.56	750.8	29.66	753.4	71.6	22.0	73	sw.	22.4	10.0			9	sse.	s.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.35	567.8			44.2	6.8							1		s.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School	28.78	730.9	29.81	757.1	66.2	19	92	s.			1		10	s.	s.	0.283	7.2	raining	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.96	634.0			51.1	10.6	69	sw.			1		8			0.280	7.1	stormy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.62	752.4	29.65	753.2	68.0	20.0	91	s.			4		10		sw.	0.031	0.8	covered.	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.35	745.4	29.56	750.8	61.9	16.6	90	s.			4		10		sw.	0.35	9.	raining	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.60	751.9	29.69	754.1	55.4	13	77	sse.			1		2			0.08	2.	slightly cl'dy	M. Platrier, Director.
Saint Lô, Normal School	29.43	747.6	29.59	751.6	62.2	16.8	80	sw.			3		10		w.	0.295	7.5	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.54	750.2	29.70	754.4	67.3	19.6	52	s.			1		1	wsw.	s.	0.130	3.3		M. Renou, Director.
Toulouse, Observatory	29.03	737.4	29.74	755.5	76.3	24.6	59	sse.			1		1	w.		0	0	clear	M Bailland, Director.
Tours	29.44	747.8	29.64	752.8	69.8	21.0	46	sw.			3		8		wsw.	0.213	5.4	¾ covered	M. de Tastes.
Versailles, Observatory	29.20	741.6	29.69	754.1	66.9	19.4	51	sw.			2					0.047	1.2		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.42	747.2	29.71	754.6	67.5	19.7	54	s.			2		2		wsw.	0.150	3.8		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.00	736.5	29.85	758.2	63.1	17.3	80	wnw.			2	0	6 k		w.	0.098	2.5	raining	Prof. Dr. Hoh.
Berlin	29.65	753.2	29.82	757.4	68.4	20.2	69	se.			2		9			0	0		Prof. Dr. Arndt.
Breslau	29.41	746.9	29.93	760.3	70.2	21.2	52	se.			2		1			0	0		Royal University Obs'y.
Carlsruhe	29.38	746.3	29.80	756.8	64.9	18.3	78	ne.			1		10	sw.		0	0		Albert Senz.
Cassel	29.06	738.0	29.77	756.2	68.4	20.2	60	s.			2		5	s.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.43	747.4	29.78	756 4	68.0	20.0	57	ssw.			1		8			0.12	3.		Physical Society.
Friedrichshafen	28.42	721.9	29.82	757.5	63.0	17.2	82	sw.			4		10	sw.		0.331	8.4		Wilhelm, Chief Tel.
Hamburg	29.69	754.0	29.78	750.4	61.2	16.2	85	sse.			3		7	s.		0.028	0.7	light rain	E. Preller.
Kiel	29.75	755.6	29.76	756.0	60.6	15.9	87	s.			2		10			0.079	2.0		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.44	747.8	29.85	758.3	63.7	17.6	81	sse.			1		9	sw.		0	0		H. Leppig, Asst.
Magdeburg	29.63	752.6	29.82	757.3	63.3	17.4	86	sse.			1		9 ks		ssw.	0.106	2.7		Dr. Assmann.
Memel	29.91	759.7	29.96	760.9	72.1	22.3	78	nnw.			3	4 c	0						Issermann.
Munich	28.05	712.4	29.90	759.5	66.9	19.4	63	ne.			2		2	e.		0	0		Central Station.
Neufahrwasser	29.93	760.2	29.95	760.6	63.7	17.6	84	nne.			2		4			0.205	5.2		A. Lothes.
Neustadt, Palatinate	29.24	742.6	29.76	755.9	67.5	19.7	70	s.			2		8			0.055	1.4		Dicknether.
Stuttgart	28.86	733.0	29.72	755.0	65.3	18.5	79	e.			1		10			0.287	7.3	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.35	720.2	29.81	757.2	69.3	20.7	61	e.			2		9	e.		0.075	1.9		Fischer.
Wustrow	29.78	756.4	29.80	757.0	55.8	13.2	81	se.			3		10 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.56	750.9	29.94	760.4	83.5	28.6		sw.			2.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.67	753.6	29.72	754.9	84.2	29.0	74	ssw.	22.0	9.8			0			0	0	blue sky	
Deesa	29.25	743.0	29.72	754.8	86.9	30.5	57	wsw.					8		sw.	0	0	d. clouds	
Bombay	29.80	756.8	29.83	757.8	83.7	28.7	77	w.e	8.0	3.6			2		nw.	0.03	0.8	d. clouds	
Poona, Yarrowda.	27.98	710 6	29.84	757.9	77.0	25.0	70	wnw.	23.0	10.3			4		w.	0	0	d. clouds	
Belgaum	27.31	693.7	29.87	758.6	72.6	22.6	77	w.	11.0	4.9			5	e.	sw.	0	0	d. clouds	
Lahore	28.87	733.3	29.59	751.6	93.9	34.4	50	calm	1.6	0.7			0			0	0	blue sky	
Roorkee	28.72	729.6	29.60	751.7	91.2	32.9	63	nw.	2.1	0.9			4			0	0		
Agra	29.12	739.6	29.67	753.7	87.7	30.9	68	w.	3.3	1.5			1			0	0		
Nagpur	28.67	728.3	29.70	754.2	89.7	32.1	49	calm	2.2	1.0			8	w.		0	0	d. clouds	
Jubbulpore	28.38	720.9	29.72	755.0	83.7	28.7	65	calm	1.7	0.8			0			0	0	blue sky	
Lucknow	29.30	744.2	29.67	753.6	85.1	29.5	66	wsw.	4.7	2.1			0			0	0	blue sky	
Allahabad	29.36	745.8	29.67	753.6	86.7	30.4	69	sw.	2.6	1.2			0			0	0	blue sky	
Patna	29.50	749.2	29.68	753.7	87.8	31.0	67	w.	2.7	1.2			4	w.	w.	0	0	d. clouds	
Hazaribagh	27.69	703.3	29.68	753.8	81.3	27.4	75	nnw.	4.9	2.2			7		nw.	0	0		
Cuttack	29.61	752 2	29.70	754.3	82.0	27.8	82	wnw.	0.1	0.04			10			0.36	9.1	showery	
Calcutta, Alipore	29.63	752.7	29.66	753.2	84.3	29.1	88	calm	0	0			10			0.05	1.3	overcast	
Dhubri	29.52	749.9	29.65	753.0	82.3	27.9	88	calm	0.9	0.4			6		w.	0.37	9.4	d. clouds	
Chittagong	29.60	751.9	29.69	754.2	81.2	27.3	88	sw.	3.5	1.6			5			0	0	blue sky	
Sibsagar	29.31	744.5	29.64	752.9	85.2	29.6	83	ssw.	2.0	0.9			6	ne.	ne.	0	0	d. clouds	
Jeypore	28.28	718.4	29.69	754.1	91.4	33.0	47	wsw.	3.1	1.4			4		wsw.	0	0	d. clouds	
Zanzibar, Africa			30.03	762.7	82.8	28.2	60	se.	7	3.1			8		se.	0	0	threatening.	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.54	750.2	29.94	760.4	73.2	22.9	71	s.	0.7	0.3			9			0	0		Prof. Giovanni Clodig.
Milan	29.42	747.2	29.92	760.0	72.1	22.3	65	e.	3.8	1.7			10	se.		0.020	0.5		Prof. Schiaparelli.
Padua	29.82	757.5	29.93	760.1	74.7	23.7	51	ese.	4.3	1.9			5	ese.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.00	736.7	29.89	759.2	63.3	17.4	87	nnw.	5.6	2.5			9			0.138	3.5		Prof. P. F. Denza.
Genoa	29.76	755.8	29.95	760.7	68.0	20.0	76	e.	4.3	1.9			10	se.		0.079	2.0		Prof. G. M. Garibaldi.
Mondovi	28.01	711.4	29.87	758.8	65.1	18.4	74	w.			2		7			0.142	3.6		Prof. D. C. Bruno.
Pesaro	29.98	761.6	30.03	762.8	75.6	24.2	68	se.	9.8	4.4			0			0	0		Prof. Luigi Guidi.
Florence	29.67	753.7	29.92	760.0	75.9	24.4	51	nw.			2		3			0	0		Prof. Costantino Pitter.
Leghorn	29.85	758.2	29.93	760.3	73.4	23.0	70	se.	0	0			7			0	0		Prof. P. Monte.
Rome	29.79	756.7	29.96	761.0	81.0	27.2	40	sse.					1			0	0		Prof. P. S. Ferrari.
Lecce	29.74	755.5	29.99	761.8	83.3	28.5	44	sse.	8.1	3.6			2			0	0		Prof. C. de Giorgi.
Cosenza	29.10	739.1	29.95	760.7	78.8	26.0	63	sse.	1.8	0.8			3	se.		0	0		Prof. D. Conti.
Cagliari	29.70	754.4	29.89	759.1	81.7	27.6	56	ese.			2		1			0	0		Prof. A. Pacinotti.
Palermo	29.74	755.3	29.97	761.3	79.0	26.1	50	e.	6.3	2.8			1			0	0		Prof. G. Ciacciatore.
Syracuse	29.88	759.0	29.93	760.1	76.5	24.7	59	ssw.	6.9	3.1			4	wsw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.46	748.2	29.96	761.0	77.0	25.0	64	ne.	1.8	0.8			0			0	0		Prof. F. Brioschi.
Stelvio	22.19	563.6			42.4	5.8	76	w.			6		10 n	sw.		0.500	12.7	covered	Prof. P. F. Denza.
Valdobbia	22.21	564.2			41.5	5.3	99	n.			2		10 kn	w.		0.453	11.5	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.92	759.9	29.93	760.2	79.4	26.3	78	ssw.	1.6	0.7		3ck;cs	0			0	0	fair	K. Sasaki.
Kioto	29.83	757.7	29.99	761.7	74.9	23.8	84	s.	1.5	0.7		2ck;cs	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.77	756.1	29.97	761.2	79.8	26.6	84	s.	1.4	0.6		ck	6 s			0	0	fair	S. Takehayashi.
Niigata	29.95	760.7	29.98	761.5	76.7	24.8	81	ne.	4.9	2.2		ck;cs	10 n			2.250	57.2	raining	
Nobiru	29.94	760.5	29.96	761.0	73.7	23.2	85	nnw.	10.4	4.6		ck	2 s			0.460	11.7	fair	
Supporo	29.78	756.4	29.85	758.2	62.2	16.8	92	calm	0	0			10			1.265	32.1		
Tokei Obs'y, Yeddo	29.88	758.9	29.95	760.7	79.8	26.6	78	ssw.	3.5	1.6			10 s			0	0	cloudy	The Staff.
Wakayama	29.94	760.5	29.99	761.7	79.7	26.5	72	s.	3.4	1.5		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.06	763.5	30.25	768.2	72.3	22.4	64	e.	22.5	10.1		0	4		ese.	0.04	1.0	squally	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.65	600.8	29.87	758.8	59.5	15.3	88	s.	0	0		5	4	e.	e.	0.370	9.4	very cloudy.	Vicente Fernandez.
Leon	24.38	619.2	29.98	761.5	64.2	17.9	98	nw.			1	8 c	1 k	nw.		0.386	9.8	very cloudy	Prof. M. Leal.
Mazatlan	29.59	751.6	29.85	758.1	77.0	25.0	88	ene.	0.9	0.4		1 cs	1 k			0.866	22.0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.06	585.8	30.03	762.7	59.0	15.0	86	calm	0	0			10 kn			0	0	overcast	The Staff.
Morelia	24.05	610.9	30.11	764.7	55.9	13.3	76	se.			2	2	2	se.	se.	0	0.	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.91	607.2	29.87	758.6	61.3	16.3	94	calm			0	0	9 ns		e.	0.205	5.2	very cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.7	30.14	765.5	55.6	13.1	70	calm	0	0		0	6		e.	0.099	2.5	½ cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.55	572.8	30.14	765.6	55.4	13.0	92	e.	1.7	0.8			8 ns		e.	0.039	1.0	cloudy	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.69	754.2	29.69	754.2	61.3	16.3		s.			4					0.043	1.1		
Groningen	29.65	753.0	29.70	754.4	63.0	17.2		sw.			4					0.039	1.0		
Helder	29.64	752.9	29.64	752.9	60.4	15.8		ssw.			5					0.102	2.6		
Hellevoetsluis	29.67	753.7	29.67	753.7	63.1	17.3	74	ssw.			4					0	0		
Utrecht	29.67	753.5	29.71	754.7	63.1	17.3	78	ssw.			4		8			0	0	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.60	751.7	29.66	753.3	66.6	19.2	59	sse.	7.4	3.3			7			0.067	1.7		
Christiania	29.73	755.1	29.87	758.7	63.1	17.3	69	se.	7	3			4			0.390	9.9		
Gjæsvær	30.00	762.1	30.03	762.7	50.7	10.4		ene.			4		8						
Lodingen	29.89	759.3	29.94	760.5	57.7	14.3	69	calm			0		2			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.69	754.0	29.84	757.8	69.8	21.0	96	nne.	3.8	1.7			6			0.630	16.0		Dr. J. A. Sampaio.
Campo Major	28.93	734.9	29.91	759.8	68.7	20.4	48	wsw.	9.4	4.2			9			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.03	762.7	30.11	764.8	74.8	23.8	47	sw.	8.1	3.6			4			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.62	752.3	29.97	761.3	67.6	19.8	63	sw.	21.7	9.7			7			0	0		The Staff.
Ponta Delgada, Azores	29.85	758.2	29.92	760.0	76.6	24.8	82	wsw.	11.9	5.3			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.52	724.5	29.57	751.1	58.6	14.8	86	w.	4	2		0	6 k					heavy cl'ds.	Capt. Lasarew.
Archangel	30.22	767.6	30.24	768.1	45.1	7.3	73	nw.	9	4			10					light clouds	Capt. Sselliwerstow.
Astrakhan	30.01	762.2	29.93	760.1	84.6	29.2	36	ese.	9	4		0	0						Capt. Wisganow.
Barnaul ‡	29.19	741.5	29.67	753.7	54.0	12.2	56	sw.	2	1			9						Meteorological Obs'y.
Dorpat	29.82	757.5	30.06	763.5	66.4	19.1	74	e.	7	3			9 k						Observatory.
Ekaterinburg	28.87	733.3	29.85	758.1	39.0	3.9	59	nw.	9	4			10						Meteorological Obs'y.
Kasan	29.78	756.3	30.04	763.1	59.0	15.0	41	nw.	4	2		0	0						Observatory.
Kertch	29.87	758.7	29.89	759.2	76.5	24.7	52	nnw.	9	4		2 ck	0			0	0		Lagorio & Sastyrez.
Kieff	29.16	740.6	29.75	755.7	74.5	23.6	50	se.	7	3		c;cs	4 ks						Observatory.
Lugan	29.63	752.7	29.84	757.8	68.9	20.5	74	sw.	2	1			10			blank	blank		Meteorological Obs'y.
Moscow	29.52	749.9	29.99	761.6	64.9	18.3	61	nnw.	7.8	3.5		0	7 ks						Meteorological Obs'y.
Nikolaiev	29.80	756.9	29.87	758.7	76.1	24.5	50	nw.	4	2		0	3 kn						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.72	754.8	29.80	757.0	53.4	11.9	94	calm			0		10 n			0.102	2.6	raining	Lieut. Iwanow.
Pekin, China	29.84	758.0	29.98	761.6	72.5	22.5	82	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.13	765.2	30.14	765.6	59.4	15.2	75	ese.	9	4		cs	3 k						Central Physical Obs'y.
Tashkend, Laboratory	28.37	720.7	29.87	758.8	77.0	25.0	62	calm	0	0			0						Teich, A. M.
Tiflis	28.43	732.0	29.74	755.5	90.7	32.6	31	s.	2	1		0	0						Physical Observatory.
Warsaw	29.49	749.1	29.90	759.5	66.9	19.4	80	nnw.	2	1			9 ks						Astronomical Obs'y.
Wilna	29.56	750.9	29.97	761.1	75.2	24.0	55	sse.	4	2			1					light clouds	Berg, Assistant.
Yeniseisk	29.57	751.1	29.86	758.4	45.1	7.3	84	w.	2	1			6					raining	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.48	748.8	57.1	13.9	63	w.			2		10 ks		e.	0.06	1.5	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.56	750.8	56	13.3	94	nne.			6	10	0	n.		0	0	hazy	J. Youngclause
North Unst, Shetland Isl'ds			29.56	750.8				e.			4	2	4	se.					Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.66	753.4	29.76	755.9	79.3	26.3	46	w.	4.3	1.9						0	0		Antonio Rave, Director.
Bilbao, Met. Obs'y	29.67	753.6	29.72	755.0	73.8	23.2	42	w.	3.4	1.5		1	8	se.		0	0	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.87	682.4			60.3	15.7	59	sw.	14.8	6.6			9			0	0	almost cov'd	Domingo Martin.
Madrid, Royal Obs'y	27.67	702.9	29.84	757.8	68.2	20.1	49	sw.	29.5	13.2		0	8			0	0	cloudy	The Staff.
Murcia, Met. Obs'y ‡	29.70	754.4	29.85	758.1	82.8	28.2	36	nw.	2.0	0.9		4	3	ene.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.78	731.0	29.07	753.6	59.4	15.2	96	sw.	5.6	2.5			10			1.799	45.7	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.96	760.9	30.02	762.6	77.6	25.3	88	ese.	2.7	1.2		7 c;ok	1 k;s	nw.		0.315	8.0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.63	752.6	29.68	753.9	84.4	29.1	80	w.	20.9	9.5		8 c	0	w.		0	0	cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.95	760.6	30.04	763.0	71.4	21.9	58	w.	7.5	3.4		3	5	e.	w.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I.	29.85	758.2	29.94	760.5	78.4	25.8	91	s.	0	0		4 s	5 k		se.	0.362	9.2	d. clouds	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.43	747.4	29.56	750.8	81.9	27.7	79	nnw.	2.7	1.2			9 kn		nw.	inap.	inap.	very cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.08	763.9	30.11	764.9	58.6	14.8	81	s.			2		5			0	0		
Umea	30.06	763.4	30.11	764.7	61.2	16.2	73	ssw.			2		2			0	0		
Hernosand	30.04	762.9	30.09	764.2	55.6	13.1	90	e.			2		10			0	0		
Stockholm	29.82	757.4	30.00	761.9	59.7	15.4	91	e.			2		10			0.059	1.5		
Wisby	29.87	758.7	29.93	760.2	63.7	17.6	88	e.			4		7			0.331	8.4		
Sub-Series.																			
Upsala	29.89	759.2	29.98	761.4	60.6	15.9	93	ese.	6.7	3.0			10		e.	0.031	0.8		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.43	722.0	29.85	758.1	55.4	13.0	99	ne.			3		7			1.449	36.8	cloudy	The Observatory.
Zurich ‡	28.27	718.0	29.88	759.0	61.2	16.2	86	w.			2		7			0.256	6.5	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.93	760.3	82.4	28.0	43	s.	6	2.5			3		sw.	0	0		The Observatory.
Valona			30.10	764.4	75.4	24.1		w.			1		0			0	0	clear	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.85	758.1	90.0	32.2	47	w.			3	0	2 k		w.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.03	762.7	30.11	764.8	75	23.9	85	sw.	4	1.8			hz;10s			0	0	cloudy	
Alpena, Michigan	29.37	746.0	30.04	763.0	66	18.9	84	ne.	2	0.9		2 c	1 s	w.		0	0	fair	
Atlanta, Georgia	29.09	738.9	30.27	768.8	73.8	23.2	82	e.	7	3.1		0	8 s		calm	0	0	cloudy	
Atlantic City, New Jersey	30.18	766.6	30.19	766.8	75	23.9	90	sw.	10	4.5		hz.	hz.			0	0	dense haze	
Augusta, Georgia	30.08	764.0	30.27	768.8	76.2	24.6	85	se.	2	0.9			10 s			0	0	cloudy	
Baltimore, Maryland	30.16	766.1	30.21	767.3	76	24.4	85	calm	0	0			fg.			0	0	dense fog	
Barnegat, New Jersey	30.14	765.5	30.16	766.1	75.0	23.9	94	sw.	8	3.6			10 s		calm	0	c	cloudy	
Bismarck, Dakota	28.40	721.3	30.24	768.1	42	5.6	67	n.	8	3.6			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.36	694.9	30.20	767.1	41.0	5.0	59	nw.	6	2.7		0	0			0	0	clear	
Boston, Massachusetts	29.92	760.0	30.08	764.0	70.0	21.1	95	sw.	8	3.6			fg.			0.02	0.5	dense fog	
Brackettville, Texas	28.70	729.0	29.70	754.4	78	25.6	82	e.	18	8.0		0	3 s		se.	0	0	clear	
Brownsville, Texas	29.84	757.9	29.88	758.9	81.5	27.5	91	se.	4	1.8		0	7 ks		se.	0.04	1.0	fair	
Buffalo, New York	29.41	747.0	30.13	765.3	79	26.1	69	sw.	5	2.2		7 cs	hz.	w.		0	0	fair	
Burlington, Vermont	29.76	755.9	30.05	763.3	74.7	23.7	86	s.	6	2.7			sk.			0.01	0.3	dense smoke.	
Cairo, Illinois	29.76	755.9	30.16	766.1	78.8	26.0	70	s.	4	1.8		0	hz.			0	0	clear	
Campo, California	27.30	693.4	29.87	758.7	43	6.1	83	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.11	688.6			54	12.2	93	calm			0	hz.	hz.			0.95	24.1	fair	
Cape Henry, Virginia	30.22	767.6	30.24	768.1	76	24.4	85	sw.	9	4.0		0	hz.			0	0	clear	
Cape May, New Jersey	30.17	766.3	30.20	767.1	75	23.9	85	w.	5	2.2		8 cs	hz.			0	0	cloudy	
Castroville, Texas	29.12	739.6	29.78	756.4	81	27.2	74	se.	8	3.6			10 s		s.	0	0	cloudy	
Cedar Keys, Florida	30.13	765.3	30.15	765.8	78	25.6	88	ne.	10	4.5		0	0			0.07	1.8	clear	
Champaign, Illinois	29.28	743.7	30.04	763.0	72.4	22.4	82	s.	8	3.6		0	0			0	0	clear	
Charleston, S. Carolina	30.18	766.6	30.24	768.1	80	26.7	82	ne.	6	2.7		0	0			0	0	clear	
Charlotte, N. Carolina	29.42	747.3	30.30	769.6	76.0	24.4	82	s.	1	0.4		5 cs	hz.			0	0	fair	
Chattanooga, Tennessee	29.44	747.8	30.28	769.1	76.0	24.4	85	calm	0	0		1 k	fg.	calm	calm	0	0	clear	
Cheyenne, Wyoming	24.06	611.1	30.00	762.0	34	1.1	92	ne.	10	4.5			10 s			1.02	25.9	cloudy	
Chicago, Illinois	29.33	745.0	30.04	763.0	77.7	25.4	62	sw.	10	4.5		1 k	0			0	0	clear	
Chincoteague, Virginia	30.21	767.3	30.23	767.8	74	23.3	97	sw.	9	4.0			10 s		calm	0	0	cloudy	
Cincinnati, Ohio	29.54	750.3	30.20	767.1	79	26.1	69	se.	1	0.4		0	0			0	0	clear	
Cleveland, Ohio	29.44	747.8	30.18	766.6	76.3	24.6	59	se.	6	2.7		5 c	sk.			0	0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.34	745.2	30.20	767.1	75	23.9	64	s.	2	0.9		0	sk.			0	0	clear	
Concho, Texas	27.97	710.4	29.91	759.7	75	23.9	76	s.	14	6.3		0	2 s			0	0	fair	
Corsicana, Texas	29.52	749.8	29.99	761.7	75	23.9	82	s.	4	1.8		0	0			0	0	clear	
Davenport, Iowa	29.33	745.0	29.99	761.7	77	25.0	64	sw.	8	3.6		2 ck	0	sw.		0	0	clear	
Dayton, Washington T'y	28.47	723.1	30.28	769.1	43.0	6.1	76	s.	4	1.8		0	0			0.03	0.8	clear	
Deadwood, Dakota	25.55	649.0	30.25	768.3	32	0.0	100	ne.	2	0.9			10 n		calm	0.61	15.5	heavy snow	
Decatur, Texas	28.73	729.7	29.84	757.9	75	23.9	52	se.	14	6.3		0	0			inap.	inap.	clear	
Delaware Breakwater, Del.	30.17	766.3	30.19	766.8	75	23.9	90	sw.	16	7.2			10s;hz		s.	0	0	cloudy	
Denison, Texas	29.14	740.1	29.96	761.0	82	27.8	62	se.	16	7.2		0	3 s		calm	0	0	fair	
Denver, Colorado	24.74	628.4	29.96	761.0	42.0	5.6	100	n.	10	4.5			10 n		calm	0.36	9.1	light rain	
Des Moines, Iowa	28.98	736.1	29.89	759.2	68	20.0	93	ne.	1	0.4		1 c	4 s			0.50	12.7	fair	
Detroit, Michigan	29.40	746.7	30.12	765.0	77.8	25.4	69	s.	6	2.7		2 c	sk.	calm		0	0	clear	
Dodge City, Kansas	27.18	690.4	29.77	756.1	74.3	23.5	75	s.	20	8.9			10 s		s.	0.09	2.3	cloudy	
Dubuque, Iowa	29.25	742.9	29.97	761.2	73.7	23.2	71	s.	4	1.8		1 cs	hz.	calm	calm	0	0	clear	
Duluth, Minnesota	29.40	746.7	30.11	764.8	52	11.1	80	nw.	10	4.5			10 s		n.	inap.	inap.	cloudy	
Eagle Pass, Texas	29.09	738.9	29.92	760.0	81.0	27.2	74	se.	11	4.9			10 s		se.	0	0	cloudy	
Eagle Rock, Idaho	25.34	643.6	30.19	766.8	32	0.0	74	n.	2	0.9		0	0			0	0	clear	
Eastport, Maine	29.98	761.5	30.05	763.3	58.5	14.7	100	sw.	6	2.7			10s;fg		s.	0.36	9.1	cloudy	
El Paso, Texas	26.11	663.2	29.86	758.4	65.5	18.6	90	nw.	4	1.8			10 s		w.	0.76	19.3	cloudy	
Erie, Pennsylvania	29.42	747.3	30.15	765.8	81	27.2	54	s.	7	3.1		5 c;sk	sk.			0	0	dense smoke.	
Escanaba, Michigan	29.36	745.7	30.02	762.5	60	15.6	87	ne.	13	5.8			10 s		n.	1.02	25.9	cloudy	
Florence, Arizona	28.37	720.6	29.97	761.2	59	15.0	56	ne.	1	0.4		0	0			0	0	clear	
Fort Apache, Arizona	24.95	633.7	29.86	758.4	42	5.6	86	e.	2	0.9		0	0			0.92	23.4	clear	
Fort Assinnaboine, Montana	27.40	695.9	30.21	767.3	35	1.7	82	se.	3	1.3		0	0			0	0	clear	
Fort Bennett, Dakota	28.56	725.4	30.10	764.5	42	5.6	92	ne.	6	2.7			10 n			0.48	12.2	light rain	
Fort Benton, Montana	27.35	694.7	30.21	767.3	38	3.3	72	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	28.24	717.3	30.25	768.3	38	3.3	92	nw.	5	2.2		3 cs	0	sw.		0	0	clear	
Fort Custer, Montana	27.10	688.3	30.34	770.6	37	2.8	94	calm	0	0			10 n		calm	0.38	9.7	light rain	
Fort Davis, Texas	25.21	640.3	30.17	766.3	63	17.2	100	sw.	16	7.2		5 c	0			1.73	43.9	fair	
Fort Elliott, Texas	27.09	688.1	30.28	769.1	73	22.8	82	se.	28	12.5			10 s		se.	0	0	threatening.	
Fort Gibson, Indian T'y	29.40	746.7	29.95	760.7	80.2	26.8	58	s.	12	5.4		0	sk.			0	0	clear	
Fort Grant, Arizona					62	16.7	33	ne.	4	1.8		0	0			1.47	37.3	clear	
Fort Griffin, Texas	28.59	726.2	29.79	756.7	78.2	25.7	74	se.	16	7.2		0	0			0	0	clear	
Fort Keogh, Montana	27.74	704.6	30.28	769.1	44	6.7	76	se.	2	0.9		10 cs	0			0	0	cloudy	
Fort Macon, North Carolina	30.27	768.8	30.28	769.1	77	25.0	91	n.	3	1.3		hz.	1 k	calm	calm	0	0	clear	
Fort McKavett, Texas	27.66	702.6	29.48	748.8	74.3	23.5	76	se.	11	4.9		4 k	0	s.		0	0	fair	
Fort Missoula, Montana	26.95	684.5	30.47	773.9	34	1.1	100	calm	0	0		0	fg.			0	0	dense fog	
Fort St. Michaels												0							
Fort Shaw, Montana	26.59	675.4	30.19	766.8	32	0.0	88	w.	5	2.2		0	0			0	0	clear	
Fort Sill, Indian Territory	28.65	727.7	29.90	759.4	77.5	25.3	72	s.	20	8.9		0	0			0	0	clear	
Fort Stevenson, Dakota	28.39	721.1	30.26	768.6	42	5.6	82	n.	28	12.5			10 s		w.	0	0	cloudy	
Fort Verde, Arizona					56.2	13.4	63	nw.			1	0	0			0.11	2.8	clear	
Fredericksburg, Texas	28.21	716.5	29.70	754.4	75	23.9	90	sw.	12	5.4		0	9 ks		sw.	0	0	cloudy	
Galveston, Texas	29.94	760.5	29.98	761.5	84	28.9	79	s.	12	5.4		0	5 ks		s.	0	0	fair	
Grand Haven, Michigan	29.36	745.7	30.03	762.7	76.0	24.4	79	se.	8	3.6		0	0			0	0	clear	
Hatteras, North Carolina	30.24	768.1	30.26	768.6	77	25.0	90	calm	0	0		8 k	hz.			0	0	cloudy	
Helena, Montana	26.01	660.6	30.40	772.1	37	2.8	89	nw.	2	0.9		0	0			0	0	clear	
Henrietta, Texas	28.90	734.0	29.76	755.9	80	26.7	67	se.	19	8.5		0	0			0	0	clear	
Huron, Dakota	28.65	727.7	30.04	763.0	45	7.2	96	ne.	16	7.2			10 n			0.78	19.8	heavy rain	
Indianapolis, Indiana	29.34	745.2	30.14	765.5	79	26.1	58	s.	4	1.8		0	hz.		calm	0	0	clear	
Indianola, Texas	29.91	759.7	29.94	760.5	81.1	27.3	91	s.	8	3.6		2 cs	3 k;ks	calm	s.calm	0.23	5.8	fair	
Jacksboro, Texas	28.74	730.0	29.81	757.2	77	25.0	76	se.	15	6.7		0	4 ks		s.	0	0	fair	
Jacksonville, Florida	30.13	765.3	30.17	766.3	79	26.1	77	ne.	6	2.7		0	0			0.23	5.8	clear	
Keokuk, Iowa	29.31	744.5	29.97	761.2	80.8	27.1	62	s.	16	7.2		0	0			0	0	clear	
Key West, Florida	29.90	759.4	29.93	760.2	81.3	27.4	85	e.	4	1.8		2 cs	2 ks	sw.	e.	0	0	fair	
Kittyhawk, North Carolina	30.26	768.6	30.28	769.1	77	25.0	90	sw.	4	1.8		0	1 ks;hz		nw.	0	0	dense haze	
Knoxville, Tennessee	29.28	743.7	30.32	770.1	72.5	22.5	79	se.	2	0.9		0	sk.		calm	0	0	clear	
La Crosse, Wisconsin	29.15	740.4	29.92	760.0	66	18.9	90	n.	5	2.2			fg.			1.08	27.4	dense fog	
La Mesilla, New Mexico	25.99	660.1	30.14	765.5	62.0	16.7	88	se.	2	0.9			10 s			0.82	20.8	cloudy	
Laredo, Texas																			
Leavenworth, Kansas	29.02	737.1	29.92	760.0	76	24.4	69	s.	8	3.6		6 cs	hz.	sw.		0	0	fair	
Lewiston, Idaho	29.42	747.3	30.27	768.8	48	8.9	77	calm	0	0		0	0			0.08	2.0	clear	
Little Rock, Arkansas	29.74	755.4	30.06	763.5	77	25.0	76	s.	2	0.9		0	0			0	0	clear	
Los Angeles, California	29.47	748.5	29.85	758.2	56.8	13.8	80	sw.	3	1.3		0	0			0	0	clear	
Louisville, Kentucky	29.60	751.8	30.17	766.3	81.0	27.2	62	s.	4	1.8		1 c	0			0	0	clear	
Lynchburg, Virginia	29.57	751.1	30.26	768.6	78.0	25.6	67	calm	0	0		7 c	0	e.		0	0	fair	
Madison, Wisconsin	28.94	735.1	29.97	761.2	72	22.2	82	se.	8	3.6		1 c	0	w.		inap.	inap.	clear	
Marquette, Michigan	29.36	745.7	30.09	764.3	55	12.8	100	n.	6	2.7			10 n		calm	0.45	11.4	light rain	
Mason, Texas	28.28	718.3	29.95	760.7	78	25.6	74	s.	12	5.4		0	3 ks		s.	0	0	clear	
Memphis, Tennessee	29.80	756.9	30.14	765.5	79	26.1	69	calm	0	0		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.24	742.7	30.00	762.0	69	20.6	78	se.	3	1.3		hz	sk			0	0	dense smoke	
Mobile, Alabama	30.04	763.0	30.12	765.0	80.0	26.7	82	e.	5	2.2		2 k	0			inap.	inap.	clear	
Montgomery, Alabama	29.97	761.2	30.20	767.1	76.7	24.8	80	e.	9	4.0		2 k	0	e.		0	0	fair	
Moorhead, Minnesota	29.14	740.1	30.15	765.8	44	6.7	92	ne.	10	4.5			10 s		ne.	0	0	cloudy	
Morgantown, W. Virginia	29.24	742.7	30.21	767.3	69.5	20.8	87	sw.	1	0.4		0	fg			0	0	clear	
Mt. Washington, N. H.	24 03	610.4	30.23	767.8	57.0	13.9	93	nw.	52	23.2			sk; fg		nw.	0.33	8.4	dense fog	
Nashville, Tennessee	29.66	753.4	30.20	767.1	79.1	26.2	72	se.	2	0.9		0	0			0	0	clear	
New Haven, Connecticut	30.00	762.0	30.12	765.0	72	22.2	97	calm	0	0		0	sk			0	0	dense smoke	
New London, Connecticut	30.08	764.0	30.13	765.3	71	21.7	100	nw.	5	2.2			fg			0.03	0.8	dense fog	
New Orleans, Louisiana	30.01	762.2	30.07	763.8	80.5	26.9	82	se.	6	2.7		0	2 k		se.	0	0	clear	
Newport, Rhode Island	30.06	763.5	30.11	764.8	67.0	19.4	100	sw.	4	1.8			fg			0.03	0.8	dense fog	
New River, N. Carolina					77	25.0	85	n.			1	0	0			0	0	clear	
New Shoreham, Rhode I'd.	30.08	764.0	30.11	764.8	68.0	20.0	100	sw.	13	5.8			fg		sw.	0	0	dense fog	
New York, New York	29.99	761.7	30.17	766.3	72	22.2	100	sw.	6	2.7			10s; fg			0	0	cloudy	
Norfolk, Virginia	30.22	767.6	30.25	768.3	76	24.4	82	sw.	3	1.3			10s; hz			0	0	cloudy	
North Platte, Nebraska	26.99	685.5	29.93	760.2	44.4	6.9	93	n.	24	10.7			10 n		n.	1.86	47.2	light rain	
Olympia, Washington T'y	30.15	765.8	30.19	766.8	46.0	7.8	93	ne.	1	0.4		0	0			0	0	clear	
Omaha, Nebraska	28.66	728.0	29.85	758.2	65	18.3	87	se.	1	0.4		2 c	3 s	w.		0	0	fair	
Oswego, New York	29.75	755.6	30.08	764.0	80.0	26.7	58	sw.	3	1.3			10 s			inap.	inap.	cloudy	
Pensacola, Florida	30.09	764.3	30.12	765.0	82	27.8	88	se.	10	4.5			10 s		e.	inap.	inap.	cloudy	
Philadelphia, Pa.	30.13	765.3	30.19	766.8	73	22.8	97	w.	8	3.6		0	hz			0	0	clear	
Phœnix, Arizona	28.74	730.0	30.53	775.4	57	13.9	45	ne.	2	0.9		0	0			0	0	clear	
Pike's Peak, Colorado	17.73	450.3	29.94	760.5	28	— 2.2	100	sw.	5	2.2			10 n			0.77	19.6	Light snow.	
Pioche, Nevada	24.09	611.9	30.11	764.8	44	6.7	45	nw.	6	2.7		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.40	746.7	30.22	767.6	74	23.3	76	calm	0	0		0	0			0	0	clear	
Port Eads, Louisiana	30.06	763.5	30.08	764.0	79.9	26.6	82	e.	14	6.3		0	1 kihz		e.; c.	0	0	clear	
Port Huron, Michigan	29.40	746.7	30.09	764.3	74.4	23.6	76	s.	9	4.0		6 c	sk	n.	calm	0	0	fair	
Portland, Maine	29.98	761.5	30.03	762.7	66	18.9	93	sw.	4	1.8			fg			0.03	0.8	dense fog	
Portland, Oregon	30.11	764.8	30.18	766.6	50.9	10.5	93	calm	0	0		0	0			0	0	clear	
Portsmouth, N. Carolina					79	26.1	82	nw.	1	0.4		6 k	0	w.		0	0	fair	
Prescott, Arizona	24.69	627.1	29.88	758.9	46	7.8	80	s.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	30.03	762.7	30.04	763.0	80	26.7	90	e.	7	3.1		1 c	1 k	calm	e.	0.14	3.6	clear	
Red Bluff, California	29.54	750.3	29.88	758.9	71.5	21.9	27	n.	14	6.3		0	0			0	0	clear	
Rio Grande City, Texas	29.67	753.0	29.88	758.9	78	25.6	90	se.	6	2.7		2 c	0	calm		0	0	clear	
Rochester, New York	29.47	748.5	30.11	764.8	78	25.6	62	w.	8	3.6		4 cs	hz	w.		0	0	fair	
Roseburg, Oregon	29.57	751.1	30.15	765.8	55	12.8	93	calm	0	0		0	0			0	0	clear	
Sacramento, California	29.72	754.9	29.80	756.9	68.7	20.4	26	n.	16	7.2		0	0			0	0	clear	
St. Louis, Missouri	29.48	748.8	30.09	764.3	76.5	24.7	70	s.			1	1 c	0			0	0	clear	
St. Paul, Minnesota	29.10	739.1	29.98	761.5	55.0	12.8	93	n.	12	5.4			10 n			0.80	20.3	light rain	
Salt Lake City, Utah	25.63	651.0	29.96	761.0	48	8.9	27	calm	0	0		0	8 ks		sw.	0	0	cloudy	
San Antonio, Texas	29.23	742.4	29.93	760.2	77.4	25.2	97	se.	6	2.7			10 ks		se.	0.25	6.3	cloudy	
San Diego, California	29.70	754.4	29.77	756.1	64.2	17.9	78	nw.	2	0.9		0	1 s			0	0	clear	
Sandusky, Ohio	29.45	748.0	30.14	765.5	78.5	25.8	64	s.	8	3.6		5 c	0			0	0	fair	
Sandy Hook, New Jersey	30.12	765.0	30.15	765.8	74.3	23.5	97	nw.	7	3.1		10 k	0	nw.		0	0	cloudy	
San Francisco, California	29.76	755.9	29.82	757.4	54	12.2	93	sw.	3	1.3			fg			0	0	dense fog	
Santa Fé, New Mexico	23.15	588.0	29.95	760.7	47.5	8.6	70	calm	0	0		0	5 s		calm	0.76	19.3	fair	
Savannah, Georgia	30.14	765.5	30.23	767.8	80	26.7	85	e.	5	2.2		4 k	0	s.		0	0	fair	
Shreveport, Louisiana	29.82	757.4	30.05	763.3	76	24.4	70	se.	1	0.4		0	0			0	0	clear	
Silver City, New Mexico	24.17	613.9	29.74	755.4	55	12.8	87	calm	0	0		2 c	3 s	calm	calm	1.38	35.1	fair	
Sitka, Alaska	29.73	755.1	29.80	756.9	55.1	12.8	87	se.	8	3.6			10 n		calm	2.42	61.5	heavy rain	
Smithville, North Carolina	30.24	768.1	30.28	769.1	75	23.9	90	ne.	5	2.2		0	1 ks			0	0	clear	
Spokane Falls, Wash. Ter.	28.20	716.3	30.22	767.6	40	4.4	82	sw.	1	0.4		0	0			0.01	0.3	clear	
Springfield, Illinois	29.39	746.5	30.08	764.0	75	23.9	71	s.	7	3.1		0	hz			0	0	clear	
Springfield, Massachusetts	29.98	761.5	30.11	764.8	71.0	21.7	100	s.	3	1.3			fg			0.02	0.5	dense fog	
Stockton, Texas	26.84	681.7	29.91	759.7	71.2	21.8	90	se.	13	5.8		6 cs	4 n	sw.	calm	0.05	1.3	cloudy	
St. Vincent, Minnesota	29.35	745.5	30.24	768.1	36	2.2	89	nw.	1	0.4		10 cs	0	calm		0	0	cloudy	
Thatcher's Island, Mass.	30.03	762.7	30.08	764.0	65.0	18.3	100	sw.	9	4.0			fg			0.10	2.5	dense fog	
Toledo, Ohio	29.41	747.0	30.11	764.8	75	23.9	76	s.	5	2.2		6 cs; c	sk			0	0	fair	
Tucson, Arizona	27.36	694.9	29.72	754.9	69	20.6	81	s.	4	1.8		0	0			0.09	2.3	clear	
Umatilla, Oregon	29.88	758.9	30.29	769.4	50.0	10.0	83	se.	8	3.6		0	0			0	0	clear	
Uvalde, Texas	28.93	734.8	29.71	754.6	79	26.1	72	se.	7	3.1			10 ks		s.	0	0	cloudy	
Vicksburg, Mississippi	29.85	758.2	30.11	764.8	75	23.9	76	e.	4	1.8		0	0			0	0	clear	
Visalia, California	29.38	746.2	29.74	755.4	58	14.4	74	se.	5	2.2		0	0			0	0	clear	
Washington, D. C.	30.10	764.5	30.20	767.1	75.0	23.9	84	s.	1	0.4		8 cs	0			0	0	cloudy	
Wickenburg, Arizona					56	13.3	93	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.22	767.6	30.28	769.1	76	24.4	90	calm	0	0		0	1ks; fg		calm	0.73	18.5	fair	
Winnemucca, Nevada	25.74	653.8	30.07	763.8	36	2.2	69	ne.	3	1.3		0	0			0	0	clear	
Wood's Holl, Mass.	30.07	763.8	30.10	764.5	66	18.9	100	sw.	12	5.4			fg		sw.	0.02	0.5	dense fog	
Yankton, Dakota	28.59	726.2	29.90	759.4	50	10.0	100	ne.	10	4.5			10 n			2.20	55.9	heavy rain.	
Yuma, Arizona	29.61	752.1	29.75	755.6	71.2	21.8	50	ne.	3	1.3		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.97	761.2	29.98	761.5	82	27.8	91	e.	3	1.3		2 k	5 ks	calm		0	0	fair	J. A. Racker.
Bogota, U. S. Columbia	22.05	560.1			51.0	10.6	76	calm	0	0		*8 k	2 ks; s	nw.		0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.87	758.7	29.87	758.7	80	26.7	90	e.				2 k	5 ks		ese.	0.3	8.	raining	B. Bigar.
Havana, Cuba, W. I.	29.99	761.7	30.04	763.0	79	26.1	82	se.	1.2	0.5		8 cs	2 ks	calm	ne.	0.40	10.2	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.95	760.7	29.96	761.0	75.5	24.2	89	calm	0	0		1 cs	3 s		ne.	0	0		Robert Johnstone.
Navassa, W. I.	29.86	758.4	29.94	760.5	83	28.3	79	ne.	7	3.1		5 cs	5 ck	e.	n.	0.01	0.3	fair	F. M. Everett.
Paramaribo, S. A.	30.06	763.5	30.06	763.5	80	26.7	78	e.			2	0	3 c		e.	0.260	6.6	fair	Dr. O. J. Hering.
Puerto Berrio, U. S. Col'mba	29.42	747.3	29.97	761.2	80	26.7	89	calm			0		9 ks		ne.	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					74.3	23.5		calm			0	cs	1 ks			0.22	5.5		Earl Flint.
Santiago de Cuba, W. I.	29.95	760.7	29.98	761.5	78	25.6	86	n.	3.6	1.6		8 c	2 s		ne.	0.17	4.3	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.83	757.7	29.95	760.7	81	27.2	83	sw.	8	3.6		1 c	2 ks	se.		0.41	10.4	clear	G. O. Gyllich.
York Factory, B. A.	30.01	762.2	30.06	763.5	40.0	4.4	96	w.	11	4.9			10 s		w.	0.40	10.2	raining	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.				Character.	Dir'n from.		
										Up'er	Lo'er	Upper	Lower.						
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert. Booby Id., Torres Strait.	29.98	761.5	76.8	24.9	73	se.			4-6		10							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 39° 48′, E. 4° 13′	29.89	759.2	79.3	26.3	60	ssw.			1		6	ssw.				1	ssw.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.94	760.5	75	23.9		nne.			2		1							d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 11° 25′, E. 43° 39′	29.70	754.4	91	32.8	84	e.			1		0					sm'h		blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 17° 00′, W. 61° 45′	29.99	761.7	82	27.8	87	ese.			2		8							showery	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 5° 20′, E. 12° 06′	30.02	762.5	72.5	22.5	83	calm			0		10	calm				2	sse.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant, S. 21° 05′, E. 156° 10′	30.14	765.5	68	20.0		se.			3		2	se.				3	se.	d. clouds	Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M S. Cygnet, N. 37° 47′, E. 20° 56′	29.95	760.7	81	27.2		calm			0		1	wnw.						blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 34° 11′, E. 18° 28′	30.28	769.1	58	14.4		ssw.			1-3		2	ssw.						squally	Capt C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.11	764.8	80	26.7	81	ene.			2-3		2	ene.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 46° 35′, W. 53° 57′	29.92	760.0	57	13.9	96	nne.			1		10					3	e.	dense fog	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.57	751.1	88	31.1		sse.			1		5	se.				1	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.78	756.4	84.5	29.2		nne.			1		6					3	s.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 42° 00′, W. 29° 40′	29.84	757 9	60	15.6		ne.			4-6		10	ne.				5	ne.	showery	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 4° 46′, E. 46° 00′	29.95	760.7	77	25.0	86	ese.			3-4		3	e.				3-4	ese.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19′	29.85	758.2	79	26.1		ese.			4-5		2					4	ese.	squally	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Hakodate, Yezo, Japan.	29.89	759.2	72	22.2	80	wnw.			1		4							misty	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich I'ds	30.05	763.3	73	22.8	76	ene.			2		2							d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argentine Rep	30.27	768.8	48	8.9	92	s.			6		7							squally	Capt. L. F. Jones
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, Levuka, Fiji Islands	30.02	762.5	78	25.6	86	se.			1		6	se.						d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 40° 46′ E. 139° 55′	29.94	760.5	74	23 3		wnw.			2		3	nw.				3	w.	d. clouds	Capt. R. E. Tracey.
H. M. S. Kingfisher																			Comm. R. H. Thornton.
H. M. S. Lapwing, Batavia, Java	29.81	757.2	84	28.9		ne.			3		2	ne.						d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, N. 4° 26′, W. 17° 51′	30.06	763.5	80	26.7	82	s.			4		7					3	ssw.	d. clouds	Capt. S. Grove.
H. M. S. Lily,																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.67	753.6	83.5	28.6	87	e.			1		3							d. clouds	Capt. A. Carpenter.
H. M. S. Midge,																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch, Susa, Tunis	29.98	761.5	80	26.7	86	ene.			2		0							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Charlotte Town, P. E. Id	30.05	763.3	61	16.1	94	sse.			1									misty	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 47° 34′, W. 52° 41′	29.98	761.5	54	12.2	100	se.			1		10					sm'h		rain & fog	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready, N. 14° 45′, E. 94° 28′	29.72	754.9	82	27.8		sw.			2		3	sw.				3	sw.	d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 6° 24′, E. 39° 18′	30.06	763.5	78.3	25.7	86	sse.			2		9							d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 10° 34′, E. 42° 34′	29.63	752.6	79	26.1	82	e.			2-3		3	ese.				3	e.	d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 47° 50′, W. 63° 50′	29.97	761.2	62	16.7	88	s.			4		10					2	ssw.	overcast	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S Thunderer																			Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	29.99	761.7	60	15.6	88	s.			1		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.95	760.7	80	26.7		n.			1		2							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.72	754.9	81.5	27.5	78	w.			3		5	sw.						d. clouds	Capt. T. P. Nesham.
H M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	30.06	763.5	71.6	22.0	77	nw.			4		0					1		blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, N. 16° 54′, W. 25° 04′	30.00	762.0	82.8	28.2	78	ne.			1		3		n.			1	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			O. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.72	754.9	82.4	28.0	78	wsw.			1		0					1		blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

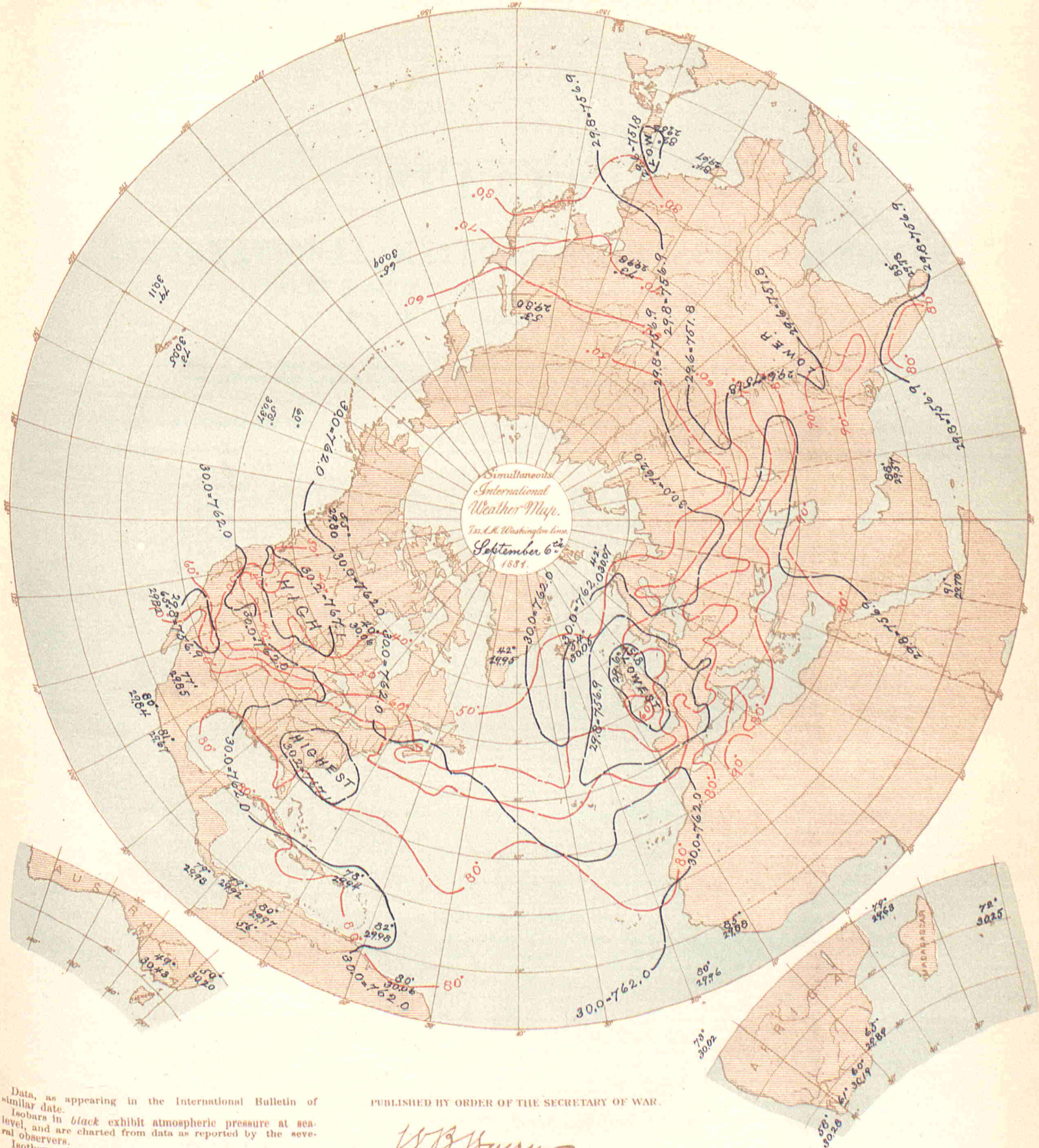
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.18	766.6	84	28.9	83	se.	17	7.6			8		se.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.06	763.5	74	23.3	72	sse.	0	0			10		sw.	0	0			foggy	
Naval Hospital, Yokohama, Japan	29.80	756.9	80	26.7	74	ssw.			3		10		w.	0	0			hazy	
Adams, Acapulco, Mexico	29.67	753.6	81	27.2	87	calm			0		8		se			sm'h		fair	
Alaska, Callao, Peru	29.95	760.7	60	15.6	94	calm			0		10			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.83	757.7	83	28.3	79	ssw.			3		10		calm			sm'h		cloudy	
Alliance, N. 72° 45′, E. 14° 10′	30.07	763.8	42	5.6	83	sse.			3		10			0	0	sm'h		cloudy	
Ashuelot, Kobe, Japan	29.98	761.5	81	27.2	87	w.			1		2		calm					clear	
Colorado, New York, N. Y.	30.15	765.8	74	23.3	95	sw.	2	0.9			10		sw.	0	0			misty	
Constitution, New London, Conn	30.06	763.5	72	22.2	?	w.	3	1.3			10							foggy	
Franklin, Norfolk, Va	30.17	766.3	76	24.4	?	calm	0	0			8			0	0			fair	
Galena, Leghorn, Italy	29.93	760.2	75	23.9	77	ssw.			1		2							fair	
Independence, N. Yard, Mare I'd, Cal	29.77	756.1	56	13.3	94	calm	0	0			0							clear	
Jamestown, Mare Isl'd, Cal *	29.71	754.6	59	15.0	94	calm			0		0			0	0			clear	
Kearsarge, New London, Conn	30.12	765.0	72	22.2	95	wsw.			2		10					sm'h		foggy	
Lackawanna, Mare Isl'd, Cal †	29.97	761.2	59	15.0	88	ssw.			1		0							clear	
Lancaster, Portsmouth, N. H.	30.03	762.7	69	20.6	95	sw.	3	1.3			0			0	0			foggy	
Marion, [S. A.* Off Buenos Ayres, La Plata,	30.01	762.2	48	8.9		s.			5		8		s.	light	light	mod.	s.; e.	cloudy	
Michigan, Detroit, Mich	30.07	763.8	72	22.2	95	sw.			1		8		sw.					fair	
Minnesota, Newport, R. I.	30.10	764.5	67	19.4	100	sw.			2		10							foggy	
Monocacy, Yokohama, Japan	29.98	761.5	81	27.2	87	ssw.			2		10		calm					overcast	
Nipsic, Villafranca, France	29.92	760.0	68	20.0	90	e.			1		10					sm'h		raining	
Onward, Callao, Peru †	30.00	762.0	60	15.6	94	wnw.			1		10		nw.			long	w.	cloudy	
Palos, Hong Kong, China	29.74	755.4	84	28.9	75	ssw.			2		2		s;e					fair	
Passaic, Washington, D. C.	30.19	766.8	76	24.4	95	se.			1		10		se.					overcast	
Pensacola, Panama, Panama	29.92	760.0	79	26.1	82	nw.			1		2			0	0	sm'h		clear	
Portsmouth, Portsmouth, N. H.	30.04	763.0	66	18.9	100	calm			0		10					sm'h		foggy	
Powhatan, N. 30° 17′, W. 74° 33′	30.21	767.3	80	26.7	74	ene.			3		2		e.			light	e.	fair	
Quinnebaug, Villafranca, France	29.91	759.7	68	20.0	84	ese.			1		10					sm'h		sprinkling	
Ranger, Mare Island, Cal *	29.73	755.1	60	15.6	82	sw.			1		0					sm'h		clear	
Richmond, N. 16° 24′, W. 104° 32′	29.84	757.9	80	26.7	96	e.			3		5		ne.	0.10	2.5	sm'h		fair	
Shenandoah, Maldonado, Uruguay *	30.24	768.1	51	10.6	72	s.			5		10					sm'h		cloudy	
St. Louis, League Island, Pa	29.91	759.7	75	23.9	95	sw.	7	3.1			5		sw.	0	0			fair	
Swatara, Chefoo, China †	29.89	759.2	70	21.1	85	ene.			5		10		calm			mod.	ene.	raining	
Tennessee, New London, Conn	30.13	765.3	73	22.8	100	wnw.	4	1.8			10			0.03	0.8			foggy	
Trenton, Villafranca, France *	29.88	758.9	69	20.6	85	calm			0		10			0	0			cloudy	
Vandalia, New London, Conn.	30.10	764.5	72	22.2	100	wnw.			2		10		calm					foggy	
Wabash, Boston, Mass.	30.08	764.0	71	21.7	95	sw.	4	1.8			10		sw.	0	0			foggy	
Wachusetts, Sitka, Alaska *	29.79	756.7	57	13.9	100	sw.			1		10		calm	light	light			rainy	
Wyoming, Port Royal, S. C.	30.56	776.2	79	26.1	86	ne.	5	2.2			5		ne.	0	0			fair	
Yantic, New London, Conn *	30.07	763.8	70	21.1	100	w.			1									foggy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 51° 10′, W. 57° --′ *†	30.18	766.6				e.	1		10		e.			sm'h		foggy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, Agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, N. 40° 03′, W. 63° 56′	30.20	767.1	71	21.7	90	w.	3		2		w.			sm'h		fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng †	29.52	749.8	71	21.7	71	w.	3		5?		w.	0	0			cloudy ?	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 39° 37′ W. 62° 56′ *†	30.29	769.4	75	23.9	81	n.	2		5?		nne.			mod.	nne.	cloudy ?	
S. S. Pennsylvania, Capt G. H. Dodge, N. 50° 13′, W. 16° 04′ †	29.75	755.6	57	13.9	81	ne.	5		8		ne.			mod	e.	cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall. N. 30° 26′, W. 17° 33′	30.10	764.5	76	24.4	73	ne.	1		3							blue sky	
S. British Merchant, Capt. E. J. Moloney, N. 29° 15′, W. 37° 24′	30.17	766.3	84.8	29.3	66	sw.	1		2							d. clouds	
S. S. Cipero, Capt. W. N. Lailey, N. 14° 24′, W. 49° 50′	30.02	762.5	81.5	27.5	87	ne.	1		3					1	ne.	d. clouds	
Bk. Commewyne, Capt. W. Scott, N. 50° 40′, W. 15° 49′	29.72	754.9	57.9	14.4	76	nne.	6		9							d. clouds	
Bk. Coppename, Capt. A. Buchan, N. 29° 36′, W. 50° 50′	30.20	767.1	83.0	28.3	73	e.	2		4							blue sky	
Bk. Glaramara, Capt. R. Morton, N. 40° 21′, W. 151° 19′ ‡	30.37	771.4	58	14.4	100	ese.	3		5							showery	
Bg. Hermine, Capt. S. G. Jones, N. 24° 07′, W. 22° 29	30.15	765.8	77.2	25.1	75	nne.	4		2							d. clouds	
Bkt. Hope, Capt. Jas. Campbelle,																	
Island Belle, Capt. A. McBride, N. 11° 17′, W. 53° 31′	30.02	762.5	80.5	26.9		var-	0-5		2							blue sky	
S. Lochee, Capt. J. Raeburn, ‡ S. 25° 25′, W. 34° 16′	30.24	768.1	70	21.1	77	ne.	4		2							d. clouds	
Bk. Mertola, Capt. E. W. Turner,																	
Naiad, Capt. J. Smith, S. 38° 23′, W. 77° 31	30.43	772.9	48.1	8.9	78	ese.	5		3							misty	
S. Pleione, Capt. C. H. Renant, S. 30° 23′, W. 30° 59′	30.20	767.1	67	19.4	70	n.	6		8							d. clouds	
Queen of Cambria, Capt. M. Parry,																	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, ‡ S. 1° 35′, W. 27° 10′	30.06	763.5	75.5	24.2	84	ese.	4		3							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, N. 24° 01′, E. 118° 52	29.60	751.8	81.0	27.2	78	ne.	6		4							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, Agent, San Francisco.																	
S. S. Newbern, Capt. E. Rogers																	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., Agents, New York.																	
S. S. Gallia, Capt. W. H. P. Hains N. 50° 00′, W. 26° 40′	30.00	762.0	60	15.6		nnw.	5		8		ne.	sh'rs	sh'rs	mod.	ne.	showery	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.																	
S. S. Hermann, Capt. H. Baur																	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst. N. 49° 04′, W. 17° 44′	29.81	757.2	63.0	17.2	83	ne.	4		7		ene.	3 h'r	3 h'r	long	e.	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche N. 41° 15′, W. 56° 16′	30.06	763.5	68.5	20.3	84	n.	5		10		n.	8 h'rs	8 h'rs	mod.	n.	cloudy	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, N. 39° 55′, E. 169° 22′ †	30.19	766.8	65	18.3	73	nw.	4		8		nw.	0	0	high	nw.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 47° 38′, W. 155° 30′ *†	30.54	775.7	60	15.6	88	ene.	3		10		ne.			mod.	se.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 34° 12′, E. 138° 06′	30.10	764.5	83	28.3	75	sw.	3		8		sw.	0	0	mod.	se.	fine	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Oterendorp, Agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon; Capt. Pollmann Astoria, Oregon †	30.23	767.8	58	14.4	94	calm	0		2							clear	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancom, Capt. J. N. Ingalls, N. 35°, 23′, W. 121° 08′ †	29.81	757.2	53	11.7	100	se.	2		10		se.			sm'h		rain & fog	J. N. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound, Washington Territory †	30.17	766.3	55	12.8	93	n.	1		0			0	0	sm'h	nnw.	clear	
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal †	29.78	756.4	55	12.8	80	sw.	1									foggy	T. Huntington.
S. S. Orazaba, Capt. Z. B. Johnson, N. 37° 12′, W. 122° 25′ †	29.87	758.7	56	13.3	87	w.	5		fg		wsw.			h'vy	wsw.	foggy	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal †	29.87	758.7	54	12.2	87	sw.	1		10							foggy	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal †	29.79	756.7	52	11.1	100	calm	0		10							dense fog	G. Debney.
S. S. Victoria, H. M. Hayward, San Francisco, Cal †	29.89	759 2	52	11.1	100	calm	0		fg.							foggy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulley, Supt. New York.*																	
S. S. Australia, Capt. ——, Sydney, N. S. W.	30.20	767.1	50	10.0	86	wsw.	1		5?		sw.					clear?	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W. †	30.23	767.8	62	16.7	72	sw.	3		10			0	0			cloudy	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin, N. 7° 10′, W. 81° 18′ †	29.98	761.5	79	26.1	82	calm	0		2s		e.	4 h'r	4 h'r	sm'h	s.	cloudy	W. H. T. Titus. Thos. Martensen.
S. S. City of Peking, Capt. G. G. Barry																	
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama †	29.96	761.0	84	28.9	83	nnw.	1		8		nnw.	0	0	sm'h	s.	fine	
S. S. City of Sydney, Capt. H. C. Dearborn, N. 37° 28′, W. 123° 51′ †	29.85	758.2	51	10.6	93	sse.	3		fg			0	0	mod.	nw.	dense fog	E. L. Saik.
S. S. City of Tokio, Com. J. Maury Hong Kong, China †	29.80	756.9	83	28.3	75	calm	0		0			0	0			clear	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle, N. 16° 18′, W. 98° 47′ †	29.89	759.2	82	27.8	96	ese.	3		7		e.	0	0	mod.	ese.	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 28° 10′, W. 116° 20′ †	29.82	757.4	65	18.3	84	e.	2		8		nw.	0	0	mod.	wnw	fair	M. Connolly.
S. S. Zelandia, Capt. H. Webber, N. 15° 07′, W. 160° 24′	30.11	764.8	79	26.1	86	n.	4		8		ne.			mod.	ne.	overcast	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 41° 58′, W. 57° 44′ †	30.25	768.3	65	18.3	?	nw.	3		8		nw.	2 h'r	2 h'r	high	nw.	squally	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 49° 38′, W. 12° 48′ †	29.71	754.6	59	15.0	82	nne.	5		6		nne.	0.01	0.3	mod.	nne.	cloudy	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings																	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 41° 46′, W. 54° 21′ †	30.11	764.8	71	21.7		n.	3		8		ne.	0	0	mod.	ne.	cloudy	
S. S. Celtic, Capt. B. Gleadell,																	
S. S. Germanic, Capt. G. W. Kennedy, N. 47° 38′, W. 45° 53′ †	30.38	771.6	58	14.4	94	var.	1		10		s.	0	0	mod.	se.	overcast	B. Gleadell. W. A. Ward.
S. S. Republic, Capt. P. J. Irving																	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass †	30.13	765.3	67	19.4	?	sw.	4		10 n			0.01	0.3			dense fog	
Golden Fleece																	
Hassler. Lt. Com. Nichols, Kaigani Strait, Alaska *†	30.00	762.0	56	13.3		ssw.	5		10		sw.					raining	
S. Iron Cross, Capt. Randall, S. 17° 15′, W. 4° 20′ *‖	30.14	765.5	67	19.4	97	ese.	5		8		se.	sl't	sl't	mod.	sse.	showery	W. Randall. E. Fry.
S. Pawshick, Capt. E. Fry,																	
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	29.98	761.5	71	21.7	75	w.	6		8		w.	light	light			cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
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Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 7, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From	Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.02	762.5	77.4	25.2	74	n.			4		0			0	0	clear	Raynard.
Algiers ‡			30.04	762.9	80.6	27.0	56	n.			3		0			0	0	clear	Nicolas.
La Calle ‡			30.05	763.2	86.7	30.4	67	n.			1		3			0	0	pretty fair	Fonfréde.
Tunis ‡			30.03	762.8															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.00	762.0	85.1	29.5	25	n.			1		3			0	0	very fair	Dumas.
Tebessa ‡			29.99	761.7	82.9	28.3	46	nnw.			3		1			0	0	pretty fair	Derché.
Geriville ‡					97.2	36.2	8	nw.			8		2			inap.	inap.	fair	Lonchamp.
Laghouat ‡			30.00	761.9	101.8	38.8	12	w.			4		0			0	0	clear	Herbin.
Biskra ‡			29.98	761.6	102.6	39.2	29	se.			1		1			0	0	very fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.38	771.6	30.47	773.9	45.7	7.6	86	s.	3	1.3			1			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.27	743.5	29.80	757.0	65.8	18.8	92	calm			0		10			0.528	13.4	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.08	738.7	29.82	757.4	73.4	23.0	62	e.	6.9	3.1			9			0	0		Dr. Wiersbicki.
Eperies	29.00	736.7	29.85	758.3	67.3	19.6	70	se.			3		10s;fg			0	0		Julius Mikolik.
Gratz ‡	28.58	725.9	29.79	756.6	66.2	19.0	88	se.			2		10			0	0		Andreas Rospini.
Hermannstadt	28.55	725.2	29.90	759.5	79.2	26.2	42	nw.			1		3			0.157	4.0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.54	724.9	29.86	758.4	59.0	15.0	89	w.			2		10			0.232	5.9	raining	The Staff.
Lemberg	28.92	734.5	29.87	758.7	70.5	21.4	67	sw.			1		5			0	0		Dr. T. Stanecki.
Pola	29.78	756.4	29.89	759.2	64.6	18.1	95	sse.			2		10			0.591	15.0	thunder	I. R. Hydrographic Office.
Szathmar	29.47	748.4	29.91	759.7	75.6	24.2	49	e.			2		3			0	0		Beicht Peter, S. J.
Szegedin	29.58	751.2	29.84	757.9	81.3	27.4	43	s.			1		4			0.276	7.0		Karl Stancel.
Trieste	29.82	757.4	29.92	760.0	63.0	17.2	100	sw.			1		10			0.394	10.0	thud'r storm	Secco.
Vienna	29.12	739.7	29.82	757.4	65.1	18.4	81	w.			3		10			0.150	3.8		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 12, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.49	749.0	29.59	751.6	57.7	14.3	71	s.	16	7.2			5			0	0	blue sky	W. Boswell.
Armagh, Observatory	29.41	747.0	29.64	752.8	54.6	12.6	93	w.	4	1.8			10					drizzling	S. Call.
Bidston, Liverpool Obs'y			29.64	752.8	56.9	13.8	74	w.	5	2.2			10					overcast	John Hartnup.
Bolton, Sharples																			Thomas Mackereth, A.S.
Bradford, Yorkshire	29.23	742.4	29.62	752.3	58.8	14.9	71	nw.			1		6			0	0	d. clouds	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.64	752.8	66.0	18.9	73	nw.			0.4		8					overcast	John McLaren.
Chatham, School M. E.	29.56	750.8	29.69	754.1	60.3	15.7	85	w.			1		8			blank	blank	d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.50	749.3	29.73	755.1	63.2	17.3	67	sw.			2		9					overcast	The Staff.
Fort Napier, Natal	27.95	709.9	30.17	766.3	64.2	17.9	63	se.			2		3					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.64	752.8	29.87	758.7	86.0	30.0	88	nw.			1		5					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.80†	756.9†	57	13.9	87	ne.			2		10					showery	J. O'Donaghue.
Gibraltar, Mediterranean	29.95	760.7	30.00	762.0	77.9	25.5	84	w.			2		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.34	745.2	29.55	750.6	56.2	13.4	83	se.			1		9 k			blank	blank	d clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.49	749.0	29.66	753.4	61.7	16.5	76	nw.			1		7					d. clouds	The Staff.
Guernsey	29.50	749.3	29.71	754.6	61.5	16.4	77	wsw.			2		5					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.64	752.8	29.67	753.6	63.0	17.2	67	wsw.	8	3.6			7					d. clouds	The Staff.
Leicester, Museum	29.39	746.5	29.64	752.8	58.5	14.7	75	w.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.89	759.2	29.96	761.0	81.4	27.4	80	se.			3		1					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.94	760.5	29.98	761.5	81.0	27.2	80	ne.			2		10			blank	blank	overcast	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.44	747.8	29.67	753.6	61.0	16.1	65	sw.			4		9			blank	blank	squally	The Staff.
Plymouth	29.63	752.6	29.70	754.4	62.4	16.9	80	sw.			1		8					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.54	750.3	55.1	12.8	92	sse.	16	7.2			10					drizzling	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.89	759.2	29.95	760.7	86.0	30.0	54	sw.			1		1					blue sky	Serg't W. H. Lyne.
Sheffield	29.38	746.2	29.69	754.1	64.9	18.3	65	sw.			1		7			0	0		W. F. Cooper.
Silloth Rectory	29.57	751.1	29.60	751.8	56.0	13.3	93	wsw.			3		10			0	0	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.66	753.4	57.3	14.1	72	wsw.	10	4.5			6					d. clouds	Rev. S. J. Perry.
Strathfield Turgiss					65.2	18.4	70	sw.			2		8					d. clouds	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	29.71	754.6	29.73	755.1	60	15.6	76	sw.			4		10					raining	W. Newcombe.
Valencia, Observatory	29.72	754.9	29.74	755.4	57.2	14.0	78	nw.	16	7.2			4					d. clouds	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.80	756.9	29.84	757.9	66	18.9	99	calm	0	0			10 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	29.80	756.9	29.86	758.4	66	18.9	97	s.	1	0.4			fg.			0	0	dense fog	G. A. Blair.
Chicoutimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.66	753.4	29.68	753.9	65	18.3	84	sw.	3	1.3		5 k	hz.	nw.		Inap.	inap.	fair	J. McWilliams.
Fort Garry, Manitoba*	29.30	744.2	30.15	765.8	38	3.3	92	sw.	6	2.7		0	0			0	0	hazy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.84	757.9	29.96	761.0	65	18.3	97	w.	1	0.4			fg.			0	0	foggy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.61	752.1	29.93	760.2	75	23.9	82	sw.	8	3.6		0	0			0	0	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.65	753.1	29.84	757.9	77	25.0	65	sw.	18	8.0			sk.			0	0	smoky	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.26	743.2	29.91	759.7	74	23.3	76	w.	16	7.2		2 cs	2 ks	w.	w.	0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.38	746.2	30.03	762.7	77	25.0	91	sw.	7	3.1		0	0			0	0	clear	H. Morgan.
Port Stanley, Ontario	29.42	747.3	30.03	762.7	74	23.3	93	w.	6	2.7		0	0			0	0	clear	M. Payne.
Quebec, Quebec*	29.50	749.3	29.80	756.9	67	19.4	93	calm			0		fg.			0	0	foggy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.37	746.0	29.79	756.7	77	25.0	69	s.	6	2.7			sk.			0	0	smoky	W. H. McIntyre.
Saugeen, Ontario*	29.31	744.5	29.99	761.7	68	20.0	87	nw.	21	9.4			8 ks			0	0	cloudy	K. Stewart.
St. Andrews, N. B.	29.85	758.2	29.90	759.4	58	14.4	98	calm	0	0			fg.			0	0	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.79	756.7	29.84	757.9	66	18.9	90	sw.	1	0.4		8 c	2 s	nw.	nw.	0	0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.62	752.3	29.98	761.5	75	23.3	74	s.	10	4.5		0	0			0	0	clear	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.89	759.2	29.96	761.0	58	14.4	100	se.	1	0.4		fg.	fg.			0.03	0.8	foggy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.70	754.4	29.94	760.5	57	13.9	100	se.					10			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.42	772.7	30.45	773.4	63.6	17.6	79	w.	9.7	4.3		0	0			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.48	748.8			65.8	18.8	40	sse.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.80	756.8	29.82	757.5	78.8	26.0	95	se.	9.4	4.2		ck	7 k	wsw.		0	0	almost cov'd	M. Marc Dechevrens, S. J.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.78	756.5	29.83	757.7	63.3	17.4	82	se.	11	5			9						Oversergent Fischer
Fanöe	29.71	754.6	29.73	755.1	66.7	19.3	87	se.			4		5						Overloerer Lauridsen
Godthaab, Greenland	29.50	749.2	29.54	750.3	40.8	4.9	96	calm			0		10					raining	S. Kleinschmidt.
Stykkisholm, Iceland	29.84	757.8	29.88	758.9	50.0	10.0	76	calm			0		8						A. O. Thorlacius.
Thorshavn	29.60	751.9	29.64	752.8	51.8	11.0	96	ne.	7	3			10					rain and fog	Overloerer Bergh.
Vestervig	29.69	754.2	29.78	756.5	64.2	17.9	84	ene.			2		1						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.30	744.1	29.93	760.2	72.3	22.4	49	ssw.			1	2 c	4 s;n	ne.	sw.	0.028	0.7		M. Labroue, Director.
Alençon Normal School	29.25	742.9	29.80	756.9	64.0	17.8	82	s.			3	0	k	w.	s.	0.465	11.8		M. Nicot, Director.
Arras, Engineer School	29.47	748.5	29.72	754.9	58.3	14.6	90	nw.					10		w.			raining	M. Klein, Commandant.
Avignon, Normal School	29.84	757.8	29.91	759.8	76.3	24.6	63	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.31	744.5	29.85	758.2	65.7	18.7	64	w.			2	0	8 kn		sw.	0.055	1.4	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.50	749.4	29.76	756.0	64.9	18.3	75	sw.			2		8		sw.	0.189	4.8	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.04	737.6	29.91	759.8	65.8	18.8	61	se.			1		2		s.	0.043	1.1	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.64	752.8	29.89	759.3	69.3	20.7	59	wsw.			1		10	wsw.	sw.	0.126	3.2	covered	M. Rayet, Director.
Bourges, Normal School	29.30	744.2	29.84	757.9	69.8	21	57	sw.			4		5		sw.	0.035	0.9	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.55	750.6	29.80	756.8	66.2	19.0	76	ssw.			1		9		s.	0.039	1.0		M. de Kermaree, Dir.
Caen, Normal School	29.65	753.2	29.73	755.1	65.8	18.8	75	ssw.			1		5		ssw.	0.16	4.	cloudy	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l					66.9	19.4	72	ssw.			8		5	wsw.	sw.	0.055	1.4	cloudy	M. Jadot, Director.
Charleville, Normal School	29.29	744.0	29.79	756.6	65.7	18.7	65	s.			2		8			0	0	¾ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.57	725.6	29.88	758.9	69.1	20.6	44	wsw.			2		5			0.020	0.5	½ covered	M. Alluard, Director.
Cluny, Normal School	29.10	739.0	29.91	759.6	70.2	21.2	38	s.			2		2		nw.	0.098	2.5		M. de Villemontée, Dir.
Commercy, Normal School	29.02	737.0	29.86	758.5	60.4	15.8	83	w.			4		5	w.	w.	0.012	0.3	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.38	695.4	29.82	757.3	71.6	22	51	ne.			1	0	2 k		n.	1.34	34.	¼ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	28.88	733.5	30.02	762.5	75.9	24.4	33	nw.			2		5		w.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.17	740.8	29.90	759.5	70.9	21.6	45	nw.			1		0			0	0	clear	M. Ablard, Director.
Guéret, Normal School	28.35	720.0	29.89	759.1	64.0	17.8	61	sw.			1	0	2 s			0.047	1.2	slightly cl'dy	M. Rivoire, Director.
Lamballe, Normal School					61.5	16.4	99	sw.			2				sw.	0.43	11.		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.72	754.8	29.82	757.4	66.2	19.0	63	sw.			3		8	e.	sw.	0.780	19.8	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.89	733.9	29.93	760.1	67.8	19.9	46	w.			1		5		w.	0.031	0.8	cloudy	M. André, Director.
Mans, Normal School	29.48	748.9	29.79	756.6	62.1	16.7	84	sw.			1		10		sw.	0.59	15.	light rain	M. Piboeu, Director.
Marseille, Observatory	29.64	752.9	29.91	759.6	72.7	22.6	37	wsw.			2.3		7		w.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.84	630.8	30.07	763.8	61.3	16.3	41	sw.	15.0	6.7			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.80	756.8	29.92	760.0	63.5	17.5	42	ene.			1		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.10	739.0	29.85	758.1	63.7	17.6	71	sw.			1		10		sw.	0	0	covered	M. Hasse.
Nantes, Observatory	29.68	753.9	29.84	758.0	69.1	20.6	63	sw.			2–3	ck	6 k	wsw.	wsw.	0.752	19.1		M. Larocque, Director.
Nice	29.77	756.1	29.80	757.0	75.2	24.0	66	w.			4		5	w.	w.	0.429	10.9	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	29.83	757.6	29.93	760.2	74.7	23.7	40	s.	11.2	5.0			4	wsw.	wsw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.52	572.1			48.0	8.9							1		sw.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School	28.92	734.5	29.95	760.6	71.6	22	74	calm			0		0			0.244	6.2	clear	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.09	637.3			45.7	7.6	80	wsw.			6	0	2 k			0.020	0.5	¼ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	29.85	758.3	29.89	759.1	66.2	19.0	100	sw.			3		10			0.055	1.4	raining	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.62	752.3	29.83	757.6	65.5	18.6	75	wsw.			3		8		sw.	0.362	9.2	very cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.65	753.2	29.74	755.4	62.6	17	70	sw.			1		2			0.08	2.	slightly cl'dy	M. Platrier, Director.
Saint Lô, Normal School	29.59	751.6	29.75	755.6	62.6	17	87	nw.			3		8		w.	0.138	3.5	very cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.63	752.6	29.80	756.8	66.4	19.1	61	wsw.			2		7		sw.	0.142	3.6		M. Renou, Director.
Toulouse, Observatory	29.27	743.4	29.99	761.8	75.7	24.3	50	nne.			1		2	nw.		0	0	slightly cl'dy	M Baillard, Director.
Tours	29.65	753.0	29.84	758.0	65.1	18.4	75	sw.			3		8		wsw.	0.008	0.2	¾ covered	M. de Tastes.
Versailles, Observatory	29.30	744.2	29.79	756.7	64.0	17.8	63	sw.			3					0.118	3.0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.50	749.4	29.80	756.8	65.3	18.5	62	sw.			3		6		wsw.	0.063	1.6		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.00	736.7	29.86	758.4	65.7	18.7	77	wnw.			2	0	4 k		w.	0.169	4.3		Prof. Dr. Hoh.
Berlin	29.58	751.4	29.75	755.6	76.1	24.5	52	nw.			2		8			0.402	10.2		Prof. Dr. Arndt.
Breslau	29.31	744.5	29.84	757.9	71.8	22.1	61	se.			2		6			0	0		Royal University Obs'y.
Carlsruhe	29.43	747.5	29.84	758.0	67.5	19.7	64	sw.			1		1	sw.		0	0		Albert Senz.
Cassel	29.06	738.1	29.78	756.3	70.9	21.6	53	sw.			4		5	sw.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.45	747.9	29.80	756.8	69.4	20.8	53	ssw.			2		6			0	0		Physical Society.
Friedrichshafen	28.50	723.8	29.90	759.4	63.7	17.6	77	sw.			2		5	sw.		0	0		Wilhelm, Chief Tel.
Hamburg	29.65	753.2	29.76	755.8	67.5	19.7	79	se.			3		8			0.642	16.3		E. Preller.
Kiel	29.74	755.3	29.75	755.7	65.7	18.7	80	ese.			1		9			0.098	2.5		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.41	747.1	29.83	757.6	60.4	15.8	96	ssw.			2		10			0.185	4.7	raining	H. Leppig, Asst.
Magdeburg	29.59	751.6	29.78	756.3	63.3	17.4	92	s.			1		10 n		wsw.	0.055	1.4	sprinkling	Dr. Assmann.
Memel	29.93	760.2	29.98	761.4	74.3	23.5	55	se.			2–3	9 cs	0						Issermann.
Munich	28.10	713.7	29.96	760.9	65.3	18.5	64	calm			0		9	w.		0.201	5.1		Central Station.
Neufahrwasser	29.90	759.5	29.92	759.9	65.5	18.6	86	ne.			2		10			0	0		A. Lothes.
Neustadt, Palatinate	29.30	744.2	29.82	757.4	67.8	19.9	51	nw.			2		5	sw.		0	0		Dicknether.
Stuttgart	28.91	734.2	29.77	756.1	68.9	20.5	60	w.			1		7	w.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.39	721.2	29.85	758.2	66.6	19.2	63	w.			2		8	w.		0.118	3.0		Fischer.
Wustrow	29.76	755.9	29.78	756.5	72.7	22.6	71	se.			2	0	5 s			0.748	19.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.64	752.8	30.01	762.2	86.4	30.2		sw.			1.5		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.65	753.1	29.70	754.3	83.3	28.5	77	wsw.	29.0	13.0			4	wsw.		0	0	d. clouds	
Deesa	29.24	742.7	29.70	754.5	87.0	30.6	55	wsw.	8.0	3.6			3		wsw.	0	0	d. clouds	
Bombay	29.78	756.3	29.81	757.2	83.4	28.6	76	wsw.	7.0	3.1			3		wnw.	0.27	6.9	d. clouds	
Poona, Yarrowda	27.95	709.9	29.80	756.9	79.3	26.3	63	w.	20.0	8.9			4		w.	0	0	d. clouds	
Belgaum	27.30	693.5	29.87	758.7	69.9	21.1	84	wsw.	6.0	2.7			7		sw.	0	0	d. clouds	
Lahore	28.86	733.1	29.58	751.3	95.2	35.1	43	w.	2.6	1.2			0			0	0	blue sky	
Roorkee	28.68	728.6	29.56	750.7	90.8	32.7	55	w.	2.8	1.2			0			0	0		
Agra	29.07	738.4	29.62	752.3	92.2	33.4	57	w.	4.0	1.8			2			0	0		
Nagpur	28.65	727.8	29.68	753.9	83.7	28.7	71	sw.	3.7	1.6			8		sw.	0	0	d. clouds	
Jubbulpore	28.37	720.5	29.70	754.5	84.8	29.3	62	calm	2.9	1.3			2			0.01	0.3	blue sky	
Lucknow	29.24	742.6	29.60	751.9	91.1	32.8	58	wsw.	6.5	2.9			2			0	0	d. clouds	
Allahabad	29.32	744.8	29.63	752.6	86.7	30.4	74	calm	2.7	1.2			0			0	0	blue sky	
Patna	29.44	747.9	29.62	752.4	88.8	31.6	68	nw.	3.2	1.4			6	nw.	nw.	0	0	d. clouds	
Hazaribagh	27.66	702.6	29.64	752.9	82.6	28.1	67	nw.	5.6	2.5			9			0	0		
Cuttack	29.57	751.2	29.64	752.7	85.0	29.4	78	nne.	0.2	0.1			9			0.07	1.8	d. clouds	
Calcutta, Alipore	29.59	751.5	29.61	752.0	87.8	31.0	73	n.	1.0	0.4			5	s.		0	0	d. clouds	
Dhubri	29.50	749.2	29.62	752.2	84.2	29.0	82	calm	0.9	0.4			3		w.	0	0	d. clouds	
Chittagong	29.58	751.4	29.67	753.7	81.7	27.6	90	calm	3.1	1.4			10			0	0	overcast	
Sibsagar	29.31	744.5	29.64	752.9	84.9	29.4	87	ssw.	1.5	0.7			10	sw.	sw.	0.07	1.8	d. clouds	
Jeypore	28.25	717.6	29.66	753.3	91.9	33.3	44	wnw.	4.6	2.1			3		n.	0	0	d. clouds	
Zanzibar, Africa			30.06	763.5	84.1	28.9	50	sse.	4	1.8			2			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.50	749.3	29.90	759.5	59.9	15.5	98	calm	0	0			10			1.197	30.4		Prof. Giovanni Clodig.
Milan	29.36	745.7	29.86	758.5	61.5	16.4	91	e.	9.8	4.4			7	sw.		1.028	26.1		Prof. Schiaparelli.
Padua	29.72	754.9	29.82	757.5	64.9	18.3	88	sse.	8.1	3.6			9	sw.		0.500	12.7		Prof. Dott. Lorenzoni.
Moncalieri	28.97	735.9	29.86	758.4	69.3	20.7	65	ene.	1.8	0.8			8	w.		0	0		Prof. P. F. Denza.
Genoa	29.66	753.4	29.85	758.3	71.6	22.0	82	se.	5.6	2.5			4	se.		0.823	20.9		Prof. G. M. Garibaldi.
Mondovi	27.98	710.8	29.85	758.2	66.7	19.3	66	w.			2		5			0.232	5.9		Prof. D. C. Bruno.
Pesaro	29.82	757.5	29.87	758.7	65.7	18.7	85	nw.	22.4	10.0			10	sw.		0.197	5.0		Prof. Luigi Guidi.
Florence	29.60	751.7	29.84	758.0	69.3	20.7	74	s.			2		3	sw.		0.453	11.5		Prof. Costantino Pitter.
Leghorn	29.78	756.5	29.87	758.6	73.8	23.2	73	wnw.	4.3	1.9			4			0.016	0.4		Prof. P. Monte.
Rome	29.72	754.9	29.89	759.2	78.1	25.6	74	s.	15.4	6.9			10			0.031	0.8		Prof. P. S. Ferrari.
Lecce	29.75	755.7	30.00	762.0	81.1	27.3	61	wnw.	17.4	7.8			10	sw.		0	0		Prof. C. de Giorgi.
Cosenza	29.11	739.4	29.96	761.0	88.2	31.2	62	ese.	3.1	1.4			6	se.		0	0		Prof. D. Conti.
Cagliari	29.74	755.4	29.93	760.1	84.9	29.4	35	wnw.			4		2			0	0		Prof. A. Pacinotti.
Palermo	29.76	755.8	29.99	761.8	78.4	25.8	72	e.	6.9	3.1			10	wsw.		0	0		Prof. G. Ciacciatore.
Syracuse	29.98	761.5	30.02	762.6	81.7	27.6	67	s.	7.4	3.3			7	sse.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.41	747.0	29.92	759.9	76.5	24.7	69	se.	6.3	2.8			10	w.		0	0		Prof. F. Brioschi.
Stelvio	22.15	562.6			41.0	5.0	73	wsw.			2		10 n	s.		0.465	11.8	misty	Prof. P. F. Denza.
Valdobbia	22.19	563.5			43.7	6.5	83	se.			2		10 k	w.		0.713	18.1	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.82	757.4	29.83	757.7	79.2	26.2	77	ssw.	7.2	3.2			10 n			0.077	2.0	raining	K. Sasaki.
Kioto	29.80	756.9	29.97	761.2	77.2	25.1	90	ese.	1.3	0.6			10 n		s.	1.710	43.4	raining	M. Tojima.
Nagasaki, I. M. Obs'y	29.79	756.6	29.99	761.7	79.8	26.6	85	s.	1.2	0.5		ck	7 s			0.130	3.3	fair	S. Takehayashi.
Niigata	29.95	760.7	29.99	761.7	73.5	23.1	83	ne.	2.6	1.2		ck	10 ks			0.280	7.1	cloudy	
Nobiru	29.97	761.2	29.98	761.5	69.5	20.8	91	sse.	4.2	1.9			10 n;s			0.440	11.2	cloudy	
Supporo	29.85	758.2	29.92	759.9	61.5	16.4	89	nw.	3.0	1.3			4			0	0		
Tokei Obs'y, Yeddo	29.89	759.2	29.95	760.7	74.2	23.4	90	ene.	8.2	3.7		2 ck	1s;ks	sw.	ne.	0.045	1.1	fair	The Staff.
Wakayama	29.93	760.2	29.98	761.5	82.1	27.8	69	s.	9.9	4.4		6 ck		sw.	sw.	0	0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.07	763.8	30.26	768.6	72.0	22.2	58	e.	18.5	8.3		0	2		sse.	0	0	squally	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.60	599.8	29.83	757.8	60.3	15.7	82	e.	0	0		8	1			0.031	0.8	very cloudy	Vicente Fernandez.
Leon	24.34	618.3	29.98	761.4	61.4	16.3	90	n.			1	6 c	1 k	nw.		0.292	7.4	cloudy	Prof. M. Leal.
Mazatlan	29.57	751.0	29.82	757.5	76.0	24.4	93	e.	0.9	0.4		8 cs	1 k	e.		0.354	9.0	cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.04	585.2	30.01	762.2	57.7	14.3	87	calm			0		10 pk			0.004	0.1	overcast	The Staff.
Morelia	24.02	610.0	30.04	763.0	54.3	12.4	75	se.			2	3	0	se.		0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.88	606.6	29.84	757.9	61.0	16.1	91	calm			0	1 c	1			0.134	3.4	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.37	593.6	30.06	763.5	56.8	13.8	69	calm	0	0		0	9		n.	0.847	21.5	very cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.53	572.4	30.12	765.1	55.4	13.0	92	se.	1.7	0.8		0	3 s			0	0	clear	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.67	753.7	29.67	753.7	62.6	17.0		w.			4					0.339	8.6		
Groningen	29.64	752.9	29.70	754.3	62.8	17.1		s.			2					0	0		
Helder	29.65	753.0	29.65	753.0	61.9	16.6		ssw.			3					0.024	0.6		
Hellevoetsluis	29.65	753.1	29.65	753.1	64.0	17.8	86	s.			2					0.413	10.5		
Utrecht	29.63	752.7	29.68	753.9	62.8	17.1	90	s.			2		8			0.098	2.5	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.72	754.9	29.78	756.5	64.0	17.8	57	ssw.	20.8	9.3			4			0	0		
Christiania	29.74	755.4	29.89	759.1	58.1	14.5	95	e.	0	0			10			0.358	9.1	raining	
Gjæsvær	29.95	760.6	29.97	761.3	40.8	4.9		calm			0		2						
Lodingen	29.84	758.0	29.89	759.2	59.4	15.2	75	calm			0		1			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.76	755.9	29.91	759.7	67.3	19.6	72	ene.	10.5	4.7			3			3.858	98.0		Dr. J. A. Sampaio.
Campo Major	28.96	735.6	29.93	760.1	77.7	25.4	35	ssw.	10.5	4.7			1			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.95	760.7	30.04	762.9	73.9	23.3	60	wsw.	10.5	4.7			0			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.61	752.1	29.96	761.0	69.1	20.6	70	ssw.	21.0	9.4			8			0.217	5.5		The Staff.
Ponta Delgada, Azores	29.80	757.0	29.87	758.8	72.7	22.6	60	ne.	20.6	9.2			4	w.		1.197	30.4		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.76	730.5	29.85	758.2	43.3	6.3	87	wnw.	16	7			10 n						Capt. Lasarew.
Archangel	30.21	767.4	30.23	767.9	52.7	11.5	63	s.	2	1			10					light clouds	Capt. Sseliwerstow.
Astrakhan	30.05	763.3	29.97	761.2	70.5	21.4	56	e.	13	6			10 s			blank	blank	heavy cl'ds..	Capt. Wisganow.
Barnaul	28.99	736.4	29.48	748.8	54.9	12.7	48	sw.	13	6			7						Meteorological Obs'y.
Dorpat ‡	29.86	758.4	30.09	764.3	72.7	22.6	49	se.	7	3		0	2 k						Observatory.
Ekaterinburg	29.12	739.6	30.10	764.5	41.5	5.3	57	nw.	13	6			10						Meteorological Obs'y.
Kasan	30.03	762.8	30.30	769.7	55.4	13.0	40	n.	2	1		1 cs	0						Observatory.
Kertch	29.90	759.4	29.92	759.9	75.0	23.9	71	sse.	2	1		0	6 n			0.917	23.3		Lagorio & Sastyrex.
Kieff	29.26	743.1	29.87	758.6	70.5	21.4	69	n.	7	3		c	2 ks						Observatory.
Lugan	29.71	754.5	29.90	759.5	72.0	22.2	67	ese.	22	10			9			blank	blank		Meteorological Obs'y.
Moscow	29.62	752.3	30.08	763.9	65.7	18.7	57	s.	4	2		0	4 ks						Meteorological Obs'y.
Nikolaiev	29.84	757.8	29.91	759.6	73.6	23.1	62	n.	4	2		0	6 kn						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	29.82	757.4	29.91	759.6	53.1	11.7	84	calm			0		10 n			0.008	0.2		Lieut. Iwanow.
Pekin, China	29.81	757.2	29.95	760.8	74.7	23.7	76	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.10	764.4	30.11	764.8	70.9	21.6	70	sse.	9	4			8 n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.41	721.5	29.91	759.6	76.1	24.5	56	calm	0	0			0						Teich, A. M.
Tiflis	28.56	725.3	29.94	760.5	66.6	19.2	80	nw.	13	6			10 n					raining	Physical Observatory.
Warsaw	29.48	748.7	29.88	759.0	72.9	22.7	71	ese.	11	5		ck	10 s						Astronomical Obs'y.
Wilna	29.60	751.7	30.00	762.0	71.2	21.8	58	se.	2	1			1						Berg, Assistant.
Yeniseisk	29.26	743.2	29.54	750.3	50.7	10.4	92	e.	4	2			10					raining	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restairig Park			29.58	751.3	60.5	15.8	79	ne.			1		10 k		sw.	0.28	7.1	raining	Andrew Gibb.
Monach Lt. House, Hebrides			29.51	749.5	56	13.3	94	nw.			3		10			0.2	5.	raining	J. Youngclause
North Unst, Shetland Isl'ds			29.64	752.8				sse.			6		10						Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.80	756.9	29.90	759.5	77.9	25.5	40	sw.	0	0						0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.87	758.6	29.92	760.0	70.9	21.6	57	s.	4.0	1.8		1	8	se.		0.299	7.6	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.02	686.4			63.3	17.4	59	sw.	12.5	5.6		1	5	ne.		0.150	3.8	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.78	705.6	29.93	760.2	74.1	23.4	45	s.	12.5	5.6		1	0			0	0	almost clear	The Staff.
Murcia, Met. Obs'y ‡	29.81	757.2	29.95	760.8	85.8	29.9	34	ssw.	3.6	1.6		0	0			0	0	clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.84	732.5	29.72	755.0	60.6	15.9	90	se.	11.9	5.3			10			0.394	10.0	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.90	759.4	29.96	761.0	76.7	24.8	87	se.	1.8	0.8		3ck;cs	0	nw.		0.681	17.3	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.72	754.9	29.77	756.2	82.3	27.9	86	ssw.	14.7	6.7			9 kn	w.		0.61	15.5	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.91	759.8	30.01	762.2	74.5	23.6	55	w.	11.9	5.3		0	0			0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.88	759.0	29.97	761.3	81.0	27.2	88	se.	0	0		6 k	3 k		se.	1.713	43.5	d. clouds	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.55	750.6	29.69	754.0	81.0	27.2	88	nw.	0.7	0.3		6 cs	4 ks		sw.	0.05	1.3	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.04	763.0	30.08	764.0	52.5	11.4	93	s.			2		10			0	0		
Umea	30.02	762.4	30.07	763.7	56.8	13.8	71	s.			2		6			0.079	2.0		
Hernosand	29.97	761.2	30.02	762.5	53.1	11.7	95	ene.			2		10			0.016	0.4		
Stockholm	29.78	756.3	29.95	760.8	65.5	18.6	86	s.			2		10			0.039	1.0		
Wisby	29.89	759.1	29.95	760.6	57.6	14.2	98	nw.			2		10					raining	
Sub-Series.																			
Upsala	29.83	757.7	29.92	759.9	65.3	18.5	88	sse.	7.6	3.4			9		s.	0.004	0.1		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.57	725.7	29.96	760.9	67.6	19.8	52	wsw.			1		3			0.039	1.0		The Observatory.
Zurich ‡	28.33	719.6	29.94	760.5	62.6	17.0	79	se.			2		6			0.110	2.8	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.01	762.3	84.6	29.2	34	s.	6	2.5			1		sw.	0	0		The Observatory.
Valona			30.10	764.4	82.0	27.8		s.			1		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.91	759.8	84.9	29.4	57	nw.			1	0	2 k		se.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Albany, New York	29.97	761.2	30.05	763.3	79	26.1	73	sw.	4	1.8		sk.	sk.			0	0	dense smoke.	
Alpena, Michigan	29.44	747.8	30.11	764.8	60	15.6	70	nw.	18	8.0		10 k	0	nw.		0	0	cloudy	
Atlanta, Georgia	29.08	738.6	30.26	768.6	69.5	20.8	89	e.	6	2.7		2 c	hz.			0	0	dense haze"	
Atlantic City, New Jersey	30.11	764.8	30.12	765.0	76.8	24.9	82	w.	3	1.3		3 c	hz	calm	calm	0	0	fair	
Augusta, Georgia	30.06	763.5	30.25	768.3	75.0	23.9	85	se.	1	0.4			10s;hz		s.	0	0	cloudy	
Baltimore, Maryland	30.09	764.3	30.14	765.5	76	24.4	76	calm	0	0		0	fg.		calm	0	0	light fog	
Barnegat, New Jersey	30.07	763.8	30.09	764.3	83.0	28.3	67	sw.	5	2.2		2 k	0	calm		0	0	clear	
Bismarck, Dakota	28.44	722.4	30.26	768.6	37	2.8	82	se.	4	1.8		1 cs	0	calm		0	0	clear	
Boise City, Idaho	27.27	692.6	30.11	764.8	43.0	6.1	53	n.	6	2.7		0	0			0	0	clear	
Boston, Massachusetts	29.86	758.4	30.02	762.5	74.8	23.8	73	w.	8	3.6		1 c	hz.			0	0	clear	
Brackettville, Texas	28.79	731.3	29.79	756.7	77	25.0	85	se.	8	3.6			9 s		se.	0	0	cloudy	
Brownsville, Texas	29.83	757.7	29.87	758.7	76	24.4	97	e.	2	0.9		7 c	3 k		e.	0	0	cloudy	
Buffalo, New York	29.35	745.5	30.07	763.8	80.2	26.8	62	sw.	9	4.0		0	sk.			0	0	clear	
Burlington, Vermont	29.66	753.4	29.95	760.7	76.5	24.7	68	sw.	11	4.9			sk.			0	0	dense smoke.	
Cairo, Illinois	29.80	756.9	30.20	767.1	77.0	25.0	76	s.	1	0.4		0	0			0	0	clear	
Campo, California	27.40	695.9	29.98	761.5	47.7	8.7	58	e.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.24	691.9			58	14.4	93	calm			0	0	hz.			0	0	clear	
Cape Henry, Virginia	30.15	765.8	30.17	766.3	74	23.3	90	sw.	7	3.1			10 s			inap.	inap.	cloudy	
Cape May, New Jersey	30.10	764.5	30.13	765.3	76	24.4	85	sw.	5	2.2		5 cs	2 ks		calm	0	0	cloudy	
Castroville, Texas	29.17	740.9	29.84	757.9	81	27.2	79	se.	3	1.3			10 s		se.	0.01	0.3	threatening.	
Cedar Keys, Florida	30.10	764.5	30.12	765.0	75	23.9	85	ne.	9	4.0		0	0			0	0	clear	
Champaign, Illinois	29.31	744.5	30.08	764.0	71.5	21.9	84	s.	8	3.6		0	hz.			0	0	clear	
Charleston, S. Carolina	30.15	765.8	30.21	767.3	76	24.4	90	ne.	6	2.7		0	8 s,hz		e.	0	0	cloudy	
Charlotte, N. Carolina	29.38	746.2	30.26	758.6	75.6	24.2	69	s.	3	1.3			8 s;fg			0	0	cloudy	
Chattanooga, Tennessee	29.45	748.0	30.28	769.1	69.4	20.8	92	calm	0	0		9 cs	fg.	calm	calm	0	0	cloudy	
Cheyenne, Wyoming	24.22	615.2	30.19	766.8	37.2	2.9	92	sw.	5	2.2			10 s			0.01	0.3	cloudy	
Chicago, Illinois	29.26	743.2	29.97	761.2	77.5	25.3	59	sw.	5	2.2		2 ck	3 k	sw.	sw.	0	0	fair	
Chincoteague, Virginia	30.13	765.3	30.15	765.8	76	24.4	90	w.	5	2.2			10 s		calm	0	0	cloudy	
Cincinnati, Ohio	29.55	750.6	30.21	767.3	78	25.6	75	se.	1	0.4		hz.	fg.			0	0	clear	
Cleveland, Ohio	29.41	747.0	30.15	765.8	80	26.7	56	sw.	8	3.6		0	sk.			0	0	dense smoke.	
Coleman City, Texas																			
Columbus, Ohio	29.33	745.0	30.19	766.8	75	23.9	69	s.	2	0.9		2 ck	2 ks	s.	s.	0	0	fair	
Concho, Texas	28.10	713.7	30.04	763.0	72	22.2	84	s.	4	1.8		0	3 s			0	0	fair	
Corsicana, Texas	29.60	751.8	30.07	763.8	78	25.6	77	calm	0	0		0	0			0.10	2.5	clear	
Davenport, Iowa	29.41	747.0	30.07	763.8	70	21.1	84	n.	8	3.6		0	hz.		calm	0	0	clear	
Dayton, Washington T'y	28.27	718.0	30.08	764.0	48.5	9.2	67	ne.	5	2.2		0	0			0	0	clear	
Deadwood, Dakota	25.56	649.2	30.26	768.6	32	0.0	81	calm	0	0		8 k	0	calm		0	0	cloudy	
Decatur, Texas	28.88	733.5	30.00	762.0	77	25.0	69	s.	4	1.8		0	2 s			0	0	fair	
Delaware Breakwater, Del.	30.10	764.5	30.12	765.0	74	23.3	90	sw.	4	1.8		3 cs	hz.	e.		0	0	fair	
Denison, Texas	29.28	743.7	30.09	764.3	77	25.0	82	s.	2	0.9		10 cs	0	calm		0	0	cloudy	
Denver, Colorado	24.95	633.7	30.17	766.3	43.0	6.1	83	s.	3	1.3			10 s		calm	0.12	3.0	cloudy	
Des Moines, Iowa	29.21	741.9	30.12	765.0	54	12.2	93	ne.	7	3.1			10 s		ne.	0.66	16.8	cloudy	
Detroit, Michigan	29.38	746.2	30.10	764.5	79.6	26.4	62	sw.	4	1.8		0	0			0	0	clear	
Dodge City, Kansas	27.64	702.0	30.23	767.8	45	7.2	100	n.	14	6.3			10 n			2.48	63.0	light rain	
Dubuque, Iowa	29.42	747.3	30.14	765.5	58.3	14.6	81	n.	9	4.0			10 s		calm	0.07	1.8	cloudy	
Duluth, Minnesota	29.57	751.1	30.28	769.1	46	7.8	83	n.	4	1.8			10 s		calm	1.80	45.7	cloudy	
Eagle Pass, Texas	29.17	740.9	30.00	762.0	79.1	26.2	82	se.	5	2.2		0	7 s		se.	0	0	fair	
Eagle Rock, Idaho	25.38	644.6	30.23	767.8	36	2.2	61	n.	2	0.9		0	0			0	0	clear	
Eastport, Maine	29.84	757.9	29.91	759.7	57	13.9	93	s.	6	2.7			fg.		s.	0	0	dense fog	
El Paso, Texas	26.28	667.5	30.03	762.7	55.4	13.0	93	calm	0	0		0	2 s			inap.	inap.	clear	
Erie, Pennsylvania	29.38	746.2	30.10	764.5	81	27.2	58	sw.	9	4.0		hz.	hz.			0	0	dense haze.	
Escanaba, Michigan	29.54	750.3	30.20	767.1	51	10.6	87	n.	17	7.6			10 s		n.	0	0	cloudy	
Florence, Arizona	28.35	720.1	29.95	760.7	63	17.2	63	calm	0	0		0	0			0	0	clear	
Fort Apache, Arizona																			
Fort Assinnaboine, Montana	27.14	689.3	29.95	760.7	44	6.7	68	s.	7	3.1		0	0			0	0	clear	
Fort Bennett, Dakota	28.67	728.2	30.21	767.3	44	6.7	93	calm	0	0		10 cs	0	se.		0.26	6.6	cloudy	
Fort Benton, Montana	27.14	689.3	30.00	762.0	46	7.8	56	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	28.17	715.5	30.18	766.6	40	4.4	82	s.	3	1.3		0	0			0	0	clear	
Fort Custer, Montana	26.89	683.0	30.13	765.3	35	1.7	62	s.	8	3.6		0	0			inap.	inap.	clear	
Fort Davis, Texas	25.34	643.6	30.30	769.6	55	12.8	100	ne.	4	1.8			10 n			0.68	17.3	light rain	
Fort Elliott, Texas	27.39	695.7	30.58	776.7	44	6.7	86	ne.	28	12.5			10 s		ne.	1.78	45.2	cloudy	
Fort Gibson, Indian T'y	29.53	750.0	30.08	764.0	71.5	21.9	76	nw.	12	5.4			10 s		n.	0	0	cloudy	
Fort Grant, Arizona					57	13.9	51	e.	3	1.3		0	0			0	0	clear	
Fort Griffin, Texas	28.79	731.3	30.03	762.7	65.0	18.3	84	n.	13	5.8			10 s			0	0	cloudy	
Fort Keogh, Montana	27.60	701.0	30.14	765.5	41	5.0	82	ne.	3	1.3		2 c	0			0	0	clear	
Fort Macon, North Carolina	30.21	767.3	30.22	767.6	76	24.4	82	nw.	8	3.6		2 c	hz	nw.	calm	0	0	fair	
Fort McKavett, Texas	27.78	705.6	29.62	752.3	72.7	22.6	85	e.	4	1.8		0	0			inap.	inap.	clear	
Fort Missoula, Montana	26.78	680.2	30.30	769.6	39	3.9	92	s.	1	0.4		0	0			0	0	clear	
Fort St. Michaels	30.05	763.3	30.09	764.3	45	7.2	92	se.	10	4.5			10 ks			0.18	4.6	cloudy	
Fort Shaw, Montana	26.38	670.0	29.98	761.5	41	5.0	76	w.	1	0.4		4 cs	0	calm		0	0	fair	
Fort Sill, Indian Territory	28.88	733.5	30.13	765.3	55	12.8	90	n.	20	8.9			10 s		n.	0.11	2.8	cloudy	
Fort Stevenson, Dakota	28.33	719.6	30.20	767.1	40	4.4	67	s.	2	0.9		0	0			0	0	clear	
Fort Verde, Arizona					55.2	12.9	81	w.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.28	718.3	29.76	755.9	77	25.0	88	calm	0	0		6 k	0	s.		0	0	fair	
Galveston, Texas	29.97	761.2	30.01	762.2	83.3	28.5	79	se.	11	4.9		0	5 ks		se.	0	0	fair	
Grand Haven, Michigan	29.40	746.7	30.06	763.5	70.5	21.4	80	nw.	6	2.7		6 k	0	sw.		0	0	fair	
Hatteras, North Carolina	30.18	766.6	30.20	767.1	78	25.6	88	sw.	5	2.2		hz.	hz.			0	0	dense haze.	
Helena, Montana	25.85	656.6	30.24	768.1	41	5.0	92	calm	0	0		0	0			0	0	clear	
Henrietta, Texas	29.04	737.6	29.96	761.0	64	17.8	78	ne.	12	5.4			10 s		sw.	0	0	cloudy	
Huron, Dakota	28.91	734.3	30.30	769.6	41	5.0	89	n.	3	1.3		0	7 s		w.	0.62	15.7	fair	
Indianapolis, Indiana	29.35	745.5	30.15	765.8	78.5	25.8	67	s.	3	1.3		0	hz.		calm	0	0	clear	
Indianola, Texas	29.93	760.2	29.95	761.0	81.1	27.3	82	se.	14	6.3		2 k	3 ks	s.	calm	0.22	5.6	fair	
Jacksboro, Texas	28.88	733.5	29.95	760.7	77	25.0	71	se.	5	2.2		0	2 ks		se.	0	0	clear	
Jacksonville, Florida	30.10	764.5	30.14	765.5	78	25.6	76	ne.	4	1.8		2 k	0	ne.		inap.	inap.	clear	
Keokuk, Iowa	29.39	746.5	30.05	763.3	75.6	24.2	77	sw.	3	1.3		0	hz.			0	0	clear	
Key West, Florida	29.94	760.5	29.98	761.5	79.5	26.4	85	ne.	6	2.7		4 ck	2 k		ne.	1.04	26.4	fair	
Kittyhawk, North Carolina	30.17	766.3	30.19	766.8	77	25.0	85	w.	8	3.6			10 s			0	0	cloudy	
Knoxville, Tennessee	29.27	743.4	30.31	769.9	70.3	21.3	83	calm	0	0		hz.	sk.	calm	calm	0	0	dense haze.	
La Crosse, Wisconsin	29.39	746.5	30.16	766.1	53	11.7	80	ne.	12	5.4			10 n			0.13	3.3	light rain	
La Mesilla, New Mexico	26.15	664.2	30.30	769.6	60.2	15.7	88	calm	0	0		0	1 s			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	29.23	742.4	30.13	765.3	57	13.9	86	nw.	10	4.5			10 s		nw.	0.01	0.3	cloudy	
Lewiston, Idaho	29.23	742.4	30.08	764.0	49	9.4	71	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.80	756.9	30.12	765.0	76	24.4	85	calm	0	0		hz.	hz.			0	0	dense haze.	
Los Angeles, California	29.59	751.6	29.97	761.2	61.0	16.1	90	sw.	1	0.4			10 s		calm	0	0	cloudy	
Louisville, Kentucky	29.61	752.1	30.18	766.6	78.5	25.8	65	s.	4	1.8		3 cs	0			0	0	clear	
Lynchburg, Virginia	29.51	749.5	30.20	767.1	76	24.4	74	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	29.13	739.9	30.16	766.1	53	11.7	93	n.	12	5.4			10 s		n.	0.03	0.8	cloudy	
Marquette, Michigan	29.50	749.3	30.23	767.8	49	9.4	77	w.	6	2.7		5 k	0	nw.		1.19	30.2	fair	
Mason, Texas	28.36	720.3	30.05	763.3	74.1	23.4	85	calm	0	0		0	1 s		calm	0	0	clear	
Memphis, Tennessee	29.78	756.4	30.12	765.0	78	25.6	74	e.	2	0.9		hz.	hz.	calm	calm	0	0	dense haze.	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.38	746.2	30.14	765.5	55	12.8	86	n.	20	8.9			10 s			0	0	cloudy	
Mobile, Alabama	30.02	762.5	30.09	764.3	79.0	26.1	88	e.	5	2.2		5 k	0	e.		0.11	2.8	fair	
Montgomery, Alabama	29.97	761.2	30.20	767.1	74.4	23.6	81	e.	3	1.3		3 c	0	e.		0	0	clear	
Moorhead, Minnesota	29.28	743.7	30.29	769.4	37	2.8	89	s.	4	1.8			10 s		s.	inap.	inap.	cloudy	
Morgantown, W. Virginia	29.21	741.9	30.17	766.3	72.5	22.5	87	ca'm	0	0		hz.	0			0	0	clear	
Mt. Washington, N. H.	24.00	609.6	30.20	767.1	58.0	14.4	78	nw.	52	23.3		sk	sk	nw.		0	0	dense smoke	
Nashville, Tennessee	29.68	753.9	30.22	767.6	73.4	23.0	77	se.	2	0.9		0	0			0	0	clear	
New Haven, Connecticut	29.95	760.7	30.06	763.5	74	23.3	85	sw.	4	1.8		0	sk			0	0	dense smoke	
New London, Connecticut	30.01	762.2	30.06	763.5	71	21.7	94	calm	0	0		0	fg			0	0	clear	
New Orleans, Louisiana	30.00	762.0	30.06	763.5	81.0	27.2	79	e.	4	1.8		4 c	3 s		e.	0.02	0.5	fair	
Newport, Rhode Island	29.99	761.7	30.04	763.0	71.8	22.1	91	sw.	1	0.4		2 k	fg.	calm		0	0	light fog	
New River, N. Carolina					74	23.3	90	calm			0		hz			0	0	dense haze.	
New Shoreham, Rhode I'd.	30.02	762.5	30.05	763.3	73.5	23.1	82	sw.	10	4.5		0	hz		calm	0	0	clear	
New York, New York	29.92	760.0	30.10	764.5	75	23.9	76	sw.	8	3.6		4 cs	fg	sw.		0	0	fair	
Norfolk, Virginia	30.15	765.8	30.18	766.6	75.5	24.2	90	w.	3	1.3			10 s			0	0	cloudy	
North Platte, Nebraska	27.33	694.2	30.27	768.8	44	6.7	78	n.	8	3.6			10 s			0.10	2.5	cloudy	
Olympia, Washington T'y	30.00	762.0	30.04	763.0	49.0	9.4	93	w.	1	0.4		0	9 s		calm	0	0	cloudy	
Omaha, Nebraska	29.02	737.1	30.21	767.3	50	10.0	96	n.	12	5.4			10 n		n.	0.71	18.0	light rain	
Oswego, New York	29.66	753.4	30.00	762.0	81.0	27.2	54	sw.	5	2.2		0	hz			0	0	clear	
Pensacola, Florida	30.10	764.5	30.12	765.0	80	26.7	82	ne.	12	5.4		0	4 s		e.	0	0	fair	
Philadelphia, Pa.	30.05	763.3	30.11	764.8	76	24.4	82	w.	2	0.9		0	hz			0	0	clear	
Phœnix, Arizona	28.92	734.6	30.72	780.3	58	14.4	64	ne.	1	0.4		0	0			0	0	clear	
Pike's Peak, Colorado	17.82	452.6	30.03	762.7	19	— 7.2	91	sw.	8	3.6			fg		sw.	0.64	16.3	light fog	
Pioche, Nevada	24.23	615.4	30.25	768.3	40	4.4	54	calm	0	0		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.37	746.0	30.19	766.8	77	25.0	74	e.	1	0.4		0	0			0	0	clear	
Port Eads, Louisiana	30.04	763.0	30.05	763.3	81.2	27.3	79	e.	20	8.9		4 c	3 ks	e.	e.	0	0	fair	
Port Huron, Michigan	29.36	745.7	30.05	763.3	75.0	23.9	69	s.	9	4.0		0	sk		calm	0	0	dense smoke	
Portland, Maine	29.90	759.4	29.95	760.7	73.5	23.1	82	w.	8	3.6			fg.			0	0	light fog	
Portland, Oregon	30.00	762.0	30.07	763.8	50.9	10.5	83	nw.	1	0.4		1 cs	1 s	nw.	nw.	0	0	clear	
Portsmouth, N. Carolina					78	25.6	82	n.	8	3.6		hz.	hz	calm	calm	0	0	light haze	
Prescott, Arizona	24.84	630.9	30.03	762.7	44	6.7	86	w.	1	0.4		0	0			0	0	clear	
Punta Rassa, Florida	30.00	762.0	30.01	762.2	78	25.6	82	ne.	12	5.4		2 c	hz	calm	calm	0.44	11.2	clear	
Red Bluff, California	29.53	750.0	29.87	758.7	63.5	17.5	66	nw.	3	1.3		0	0			0	0	clear	
Rio Grande City, Texas	29.74	755.4	29.95	760.7	77	25.0	94	se.	2	0.9			10 s		se.	0	0	cloudy	
Rochester, New York	29.41	747.0	30.05	763.3	78	25.6	58	w.	10	4.5		0	sk			0	0	clear	
Roseburg, Oregon	29.49	749.0	30.07	763.8	50	10.0	86	calm	0	0		0	0			0	0	clear	
Sacramento, California	29.81	757.2	29.89	759.2	62.0	16.7	56	se.	5	2.2		0	0			0	0	clear	
St. Louis, Missouri	29.52	749.8	30.13	765.3	73.2	22.9	76	s.	7	3.1		6 ck	0	w.		0	0	fair	
St. Paul, Minnesota	29.37	746.0	30.25	758.3	46.1	7.8	89	n.	10	4.5			10 s		n.	1.27	32.3	cloudy	
Salt Lake City, Utah	25.79	655.1	30.12	765.0	46	7.8	43	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.27	743.4	29.97	761.2	87.7	30.9	57	e.	4	1.8		0	5 ks		se.	0	0	fair	
San Diego, California	29.82	757.4	29.88	758.9	61.8	16.6	84	n.	4	1.8		0	1 s			0	0	clear	
Sandusky, Ohio	29.44	747.8	30.12	765.0	78.6	25.9	65	s.	10	4.5		0	0			0	0	clear	
Sandy Hook, New Jersey	30.06	763.5	30.09	764.3	78.0	25.6	84	nw.	4	1.8		5 k	hz	nw.	calm	0	0	fair	
San Francisco, California	29.86	758.4	29.92	760.0	53	11.7	96	sw.	10	4.5		0	fg		sw.	0	0	fair	
Santa Fé, New Mexico	23.37	593.6	30.17	766.3	44	6.7	70	se.	5	2.2		0	6 s		calm	0	0	fair	
Savannah, Georgia	30.10	764.5	30.19	766.8	74	23.3	90	ne.	5	2.2			10 ks		ne.	0	0	cloudy	
Shreveport, Louisiana	29.87	758.7	30.10	764.5	76	24.4	82	se.	3	1.3		0	1 s		calm	0	0	clear	
Silver City, New Mexico	24.35	618.5	29.92	760.0	50	10.0	65	calm	0	0		3 k	0	calm		0	0	clear	
Sitka, Alaska	29.79	756.7	29.86	758.4	53	11.7	93	sw.	6	2.7		8 k	0	calm		0.60	15.2	cloudy	
Smithville, North Carolina	30.17	766.3	30.21	767.3	71	21.7	94	ne.	4	1.8		4 c; hz	hz	ne.		0	0	dense haze	
Spokane Falls, Wash. Ter.	27.97	710.4	29.99	761.7	46	7.8	86	e.	1	0.4		8 cs	0			0	0	fair	
Springfield, Illinois	29.42	747.3	30.11	764.8	73	22.8	76	s.	7	3.1		2 ck	1 s	w.	w.	0	0	clear	
Springfield, Massachusetts	29.93	760.2	30.06	763.5	67.8	19.9	93	calm	0	0			fg			0	0	dense fog	
Stockton, Texas	27.02	686.3	30.09	764.3	66.0	18.9	100	n.	4	1.8			10 n		calm	0.14	3.6	heavy rain	
St. Vincent, Minnesota	29.31	744.5	30.20	767.1	42	5.6	73	sw.	6	2.7		0	0			0	0	clear	
Thatcher's Island, Mass.	29.97	761.2	30.02	762.5	70.0	21.1	44	w.	8	3.6		0	hz			0	0	clear	
Toledo, Ohio	29.40	746.7	30.10	764.5	78	25.6	69	sw.	8	3.6		0	sk			0	0	clear	
Tucson, Arizona	27.51	698.7	29.87	758.7	62	16.7	78	se.	4	1.8		0	0			0	0	clear	
Umatilla, Oregon	29.64	752.8	30.05	763.3	51.5	10.8	76	se.	7	3.1		3 cs	0	calm		0	0	clear	
Uvalde, Texas	28.99	736.3	29.78	756.4	77	25.0	94	calm	0	0			10 s		se.	0.04	1.0	cloudy	
Vicksburg, Mississippi	29.86	758.4	30.12	765.0	77	25.0	76	e.	4	1.8		5 ck	0	calm		0	0	fair	
Visalia, California	29.50	749.3	29.86	758.4	58.4	14.7	72	e.	4	1.8		0	0			0	0	clear	
Washington, D. C.	30.03	762.7	30.14	765.5	71.9	22.2	90	calm	0	0			sk.			0	0	dense smoke	
Wickenburg, Arizona					57	13.9	86	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.16	766.1	30.22	767.6	75	23.9	88	calm	0	0		hz	fg	calm	calm	0	0	hazy	
Winnemucca, Nevada	25.73	653.5	30.06	763.5	36	2.2	46	ne	8	3.6		0	0			0	0	clear	
Wood's Holl, Mass.	30.01	762.2	30.04	763.0	70	21.1	90	sw.	6	2.7		5 ck	hz	nw.		0	0	fair	
Yankton, Dakota	28.98	736.1	30.28	769.1	45	7.2	76	n.	5	2.2			10 s			3.04	77.2	cloudy	
Yuma, Arizona	29.71	754.6	29.85	758.2	73.4	23.0	50	ne.	5	2.2		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I. ‡	30.01	762.2	30.03	762.7	82	27.8	87	se.	6	2.7		5 ck	1c ks	calm		0	0		J. A. Racker.
Bogota, U. S. Columbia	22.10	561.3			52.0	11.1	82	sw.	1	0.4			8 n; s			0.01	0.3	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.88	758.9	29.88	758.9	82	27.8	79	se.				5 c	5 ks		se.	0	0		B. Bigar.
Havana, Cuba, W. I.	29.93	760.2	29.98	761.5	78	25.6	88	calm	0	0		5 cs	2 ks	calm	calm	0.65	16.5	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.91	759.7	29.92	760.0	77.5	25.3	76	n.	1	0.4		0	0			0	0		Robert Johnstone.
Navassa, W. I.	29.83	757.7	29.91	759.7	81	27.2	83	e.	14	6.3		8 cs	2 k	e.	e.	0.60	15.2	fair	F. M. Everett.
Paramaribo, S. A.	30.04	763.0	30.04	763.0	80	26.7	78	se.			2	4 ck	0			0.150	3.8	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.44	747.8	30.00	762.0	75	23.9	94	calm			0	2 c	8 ks	calm	sw.	3.02	76.7	clearing	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24		ne.			1	cs	ks	se.	ne.	0	0		Earl Flint.
Santiago de Cuba, W. I.	29.88	758.9	29.91	759.7	80	26.7	82	calm	0	0		8 ck	2 k	sw.		0.38	9.7	cloudy	Robert Mason.
St. Thomas, W. I. ‡	29.86	758.4	29.98	761.5	81	27.2	83	se.	5	2.2		4 c	3 ks	ne.		0.26	6.6	fair	G. O. Gyllich.
York Factory, B. A.	30.10	764.5	30.15	765.8	38.0	3.3	95	nw.	13	5.8		4 k	3 s	nw.	nw	0.20	5.1	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Booby Id., Torres Strait.	29.95	760.7	75.8	24.3	81	ese.			4-6		10							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 39° 33′, E. 2° 41′	30.02	762.5	79.5	26.4	57	ssw.			1		8	ssw.				1	ssw.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.97	761.2	83	28.3		var.			1-2		2	calm						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, Berberah, Arabia	29.79	756.7	94	34.4	87	n.			1		0							blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 17° 00′, W. 61° 45′	30.02	762.5	84	28.9	79	ese.			1-2		2							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 5° 28′, E. 12° 19′	30.03	762.7	71.5	21.9	83	wsw.			1		5	wsw.				4	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant, S. 22° 55′, E. 154° 12′	30.27	768.8	67	19.4		se.			6		3	se.				4	se.	squally	Capt. J. A. T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 37° 47′, E. 20° 56′	29.94	760.5	81	27.2		nnw.			1		2	nnw.				1	nnw.	d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 34° 11′, E. 180 28′	30.36	771.1	59	15.0		se.			4-5		1	ese.				9	ssw.	squally	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.10	764.5	80	26.7	78	ene.			1		4	ene.						d. clouds.	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	29.74	755.4	59	15.0	90	sw.			1		10					1	ese.	drizzling	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.60	751.8	89	31.7		calm			0									blue sky	Comm. John Hext.
H. M. S. Eclipse, N. 11° 20′, E. 81° 10′	29.72	754.9	84	28.9		w.			1-2		8					4	w.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 43° 25′, W. 30° 45′	30.07	763.8	65	18.3		ne.			3-4		4	ne.				4	n.	d. clouds	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 4° 38′, E. 48° 35′	29.95	760.7	80	26.7	74	ese.			4		3	ese.				4	ese.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 35° 48′, E. 10° 19′	29.94	760.5	81	27.2		nne.			2-3		1					2	nne.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Hakodate, Yezo, Japan	29.89	759.2	75	23.9	68	wnw.			1		6	w.						misty	Capt. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich Is'ds	30.07	763.8	76.5	24.7	74	ene.			1-4		5							showery	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argt. Rep.	30.48	774.2	50	10.0	86	se.			1		5	w.						misty	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, Levuka, Fiji Islands	29.98	761.5	79	26.1	73	ne.			1		7	ne.						d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 41° 47′, E. 140° 43′	29.95	760.7	71	21.7		nw.			1		3	nw.						d. clouds	Capt. R. E. Tracey.
H. M. S. Kingfisher																			Comm. R. H. Thornton.
H. M. S. Lapwing, S. 6° 30′, E. 105° 00′	29.82	757.4	81	27.2		s.			4		1	s.				2	s.	blue sky	Comm. F. H. Haygorth.
H. M. S. Lark, N. 3° 22′, W. 19° 50′	30.08	764.0	80	26.7	78	sse.			4		7					3	ssw.	d. clouds	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.61	752.1	84.3	29.1	83	w.			1		6	n.				1	w.	d. clouds	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Malabar																			
H. M. S. Minotaur																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Susa, Tunis	30.00	762.0	81	27.2	95	ene.			2		2	ene.						d. clouds	Capt. G. C. Tryon
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S Northampton, Charlotte Town P. E. Id.	29.83	757.7	65	18.3	100	ssw.			1									foggy	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready, N. 13° 41′, E. 92° 27′	29.72	754.9	81	27.2		wsw.			2		5	sw.				3	sw.	d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 6° 24′, E. 39° 18′	30.12	765.0	78.3	25.7	86	sse.			2		7							d. clouds	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 11° 41′, E. 43° 16′	29.69	754.1	80	26.7	91	calm			0									blue sky	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 48° 01′, W. 65° 14′	29.77	756.1	63	17.2	88	w.			1		1							blue sky	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	30.04	763.0	60	15.6	88	s.			1		7	calm						misty	Capt. A. H. Markham.
H. M. S.Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I	29.92	760.0	79	26.1		n.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.72	754.9	81.5	27.5	78	w.			4		4	sw.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			

GERMAN NAVAL SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

PORTUGUESE NAVAL SERIES.

Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.

Bengo, St. Paul de Loando, Benguela India	30.06	763.6	72.3	22.4	76	nw.			3		0					1		blue sky	Carlos Candid dos Reis
Quanza, St. Vincent, Cape Verd Id's	30.02	762.4	83.8	28.8	83	ne.			2		2		ne.			1	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	30.51	749.5	89.6	32.0	67	wnw.			3		4			0	0			d. clouds	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.

H. M. Corvette Saga																			Capt. M. von Krusenstiern.
H. M Frigate Vanadis																			Com. Th. Ulner.

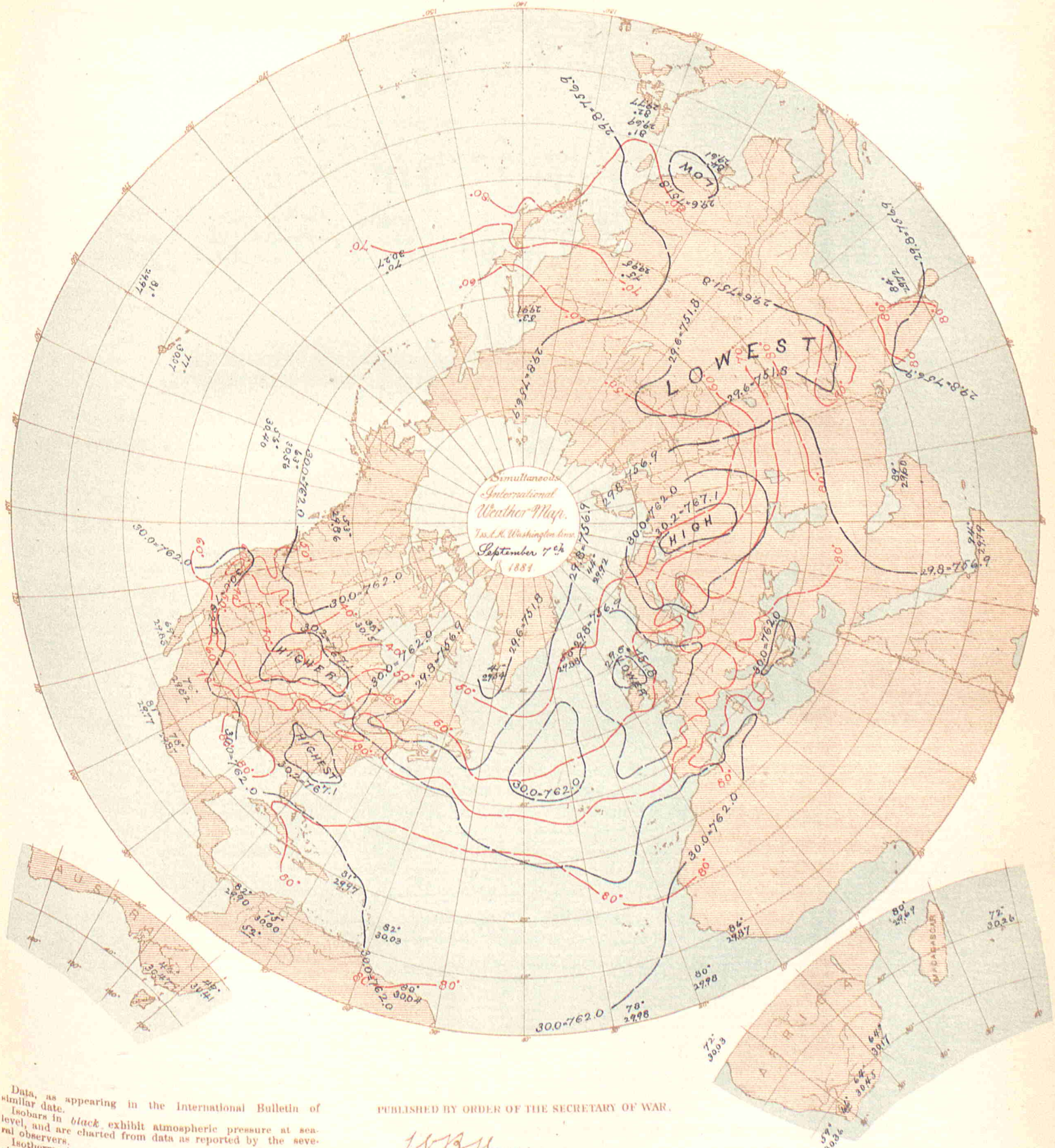
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy,																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.16	766.1	82	27.8	79	nw.	10	4.5			8		nw.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.01	762.2	67	19.4	?	calm	0	0			0			0	0			clear	
Naval Hospital, Yokohama, Japan	29.80	756.9	79.5	26.4	86	e.			4		5		w.	0	0			fair	
Adams, Acapulco, Mexico	29.62	752.3	78	25.6	91	ne.			2		10		calm			sm'h		drizzling	
Alaska, Callao, Peru	29.98	761.5	59	15.0	100	s.			1		8			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.82	757.4	80	26.7	87	e.			4		5		calm			sm'h		fair	
Alliance, N. 72° 25′, E. 10° 30′	29.92	760.0	44	6.7	100	se.			2		10			0	0	sm'h		foggy	
Ashuelot, Kobe, Japan	29.97	761.2	82	27.8	83	sw.			2		10		sw.					overcast	
Colorado, New York, N. Y.	30.01	762.2	78	25.6	73	sw.	2	0.9			2		calm	0	0			fair	
Constitution, New London, Conn	30.01	762.2	69	20.6	90	calm	0	0			10							clear	
Franklin, Norfolk, Va	30.12	765.0	76	24.4	?	sw.	3	1.3			10			0	0			hazy	
Galena, Leghorn, Italy	29.82	757.4	73	22.8	90	w.			3		2		w.					fair	
Independence, N. Yard, Mare I'd, Cal	29.80	756.9	59	15.0	82	sw.	10.8	4.8			2		sw.					fair	
Jamestown, Mare Isl'd, Cal *	29.83	757.7	56	13.3	94	ssw.			2		0			0	0			clear	
Kearsarge, New London, Conn	30.05	763.3	70	21.1	90	calm			0		5		nw.			sm'h		fair	
Lackawanna, Mare Isl'd, Cal †	30.09	764.3	56	13.3	100	sw.			2–3		1		sw.					clear	
Lancaster, Portsmouth, N. H.	29.97	761.2	70	21.1	90	wnw.	2	0.9						0	0			misty	
Marion, Buenos Ayres, La Plata, [S. A.*	30.18	766.6	51	10.6		se.			3		8		sw.			sm'h		fair	
Michigan, Erie, Pa	30.06	763.5	79	26.1	70	s.			3		0							clear	
Minnesota, Newport, R. I	30.04	763.0	71	21.7	90	sw.			1		2							fair	
Monocacy, Yokohama, Japan	29.96	761.0	82	27.8	87	ne.			2		5		n.					fair	
Nipsic, Villafranca, France	29.76	755.9	77	25.0	69	s.			1		2					sm'h		d. clouds	
Onward, Callao, Peru †	30.02	762.5	58	14.4	100	sse.			2		8		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.52	749.8	88	31.1	73	wnw.			4		8		n;w					fair	
Passaic, Washington, D. C.	30.20	767.1	76	24.4	95	wsw.			1		5		wsw.					fair	
Pensacola, Panama, Panama	29.90	759.4	82	27.8	79	nw.			1		5?			c	0	sm'h		cloudy?	
Portsmouth, Portsmouth, N. H.	29.98	761.5	68	20.0	95	w.			1		8					sm'h		misty	
Powhatan, N. 26° 43′, W. 74° 30′	30.10	764.5	80	26.7	87	ne.			4		2		ne.			mod.	ne.	clear	
Quinnebaug, Villafranca, France	29.80	756.9	76	24.4	68	s.			2		2		calm			sm'h		fair	
Ranger, Mare Island, Cal. *	29.88	758.9	57	13.9	87	sw.			2–3		0					sm'h		clear	
Richmond, N. 16° 09′, W. 104° 05′	29.77	756.1	81	27.2	96	calm			0		10		ese.	0.77	19.6	sm'h		cloudy	
Shenandoah, Maldonado, Uruguay *	30.54	775.7	49	9.4	71	ssw.			3		8					sm'h		fair	
St. Louis, League Island, Pa	29.89	759.2	76	24.4	86	w.	5	2.2			2			0	0			clear	
Swatara, Chefoo, China †	29.93	760.2	73	22.8	81	ne.			3		2		ne.					clear	
Tennessee, New London, Conn	30.06	763.5	69	20.6	100	nne.	3	1.3			8			0	0			fair	
Trenton, Villafranca, France *	29.78	756.4	78	25.6	73	ssw.			3		2			8 h'r	8 h'r			fair	
Vandalia, New London, Conn.	30.05	763.3	68	20.0	95	nw.			1		0							misty	
Wabash, Boston, Mass.	30.03	762.7	75	23.9	77	w.	5	2.2			5		w.	0	0			foggy	
Wachusetts, Sitka, Alaska	29.86	758.4	55	12.8	93	calm			0		10			rain	rain	long	s.	cloudy	
Wyoming, Port Royal, S. C.	30.51	774.9	75	23.9	90	ne.	8	3.6			8		ne.	0	0			cloudy	
Yantic, New London, Conn *	30.00	762.0	68	20.0	95	nne.			1		2							hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 53° 25′ W. 50° 36′ *†	29.65	753.1	.....	.....	.....	sw.	4	.....	10	.....	w.	.....	.....	mod.	ssw.	hazy	N. McLean.
S. S. Circassian, Capt. W. H. Smith	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 37° 33′, W. 74° 03′	30.19	766.8	76	24.4	.....	wsw.	2	.....	0	.....	.....	.....	.....	sm'h	.....	hazy	
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 39° 37′, W. 70° 11′	30.09	764.3	75	23.9	90	wsw.	2	.....	2	.....	sw.	.....	.....	sm'h	w.	fine	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng †	29.64	752.8	59	15.0	82	nw.	3	.....	2	.....	nw.	0	0	.....	.....	fine	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, N. 39° 50′, W. 55° 50′ *†	30.12	765.0	74	23.3	81	nw.	1	.....	10	.....	nw.	.....	.....	mod.	e.	cloudy	
S. S. Pennsylvania, Capt. G. H. Dodge, Galley Head, Ireland †	29.72	754.9	65	18.3	63	s.	2	.....	5	.....	w.	.....	.....	sm'h	e.	fair	C. Rodman, 3d Off.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. British Merchant, E. J. Moloney, N. 31° 10′, W. 36° 52′ ‡	30.08	764.0	80	26.7	78	nw.	3	.....	4	.....	.....	.....	.....	.....	.....	misty	
S. S. Cipero, Capt. W. N. Lailey, N. 13° 10′, W. 53° 09′	30.05	763.3	80.2	26.8	87	calm	0	.....	2	.....	.....	.....	.....	1	ene; ssw.	d. clouds	
Bk. Commewyne, Capt. W. Scott, N. 50° 54′, W. 12° 57′	29.79	756.7	57.8	14.3	62	nnw.	4	.....	5	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Coppename, Capt. A. Buchan, N. 30° 10′, W. 50° 32′	30.14	765.5	81.5	27.5	77	sw.	2	.....	8	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Glaramara, Capt. R. Morton, N. 41° 39′, W. 150° 34′ ‡	30.40	772.1	55.5	13.1	100	ene.	3	.....	8	.....	.....	.....	.....	.....	.....	overcast	
Bg. Hermine, Capt. S. G. Jones, N. 22° 35′, W. 23° 14′	30.13	765.3	78.8	26.0	74	nne.	4	.....	4	.....	.....	.....	.....	.....	.....	blue sky	
Bkt. Hope, Capt. J. Campbell N. 23° 54′, W. 35° 00′ ‡	30.17	766.3	80.9	27.2	74	calm.	0	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	
Island Belle, Capt. A. McBride, N. 11° 14′, W. 53° 44′	29.98	761.5	84.7	29.3	.....	var.	0–5	.....	2	.....	.....	.....	.....	.....	.....	blue sky	
S. Lochee, Capt. J. Raeburn, S. 28° 20′, W. 33° 12′ ‡	30.02	762.5	67.6	19.8	97	nw.	5	.....	8	.....	.....	.....	.....	.....	.....	showery	
Bk. Mertola, Capt. E. W. Turner, Naiad, Capt. J. Smith, S. 36° 15′, W. 74° 46′	29.94	760.5	56.7	13.7	87	ssw.	4	.....	9	.....	.....	.....	.....	.....	.....	d. clouds	
S. Pleione, Capt. C. H. Renant, S. S. Rosetta, Capt. A. E. Barlow, N. 7° 20′, E. 78° 57′	29.84	757.9	81.5	27.5	85	n.	4	.....	6	.....	.....	.....	.....	.....	.....	d. clouds	
Sierra Estrella, Capt. P. Murdock, Bk. Shun Lee, Capt. J. N. Gray, N. 0° 28′, W. 27° 14′ ‡	30.08	764.0	77.5	25.3	84	se.	4	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, N. 24° 40′, E. 119° 20′	29.28	743.7	76.5	24.7	95	ne.	5	.....	10	.....	.....	.....	.....	.....	.....	raining	
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers N. 35° 34′, W. 122° 23′ †	30.00	762.0	57	13.9	94	calm	0	.....	10	.....	.....	0	0	g'tl	wnw.	foggy	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Galia, Capt. W. H. P. Hains N. 47° 59′ W. 34° 24′	30.16	766.1	56	13.3	.....	se.	2	.....	8	.....	e.	0	0	light	e.	fair	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
S. S. Hermann, Capt. H. Baur,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst, N. 49° 39′, W. 11° 40′	29.82	757.4	67.0	19.4	89	nne.	3	.....	5	.....	nne.	sh'rs	sh'rs	mod.	nne.	fair	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 41° 55′, W. 50° 50′	29.93	760.2	64.0	17.8	88	nnw.	3	.....	8	.....	nnw.	4 h'r	4 h'r	mod.	e.	cloudy	Englehart & von [Goesset.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 38° 39′, E. 164° 00 †	30.27	768.8	70	21.1	66	ssw.	5	.....	5	.....	sw.	0	0	con.	n; ssw.	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 46° 48′, W 149° 30′ *†	30.56	776.2	63	17.2	94	sw.	3	.....	fog	.....	.....	.....	.....	sli't	s.	foggy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, Yokohama, Japan	30.02	762.5	80	26.7	82	var.	2	.....	10	.....	sw.	0	0	.....	.....	fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	O. W. Pohl, 2d Officer.
S. S. Oregon, Capt. Pollmann Portland, Oregon †	30.07	763.8	53	11.7	93	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 33° 49′, W. 118° 38′ †	29.94	760.5	62	16.7	100	se.	1		10		se.			sm'h		cloudy	J. N. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound †	30.07	763.8	56	13.3	94	w.	1		8?		w.	0	0	sm'h	nnw.	clear?	
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal †	29.92	760.0	54	12.2	87	sw.	2									foggy	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson,																	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal †	30.00	762.0	52	11.1	93	sw.	1		10							foggy	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal †	29.90	759.4	51	10.6	93	calm	0		10							dense fog	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, San Francisco, Cal †	29.98	761.5	52	11.1	93	calm	0		fg							hazy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——, Sydney, N. S. W †	30.41	772.4	49	9.4	71	calm	0		2							clear	A. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W †	30.45	773.4	56	13.3	87	sw.	3		10			0	0			cloudy	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin, Panama, Panama †	29.93	760.2	80	26.7	90	nw.	1	0	6 k		s.	0	0			cloudy	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry																	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, Panama, Panama †	29.99	761.7	83	28.3	83	nnw.	2		5		nnw.	0	0	sm'h	s.	fine	
S. S. City of Sidney, Capt. H. C. Dearborn,																	E. L. Saik.
S. S. City of Tokio, Com. J. Maury Hong Kong, China †	29.58	751.3	87	30.6	76	nnw.	2		3		sw.	0	0			clear	A. L. Richie, 2d Offl.
S. S. Colima, Capt. R. R. Searle, Acapulco, Mexico †	29.87	758.7	78	25.6	95	ene.	3		8		e.	1.14	29.0			cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly N. 25° 30′, W. 113° 10′ †	29.83	757.7	69	20.6	90	calm	0		2		calm	0	0	small	nw.	clear	M. Connolly.
S. S. Zelandia, Capt. H. Webber, N. 10° 25′, W. 162° 25′	29.97	761.2	81	27.2	87	n.	4		8		n.			mod.	ne.	cloudy	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 41° 35′, W. 63° 42 †	30.13	765.3	69	20.6	100	w.	1		8		w.	0	0	sm'h		foggy	A. Fedderson, 2d Offl
S. S. Rhynland, Capt. W. G. Randall, N. 50° 00′, W. 5° 45′ †	29.85	758.2	64	17.8	83	wsw.	2		6		w.	0.1	3.	sm'h		fair	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings																	R. Horsfall.
S. S. Britannic, Capt. H. Perry. N. 43° 51′, W. 47° 18′ †	29.94	760.5	62	16.7		nw.	4		10			0	0	mod.	nw; ese.	misty	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, N. 45° 13′, W. 50° 03′ †	29.92	760.0	57	13.9	94	w.	4		5		nnw.	6 hrs	h'vy	mod.	se.	raining	
S. S. Republic. Capt. P. J. Irving																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Off Martha's Vineyard, Mass †	30.06	763.5	71	21.7	95	calm	0	2c	2 s			0	0			fine	
Golden Fleece																	
Hassler, Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall, S. 15° 41′, W. 5° 5c′ *	30.13	765.3	65.5	18.6	100	se.	4		6		ese.	sli't	sl't	mod.	sse.	d. clouds	W. Randall.
S. Pawashick, Capt. E. Fry																	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	29.97	761.2	71	21.7	90	sw.	7		10		sw.	0	0			cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer. U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 8, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Velocity Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From	Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.04	762.9	79.5	26.4	59	n.			1		0			0	0	clear	Raynard.
Algiers ‡			30.04	763.1	81.7	27.6	73	nw.			6		0			0	0	clear	Nicolas.
La Calle ‡			30.05	763.3	85.3	29.6	70	wnw.			2		2			0	0	fair	Fonfréde.
Tunis ‡			30.03	762.8															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.03	762.7	91.4	33.0	21	n.			1		0			0	0	clear	Dumas.
Tebessa ‡			30.01	762.3	96.1	35.6	9	nw.			8		4			0	0	cloudy	Derché.
Geriville ‡					95.7	35.4	9	nnw.			2		0			0	0	clear	Lonchamp.
Laghouat ‡			30.02	762.5	99.3	37.4	12	sw.			1		0			0	0	clear	Herbin.
Biskra ‡			30.01	762.3	103.3	39.6	29	se.			1		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.01	762.2	30.10	764.5	54.3	12.4	62	nne.	11	4.9			1			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.40	746.8	29.93	760.2	73.4	23.0	56						3			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.18	741.2	29.93	760.2	66.6	19.2	81	w.	1.8	0.8			10			0.008	0.2		Dr. Wiersbicki.
Eperies	29.01	736.8	29.85	758.1	73.8	23.2	66	se.			3		10 8			0	0		Julius Mikolik.
Gratz	28.66	728.0	29.87	758.8	68.0	20.0	63	sw.			1		0			0.532	13.5		Andreas Rospini.
Hermannstadt ‡	28.50	723.9	29.87	758.6	74.1	23.4	56	nw.			2		5			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.53	724.7	29.83	757.6	66.9	19.4	83	ene.			2		4			0	0		The Staff.
Lemberg	28.91	734.4	29.86	758.5	72.0	22.2	63	s.			2		3			0	0		Dr. T. Stanecki.
Pola	29.87	758.8	29.98	761.6	73.0	22.8	67	sw.			1		4			0	0		I. R. Hydrographic Office.
Szathmar	29.45	748.1	29.90	759.4	74.5	23.6	62	w.			3		3			0	0		Beicht Peter, S. J.
Szegedin	29.04	752.8	29.91	759.7	68.7	20.4	82	calm			0		7			0	0		Karl Stancel.
Trieste	29.90	759.4	30.00	762.0	73.2	22.9	66	calm			0		4			0	0	partly cl'dy	Secco.
Vienna	29.21	742.0	29.90	759.5	70.2	21.2	58	ene.			1		1			0.063	1.6		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 12, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.61	752.1	29.70	754.4	58.4	14.7	.76	nnw.	9	4.0			9			0.015	0.4	overcast	W. Boswell.
Armagh, Observatory	29.52	749.8	29.74	755.4	56.0	13.3	87	sw	7	3.1			10					overcast	S. Call.
Bidston, Liverpool Obs'y			29.75	755.6	60.0	15.6	65	wnw.	11	4.9			3					blue sky	John Hartnup.
Bolton, Sharples	29.21	741.9	29.73	755.1	57.0	13.9	71	wnw.	1	0.4			9					overcast	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.32	744.7	29.72	754.9	61.4	16.3	61	w.			1		3			0	0	d. clouds	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.72	754.9	62.0	17.0	64	w.			0.2		9					foggy	John McLaren.
Chatham, School M. E.	29.63	752.6	29.76	755.9	60.5	15.8	88	e.			1		8					misty	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.57	751.1	29.80	756.9	59.7	15.4	68	wnw.			2		9					overcast	The Staff.
Fort Napier, Natal	28.07	713.0	30.29	769.4	73.1	22.8	45	se.			1		0					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.65	753.1	29.88	758.9	86.0	30.0	91	e.			1		1					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.74	755.4	60	15.6	70	nw.			2		8					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.97	761.2	30.02	762.5	78.7	25.9	82	w.			4		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.51	749.5	29.71	754.6	55.9	13.3	78	wsw.			2		7					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.56	750.8	29.73	755.1	62.4	16.9	68	ne.			1		9					misty	The Staff.
Guernsey	29.51	749.5	29.73	755.1	59.5	15.3	85	wnw.			2		8					raining	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.70	754.4	29.74	755.4	61.8	16.6	66	sw.	5	2.2			10					misty	The Staff.
Leicester, Museum	29.47	748.5	29.72	754.9	62.8	17.1	66	nw.			1		8					d. clouds	J. C. Smith.
Malta, Mediterranean	29.90	759.4	29.97	761.2	81.0	27.2	78	ne.			2		4					d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.98	761.5	30.02	762.5	83.0	28.3	80	ne.			1		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.52	749.8	29.75	755.6	60.0	15.6	70	calm			0		9			blank	blank	misty	The Staff.
Plymouth	29.69	754.1	29.76	755.9	63.0	17.2	80	wnw.			2		9					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.74	755.4	54	12.2	93	e.	8	3.6			10					drizzling	Rev. C. Clouston, L. L. D
Scutari Cemetery, Turkey	29.80	756.9	29.87	758.7	76.0	24.4	72	sw.			1		10			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	29.49	749.0	29.78	756.4	60.1	15.6	74	calm			0		10			0	0	overcast	W. F. Cooper.
Silloth Rectory	29.70	754.4	29.73	755.1	61.7	16.5	76	w.			2		4			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.76	755.9	61.0	16.1	66	w.	6	2.7			7					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss					61.9	16.6	70	w.			1		8					d. clouds	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	29.77	756.1	29.79	756.7	66	18.9	68	nw.			3		6					d. clouds	W. Newcombe.
Valencia, Observatory	29.82	757.4	29.85	758.2	57.1	13.9	90	nw.	14	6.3			10					misty	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.85	758.2	29.89	759.2	56	13.3	65	nw.	10	4.5		0	2 s			0	0	fair	H. J. Cundall, C. E.
Chatham, N. B.*	29.87	758.7	29.93	760.2	51	10.6	80	sw.	4	1.8		0	0			0	0	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B																			H. A. Johnson.
Father Point, Quebec*	29.99	761.7	30.01	762.2	50	10 0	77	nw.	20	8.9		5 k	5 s	n.	n.	0.17	4.3	cloudy	J. McWilliams.
Fort Garry, Manitoba*	29.25	742.9	30.08	764.0	46	7.8	83	sw.	4	1.8		5 k	5 ks	sw.	sw.	0	0	cloudy	James Stewart.
Fredericton, N. B																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.82	757.4	29.94	760.5	58	14.4	64	nw.	12	5.4		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.89	759.2	30.22	767.6	62	16.7	70	n.	5	2.2		hz.	0			0	0	hazy	S. Woods, M. A.
Little Glace Bay, N. S																			C. H. Rigby.
Montreal, Quebec*	29.99	761.7	30.19	766.8	58	14.4	69	w.	11	4.9		2 c	0			0	0	fair	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.54	750.3	30.23	767.8	53	11.7	83	n.	1	0.4		2 cs	sk.			inap.	inap.	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.50	749.3	30.18	766.6	62	16.7	83	ne.	8	3.6			sk.			0	0	smoky	H. Morgan.
Port Stanley, Ontario	29.54	750.3	30.16	766.1	63	17.2	72	e.	7	3.1			sk.			0	0	smoky	M. Payne.
Quebec, Quebec*	29.79	756.7	30.11	764.8	50	10.0	80	w.			3	0	2 s		sw.	0.02	0.5	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.78	756.4	30.25	768.3	46	7.8	86	w.	2	0.9		0	0			0	0	clear	W. H. McIntyre.
Saugeen, Ontario*	29.48	748.8	30.18	766.6	61	16.1	70	se.	8	3.6			sk.			0	0	smoky	K. Stewart.
St. Andrews, N. B	30.00	762.0	30.05	763.3	54	12.2	86	nw.	7	3.1		0	0			0	0	clear	
St. John, N. B																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.75	755.6	29.80	756.9	59	15.0	65	nw.	10	4.5		0	2 k		nw.	0	0	clear	T. C. Hill, C. E.
Toronto, Ontario*	29.85	758.2	30.22	767.6	62	16.7	70	n.	4	1.8			sk.			0.02	0.5	smoky	Magnetic Observatory.
Windsor, N. S																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.93	760.2	30.00	762.0	55	12.8	90	n.	2	0.9		0	0			0	0	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.59	751.6	29.83	757.7	57	13.9	87	nw.	2	0.9		0	0			0.02	0.5		John Delany.
St. Pierre, N. F																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	30.43	772.9	30.46	773.7	66.5	19.2	91	e.	7.5	3.4		0	0			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.51	749.5			76.8	24.9	36	se.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.91	759.7	29.93	760.3	78.3	25.7	95	e.	19.7	8.8		10 c	0		w.	0	0	covered	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.75	755.7	29.80	756.9	63.5	17.5	70	sw.	16	7			7						Oversergent Fischer
Fanöe	29.76	755.9	29.78	756.4	61.7	16.5	81	wsw.			4		3						Overloerer Lauridsen.
Godthaab, Greenland	29.28	743.8	29.33	744.9	47.7	8.7	77	ene.			4		10						S. Kleinschmidt.
Stykkisholm, Iceland	29.95	760.8	30.00	761.9	51.4	10.8	81	calm			0		8						A. O. Thorlacius.
Thorshavn	29.82	757.3	29.85	758.2	55.9	13.3	82	n.	11	5			8						Overloerer Bergh.
Vestervig	29.65	753.1	29.74	755.4	62.2	16.8	90	sw.			2		2						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.30	744.1	29.93	760.2	67.3	19.6	58	wnw.			3	0	8 n		sw.	0.122	3.1	very cloudy	M. Labroue, Director.
Alençon Normal School	29.16	740.6	29.71	754.6	63.3	17.4	85	ne.			3		k	n.	e.	0.205	5.2		M. Nicot, Director.
Arras, Engineer School	29.46	748.2	29.71	754.6	59.5	15.3	91	se.					10		se.			raining	M. Klein, Commandant.
Avignon, Normal School	29.82	757.4	29.90	759.4	72.3	22.4	79	sse.			1		8		s.	0	0	very cloudy	M. Giraud, Director.
Bar-sur-Seine	29.22	742.3	29.77	756.1	60.8	16.0	89	s.			2		10		sw.			raining	M. Saillard, Director.
Beauvais, Normal School	29.41	746.9	29.67	753.5	61.5	16.4	83	e.			1		8		se.	0.205	5.2	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.96	735.6	29.84	757.8	62.6	17	94	sw.			1		10			0	0	covered	M. Gobin, Director.
Bordeaux, Observatory	29.62	752.4	29.88	758.9	63.9	17.7	69	w.			4		10	w.	w.	0.028	0.7	covered	M. Rayet, Director.
Bourges, Normal School	29.11	739.4	29.65	753.0	67.1	19.5	58	sw.			1		10		sw.	0.067	1.7	raining	M. Postel, Director.
Brest, Naval Observatory	29.61	752.2	29.85	758.3	62.6	17.0	70	w.			2		9		w.	0.020	0.5		M. de Kermaree, Dir.
Caen, Normal School	29.58	751.4	29.66	753.3	59.4	15.2	95	n.			1		8		n.	0.20	5.	very cloudy.	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					62.6	17.0	94	se.			3		10		ssw.	0.535	13.6	covered	M. Jadot, Director.
Charleville, Normal School	29.22	742.2	29.71	754.7	65.1	18.4	60	ssw.			2		10			0.31	8.	covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.44	722.3	29.75	755.7	65.5	18.6	52	ssw.			3		5		sw.	0.067	1.7	½ covered	M. Alluard, Director.
Cluny, Normal School	29.01	736.8	29.86	758.5	63.0	17.2	88	s.			1		5		n.	0.31	8.		M. de Villemontée, Dir.
Commercy, Normal School	28.92	734.5	29.76	755.9	60.8	16	83	s.			4		5	s.	s.	0.020	0.5	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.42	696.5	29.87	758.8	66.9	19.4	53	e.			1	0	5kn		s.	1.61	41.	¾ covered	M. Jeangirard, Director.
Grésasque, du. Rhone	28.88	733.6	30.02	762.6	71.6	22	63	se.			3		10		se.	0	0	covered	M. Kina, Director.
Grenoble, Normal School	29.08	738.7	29.83	757.6	65.8	18.8	83	nne.			1	0	kn			0.224	5.7		M. Ablard, Director.
Guéret, Normal School	28.16	715.2	29.71	754.5	60.3	15.7	78	sw.			6		10 n		ne.	0.189	4.8	light rain	M. Rivoire, Director.
Lamballe, Normal School	29.47	748.4	29.74	755.4	57.2	14	91	nw.			2		10		nw.	0.854	21.7	raining	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.72	754.8	29.82	757.4	63.5	17.5	80	nw.			2		8		nw.	0.591	15.0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.81	731.8	29.85	758.2	63.3	17.4	86	s.					10		ssw.	0.031	0.8	raining	M. André, Director.
Mans, Normal School	29.35	745.4	29.65	753.0	63.7	17.6	86	se.			1		8		s.	0.283	7.2	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.64	752.9	29.91	759.6	72.5	22.5	84	sse.			3		10		sse.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.83	630.7	30.07	763.7	62.6	17.0	34	w.	15.0	6.7			2		sw.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.72	754.8	29.82	757.5	77.0	25	68	ne.			3		2		ssw.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.05	737.8	29.81	757.1	59.0	15	96	sw.			1		10 n		sw.	0.102	2.6	covered	M. Hasse.
Nantes, Observatory	29.58	751.3	29.74	755.4	59.2	15.1	94	nw.			3-4		10		nnw.	0.201	5.1	rainy	M. Larocque, Director.
Nice	29.94	760.4	29.97	761.3	73.4	23.0	74	e.			3		5	w.	e.			light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.79	756.7	29.89	759.3	73.2	22.9	59	se.	3.8	1.7			3		wnw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.56	572.9			43.7	6.5							10		sw.	0.071	1.8	rainy	Gen'l de Nansouty Dir.
Privas, Normal School	28.91	734.4	29.95	760.8	66.9	19.4	79	s.			1		5	s.	s.	0	0	cloudy	M. Tallieu.
Puy de Dome Obs'y, Summit	24.93	633.2			45.1	7.3	96	sw.			8		10			0.059	1.5	stormy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.76	756.0	29.80	756.8	62.1	16.7	95	w.			8		10		wnw.	0.016	0.4	covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.52	749.7	29.73	755.1	58.6	14.8	95	s.			1		10			0.091	2.3	covered	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.62	752.4	29.71	754.6	62.6	17	80	se.			1		10			0.08	2.	covered	M. Platrier, Director.
Saint Lô, Normal School	29.54	750.2	29.69	754.2	58.5	14.7	98	w.			1		10		nw.	0.571	14.5	raining	M. Delaplanche, Dir.
Saint Maur, Observatory	29.50	749.2	29.66	753.4	62.4	16.9	87	se.			1		10	s.	se.; sw.	0.551	14.0		M. Renou, Director.
Toulouse, Observatory	29.31	744.5	30.04	762.9	70.9	21.6	48	w.			4		5	w.		0.020	0.5	cloudy	M Bailland, Director.
Tours	29.39	746.6	29.59	751.6	61.2	16.2	94	ese.			1		10			0.130	3.3	rainy	M. de Tastes.
Versailles, Observatory	29.17	740.8	29.65	753.2	64.0	17.8	84	se.			3					1.622	41.2		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.38	746.3	29.67	753.7	59.9	15.5	97	ese.			1		10			0.449	11.4	sprinkling	M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.00	736.7	29.86	758.5	69.4	20.8	55	s.			3	0	6 k		s.	0.012	0.3		Prof. Dr. Hoh.
Berlin	29.68	753.9	29.85	758.1	69.6	20.9	61	sw.			2		7			0.110	2.8		Prof. Dr. Arndt.
Breslau	29.41	749.9	29.93	760.3	70.5	21.4	48	w.			1		2			0	0		Royal University Obs'y.
Carlsruhe	29.41	746.9	29.82	757.4	64.8	18.2	86	sw.			2		10	sw.		0.055	1.4		Albert Senz.
Cassel	29.10	739.0	29.81	757.2	72.3	22.4	56	s.			2		5	s.		0.024	0.6		Dr. H. Möhl.
Frankfort on the Main	29.44	747.7	29.79	756.6	70.5	21.4	50	s.			1		10			0	0		Physical Society.
Friedrichshafen	26.42	721.9	29.82	757.3	65.5	18.6	78	sw.			3		8	sw.		0.429	10.9		Wilhelm, Chief Tel.
Hamburg	29.76	755.8	29.85	758.2	63.1	17.3	81	ssw.			2		7	sw.		0	0		E. Preller.
Kiel	29.78	750.4	29.80	756.8	62.8	17.1	77	sw.			2		8			0.217	5.5		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.47	748.4	29.87	758.8	69.8	21.0	62	ssw.			2		7	sw.		0.165	4.2		H. Leppig, Asst.
Magdeburg	29.66	753.3	29.84	757.9	69.6	20.9	66	s.			1	0	3 k		wsw.	0.012	0.3		Dr. Assmann.
Memel	29.86	758.4	29.91	759.6	72.7	22.6	70	s.			2.3		10 n						Issermann.
Munich	28.06	712.7	29.91	759.8	71.1	21.7	44	e.			2		3	s.		0	0		Central Station.
Neufahrwasser	29.85	758.2	29.87	758.6	70.9	21.6	80	s.			2		10			0.024	0.6		A. Lothes.
Neustadt, Palatinate	29.22	742.2	29.74	755.4	68.0	20.0	66	calm			0		10			0.047	1.2		Dicknether.
Stuttgart	28.89	733.8	29.76	755.8	65.7	18.7	78	s.			1		10			0.110	2.8	sprinkling	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.39	721.0	29.84	758.0	67.0	19.8	72	se.			2		8	w.		0	0		Fischer.
Wustrow	29.83	757.6	29.85	758.2	60.8	16.0	86	n.			2	0	4 s			0.236	6.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.44	747.7	29.80	757.0	93.9	34.4		sw.			2.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.64	752.8	29.69	754.0	83.9	28.8	75	wsw.	24.0	10.7			2	w.		0	0	d. clouds	
Deesa	29.23	742.4	29.70	754.3	86.4	30.2	58	wsw.	10.4	4.6			8		w.	0	0	d. clouds	
Bombay	29.76	756.0	29.80	757.0	77.7	25.4	89	w.	19.0	8.5			10		wnw.	0	0	overcast	
Poona, Yarrowda.	27.94	709.5	29.79	756.7	77.5	25.3	60	wsw.	18.0	8.0			8		w.	0	0	d. clouds	
Belgaum	27.28	692.8	29.83	757.7	71.9	22.2	79	w.	9.0	4.0			3	sw.	sw.	0.09	2.3	showery	
Lahore	28.86	733.0	29.58	751.2	94.9	34.9	43	w.	1.9	0.8			0			0	0	blue sky	
Roorkee	28.68	728.4	29.55	750.5	91.2	32.9	57	w.	2.4	1.1			2			0	0		
Agra	29.05	737.9	29.60	751.9	89.2	31.8	65	calm	4.5	2.0			7			0	0		
Nagpur	28.62	727.0	29.65	753.2	83.7	28.7	76	sw.	4.2	1.9			9		nw.			showery	
Jubbulpore	28.34	719.8	29.67	753.6	86.8	30 4	64	nw.	2.3	1.0			8			0	0	overcast	
Lucknow	29.25	742.8	29.61	752.2	88.1	31.2	68	wnw.	6.3	2.8			5		wnw.	0	0	d. clouds	
Allahabad	29.30	744.1	29.60	751.9	86.7	30.4	86	calm	2.2	1.0			10			0.06	1.5	overcast	
Patna	29.45	747.9	29.62	752.4	86.4	30.2	84	n.	2.7	1.2			4	n.	n.	0	0	d. clouds	
Hazaribagh	27.63	701.8	29.60	751.9	84.8	29.3	66	n.	5.0	2.2			10			0	0		
Cuttack	29.54	750.3	29.62	752.4	86.1	30.1	78	se.	0.4	0.2			9			0	0	d. clouds	
Calcutta, Alipore	29.57	751.0	29.59	751.6	80.0	26.7	89	ne.	2.0	0.9			7	ne.		0.05	1.3	d. clouds	
Dhubri	29.47	748.6	29.59	751.7	82.0	27.8	88	calm	0.4	0.2			2			1.12	28.4	d. clouds	
Chittagong	29.53	750.1	29.62	752.4	81.7	27.6	87	w.	2.5	1.1			9			0	0	d. clouds	
Sibsagar	29.23	742.4	29.55	750.6	89.7	32.1	73	s.	1.9	0.8			6			0	0	d. clouds	
Jeypore	28.23	717.0	29.63	752.7	91.4	33.0	46	nw.	6.4	2.9			4		nw.	0	0	d. clouds	
Zanzibar, Africa			30.07	763.8	83.8	28.8	57	sse.	6	2.7			2		se.	0.06	1.5	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.59	751.6	29.99	761.8	71.1	21.7	67	w.	0.7	0.3			5			0.079	2.0		Prof. Giovanni Clodig.
Milan	29.46	748.3	29.97	761.1	74.1	23.4	66	se.	4.9	2.2			2	n.		0.028	0.7		Prof. Schiaparelli.
Padua	29.88	758 9	29.98	761.5	71.6	22.0	73	ene.	3.7	1.4			9	nne.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.04	737.7	29.93	760.2	69.8	21.0	78	n.	2.5	1.1			8	ne.		0.508	12.9		Prof. P. F. Denza.
Genoa	29.82	757.3	30.01	762.2	70.5	21.4	68	se.	9.4	4.2			8	s.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.05	712.4	29.91	759.8	70.0	21.1	66	wnw.			2		3			0	0		Prof. D. C. Bruno.
Pesaro	29.91	759 7	29.96	760.9	73.4	23.0	68	e.	9.4	4.2			0			0	0		Prof. Luigi Guidi.
Florence	29.73	755.2	29.98	761.5	75.2	24.0	51	sw.			2		3	sw.		0	0		Prof. Costantino Pitter.
Leghorn	29.87	758.8	29.96	760.9	75.4	24.1	59	sw.	1.8	0.8			4			0	0		Prof. P. Monte.
Rome	29.82	757.5	29.99	761.8	80.6	27.0	44	wnw.	13.0	5.8			1			0	0		Prof. P. S. Ferrari.
Lecce	29.75	755.6	30.00	761.9	80.6	27.0	46	nnw.	10.5	4.7			2			0	0		Prof. C. de Giorgi.
Cosenza	29.11	739.5	29.97	761.1	86.0	30.0	61	sse.	3.8	1.7			0			0	0		Prof. D. Conti.
Cagliari	29.76	756.0	29.95	760.7	80.2	26.8	59	s.			2		0			0	0		Prof. A. Pacinotti.
Palermo	29.77	756.1	30.00	762.1	80.6	27.1	66	e.	7.4	3.3			0			0	0		Prof. G. Ciacciatore.
Syracuse	29.94	760.4	29.98	761.5	79.5	26.4	62	sw.	6.9	3.1			3	sw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.47	748.6	29.98	761.5	78.1	25.6	69	se.	0	0			1			0	0		Prof. F. Brioschi.
Stelvio	22.20	564.0			46.4	8.0	62	wsw.			4	0	3 k	s.		0.142	3.6	misty	Prof. P. F. Denza.
Valdobbia	22.24	565.0			44.6	7.0	80	ne.			2		10	sw.		0.189	4.8	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.86	758.4	29.88	758.9	78.8	26.0	85	sw.	6.0	2.7		10ck;cs	0			0.120	3.0	overcast	K. Sasaki.
Kioto	29.77	756.1	29.94	760.5	75.3	24.1	95	wsw.	1.0	0.4		ck	10 s		nw.	0.860	21.8	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.79	756.6	29.98	761.5	77.8	25.4	91	wsw.	2.9	1.3		2 c;ck	0			0.050	1.3	clear	S. Takehayashi.
Niigata	29.89	759.2	29.92	759.9	73.3	22.9	72	ne.	1.5	0.7		10 ck	0			0.160	4.1	cloudy	
Nobiru	29.94	760.5	29.96	761.0	66.4	19.1	97	n.	4.4	2.0			10 n			0.210	5.3	raining	
Supporo	29.91	759.7	29.97	761.2	60.9	16.1	85	calm	0	0			5			0	0		
Tokei Obs'y, Yeddo	29.82	757.4	29.89	759.2	73.8	23.2	89	ene.	9.2	4.1			10 s		se.	0.030	0.8	covered	The Staff.
Wakayama	29.89	759.2	29.94	760.5	81.0	27.2	78	w.	0.8	0.4		10 ck	0			0.108	2.7	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.03	762.7	30.22	767.6	72.6	22.6	66	ese.	12.5	5.6		1	4		ese.	0	0	fine	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.63	600.2	29.85	758.2	59.7	15.4	82	ene.	0	0		7	0	e.		inap.	inap.	cloudy	Vicente Fernandez.
Leon	24.37	619.0	30.02	762.4	61.0	16.1	87	n.			2	4 c	2 k	w.		inap.	inap.	½ cloudy	Prof. M. Leal.
Mazatlan	29.57	751.0	29.82	757.5	78.0	25.6	86	e.	0.9	0.4		8 cs	1 k	e.		0	0	cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.03	585.1	30.00	762.1	57.7	14.3	85	nw.	0.4	0.2		5 ks	5 kn	s.		0.012	0.3	covered	The Staff.
Morelia	24.11	612.3	30.17	766.5	55.4	13.0	73	se.			2	3	3	s.	se.	0	0	cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.89	606.7	29.84	758.0	61.3	16.3	88	calm			0	0	1 s			0.016	0.4	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.34	592.9	30.03	762.8	56.3	13.5	69	calm			0	0	9		e.	0.540	13.7	very cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.52	572.2	30.09	764.3	55.0	12.8	93	ene.	1.7	0.8		0	6 n		se.	0.039	1.0	½ cloudy	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.75	755.7	29.75	755.7	68.0	20.0		se.			2					0.016	0.4		
Groningen	29.73	755.1	29.78	756.5	62.4	16.9		s.			2					0	0		
Helder	29.75	755.7	29.75	755.7	61.0	16.1		sse.			2					0	0		
Hellevoetsluis	29.75	755.7	29.75	755.7	66.2	19.0	76	ese.			1					0.047	1.2		
Utrecht	29.73	755.1	29.78	756.3	64.4	18.0	80	sse.			1		8			0.102	2.6	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.61	752.0	29.67	753.6	63.7	17.6	67	sw.	6.0	2.7			8			0.807	20.5		
Christiania	29.62	752.3	29.75	756.0	58.3	14.6	90	ene.	4	2			10			0.110	2.8		
Gjæsvær	29.90	759.4	29.92	760.0	54.0	12.2		se.			6		10						
Lodingen	29.82	757.3	29.86	758.5	60.1	15.6	81	calm			0		0			0.012	0.3		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.04	763.0	30.19	766.8	70.2	21.2	67	ene.	11.2	5.0			2			0	0		Dr. J. A. Sampaio.
Campo Major	29.12	739.7	30.09	764.3	75.6	24.2	53	w.	8.7	3.9			8			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.06	763.4	30.14	765.6	75.4	24.1	67	sw.	6.9	3.1			3			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.82	757.4	30.18	766.5	65.7	18.7	92	sw.	2.5	1.1			10			0.209	5.3	light rain	The Staff.
Ponta Delgada, Azores	30.13	765.4	30.21	767.2	70.9	21.6	66	ne.	3.1	1.4			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.03	737.4	30.12	765.1	46.0	7.8	82	wnw.	11	5		0	6 n						Capt. Lasarew.
Archangel	30.13	765.4	30.15	765.9	53.4	11.9	83	calm	0	0			10						Capt. Sseliwerstow.
Astrakhan	29.86	758.4	29.78	756.3	58.1	14.5	92	ne.	22	10			10 n			blank	blank		Capt. Wisganow.
Barnaul	28.43	747.6	29.93	760.2	50.4	10.2	52	w.	4	2			7						Meteorological Obs'y.
Dorpat ‡	29.80	757.0	30.04	762.9	73.0	22.8	58	se.	2	1		4 ck	0						Observatory.
Ekaterinburg	29.16	740.6	30.13	765.4	47.3	8.5	45	w.	18	8			9						Meteorological Obs'y.
Kasan	29.92	760.0	30.19	766.8	60.8	16.0	35	s.	11	5		0	2						Observatory.
Kertch	29.87	758.7	29.89	759.2	73.2	22.9	79	ese.	7	3		0	6 n			0	0		Lagorio & Sastyrez.
Kieff	29.32	744.6	29.93	760.2	69.1	20.6	74	ene.	2	1		c	2 ks						Observatory.
Lugan	29.83	757.7	30.03	762.8	69.4	20.8	40	ene.	33	15			8					light clouds	Meteorological Obs'y.
Moscow	29.64	752.8	30.10	764.4	68.5	20.3	63	ssw.	7.8	3.5		0	8 ks						Meteorological Obs'y.
Nikolaiev	29.86	758.4	29.93	760.2	79.0	26.1	57	e.	4	2		0	8 kn						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.98	761.4	30.06	763.6	49.5	9.7	87	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.81	757.1	29.95	760.7	75.6	24.2	63	sw.	4	2		4 cs	0			0	0	lunar co'na	Physical Observatory.
St. Petersburg	30.09	764.3	30.11	764.7	69.3	20.7	54	se.	9	4		1 ck	0						Central Physical Obs'y.
Tashkend, Laboratory	28.39	721.1	29.89	759.1	77.7	25.4	38	calm	0	0			0						Teich, A. M.
Tiflis	28.49	723.6	29.82	757.5	82.9	28.3	30	nw.	13	6		0	0						Physical Observatory.
Warsaw	29.49	749.0	29.89	759.2	75.2	24.0	65	s.	7	3		ck	9 s						Astronomical Obs'y.
Wilna	29.58	751.2	29.98	761.5	71.6	22.0	68	sse.	2	1			7						Berg, Assistant.
Yeniseisk	29.46	748.3	29.75	755.7	37.4	3.0	88	sw.	22	10			10					raining	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.72	754.9	60.8	16.0	69	w.			2		9 k			0.08	2.0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.75	755.6	55	12.8	93	ene.			4		10			0	0	hazy	J. Youngclause
North Unst, Shetland Isl'ds			29.72	754.9				ne.			4		10						Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.79	756.6	29.89	759.2	80.6	27.0	40	w.	0	0						0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.00	762.0	30.06	763.4	74.1	23.4	59	nw.	2.7	1.2		2	7	sw.		0	0	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.14	689.4			62.6	17.0	63	sw.	11.6	5.2			7			0.154	3.9	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.85	707.5	30.01	762.2	73.9	23.3	49	sw.	17.0	7.6		0	2			0.035	0.9	clouds	The Staff.
Murcia, Met. Obs'y ‡	29.88	758.9	30.02	762.5	91.2	32.9	34	ese.	6.0	2.7		2	3	ne.		0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.19	741.3	30.08	763.9	60.4	15.8	83	sw.	13.6	6.1			10			0.783	19.9	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.93	760.2	30.00	761.9	75.8	24.3	88	e.	1.1	0.5		6 c;ck	2 k;s	w.	s.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.77	756.2	29.82	757.5	79.6	26.4	92	ssw.	4.4	2.0			10 n		w.	0.42	10.6	drizzling	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.08	764.0	30.17	766.4	75.2	24.0	70	w.	11.5	5.1		1	2	w.	wnw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.93	760.2	30.02	762.5	79.5	26.4	98	se.	0	0		2 k	7 k		sw.	0	0	d. clouds	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.68	753.9	29.82	757.3	79.0	26.1	87	se.	5.4	2.4			9 kn		se.	0.01	0.3	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.05	763.2	30.09	764.2	55.0	12.8	98	s.			2		10			0.335	8.5		
Umea	29.95	760.8	30.01	762.1	58.3	14.6	93	ssw.			2		10			0.067	1.7		
Hernosand	29.93	760.2	29.98	761.5	56.3	13.5	95	se.			2		10			0.244	6.2		
Stockholm	29.69	754.0	29.86	758.5	65.7	18.7	69	e.			2		9			0.004	0.1		
Wisby	29.79	756.7	29.85	758.2	67.6	19.8	80	s.			4		7			0.083	2.1		
Sub-Series.																			
Upsala	29.75	755.7	29.84	757.9	67.5	19.7	67	ese.	10.5	4.7			9		s.	0.067	1.7		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.48	723.3	29.88	759.0	60.6	15.9	85	ne.			1		10			0.618	15.7	raining	The Observatory.
Zurich ‡	28.26	717.8	29.85	758.1	69.8	21.0	69	w.			2		5			0.327	8.3	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.91	759.7	77.0	25.0	63	nw.	6	2.5			10		sw.	0.031	0.8	thund'rst'm	The Observatory.
Valona			30.09	764.3	79.7	26.5		w.			1		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.85	758.2	83.7	28.7	60	nw.			1	0	2 k			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Albany, New York	30.10	764.5	30.18	766.6	69	20.6	66	se.	6	2.7		hz.	hz.			0	0	dense haze.	
Alpena, Michigan	29.55	750.6	30.22	767.6	62	16.7	67	e.	11	4.9		10 cs	0	w.		0.04	1.0	cloudy	
Atlanta, Georgia	29.01	736.8	30.19	766.8	68.0	20.0	90	n.	6	2.7		10 k	0	ne.		0	0	cloudy	
Atlantic City, New Jersey	30.10	764.5	30.11	764.8	77	25.0	82	nw.	4	1.8		7ok;hz	hz.	calm	calm	0	0	fair	
Augusta, Georgia	30.00	762.0	30.18	766.6	74.2	23.4	84	calm	0	0		10 s				0	0	cloudy	
Baltimore, Maryland	30.06	763.5	30.12	765.0	79	26.1	58	n.	2	0.9		10s;fg	0	calm		0	0	cloudy	
Barnegat, New Jersey	30.06	763.5	30.08	764.0	78.0	25.6	71	w.	6	2.7		0	5 k		sw.	0	0	fair	
Bismarck, Dakota	28.18	715.8	30.01	762.2	42	5.6	92	e.	8	3.6		0	0			0	0	clear	
Boise City, Idaho	27.16	689.9	30.00	762.0	48.0	8.9	52	w.	1	0.4		0	0			0	0	clear	
Boston, Massachusetts	29.98	761.5	30.14	765.5	68.5	20.3	68	ne.	11	4.9		0	0			0	0	clear	
Brackettville, Texas	28.84	732.5	29.86	758.4	74	23.3	97	e.	8	3.6		5 cs	4 ks	se.	se.	0.81	20.6	cloudy	
Brownsville, Texas	29.89	759.2	29.93	760.2	77	25.0	90	sw.	6	2.7		8 c	2 s			2.71	68.8	cloudy	
Buffalo, New York	29.48	748.8	30.20	767.1	65.6	18.7	76	ne.	10	4.5		0	sk.			0	0	dense smoke.	
Burlington, Vermont	29.92	760.0	30.21	767.3	60.0	15.6	65	ne.	3	1.3		4 ck	0	w.		inap.	inap.	fair	
Cairo, Illinois	29.77	756.1	30.17	766.3	75.8	24.3	77	s.	4	1.8			10 s			0	0	cloudy	
Campo, California	27.39	695.7	29.96	761.0	40.4	4.7	67	e.	4	1.8		0	0			0	0	clear	
Camp Thomas, Arizona	27.25	692.1			66.5	19.2	75	e.			2	0	0			0	0	clear	
Cape Henry, Virginia	30.08	764.0	30.10	764.5	77	25.0	82	sw.	7	3.1			10 s			0	0	cloudy	
Cape May, New Jersey	30.06	763.5	30.09	764.3	76	24.4	90	sw.	2	0.9			fg			0	0	dense fog	
Castroville, Texas	29.24	742.7	29.91	759.7	79	26.1	77	e.	5	2.2			10 s		se.	0.14	3.6	cloudy	
Cedar Keys, Florida	30.07	763.8	30.09	764.3	73	22.8	90	ne.	7	3.1		2 c	0			0	0	clear	
Champaign, Illinois	29.29	744.0	30.06	763.5	70.2	21.2	90	s.	11	4.9		2 k	6 s	sw.	sw.	0	0	cloudy	
Charleston, S. Carolina	30.08	764.0	30.14	765.5	77	25.0	90	n.	6	2.7		0	hz.			0	0	clear	
Charlotte, N. Carolina	29.30	744.2	30.18	766.6	76.2	24.6	69	nw.	1	0.4		10 cs	hz.			0	0	cloudy	
Chattanooga, Tennessee	29.39	746.5	30.22	767.6	67.8	19.9	93	calm	0	0		10cs;hz	fg.	calm	calm	0	0	clear	
Cheyenne, Wyoming	24.18	614.2	30.15	765.8	39.2	4.0	59	w.	1	0.4		0	0			0	0	clear	
Chicago, Illinois	29.36	745.7	30.07	763.8	70.5	21.4	83	calm	0	0			9 k			0	0	cloudy	
Chincoteague, Virginia	30.07	763.8	30.09	764.3	76	24.4	97	sw.	4	1.8		2 k	5 s	calm	calm	0	0	fair	
Cincinnati, Ohio	29.52	749.8	30.18	766.6	75.5	24.2	82	calm	0	0		4 cs	3 ks		s.	0	0	fair	
Cleveland, Ohio	29.45	748.0	30.19	766.8	71.3	21.8	88	e.	1	0.4			fg.			0	0	dense fog	
Coleman City, Texas																			
Columbus, Ohio	29.31	744.5	30.17	766.3	72	22.2	76	calm	0	0		4 cs	fg.			0	0	fair	
Concho, Texas	28.20	716.3	30.14	765.5	61	16.1	93	ne.	8	3.6			10 s			0.78	19.8	cloudy	
Corsicana, Texas	29.63	752.6	30.10	764.5	75	23.9	85	n.	4	1.8		3 c	3 s			0.06	1.5	fair	
Davenport, Iowa	29.45	748.0	30.11	764.8	65	18.3	84	w.	5	2.2		8 k	hz.	sw.	calm	0	0	cloudy	
Dayton, Washington T'y	28.19	716.0	30.00	762.0	62.0	16.7	64	sw.	15	6.7		7 k	0	w.		0	0	fair	
Deadwood, Dakota	25.41	645.4	30.11	764.8	50	10.0	69	s.	2	0.9		0	0			0	0	clear	
Decatur, Texas	28.96	735.6	30.11	764.8	62	16.7	93	n.	4	1.8			10 s			0.22	5.6	cloudy	
Delaware Breakwater, Del.	30.08	764.0	30.10	764.5	75	23.9	90	w.	4	1.8			hz.			0	0	dense haze.	
Denison, Texas	29.30	744.2	30.11	764.8	67	19.4	91	nw.	5	2.2			10 s		n.	0.05	1.3	cloudy	
Denver, Colorado	24.93	633.2	30.15	765.8	43.8	6.6	80	se.	5	2.2		0	hz.		calm	0	0	clear	
Des Moines, Iowa	29.20	743.2	30.17	766.3	55.0	12.8	86	w.	6	2.7			10 s		w.	0.09	2.3	cloudy	
Detroit, Michigan	29.48	748.8	30.20	767.1	67.0	19.4	72	e.	8	3.6			10 s;sk		calm	0	0	light smoke.	
Dodge City, Kansas	27.60	701.0	30.18	766.6	43.4	6.3	95	calm	0	0		1 ck	1 s			0.28	7.1	clear	
Dubuque, Iowa	29.36	745.7	30.08	764.0	59	15.0	87	nw.	1	0.4			10 s		calm	0	0	cloudy	
Duluth, Minnesota	29.36	745.7	30.07	763.8	52	11.1	93	ne.	20	8.9			10 n		ne.	0.66	16.8	light rain	
Eagle Pass, Texas	29.22	742.2	30.05	763.3	75.2	24.0	97	se.	6	2.7		0	3 s		se.	0.32	8.1	fair	
Eagle Rock, Idaho	25.27	641.8	30.12	765.0	38	3.3	47	s.	5	2.2		0	0			0	0	clear	
Eastport, Maine	30.00	762.0	30.07	763.8	55.5	13.1	66	nw.	7	3.1		0	0			0	0	clear	
El Paso, Texas	26.32	668.5	30.07	763.8	61.4	16.3	90	se.	3	1.3			10 s			0	0	cloudy	
Erie, Pennsylvania	29.46	748.3	30.19	766.8	68	20.0	78	ne.	10	4.5			fg.			0	0	dense fog	
Escanaba, Michigan	29.48	748.8	30.14	765.5	54	12.2	81	ne.	12	5.4			10 s		calm	inap.	inap.	cloudy	
Florence, Arizona	28.41	721.6	30.01	762.2	66	18.9	60	e.	2	0.9		0	0			0	0	clear	
Fort Apache, Arizona	25.08	637.0	29.99	761.7	52	11.1	74	e.	4	1.8		0	c			0	0	clear	
Fort Assinnaboine, Montana	26.97	685.0	29.78	756.4	48	8.9	80	sw.	3	1.3		0	9 s		sw.	0	0	cloudy	
Fort Bennett, Dakota	28.39	721.1	29.93	760.2	44	6.7	93	se.	2	0.9		0	0			0	0	clear	
Fort Benton, Montana	27.04	686.8	29.90	759.4	53	11.7	57	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	27.88	708.1	29.89	759.2	43	6.1	83	e.	6	2.7		0	0			0	0	clear	
Fort Custer, Montana	26.68	677.7	29.92	760.0	47	8.3	58	s.	9	4.0		0	0			0	0	clear	
Fort Davis, Texas	25.32	643.1	30.28	769.1	53	11.7	100	ne.	5	2.2			10 n			0.55	14.0	light rain	
Fort Elliott, Texas	27.40	695.9	30.59	777.0	51	10.6	86	nw.	8	3.6			10 n		nw.	0.18	4.6	light rain	
Fort Gibson, Indian T'y	29.57	751.1	30.12	765.0	65.2	18.4	73	n.	4	1.8		4 cs	0	n.		0	0	fair	
Fort Grant, Arizona					61	16.1	78	e.	20	8.9		0	0			0	0	clear	
Fort Griffin, Texas	28.87	733.3	30.13	765.3	61.4	16.3	84	sw.	7	3.1			10 s			0.01	0.3	cloudy	
Fort Keogh, Montana	27.37	695.2	29.91	759.7	48	8.9	66	se.	2	0.9		0	0			0	0	clear	
Fort Macon, North Carolina	30.15	765.8	30.16	766.1	76	24.4	88	nw.	5	2.2			10 s		calm	0	0	cloudy	
Fort McKavett, Texas	27.85	707.4	29.73	755.1	65.1	18.4	89	e.	7	3.1			10 s			0.17	4.3	cloudy	
Fort Missoula, Montana	26.55	674.4	30.07	763.8	54	12.2	57	sw.	2	0.9			10 s		sw.	0	0	cloudy	
Fort St. Michaels	29.64	752.8	29.67	753.6	45	7.2	100	e.	12	5.4			10 s		e.	0	0	threatening.	
Fort Shaw, Montana	26.18	665.0	29.78	756.4	48	8.9	71	ne.	3	1.3		8 k	0	n.		0	0	cloudy	
Fort Sill, Indian Territory	28.93	734.8	30.18	766.6	57.5	14.2	88	n.	11	4.9		8 cs	2 s	nw.	n.	0	0	cloudy	
Fort Stevenson, Dakota	28.12	714.2	29.99	761.7	43	6.1	83	se.	4	1.8		0	0			0	0	clear	
Fort Verde, Arizona					55	12.8	81	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.32	719.3	29.82	757.4	76	24.4	82	ne.	1	0.4			10 s			0.28	7.1	cloudy	
Galveston, Texas	29.98	761.5	30.02	762.5	83	28.3	75	e.	12	5.4		8 cs	2 ks	w.	s.	0.13	3.3	threatening.	
Grand Haven, Michigan	29.42	747.3	30.09	764.3	66.0	18.9	60	e.	12	5.4			10 s		calm	0.45	11.4	cloudy	
Hatteras, North Carolina	30.11	764.8	30.13	765.3	78	25.6	100	n.	4	1.8		hz.	hz.			0	0	dense haze.	
Helena, Montana	25.62	650.7	30.00	762.0	53	11.7	86	s.	4	1.8		8 k	0	calm		0	0	cloudy	
Henrietta, Texas	29.11	739.4	30.02	762.5	65	18.3	68	nw.	10	4.5		c	3 s		nw.	0	0	clear	
Huron, Dakota	28.65	727.7	30.04	763.0	46	7.8	100	se.	10	4.5			fg.			0.04	1.0	dense fog	
Indianapolis, Indiana	29.33	745.0	30.13	765.3	74	23.3	71	s.	1	0.4		3 c	hz.	s.	calm	0	0	fair	
Indianola, Texas	29.97	761.2	30.00	762.0	78.8	26.0	91	ne.	15	6.7		2 cs	3 k;ks	calm	se;c	0.10	2.5	fair	
Jacksboro, Texas	28.97	735.8	30.08	764.0	61	16.1	87	n.	4	1.8			10 ks		calm	0.58	14.7	cloudy	
Jacksonville, Florida	30.05	763.3	30.09	764.3	74	23.3	90	ne.	6	2.7		1 k	0			0	0	clear	
Keokuk, Iowa	29.44	747.8	30.10	764.5	65.4	18.6	84	nw.	5	2.2			10 s		nw.	0	0	cloudy	
Key West, Florida	29.96	761.0	29.98	761.5	79.0	26.1	82	se.	2	0.9		4 ck	2 ks	ne.	se.	0.25	6.3	fair	
Kittyhawk, North Carolina	30.13	765.3	30.15	765.8	77	25.0	97	calm	0	0			10s;hz			0	0	cloudy	
Knoxville, Tennessee	29.21	741.9	30.25	768.3	68.2	20.1	89	w.	1	0.4			9 s;sk		se;c	0	0	cloudy	
La Crosse, Wisconsin	29.29	744.0	30.06	763.5	56.2	13.4	93	ne.	2	0.9			10 n			0.60	15.2	light rain	
La Mesilla, New Mexico	26.21	665.7	30.36	771.1	59.2	15.1	82	calm	0	0			10 s			0	0	cloudy	
Laredo, Texas																			
Leavenworth, Kansas	29.31	744.5	30.21	767.3	57	13.9	86	nw.	4	1.8			10 s		w.	0.21	5.3	cloudy	
Lewiston, Idaho	29.04	737.6	29.80	759.2	64	17.8	52	ne.	16	7.2			10 s		ne.	0	0	cloudy	
Little Rock, Arkansas	29.78	756.4	30.10	764.5	75	23.9	85	calm	0	0		0	4 ks			0	0	fair	
Los Angeles, California	29.51	749.5	29.89	759.2	62.3	16.8	78	se.	5	2.2		0	0			0	0	clear	
Louisville, Kentucky	29.58	751.3	30.15	765.8	74.0	23.3	76	calm	0	0			hz.			0	0	dense haze.	
Lynchburg, Virginia	29.45	748.0	30.14	765.5	76	24.4	64	calm	0	0		hz.	0			0	0	dense haze.	
Madison, Wisconsin	29.05	737.9	30.08	764.0	59	15.0	87	se.	2	0.9			10 s		calm	0.04	1.0	cloudy	
Marquette, Michigan	29.44	747.8	30.17	766.3	54	12.2	86	w.	1	0.4			10 s		calm	0	0	cloudy	
Mason, Texas	28.46	722.9	30.19	766.8	66.7	19.3	90	n.	4	1.8			10 s		n.	1.30	33.0	cloudy	
Memphis, Tennessee	29.81	757.2	30.15	765.8	74	23.3	82	calm	0	0		10 c	hz.	calm	calm	0	0	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.32	744.7	30.08	764.0	66	18.9	93	se.	1	0.4			fg			c	0	dense fog	
Mobile, Alabama	30.04	763.0	30.11	764.8	74.0	23.3	85	n.	7	3.1			10 s			0	0	cloudy	
Montgomery, Alabama	29.93	760.2	30.16	766.1	69.8	21.0	84	ne.	1	0.4		4 k	0	ne.		0	0	fair	
Moorhead, Minnesota	29.07	738.4	30.08	764.0	47.1	8.4	93	e.	2	0.9			10 n			0.16	4.1	light rain	
Morgantown, W. Virginia	29.18	741.2	30.14	765.5	68.8	20.4	91	calm	0	0			10 s		sw.	0	0	cloudy	
Mt. Washington, N. H.	23.88	606.5	30.08	764.0	36.8	2.7	28	nw.	70	31.2		4 c	1 s	nw.	nw.	0.09	2.3	fair	
Nashville, Tennessee	29.65	753.1	30.19	766.8	70.7	21.5	78	s.	1	0.4		3 cs	hz			0	0	dense haze.	
New Haven, Connecticut	29.99	761.7	30.11	764.8	74	23.3	71	nw.	3	1.3		sk	sk			0	0	dense smoke	
New London, Connecticut	30.07	763.8	30.12	765.0	73	22.8	84	calm	0	0			fg			0	0	dense fog	
New Orleans, Louisiana	30.02	762.5	30.08	764.0	77.5	25.3	85	e.	8	3.6		0	6 ks		e.	0.12	3.0	fair	
Newport, Rhode Island	30.06	763.5	30.11	764.8	75.2	24.0	73	ne.	4	1.8		hz	hz			0	0	dense haze	
New River, N. Carolina					76	24.4	82	n.			1		hz			0	0	dense haze	
New Shoreham, Rhode I'd.	30.07	763.8	30.10	764.5	72.5	22.5	82	nw.	6	2.7		sk.	sk	calm	calm	0	0	clear	
New York, New York	29.96	761.0	30.14	765.5	80	26.7	62	nw.	4	1.8		0	fg			0	0	clear	
Norfolk, Virginia	30.09	764.3	30.12	765.0	77	25.0	82	w.	3	1.3			10s; fg			0	0	cloudy	
North Platte, Nebraska	27.18	690.4	30.12	765.0	48	8.9	91	nw.	5	2.2		0	fg			0	0	clear	
Olympia, Washington T'y	29.98	761.5	30.02	762.5	51.0	10.6	80	s.	4	1.8		0	0			0	0	clear	
Omaha, Nebraska	29.02	737.1	30.21	767.3	48.5	9.2	94	sw.	4	1.8		0	2 s		sw.	0.08	2.0	clear	
Oswego, New York	29.88	758.9	30.21	767.3	64.2	17.9	60	e.	6	2.7			10 s		nw.	0	0	cloudy	
Pensacola, Florida	30.08	764.0	30.11	764.8	75	23.9	82	ne.	6	2.7		4 cs	hz	calm		0	0	dense haze	
Philadelphia, Pa.	30.06	763.5	30.12	765.0	81	27.2	58	n.	1	0.4		3 ck	fg	s.		0	0	fair	
Phœnix, Arizona	28.75	730.2	30.54	775.7	58	14.4	57	sw.	1	0.4		0	0			0	0	clear	
Pike's Peak, Colorado	17.98	456.7	30.19	766.8	30	— 1.1	54	sw.	4	1.8		0	0			0.01	0.3	clear	
Pioche, Nevada	24.19	614.4	30.21	767.3	50	10.0	34	s.	4	1.8		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.36	745.7	30.18	766.6	72	22.2	82	w.	1	0.4		4 ck	0	w.		0	0	fair	
Port Eads, Louisiana	30.06	763.5	30.07	763.8	79.2	26.2	75	e.	13	5.8		0	1ks; hz		e.; c.	0	0	clear	
Port Huron, Michigan	29.50	749.3	30.19	766.8	61.2	16.2	86	ne.	7	3.1			fg		calm	0	0	dense fog	
Portland, Maine	30.07	763.8	30.12	765.0	65	18.3	58	ne.	4	1.8		3 cs	3 s	w.	calm	0	0	fair	
Portland, Oregon	30.04	763.0	30.11	764.8	52.7	11.5	78	nw.	1	0.4			10 ks		nw.	0	0	cloudy	
Portsmouth, N. Carolina					79	26.1	82	ne.	6	2.7			10 s		calm	0	0	cloudy	
Prescott, Arizona	24.84	630.9	30.03	762.7	45	7.2	80	w.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	29.99	761.7	30.00	762.0	76.5	24.7	88	ne.	7	3.1		10 c	0	s.		0	0	cloudy	
Red Bluff, California	29.52	749.8	29.86	758.4	63.5	17.5	48	nw.	1	0.4		0	0			0	0	clear	
Rio Grande City, Texas	29.80	756.9	30.01	762.2	74	23.3	97	calm	0	0			10 n		calm	2.90	73.7	raining	
Rochester, New York	29.59	751.6	30.23	767.8	65	18.3	63	e.	10	4.5			10s; sk		calm	0	0	cloudy	
Roseburg, Oregon	29.54	750.3	30.12	765.0	57.8	14.3	72	n.	5	2.2			10 ks			0	0	cloudy	
Sacramento, California	29.80	756.9	29.88	758.9	61.9	16.6	50	se.	7	3.1		0	0			0	0	clear	
St. Louis, Missouri	29.52	749.8	30.13	765.3	75.0	23.9	82	s.	5	2.2			hz			0	0	dense haze	
St. Paul, Minnesota	29.18	741.2	30.06	763.5	50.0	10.0	93	se.	5	2.2			10 n			0.61	15.5	light rain	
Salt Lake City, Utah	25.70	652.8	30.03	762.7	51	10.6	32	se.	3	1.3		0	0			0	0	clear	
San Antonio, Texas	29.34	745.2	30.04	763.0	73.2	22.9	97	ne.	5	2.2		0	5 ks		e.	0.13	3.3	fair	
San Diego, California	29.73	755.1	29.80	756.9	63.2	17.3	90	n.	4	1.8		0	0			0	0	clear	
Sandusky, Ohio	29.48	748.8	30.17	766.3	74	23.3	85	ne.	7	3.1			fg			0	0	dense fog	
Sandy Hook, New Jersey	30.07	763.8	30.10	764.5	78.0	25.6	69	nw.	12	5.4		0	hz		calm	0	0	clear	
San Francisco, California	29.86	758.4	29.92	760.0	52	11.1	93	sw.	8	3.6			fg		sw.	0	0	dense fog	
Santa Fé, New Mexico	23.43	595.1	30.23	767.8	39	3.9	65	calm	0	0		0	0			0	0	clear	
Savannah, Georgia	30.05	763.3	30.14	765.5	74	23.3	97	n.	4	1.8			fg			0	0	dense fog	
Shreveport, Louisiana	29.87	758.7	30.10	764.5	75.3	24.1	85	calm	0	0		0	0			0	0	clear	
Silver City, New Mexico	24.35	618.5	29.92	760.0	52	11.1	73	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	30.06	763.5	30.13	765.3	51	10.6	86	nw.	8	3.6		5 ck	0	nw.		0	0	fair	
Smithville, North Carolina	30.10	764.5	30.14	765.5	76	24.4	82	ne.	3	1.3		6 k	4 s		calm	0	0	cloudy	
Spokane Falls, Wash. Ter.	27.78	705.6	29.80	756.9	55	12.8	57	sw.	12	5.4		8 k	0	sw.		0	0	fair	
Springfield, Illinois	29.42	747.3	30.11	764.8	74.3	23.5	87	s.	3	1.3		6 ck	sk.			0	0	dense smoke	
Springfield, Massachusetts	29.98	761.5	30.11	764.8	75.3	24.1	76	n.	1	0.4		hz	hz			0	0	dense haze	
Stockton, Texas	27.12	688.8	30.19	766.8	59.1	15.1	100	calm	0	0			fg			0.83	21.1	foggy	
St. Vincent, Minnesota	29.22	742.2	30.11	764.8	47	8.3	93	s.	8	3.6		5 cs	0			0	0	fair	
Thatcher's Island, Mass.	30.11	764.8	30.17	766.3	65.5	18.6	84	w.	5	2.2		0	0			0	0	clear	
Toledo, Ohio	29.46	748.3	30.16	766.1	64	17.8	84	n.	4	1.8			10s; sk			0	0	dense smoke	
Tucson, Arizona	27.41	696.2	29.77	756.1	71	21.7	53	se.	6	2.7		0	0			0	0	clear	
Umatilla, Oregon	29.63	752.6	30.04	763.0	57.0	13.9	44	sw.	24	10.7		1 cs	0	calm		0	0	clear	
Uvalde, Texas	29.04	737.6	29.83	757.7	75	23.9	100	calm	0	0			10 s		se.	0.54	13.7	cloudy	
Vicksburg, Mississippi	29.85	758.2	30.11	764.8	73	22.8	84	e.	8	3.6		5 ck	5 s	calm	calm	inap.	inap.	cloudy	
Visalia, California	29.47	748.5	29.83	757.7	59.2	15.1	76	e.	1	0.4		0	0			0	0	clear	
Washington, D. C.	30.00	762.0	30.11	764.8	75.0	23.9	68	w.	1	0.4		9 cs	fg	w.		0	0	cloudy	
Wickenburg, Arizona					60	15.6	72	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.09	764.3	30.15	765.8	78	25.6	82	calm	0	0		10 k	0	calm		0	0	cloudy	
Winnemucca, Nevada	25.64	651.2	29.97	761.2	47	8.3	48	s.	10	4.5		0	0			0	0	clear	
Wood's Holl, Mass.	30.06	763.5	30.10	764.5	71	21.7	82	e.	13	5.8		0	hz.			0	0	dense haze	
Yankton, Dakota	28.79	731.3	30.10	764.5	49	9.4	93	calm	0	0		0	0			inap.	inap.	clear	
Yuma, Arizona	29.66	753.4	29.80	756.9	75.8	24.3	45	ne.	6	2.7		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	30.03	762.7	30.05	763.3	81	27.2	96	e.	1	0.4		5 k	10 ks	e.		0	0	cloudy	J. A. Racker.
Bogota, U. S. Columbia	22.09	561.1			53.8	12.1	70	se.	6	2.7		5 ck	5 s; n	e.	w.	0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.92	760.0	29.93	760.2	81	27.2	87	e.				2 k	5 ks		ese.	0	0		B. Bigar.
Havana, Cuba, W. I.	29.98	761.5	30.02	762.5	78	25.6	82	calm	0	0			10 ks		calm	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.98	761.5	29.99	761.7	79.2	26.2	78	calm	0	0		0	0			0	0		Robert Johnstone.
Navassa, W. I.	29.89	759.2	29.97	761.2	82	27.8	79	e.	10	4.5		8 k; cs	2 k	ne.	e.	0.02	0.5	fair	F. M. Everett.
Paramaribo, S. A.	30.06	763.5	30.07	763.8	79	26.1	91	se.			3	c	8 ks	e.	e.	0	0	cloudy	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.41	747.0	29.96	761.0	81	27.2	90	calm			0	8c	2 k	calm	s.	0	0	foggy	Francesco J. Cisneros.
Rivas, Nicaragua					77.0	25		calm			0	cs	2 ks		s.	0.08	2.		Earl Flint.
Santiago de Cuba, W. I.	29.97	761.2	30.00	762.0	80	26.7	82	calm	0	0		0	2 k		se.	0	0	fair	Robert Mason.
St. Thomas, W. I.‡	29.93	760.2	30.05	763.3	82	27.8	79	e.	7	3.1		0	1 ks			0	0	clear	G. O. Gyllich.
York Factory, B. A.	30.15	765.8	30.20	767.1	39.0	3.9	95	n.	7	3.1		2 c	2 s	n.	n.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Off Guard Bank, Torres St.	29.95	760.7	76	24.4	82	ese.			4-6		7							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Palma, Majorca, Spain	30.02	762.5	78.5	25.8	63	sw.			2-3		4	ssw.				1	sw.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.89	759.2	78	25.6		nne.			1-2		3	ne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 10° 53′, E. 45° 02′	29.70	754.4	93	33.9	67	nw.			1		6					1	cross	d. clouds	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 17° 00′, W. 61° 45′	30.05	763.3	83	28.3	87	e.			1		4							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 6° 04′, E. 12° 08′	30.00	762.0	73.5	23.1	74	wsw.			1-2		4	wsw.				3	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.84	757.9	82	27.8		wnw.			2		1	wnw.				1	wnw.	blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 32° 29′, E. 15° 41′	30.28	769.1	64	17.8		sse.			4-5		0					5	ssw.	misty	Capt C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.10	764.5	79.5	26.4	82	wsw.			1		3	wsw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	29.48	748.8	59	15.0	87	wnw.			1		6	sw.				1	ese.	d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 22° 24′, E. 59° 40′	29.57	751.1	89	31.7		se.			2		5	se.				1	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 13° 02′, E. 80° 16′	29.72	754.9	85	29.4		wsw.			2		6						sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 44° 40′, W. 29° 00′	30.09	764.3	66	18.9		ese.			3-4		7	e.				3	cf'd	d. clouds	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 4° 44′, E. 50° 40′	29.96	761.0	79	26.1	69	e.			4-5		3	e.				3-4	e.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19	29.87	758.7	82	27.8		nw.			3		2					2	nw.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Hakodate, Yezo, Japan	29.96	761.0	70	21.1	75	n.			1		7	ese.						showery	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich I'ds	30.04	763.0	74.5	23.6	70	ene.			2-5		6							showery	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argentine Rep	30.25	768.3	51	10.6	86	e.			5		10							squally	Capt. L. F. Jones
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, Levuka, Fiji Islands	30.03	762.7	75	23.9	81	s.			3		4	s.						d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 41° 47′ E. 140° 43′	29.96	761.0	72	22.2		n.			1-2		6							d. clouds	Capt. R. E. Tracey.
H. M. S. Kingfisher																			Comm. R. H. Thornton.
H. M. S. Lapwing, S. 8° 00′, E. 101° 00′	29.80	756.9	79	26.1		sse.			5		2	se.				4	se.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, N. 2° 23′, W. 22° 40′	30.14	765.5	79	26.1	82	sse.			3-4		3					2	s.	d. clouds	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.56	750.8	86.3	30.2	80	w.			1		4	e.				1-2	w.	misty	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.02	762.5	83	28.3	91	ese.			2		0							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Charlotte Town, P. E. Id	30.03	762.7	56	13.3	87	wnw.			6		6	wnw.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready, N. 12° 48′, E. 90° 38′	29.63	752.6	79	26.1		sw.			5		7	sw.				4	sw.	showery	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 6° 24′, E. 39° 18′	30.08	764.0	79.3	26.3	78	ene.			1–3		5							d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 11° 41′, E. 43° 16′	29.73	755.1	80	26.7	82	s.			3–5		4	ese.						squally	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 48° 01′, W. 65° 14′	29.85	758.2	53	11.7	73	w.			3–6		6							squally	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	30.00	762.0	59	15.0	94	s.			2		10	s.						drizzling	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.99	761.7	81	27.2		n.			1		4							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.68	753.9	82.5	28.1	83	wsw.			4–6		4	sw.						squally	Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	30.04	763.1	74.1	23.4	70	nnw.			3		0					1		blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.24	768.0	83.7	28.7	80	ne.			2		1		ne.			1	ne.	blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.54	750.3	81.5	27.5	70	nw.			3		10			4 h'r	4 h'r			raining	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				

UNITED STATES NAVAL SERIES.

By authority of the Secretary of the Navy.

Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.

N. Yard, Pensacola, Fla	30.17	766.3	78	25.6	82	se.	8	3.6			8		se.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.12	765.0	61	16.1	?	calm	0	0			0			0	0			clear	
Naval Hospital, Yokohama, Japan	29.76	755.9	77.5	25.3	88	e.			3		10		w.	0.01	0.3			cloudy	
Adams, N. 15° 40′, W. 98° 17′	29.62	752.3	79	26.1	95	se.			3		10		se.			long	s.	heavy rain	
Alaska, Callao, Peru	29.96	761.0	59	15.0	100	se.			1		10			0	0	sm'h		foggy	
Alert, Yokohama, Japan *	29.76	755.9	79	26.1	86	ene.			4		10		w.			mod.	ene.	squally	
Alliance, N. 72° 07′, E. 7° 21′	29.83	757.7	41	5.0	100	wsw.			2		5			light	light	sm'h		cloudy	
Ashuelot, Kobe, Japan	29.92	760.0	81	27.2	91	wnw.			1		8		wsw.					cloudy	
Colorado, New York, N. Y.	30.08	764.0	82	27.8	63	nw.	2	0.9			fg			0	0			foggy	
Constitution, New London, Conn	30.05	763.3	74	23.3	95	calm	0	0			0							misty	
Franklin, Norfolk, Va	30.02	762.5	76	24.4	?	w.	2	0.9			10			0	0			hazy	
Galena, Leghorn, Italy	29.98	761.5	73	22.8	72	w.			1		2							fair	
Independence, N. Yard, Mare I'd, Cal	29.82	757.4	55	12.8	87	sw.	6.0	2.7			2		sw.					fair	
Jamestown, Mare Isl'd, Cal *	29.85	758.2	57	13.9	94	wsw.			2		10		sw.	0	0			cloudy	
Kearsarge, New London, Conn	30.09	764.3	73	22.8	85	calm			0		10					sm'h		hazy	
Lackawanna, Mare Isl'd, Cal †	30.10	764.5	57	13.9	87	sw.			1		8		sw.					fair	
Lancaster, Portsmouth, N. H.	30.10	764.5	71	21 7	75	ne.	1	0.4			2		ne.	0	0			d. clouds	
Marion, [S. A.* Buenos Ayres, La Plata,	30.00	762.0	51	10.6		e.			6		10		calm			mod.	e.	cloudy	
Michigan, Erie, Pa	30.13	765.3	70	21.1	75	ne.			1									hazy	
Minnesota, Newport, R. I	30.12	765.0	75	23.9	95	ne.			2		0					sm'h		misty	
Monocacy, Yokohama, Japan	29.90	759.4	78	25.6	91	ne.			3		10		calm					rainy	
Nipsic, Villafranca, France	29.62	752.3	75	23.9	72	s.			2		5					sm'h		d. clouds	
Onward, Callao, Peru †	30.00	762.0	59	15 0	100	sse.			2		10		n.			long	w.	misty	
Palos, Hong Kong, China	29.57	751.1	78	25.6	91	wnw.			2		10		n;w					rainy	
Passaic, Washington, D. C.	30.08	764.0	77	25.0	100	ne.			1		8		ne.					cloudy	
Pensacola, Panama, Panama	29.92	760.0	79	26.1	86	nw.			1		2		ne.	0	0	sm'h		fair	
Portsmouth, Whale Back Light, N. H.	30.12	765.0	65	18.3	94	e.			2		2		e.			sm'h		fair	
Powhatan, N. 24° 01′, W. 74° 11′	30.03	762.7	85	29.4	79	ssw.			1		2		s.			long	ne.	clear	
Quinnebaug, Marseilles, France	29.90	759.4	76	24.4	73	sse.			4		8					sm'h		cloudy	
Ranger, Mare Island, Cal. *	29.87	758.7	56	13.3	87	sw.			2		8		sw.			sm'h		cloudy	
Richmond, N. 16° 02′, W. 103° 20′	29.77	756.1	80	26.7	100	ssw.			1		10		ssw.	0.25	6.3	long	se.	rainy	
Shenandoah, Maldonado, Uruguay *	30.38	771.6	52	11.1	86	ne.			3		10					sm'h		cloudy	
St. Louis, League Island, Pa	29.82	757.4	80	26.7	78	calm	0	0			2			0	0			clear	
Swatara, Chefoo, China †	30.01	762.2	75	23.9	81	e.			1		0							clear	
Tennessee, New London, Conn	30.10	764.5	72	22.2	100	calm	0	0			10			0	0			cloudy	
Trenton, N. 41° 40′, E. 4° 43′ *	29.92	760.0	79	26.1	78	sw.			4		8			0	0			fair	
Vandalia, New London, Conn	30.06	763.5	73	22.8	81	calm			0		0							misty	
Wabash, Boston, Mass	30.17	766.3	72	22.2	62	ne.	7	3.1			2		calm	0	0			clear	
Wachusetts, Sitka, Alaska	30.10	764.5	56	13.3	87	nne.			0-1		5		calm	0	0	sm'h		fair	
Wyoming, Port Royal, S. C.	30.44	773.2	75	23.9	95	nne.	6	2.7			5?			0	0			cloudy ?	
Yantic, New London, Conn *	30.04	763.0	70	21.1	95	calm			0									hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 54° 34′, W. 43° 29′ *†	29.31	744.5				ssw.	6		10		sw.			r'gh	ssw.	hazy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 39° 59′, W. 69° 04′	29.98	761.5	72	22.2		n.	3		0					sli't	sw.	hazy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Delaware River, Del	30.11	764.8	82	27.8	96	wnw.	2		10		wnw.					overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, English Channel †.	29.81	757.2	57	13.9	75	nw.	5		2		nw.	0	0	sm'h	w.	fine	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 40° 32′, W. 49° 26′ *†	29.97	761.2	78	25	86	sw.	1		10		ne.			mod.	e.	cloudy	
S. S. Pennsylvania, Capt. G. H. Dodge, Liverpool, Eng †	29.74	755.4	71	21.7	71	ne.	2		8		e.					cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, N. 28° 44′, W. 19° 00′	30.17	766.3	76	24.4	77	e.	2		2						nw.	blue sky	
S. British Merchant, Capt. E. J. Moloney, N. 32° 01′, W. 35° 47′ ‡	30.15	765.8	82.5	28.1	74	s.	3		5							d. clouds	
S. S. Cipero, Capt. W. N. Lailey, N. 12° 02′, W. 56° 34′	30.07	763.8	82.3	27.9	87	sse.	2		3					1	ene.	d. clouds	
Bk. Commeywyne, Capt. W. Scott, N. 51° 22′ W. 9° 18′	29.85	758.2	57.8	14.3	83	nw.	4		7							d clouds	
Bk. Coppename, Capt. A. Buchan, N. 30° 52′, W. 50° 00′	30.01	762.2	77.8	25.4	78	wnw.	2		10							overcast	
Bk. Glaramara, Capt. R. Morton, N. 42° 30′. W. 150° 11′ ‡	30.36	771.1	56	13.3	94	se.	1		10							overcast	
Bg. Hermine, Capt. S. G. Jones, N. 20° 49′, W. 24° 14′	30.15	765.8	77.7	25.4	65	nne.	5		1							blue sky	
Bkt. Hope, Capt. Jas. Campbelle Island Belle, Capt. A. McBride, N. 10° 37′, W. 54°, 07′	30.10	764.5	83.5	28.6		ese.	2–5		2							blue sky	
S. Lochee, Capt. J. Raeburn, S. 31° 08′, W. 30° 10′ ‡	30.17	766.3	59.8	15.4	72	ssw.	6		6							d. clouds	
Bk. Mertola, Capt. E. W. Turner Naiad, Capt. J. Smith, S. 34° 42′, W. 73° 24′	30.19	766.8	51.0	10.6	87	nw.	4		4							d. clouds	
S. Pleione, Capt. C. H. Renant, S. 34° 07′, W. 22° 33′	29.89	759.2	59	15.0	70	sw.	6		2							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow, N. 8° 07′, E. 75° 43′	29.87	758.7	82	27.8	83	w.	3		8							overcast	
Sierra Estralla, Capt. P. Murdoch, Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 2° 21′, W. 27° 20′	30.10	764.5	78.7	25.9	79	sse.	3		3							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson N. 27° 05′, E. 120° 54′	29.74	755.4	79.5	26.4	96	ese.	5		6							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA, AND MEXICAN S.S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers N. 32° 10′, W. 119° 43′ †	29.92	760.0	61	16.1	88	nw.	4		10		nw.	0	0	small	wnw.	light fog	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains, N. 45° 48′, W. 41° 59′	29.72	754.9	65	18.3		wsw.	6		8		sw.	6 h'r	h'vy	mod.	sw.	hazy	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
S. S. Hermann, Capt. H. Baur N. 51° 49′, E. 2° 29′	29.77	756.1	64.4	18		sw.	1		8		w.	0	0	mod.	sw.	cloudy	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N: 49° 54′, W. 5° 14′	29.86	758.4	64.0	17.8	86	wnw.	2		4		wnw.	0	0	sm'h	wnw.	fair	T. Jüngst.
S. S. Leipsic, Cept. F. Pfeiffer S. S. Strassburg, Capt. Heimbruche, N. 42° 45′, W. 44° 46′	29.83	757.7	70.5	21.4	78	wsw.	4		8?		w.	0	0	mod.	w.	clear?	Walter & Reichler. Englehart and von [Goessel
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 37° 48′, E. 158° 40′ †	30.01	762.2	70	21.1	90	n.	2		5		nw.	0	0	cfd.	n; s.	fair	
S. S. Gaelic, Capt. W. H. Kidley, N. 45° 26′, W. 143° 22′ *†	30.58	776.7	66	18.9	89	calm	0		8					sm'h		cloudy	J. Jones, 2d Officer.
S. S. Oceanic, Capt. J. Metcalf. Yokohama, Japan	29.95	761.0	79	26.1	86	var.	3		10		ene.	0	0			fine	W. H. Kidley.
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann																	
S. S. Columbia, Capt. F. Bolles																	G. Reichmann.
S. S. Oregon, Capt. Pollmann, Portland, Oregon †	30.09	764.3	54	12.2	87	n.	1		2		wsw.					clear	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind. Up'er	Amount and kind. Lo'er	Direction. Upper.	Direction. Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 32°, 39′ W. 117° 14′ †	29.85	758.2	65	18.3	94	se.	1		2		se.			sm'h		fair	J. N. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound, Washington Territory †	30.17	766.3	55	12.8	87	n.	2		8?		w.	0	0	sm'h	nnw.	clear?	
S. S. Idaho, Capt. T. Huntington,																	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,																	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 39° 50′, W. 124° 15′ †	29.98	761.5	52	11.1	100	nw.	4		0					cross	nw.	clear	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal †	29.90	759.4	49	9.4	100	calm	0		10							dense fog	G. Debney.
S. S. Victoria, H. M. Hayward, San Francisco, Cal †	29.94	760.5	52	11.1	100	calm	0		fg							foggy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——, S. 33° 55′, E. 152° 47′	30.20	767.1	63	17.2	83	n.	5		10?		nnw.			r'gh	sw.	clear?	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W. †	30.25	768.3	64	17.8	62	n.	3		0			0	0			clear	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin, Panama, Panama †	29.95	760.7	81	27.2	91	nw.	1	10 c	0	se.		1 h'r	1 h'r			cloudy	W. H. T. Titus.
S. S. City of Peking, Capt. G G. Barry																	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, Panama, Panama †	29.93	760.2	84	28.9	87	n.	1		2		n.	1 h'r	1 h'r	sm'h	s.	fine	
S. S. City of Sydney, Capt. H. C. Dearborn,																	E. L. Salk.
S. S. City of Tokio, Com. J. Maury Hong Kong, China †	29.60	751.8	74	23.3	90	nw.	6		10			0.5	13.			rainy	A. L. Ritchie, 2d Offl.
S. S. Colima, R. R. Searle, N. 18° 25′, W. 103° 42′ †	29.83	757.7	80	26.7	100	nw.	3		8		nw.	1.50	38.1	mod.	ese.	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 22° 50′, W. 109° 50′ †	29.78	756.4	78	25.6	86	calm	0		0			0	0	light	ssw.	clear	M. Connolly.
S. S. Zelandia, Capt. H. Webber, N. 5° 47′, W. 164° 27′	30.03	762.7	82	27.8	87	e.	3		5?		ne.			mod.	nne.	clear?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 40° 56′, W. 69° 37′ †	30.28	769.1	60	15.6	94	ne.	1		0			0	0	sm'h		hazy	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, South Foreland, England †	29.79	756.7	60	15.6	76	ene.	3		9		ene.	0.05	1.3	sm'h		cloudy	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings																	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 46° 21′, W. 39° 44′ †	29.78	756.4	67	19.4		ssw.	3		fg			1 h'r	1 h'r	cfd		foggy	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 43° 00′, W. 57° 39′ †	29.48	748.8	62	16.7	100	nnw.	3		8		nw.	shr's	sh'rs	sm'h		showery	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 51° 26′, W. 15° 21′ †	29.98	761.5	60	15.6	88	nw.	5		5		nnw.	shr's	shr's	mod.	nnw.	d. clouds	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Off Martha's Vineyard, †	30.03	762.7	73	22.8		nnw.	2	2 c	5 k			0	0			cloudy	
Golden Fleece																	
Hassler Lt. Com. Nichols, Sitka, Alaska *†	30.16	766.1	55	12.8		w.	2–3		8		nw.			long	nnw.	d. clouds	
S. Iron Cross, Capt. Randall, S. 14° 10′, W. 7° 40′ *	30.13	765.3	69.5	20.8	98	ese.	3		3		ese.	sl't	sl't	mod.	sse.	d. clouds	W. Randall.
S. Pawahick, Capt. E. Fry,																	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	30.20	767.1	71	21.7	90	sw.	2		10		sw.	mod.	mod.			rainy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer. U. S. A.

Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 9, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.95	760.7	82.8	28.2	76	n.			1		0			0	0	clear	Raynard.
Algiers ‡			29.95	760.6	82.8	28.2	71	wnw.			4		0			0	0	clear	Nicolas.
La Calle ‡			29.96	761.0	85.6	29.8	82	wsw.			1		2			0	0	fair	Fonfréde.
Tunis ‡			29.97	761.2															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.97	761.3	91.4	33.0	24.0	nw.			1		1			0	0	very fair	Dumas.
Tebessa ‡			29.96	761.0	88.5	31.4	30	nne.			3		2			inap.	inap.	fair	Derché.
Geriville ‡					88.5	31.4	11	nw.			1		0			inap.	inap.	clear	Lonchamp.
Laghouat ‡			29.96	760.9	95.4	35.2	11	sw.			3		3			0	0	pretty fair	Herbin.
Biskra ‡			29.96	761.0	99.0	37.2	22	se.			1		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.84	757.9	29.93	760.2	52.0	11.1	71	ne.	9	4.0			1			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.27	743.4	29.80	756.8	71.2	21.8	69	s.			2		10			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.03	737.4	29.77	756.1	72.7	22.6	62	nnw.	1.8	0.8			9			0.091	2.3		Dr. Wiersbicki.
Eperies	28.95	735.4	29.80	756.8	71.1	21.7	67	se.			3	cs	7 8		n.	0	0		Julius Mikolik.
Gratz ‡	28.59	726.2	29.81	757.2	61.9	16.6	78	nw.			4		10			0.374	9.5		Andreas Rospini.
Hermannstadt	28.49	723.6	29.84	758.0	78.1	25.6	52	se.			4		2			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.60	726.4	29.93	760.3	52.5	11.4	70	w.			4		10			0.130	3.3	raining	The Staff.
Lemberg	28.86	733.1	29.81	757.1	72.3	22.4	68	s.			2		10			0.031	0.8		Dr. T. Stanecki.
Pola	29.72	755.0	29.84	757.8	74.3	23.5	73	sw.			2		9			0	0		I. R. Hydrographic Office.
Szathmar	29.39	746.6	29.84	757.8	76.3	24.6	56	s.			2		8			0	0		Beicht Peter, S. J.
Szegedin	29.54	750.2	29.80	757.0	73.8	23.2	64	s.			1		5			0	0		Karl Stancel.
Trieste	29.72	755.0	29.83	757.6	72 1	22.3	69	calm			0		10			0.256	6.5	cloudy	Secco.
Vienna	29.15	740.5	29.85	758.2	66.2	19.0	66	w.			3		10			0.425	10.8		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 13, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction, Upper.	Clouds. Direction, Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.85	758.2	29.95	760.7	58.7	14.8	78	n.	14	6.3			7			0.025	0.6	d. clouds	W. Boswell.
Armagh, Observatory	29.78	756.4	30.01	762.2	57.5	14.2	90	n.	5	2.2			10					overcast	S. Call.
Bidston, Liverpool Obs'y			29.92	760.0	58.5	14.7	73	wnw.	11	4.9			1					blue sky	John Hartnup.
Bolton, Sharples	29.37	746.0	29.90	759.4	60.8	16.0	65	nnw.					5					d. clouds	Thomas Mackereth. [A.S.
Bradford, Yorkshire	29.48	748.8	29.88	758.9	58.3	14.6	76	nw.			1		5			0	0	d. clouds	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.88	758.9	65.0	18.3	73	nw.			0.2		8					foggy	John McLaren.
Chatham, School M. E.	29.77	756.1	29.90	759.4	62.2	16.8	79	n.			1		6			blank	blank	d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.74	755.4	29.96	761.0	60.3	15.7	76	nw.			3		9					overcast	The Staff.
Fort Napier, Natal	28.04	712.2	30.26	768.6	72.4	22.4	45	se.			1		0					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.64	752.8	29.87	758.7	87.0	30.6	84	sw.			1		2					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.99	761.7	62	16.7	72	n.			4		6					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	29.96	761.0	30.01	762.2	79.7	26.5	76	sw.			3		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.75	755.6	29.96	761.0	58.4	14.7	76	wnw.			4		10					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.72	754.9	29.89	759.2	61.3	16.3	73	nnw.			1		8					d. clouds	The Staff.
Guernsey	29.69	754.1	29.90	759.4	60	15.6	76	wsw.			2		5					d. clouds	Dr. S. E. Hoskins, F.R.S.
Kew, Observatory	29.69	754.1	29.72	754.9	61.5	16.4	69	nw.	5	2.2			8					misty	The Staff.
Leicester, Museum	29.64	752.8	29.88	758.9	62.6	17.0	68	ne.			1		0					blue sky	J. C. Smith.
Malta, Mediterranean	29.85	758.2	29.92	760.0	83.0	28.3	70	nw.			2		2					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.00	762.0	30.04	763.0	86.5	30.3	72	se.			1		5					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.68	753.9	29.90	759.4	63.1	17.3	59	nw.			1		4					d. clouds	The Staff.
Plymouth	29.86	758.4	29.94	760.5	57.1	13.9	95	nw.			1		10					raining	John Merrifield.
Sandwick Manse, Orkneys			30.07	763.8	52.8	11.6	88	ne.	20	8.9			10					drizzling	Rev. C. Clouston, L. L.D.
Scutari Cemetery, Turkey	29.79	756.7	29.85	758.2	84.0	28.9	49	ne.			2		5					d. clouds	Serg't W. H. Lyne.
Sheffield	29.65	753.1	29.93	760.2	61.2	16.2	68	ne.			1		5			0	0	d. clouds	W. F. Cooper.
Silloth Rectory	29.90	759.4	29.93	760.2	62.0	16.7	75	calm			0		8			0.080	2.0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.93	760.2	62.0	16.7	57	nne.	2	0.9			6					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss					63.0	17.2	76	nw.			2		6					d. clouds	Rev. C.H. Griffiths, F.M.S.
Truro, Royal Institution	29.92	760.0	29.94	760.5	64	17.8	78	nw.			6		5					d. clouds	W. Newcombe.
Valencia, Observatory	30.08	764.0	30.10	764.5	60.0	15.6	85	nnw.	17	7.6			6			blank	blank	d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.05	763.3	30.10	764.5	53	11.7	75	w.	3	1.3			10 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.04	763.0	30.10	764.5	46	7.8	89	s.	2	0.9			10 ks		sw.	0	0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.04	763.0	30.07	763.8	49	9.4	93	s.	2	0.9			10 s		sw.	0.07	1.8	threatening	J. McWilliams.
Fort Garry, Manitoba*	29.02	737.1	29.85	758.2	43	6.1	89	se.	5	2.2		2 c	2 s	sw.	se.	0	0	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.02	762.5	30.15	765.8	54	12.2	86	s.	1	0.4		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.66	753.4	29.98	761.5	67	19.4	90	sw.	6	2.7		hz.	0			0	0	dense haze	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.77	756.1	29.97	761.2	58	14.4	87	ne.	7	3.1			sk.			0	0	smoky	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.36	745.7	30.04	763.0	61	16.1	84	nw.	17	7.6		5 k	5 ks	w.	w.	0.04	1.0	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.38	746.2	30.05	763.3	69	20.6	95	nw.	6	2.7			sk.			0	0	smoky	H. Morgan.
Port Stanley, Ontario	29.43	747.5	30.05	763.3	69	20.6	90	nw.	4	1.8			sk.			0	0	smoky	M. Payne.
Quebec, Quebec*	29.71	754.6	30.03	762.7	54	12.2	93	e.			5		10 n		sw.	0.06	1.5	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.54	750.3	30.00	762.0	57	13.9	93	calm	0	0		5 ck	sk.	w.		Inap.	inap.	smoky	W. H. McIntyre.
Saugeen, Ontario*	29.40	746.7	30.10	764.5	61	16.1	75	nw.	14	6.3			10 ks			0.10	2.5	cloudy	K. Stewart.
St. Andrews, N. B.	30.08	764.0	30.13	765.3	50	10.0	85	e.	1	0.4		2 k	2 ks	nw.		0	0	fair	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.03	762.7	30.08	764.0	53	11.7	86	sw.	8	3.6		8 ck	0	w.		0	0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.68	753.9	30.05	763.3	64	17.8	84	nw.	3	1.3			10 s			0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.07	763.8	30.14	765.5	52	11.1	96	se.	1	0.4		8 c	2 k	w.	se.	0	0	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.71	754.6	29.96	761.0	56	13.3	81	w.	3	1.3		0	0			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.20	767.1	30.23	767.8	66.8	19.3	98	e.	17.3	7.7		0	0			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.35	745.5			83	28.3	37	s.			1	2	2			0	0	light clouds	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.94	760.5	29.97	761.2	77.4	25.2	96	ese.	6.7	3.0		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.76	755.9	29.81	757.1	62.8	17.1	80	ese.	16	7			7						Oversergent Fischer
Fanöe	29.75	755.6	29.77	756.1	62.4	16.9	80	ene.			4		10					raining	Overloerer Lauridsen
Godthaab, Greenland	28.91	734.4	28.96	735.5	44.6	7.0	75	ne.			2		9					foggy	S. Kleinschmidt.
Stykkisholm, Iceland	30.05	763.2	30.09	794.3	52.2	11.2	73	s.			2		8						A. O. Thorlacius.
Thorshavn	30.20	767.1	30.24	768.0	49.1	9.5	71	ne.	9	4			7						Overloerer Bergh.
Vestervig	29.76	755.8	29.85	758.1	56.7	13.7	94	ne.			2		10						Loenrer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.46	748.3	30.11	764.7	63.0	17.2	65	wsw.			1		8		se.	0.161	4.1	light rain	M. Labroue, Director.
Alençon Normal School	29.43	747.5	29.98	761.5	61.5	16.4	71	w.			3		k	s.	w.	0.063	1.6		M. Nicot, Director.
Arras, Engineer School	29.58	751.4	29.84	757.8	62.1	16.7	64	nnw.					1		nnw.			almost clear	M. Klein, Commandant.
Avignon, Normal School	29.94	760.4	30.02	762.4	70.7	21.5	54	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.38	746.3	29.93	760.2	59.7	15.4	75	w.			3		10		wnw.	0.394	10.0	covered	M. Saillard, Director.
Beauvais, Normal School	29.65	753.0	29.91	759.7	58.8	14.9	87	wsw.			1		10		wnw.	0.925	23.5	covered	M. Frère Eugène Marie.
Besançon, Normal School	29.15	740.4	30.03	762.8	61.5	16.4	89	sw.			1		2		ne.	0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.81	757.1	30.06	763.6	67.5	19.7	48	wnw.			1		8		n.	0.031	0.8	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.42	747.3	29.97	761.1	63.5	17.5	66	w.			2		5		w.	0.138	3.5	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.75	755.6	29.99	761.8	66.6	19.2	72	wnw.			2		0		nw.	0	0		M. de Rermaree, Dir.
Caen, Normal School	29.86	758.4	29.93	760.3	65.8	18.8	69	nw.			1		1		nw.	0	0	clear	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					55.8	13.2	98	sw.			4		10		w.	1.906	48.4	covered	M. Jadot, Director.
Charleville, Normal School	29.26	743.1	29.76	755.9	58.5	14.7	84	wnw.			3					1.559	39.6		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.67	728.1	29.99	761.8	64.4	18.0	48	w.			2		5			0.004	0.1	½ covered	M. Alluard, Director.
Cluny, Normal School	29.19	741.4	30.02	762.5	60.4	15.8	64	sw.			3		3	s.		0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.02	737.0	29.88	759.0	51.1	10.6	97	w.			4		5	w.	w.	1.193	30.3	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.41	696.2	29.87	758.6	66.2	19	34	se.			2	1 c	0	w.		0	0	clear	M. Jeanginard, Director.
Gréasque, du. Rhone	28.91	734.4	30.06	763.4	69.1	20.6	30	nw.			3		5		w.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.25	743.0	30.00	762.1	65.1	18.4	51	nw.			3	0	k			0	0		M. Ablard, Director.
Guéret, Normal School	28.46	722.8	30.02	762.6	58.1	14.5	78	sw.			1		10 kn		ne.	0.028	0.7	raining	M. Rivoire, Director.
Lamballe, Normal School	29.72	754.8	29.98	761.6	64.4	18	80	nw.			2		10		nw.	0.098	2.5	hailing	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.93	760.2	30.03	762.8	62.6	17.0	81	w.			1		10		calm	0.197	5.0	raining	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.97	735.9	30.01	762.3	63.0	17.2	43	wnw.			2		8		w.	0	0	very cloudy	M. André, Director.
Mans, Normal School	29.69	754.0	29.99	761.8	59.4	15.2	70	wnw.			1		5		w.	0.236	6.0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.69	754.1	29.95	760.8	71.2	21.8	44	nw.			3		3		w.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.87	631.8	30.11	764.8	48.6	9.2	71	nw.	7.4	3.3			8			0.079	2.0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.89	759.1	29.99	761.8	72.0	22.2	64	nw.			4		2		se.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.07	738.3	29.82	757.3	54.7	12.6	86	sw.			2	0	10 n			0.520	13.2	covered	M. Hasse.
Nantes, Observatory	29.88	758.9	30.04	763.0	64.0	17.8	69	wsw.			0-1	0	8 k;kn	w.	wsw.	0.047	1.2		M. Larocque, Director.
Nice	29.73	755.2	29.76	756.0	74.8	23.8	51	w.			6	1	1	w.	w.	0.071	1.8	clear	Capt. Boissière, Director.
Perpignan, Observatory	29.92	760.0	30.02	762.6	70.0	21.1	43	n.	13.0	5.8			8		nw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.58	573.5			45.5	7.5							10		nw.	0.409	10.4	rain & snow	Gen'l de Nansouty Dir.
Privas, Normal School	29.04	737.5	30.07	763.8	71.6	22	74	calm			0		0			0	0	clear	M. Talluen.
Puy de Dôme Obs'y, Summit	25.14	638.6			40.1	4.5	94	w.			4		10			0.177	4.5	covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.00	762.1	30.04	762.9	65.8	18.8	92	w.			3		10		ssw.	0.217	5.5	raining	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.81	757.2	30.02	762.6	62.6	17	80	sse.			1		8		nw.	0.197	5.0	very cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.83	757.6	29.91	759.8	59.0	15	89	nw.			1		10			0.98	25.	covered	M. Platrier, Director.
Saint Lô, Normal School	29.78	756.5	29.94	760.5	63.9	17.7	68	nw.			4		5		w.	0.319	8.1	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.76	755.8	29.92	760.0	59.0	15.0	86	wnw.			1		10		wnw.	0.571	14.5		M. Renou, Director.
Toulouse, Observatory	29.43	747.4	30.15	765.8	69.1	20.6	58	nw.			2		2	w.		0	0	slightly cl'dy.	M. Baillard, Director.
Tours	29.80	756.8	29.99	761.8	64.4	18.0	51	w.			1		10		wnw.	0.488	12.4	rainy	M. de Tastes.
Versailles, Observatory	29.45	747.9	29.94	760.4	54.0	12.2	93	nw.			1					0.732	18.6		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.64	752.9	29.93	760.3	58.8	14.9	94	wnw.			1		10		wnw.	0.626	15.9	raining	M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.01	736.9	29.87	758.7	60.8	16.0	56	w.			4	0	8 ks		w.	0.043	1.1		Prof. Dr. Hoh.
Berlin	29.60	751.7	29.76	756.0	63.9	17.7	78	s.			1		9			0.130	3.3	raining	Prof. Dr. Arndt.
Breslau	29.23	742.4	29.75	755.7	69.1	20.6	80	se.			2		8			0.185	4.7		Royal University Obs'y.
Carlsruhe	29.43	747.6	29.85	758.3	59.4	15.2	70	sw.			2		10	sw.		0.409	10.4	raining	Albert Senz.
Cassel	28.98	736.0	29.69	754.2	57.6	14.2	76	s.			7		6	s.		0.071	1.8		Dr. H. Möhl.
Frankfort on the Main	29.38	746.2	29.74	755.3	59.5	15.3	70	ssw.			3		9			0.142	3.6		Physical Society.
Friedrichshafen	28.50	724.0	29.92	759.9	60.8	16.0	62	sw.			6		6	wsw.		0	0		Wilhelm, Chief Tel.
Hamburg	29.61	752.2	29.71	754.6	65.3	18.5	79	se.			2		7			0.110	2.8		E. Preller.
Kiel	29.70	754.4	29.72	754.8	64.0	17.8	81	ene.			2		10			0.024	0.6		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.37	746.0	29.78	756.4	65.5	18.6	63	sw.			3		8	ssw.		0.008	0.2		H. Leppig, Asst.
Magdeburg	29.53	750.0	29.71	754.6	66.9	19.4	65	s.			4		10 ks;k		ssw.	0.020	0.5		Dr. Assmann.
Memel	29.87	758.6	29.91	759.8	65.3	18.5	89	nw.			3		10 n						Issermann.
Munich	28.12	714.2	29.98	761.4	54.9	12.7	75	w.			1		9	sw.		0.091	2.3		Central Station.
Neufahrwasser	29.85	758.1	29.86	758.5	65.5	18.6	83	nne.			1		6			0.272	6.9		A. Lothes.
Neustadt, Palatinate	29.29	744.0	29.81	757.2	57.7	14.3	60	w.			4		10			0	0		Dicknether.
Stuttgart	28.91	734.3	29.78	756.5	61.5	16.4	60	nw.			5		4	w.		0.327	8.3		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.40	721.3	29.86	758.4	60.1	15.6	61	s.			4		9	w.		0.079	2.0		Fischer.
Wustrow	29.80	756.9	29.82	757.5	65.1	18.4	80	ese.			2		10 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.51	749.6	29.88	759.0	86.7	30.4		sw.			1.5		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.60	751.9	29.65	753.1	83.2	28.4	78	sw.	16.0	7.2			0			0	0	blue sky	
Deesa	29.18	741.0	29.64	752.9	87.4	30.8	53	ssw.	5.6	2.5			4		sse.	0.03	0.8	d. clouds	
Bombay	29.70	754.3	29.74	755.3	81.4	27.4	83	nw.	4.0	1.8			5		nw.	0.08	2.0	d. clouds	
Poona, Yarrowda.	27.88	708.2	29.73	755.2	79.1	26.2	59	w.	19.0	8.5			8		w.	0	0	d. clouds	
Belgaum	27.22	691.4	29.78	756.3	70.3	21.3	89	w.	7.0	3.1			10			0	0	d. clouds	
Lahore	28.85	732.8	29.57	751.0	94.6	34.8	44	calm	2.0	0.9			0			0	0	blue sky	
Roorkee	28.68	728.6	29.56	750.7	90.0	32.2	58	nw.	3.2	1.4			0			0	0		
Agra	29.04	737.5	29.58	751.4	92.6	33.7	57	nw.	3.0	1.3			2			0	0		
Nagpur	28.58	726.0	29.62	752.4	80.2	25.8	82	nw.	3.9	1.7			5		w.	0	0	d. clouds	
Jubbulpore	28.30	718.9	29.66	753.3	75.8	24.3	91	calm	3.3	1.5			10			0.34	8.6	raining	
Lucknow	29.20	741.8	29.57	751.1	90.1	32.3	55	wnw.	3.9	1.7			0			0	0	blue sky	
Allahabad	29.25	742.9	29.55	750.6	89.0	31.7	76	n.	2.8	1.2			8	sw.		0	0	d. clouds	
Patna	29.39	746.4	29.57	751.0	84.6	29.2	83	w.	1.8	0.8			10	w.	w.	0.09	2.3	overcast	
Hazaribagh	27.59	700.8	29.57	751.0	81.6	27.6	78	n.	6.5	2.9			10		n.	0	0		
Cuttack	29.48	748.8	29.56	750.8	86.3	30.2	76	se.	0.4	0.2			6			0	0	d. clouds	
Calcutta, Alipore	29.53	750.1	29.56	750.7	84.8	29.3	83	ese.	2.0	0.9			8		e.	0	0	d. clouds	
Dhubri	29.44	747.7	29.56	750.8	81.3	27.4	88	calm	0.5	0.2			9			0	0	d. clouds	
Chittagong	29.50	749.2	29.59	751.5	82.2	27.9	87	w.	2.2	1.0			2			0	0	blue sky	
Sibsagar	29.23	742.4	29.55	750.6	90.5	32.5	77	sse.	1.3	0.6			4			0	0	blue sky	
Jeypore	28.20	716.4	29.61	752.0	92.2	33.4	44	wnw.	4.8	2.2			4		nw.	0	0	d. clouds	
Zanzibar, Africa			30.07	763.8	75.7	24.3	79	ssw.	5	2.2			10			0.07	1.8	overcast	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.39	746.5	29.79	756.7	69.4	20.8	74	s.	4.9	2.2			10			0.067	1.7		Prof. Giovanni Clodig.
Milan	29.30	744.2	29.80	757.0	72.5	22.5	77	e.	3.1	1.4			9	sw.		0	0		Prof. Schiaparelli.
Padua	29.68	753.9	29.78	756.5	73.4	23.0	61	ssw.	8.1	3.6			2			0	0		Prof. Dott. Lorenzoni.
Moncalieri	28.91	734.3	29.80	756.8	70.3	21.3	61	s.	1.8	0.8			0			0	0		Prof. P. F. Denza.
Genoa	29.64	752.9	29.84	757.8	71.6	22.0	63	se.	9.8	4.4			0			0.024	0.6		Prof. G. M. Garibaldi.
Mondovi	27.93	709.5	29.80	756.9	68.7	20.4	48	ne.			2		0			0	0		Prof. D. C. Bruno.
Pesaro	29.78	756.4	29.83	757.6	76.6	24.8	52	sw.	8.7	3.9			6	sw.		0	0		Prof. Luigi Guidi.
Florence	29.61	752.1	29.86	758.4	75.2	24.0	37	sw.			4		5			0	0		Prof. Costantino Pitter.
Leghorn	29.80	757.0	29.89	759.1	72.7	22.6	58	wsw.	1.3	0.6			4			0	0		Prof. P. Monte.
Rome	29.75	755.7	29.92	760.0	78.8	26.0	57	w.	11.2	5.0			8			0	0		Prof. P. S. Ferrari.
Lecce	29.65	753.1	29.90	759.4	85.8	29.9	51	sw.	9.4	4.2			3			0	0		Prof. C. de Giorgi.
Cosenza	29.05	737.9	29.90	759.5	83.5	28.6	60	ese.	2.5	1.1			3	se.		0	0		Prof. D. Conti.
Cagliari	29.74	755.5	29.93	760.2	80.2	26.8	65	s.			2		5	wnw.		0	0		Prof. A. Pacinotti.
Palermo	29.71	754.7	29.95	760.7	81.7	27.6	56	e.	3.1	1.4			2			0	0		Prof. G. Cincciatore.
Syracuse	29.87	758.8	29.92	759.9	79.0	26.1	68	e.	4.9	2.2			2	sw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.41	747.0	29.92	759.9	76.6	24.8	69	sw.	2.5	1.1			10	w.		0	0		Prof. F. Brioschi.
Stelvio	22.09	561.1			32.5	0.3	98	nw.			6		10 n	s.		0.122	3.1	misty	Prof. P. F. Denza.
Valdobbia	22.12	561.8			42.3	5.7	81	ne.			6	0	5 kn	nw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y. †	29.90	759.4	29.91	759.7	75.4	24.1	75	nne.	4.5	2.0		ck	7 s			0	0	cloudy	K. Sasaki.
Kioto	29.79	756.6	29.95	760.7	76.3	24.6	98	nw.	0.2	0.1		ck	10 s			0.390	9.9	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.75	755.6	29.95	760.7	75.5	24.2	76	ne.	4.7	2.1		0	0			0	0	clear	S. Takehayashi.
Niigata	29.97	761.2	30.00	762.0	73.1	22.8	60	ese.	9.2	4.1		10 ck	0			0	0	cloudy	
Nobiru	30.09	764.3	30.11	764.8	65.1	18.4	96	n.	3.8	1.7		0	1 s			0	0	clear	
Sunporo	30.04	763.0	30.10	764.5	58.0	14.4	90	w.	1.2	0.5			6			0	0		
Tokei Obs'y, Yeddo	29.99	761.7	30.05	753.3	69.6	20.9	90	ene.	3.3	1.5			10 ksju		ne.	0.130	3.3	raining	The Staff.
Wakayama	29.88	758.9	29.93	760.2	79.2	26.2	71	nne.	5.2	2.3		10 ck	0			0	0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.97	761.2	30.16	766.1	73.1	22.8	55	se.	18.5	8.3		1	2		s.	0.05	1.3	squally	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.8	29.91	759.8	61.7	16.5	82	ne.	0	0			10		e.	0.055	1.4	covered	Vicente Fernandez.
Leon	24.41	620.0	30.00	762.0	66.0	18.9	89	s.			2		10 kn			0.071	1.8	covered	Prof. M. Leal.
Mazatlan	29.63	752.7	29.89	759.2	77.0	25.0	91	e.	1.6	0.8		7 cs	1 k			0.079	2.0	cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.10	586.7	30.08	764.2	57.7	14.3	87	calm	0	0		0	9 k		w.	0.146	3.7	cloudy	The Staff.
Morelia	24.05	610.9	30.11	764.8	56.3	13.5	72	sse.			3	4	0	s.		0.111	2.8	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.94	608.1	29.85	758.2	64.9	18.3	85	nne.			1	0	9 ks		ese.	0.039	1.0	very cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.8	30.14	765.6	55.6	13.1	69	calm	0	0			10		s.	0.252	6.4	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.58	573.6	30.15	765.9	56.5	13.6	92	calm	0	0		0	0			0	0	fine	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.80	756.8	29.80	756.8	60.8	16.0		nnw.			4					0.276	7.0		
Groningen	29.61	752.0	29.66	753.4	62.4	16.9		ne.			1					0.614	15.6		
Helder	29.71	754.5	29.71	754.5	59.9	15.5		n.			5					0.551	14.0		
Hellevoetsluis	29.72	755.0	29.72	755.0	62.6	17.0	83	nnw.			3					0.087	2.2		
Utrecht	29.64	752.9	29.69	754.1	62.8	17.1	86	nnw.			6		8			0.594	15.1	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.84	757.9	29.90	759.5	59.0	15.0	83	calm	0	0			6			0.055	1.4		
Christiania	29.72	754.8	29.86	758.4	60.8	16.0	79	wsw.	4	2			10			0	0		
Gjæsvær	29.82	757.4	29.84	758.0	48.2	9.0		w.			4		10					foggy	
Lodingen	29.85	758.2	29.90	759.4	55.8	13.2	83	nne.			4		8			0.012	0.3	foggy	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.04	763.1	30.19	766.9	69.4	20.8	68	se.	2.5	1.1			3			0	0		Dr. J. A. Sampaio.
Campo Major	29.08	738.6	30.05	763.2	75.6	24.2	41	w.	1.3	0.6			5			0.118	3.0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.10	764.5	30.19	766.7	74.1	23.4	71	se.	3.1	1.4			0			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.81	757.1	30.16	766.1	68.9	20.5	48	n.	16.1	7.2			3			0	0		The Staff.
Ponta Delgada, Azores	30.17	766.2	30.24	768.0	73.4	23.0	53	ese.	3.1	1.4			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.97	735.7	30.04	763.1	51.3	10.7	46	sw.	13	6		5 ck	0						Capt. Lasarew.
Archangel	30.22	767.7	30.24	768.2	48.0	8.9	67	ese.	13	6			9 k						Capt. Sseliwerstow.
Astrakhan	29.93	760.2	29.85	758.1	57.9	14.4	81	w.	13	6			10 n			blank	blank		Capt. Wisganow.
Barnaul ‡	29.70	754.3	30.20	767.1	47.5	8.6	54	w.	4	2			8						Meteorological Obs'y.
Dorpat	29.72	755.0	29.96	761.0	68.0	20.0	76	sw.	2	1			10 kn					heavy rain.	Observatory.
Ekaterinburg	29.04	737.6	30.02	762.5	40.1	4.5	47	nw.	22	10		0	5 ks;n						Meteorological Obs'y.
Kasan	29.85	758.2	30.12	765.0	59.2	15.1	57	nne.	7	3			10						Observatory.
Kertch	29.99	761.8	30.01	762.3	65.7	18.7	70	ene.	15	7		0	0			0	0		Lagorio & Sastyres.
Kieff	29.39	746.6	30.01	762.2	72.0	22.2	43	se.	9	4		0	2 ks						Observatory.
Lugan	29.87	758.6	30.07	763.7	67.8	19.9	18	ene.	22	10			8						Meteorological Obs'y.
Moscow	29.58	751.4	30.04	762.9	73.9	23.3	45	calm	0	0		0	0						Meteorological Obs'y.
Nikolaiev	30.01	762.3	30.08	764.1	74.7	23.7	50	e.	18	8		0	1 k						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	30.00	762.1	30.09	764.3	56.8	13.8	90	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.81	757.2	29.95	760.8	72.9	22.7	83	calm	0	0		0	7 n			0	0		Physical Observatory.
St. Petersburg	30.00	762.1	30.02	762.5	71.1	21.7	65	se.	13	6		0	2 k						Central Physical Obs'y.
Tashkend, Laboratory	28.37	720.7	29.89	759.1	73.8	23.2	56	calm	0	0			0						Teich, A. M.
Tiflis	28.46	722.9	29.80	756.9	81.1	27.3	53	s.	4	2		0	7 k						Physical Observatory.
Warsaw	29.39	746.5	29.80	756.8	70.7	21.5	76	sse.	9	4		ck	10 s						Astronomical Obs'y.
Wilna	29.53	750.0	29.94	760.4	69.4	20.8	78	sse.	2	1			10						Berg, Assistant.
Yeniseisk	29.87	758.8	30.17	766.3	39.6	4.2	78	w.	2	1			7						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.98	761.5	57.9	14.4	91	ne.			1		10 ks			0.27	6.9	raining	Andrew Gibb.
Monach Lt. House, Hebrides			30.15	765.8	55	12.8	93	nne.			4		10			0.1	3.	hazy	J. Youngclause.
North Unst, Shetland Isl'ds			30.07	763.8				n.			6								Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.90	759.4	30.00	762.1	73.4	23.0	40	se.	4.3	1.9						0	0		Antonio Rave, Director.
Bilbao, Met. Obs'y	29.98	761.6	30.04	763.0	65.5	18.6	79	se.	1.0	0.7			10			0.476	12.1	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.17	690.2			59.0	15.0	54	ne.	4.9	2.2			2			0.157	4.0	light clouds	Domingo Martin.
Madrid, Royal Obs'y	27.86	707.7	30.03	762.8	70.2	21.2	46	nw.	5.2	2.3		0	4			0	0	clouds	The Staff.
Murcia, Met. Obs'y ‡	29.85	758.3	30.00	762.0	83.8	28.8	50	ese.	4.5	2.0		2	3	ese.		0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.26	743.1	30.15	765.7	60.3	15.7	67	nw.	9.8	4.4			10			0.398	10.1	covered	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.96	761.0	30.03	762.6	77.9	25.4	87	calm	0	0		6 c;ck	1 s	sw.		0.268	6.8	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.76	755.9	29.81	757.2	79.4	26.3	94	e.	6.6	3.0			10 n		s.	0.11	2.8	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.02	762.4	30.11	764.9	75.0	23.9	71	w.	11.9	5.3		0	3		w.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W.I	29.96	760.9	30.05	763.2	81.0	27.2	91	e.	0	0		5 k	3 k		se.	0.283	7.2	d. cloud	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.69	754.1	29.82	757.5	82.1	27.8	84	sw.	0.2	0.1		0	8 k		s.	0.04	1.0	cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.93	760.2	29.97	761.2	59.0	15.0	89	s.			2		10			0.433	11.0		
Umea	29.83	757.7	29.88	759.0	59.7	15.4	96	ne.			2		10			0.307	7.8		
Hernosand	29.81	757.1	29.86	758.4	57.4	14.1	95	e.			2		10			0.024	0.6		
Stockholm	29.68	753.8	29.85	758.3	63.3	17.4	82	calm			0		10			0.067	1.7		
Wisby	29.80	756.9	29.85	758.4	57.9	14.4	90	wnw.			2		7			0.161	4.1	foggy	
Sub-Series.																			
Upsala	29.74	755.5	29.83	757.7	62.6	17.0	84	ese.	0	0			10		w.	0.004	0.1		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.65	727.8	30.05	763.3	63.7	17.6	47	ssw.			3		6			0.059	1.5	cloudy	The Observatory.
Zurich ‡	28.34	719.8	29.95	760.8	60.8	16.0	54	w.			7		3			0	0	clear	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.91	759.8	77.9	25.5	55	ne.	18	8.0			3		ne.	0	0		The Observatory.
Valona			30.03	762.8	75.4	24.1		w.			1		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.80	756.9	88.0	31.1	58	w.			1	0	1 k		w.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Albany, New York	30.02	762.5	30.10	764.5	70	21.1	66	s.	8	3.6			10 s; sk			0	0	cloudy	
Alpena, Michigan	29.49	749.0	30.16	766.1	56	13.3	80	w.	4	1.8		10 k	0	nw.		0.73	18.5	cloudy	
Atlanta, Georgia	28.91	734.3	30.09	764.3	71.0	21.7	82	nw.	5	2.2		hz.	hz.			0	0	light haze	
Atlantic City, New Jersey	30.11	764.8	30.12	765.0	73.1	22.8	97	se.	5	2.2			10 s		calm	0	0	cloudy	
Augusta, Georgia	29.88	758.9	30.07	763.8	73.0	22.8	90	se.	1	0.4			10 s			0	0	cloudy	
Baltimore, Maryland	30.08	764.0	30.13	765.3	76	24.4	82	e.	4	1.8			10s;fg		calm	0	0	cloudy	
Barnegat, New Jersey	30.10	764.5	30.12	765.0	71.3	21.8	80	se.	9	4.0			10 s		calm	0	0	cloudy	
Bismarck, Dakota	27.93	709.4	29.76	755.9	50	10.0	86	nw.	3	1.3		0	0			0	0	clear	
Boise City, Idaho	27.42	696.5	30.26	768.6	41.0	5.0	59	nw.	2	0.9		0	0			0	0	clear	
Boston, Massachusetts	29.98	761.5	30.14	765.5	64.6	18.1	59	sw.	8	3.6		hz.	hz.			0	0	dense haze	
Brackettville, Texas	28.76	730.5	29.77	756.1	75	23.9	85	e.	2	0.9			9 s		e.	0.16	4.1	cloudy	
Brownsville, Texas	29.95	760.7	29.99	761.7	77	25.0	90	calm	0	0		6 cs	4 s			0.24	6.1	cloudy	
Buffalo, New York	29.34	745.2	30.06	763.5	75	23.9	71	w.	2	0.9		0	sk.			0	0	dense smoke.	
Burlington, Vermont	29.71	754.6	30.00	762.0	68.0	20.0	70	s.	21	9.4		10 ck	sk.	w.		0	0	dense smoke.	
Cairo, Illinois	29.74	755.4	30.14	765.5	70.7	21.5	86	s.	3	1.3		7 ck	fg.	nw.		0	0	fair	
Campo, California	27.41	696.2	29.98	761.5	42.4	5.8	67	w.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.24	691.9			65	18.3	90	calm			0	1 ck	1 k			0	0	clear	
Cape Henry, Virginia	30.06	763.5	30.08	764.0	77	25.0	97	se.	6	2.7			sk.			0	0	dense smoke.	
Cape May, New Jersey	30.09	764.3	30.12	765.0	74	23.3	90	se.	7	3.1			fg.			0	0	dense fog	
Castroville, Texas	29.25	742.9	29.92	760.0	78	25.6	88	se.	5	2.2			10 s		se.	1.18	30.0	threatening.	
Cedar Keys, Florida	30.04	763.0	30.06	763.5	78	25.6	90	e.	1	0.4		3 c	0			0	0	fair	
Champaign, Illinois	29.31	744.5	30.08	764.0	67.2	19.6	90	n.	8	3.6			10 s		n.	0	0	cloudy	
Charleston, S. Carolina	29.94	760.5	30.00	762.0	76	24.4	82	nw.	12	5.4		0	9 s		calm	inap.	inap.	cloudy	
Charlotte, N. Carolina	29.20	741.7	30.08	764.0	75.2	24.0	71	ne.	1	0.4			10s;fg			0	0	cloudy	
Chattanooga, Tennessee	29.29	744.0	30.12	765.0	68.4	20.2	80	calm	0	0		0	sk.		calm	0	0	clear	
Cheyenne, Wyoming	24.06	611.1	30.03	762.7	45.5	7.5	54	w.	4	1.8		0	0			0	0	clear	
Chicago, Illinois	29.44	747.8	30.15	765.8	67.0	19.4	76	ne.	6	2.7		1 c	3 k	ne.	ne.	inap.	inap.	fair	
Chincoteague, Virginia	30.10	764.5	30.12	765.0	74	23.3	100	sw.	4	1.8			10 s		calm	0	0	cloudy	
Cincinnati, Ohio	29.46	748.3	30.12	765.0	75 5	24.2	76	calm	0	0		2 c	3 ks		sw.	0	0	fair	
Cleveland, Ohio	29.37	746.0	30.11	764.8	76.5	24.7	82	ne.	6	2.7		10 k	sk.	w.		0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.25	742.9	30.11	764.8	75	23.9	71	s.	2	0.9			10 ks		sw.	0.03	0.8	cloudy	
Concho, Texas	28.16	715.3	30.10	764.5	67	19.4	90	calm	0	0			10 s			0	0	cloudy	
Corsicana, Texas	29.61	752.1	30.08	764.0	78	25.6	77	calm	0	0		1 c	0			inap.	inap.	clear	
Davenport, Iowa	29.49	749.0	30.15	765.8	60	15.6	81	ne.	4	1.8		0	hz.		calm	inap.	inap.	clear	
Dayton, Washington T'y	28.49	723.6	30.30	769.6	43.4	6.3	67	s.	2	0.9		0	0			0.09	2.3	clear	
Deadwood, Dakota	25.37	644.4	30.07	763.8	51	10.6	52	calm	0	0		0	0			0	0	clear	
Decatur, Texas	28.88	733.5	30.01	762.2	74	23.3	90	ne.	4	1.8		2 ck	2 s			0	0	fair	
Delaware Breakwater, Del.	30.09	764.3	30.11	764.8	72	22.2	100	se.	6	2.7			fg.			0	0	dense fog	
Denison, Texas	29.26	743.2	30.07	763.8	71	21.7	94	calm	0	0		0	0			0	0	clear	
Denver, Colorado	24.76	628.9	29.98	761.5	49.8	9.9	68	s.	4	1.8		0	0			0	0	clear	
Des Moines, Iowa	29.20	741.7	30.11	764.8	53.5	11.9	93	sw.	1	0.4		0	fg.			0	0	clear	
Detroit, Michigan	29.41	747.0	30.13	765.3	67.0	19.4	78	nw.	5	2.2			10 s		calm	0	0	cloudy	
Dodge City, Kansas	27.41	696.2	30.00	762.0	63.1	17.3	93	s.	15	6.7		8 ck	1 s	sw.		0	0	cloudy	
Dubuque, Iowa	29.44	747.8	30.16	766.1	54.3	12.4	93	s.	1	0.4			fg.		calm	0	0	dense fog	
Duluth, Minnesota	29.40	746.7	30.11	764.8	53	11.7	80	nw.	3	1.3		6 k	0	nw.		0.06	1.5	fair	
Eagle Pass, Texas	29.27	743.4	30.10	764.5	76.1	24.5	97	se.	4	1.8			10 s		calm	0.15	3.8	cloudy	
Eagle Rock, Idaho	25.30	642.6	30.15	765.8	38	3.3	82	w.	6	2.7			10 s		w.	0	0	cloudy	
Eastport, Maine	30.06	763.5	30.14	765.5	51.5	10.8	83	nw.	1	0.4		3 k;hz	2 s	nw.	nw.	0	0	fair	
El Paso, Texas	26.29	667.8	30.04	763.0	65.3	18.5	90	e.	4	1.8			10 s		s.	0	0	cloudy	
Erie, Pennsylvania	29.34	745.2	30.07	763.8	76	24.4	76	w.	1	0.4			hz.			0	0	dense haze	
Escanaba, Michigan	29.50	749.3	30.16	766.1	52	11.1	86	nw.	3	1.3			10 s		nw.	0.23	5.8	cloudy	
Florence, Arizona	28.38	720.8	29.98	761.5	78	25.6	62	e.	10	4.5		2 k	3 ks	e.	e.	0	0	fair	
Fort Apache, Arizona	25.09	637 3	30.00	762.0	53	11.7	83	e.	1	0.4		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.26	692.4	30.06	763.5	43	6.1	93	w.	13	5.8			10 s		w.	0.07	1.8	cloudy	
Fort Bennett, Dakota	28.16	715.3	29.70	754.4	59	15.0	83	se.	4	1.8		0	0			0	0	clear	
Fort Benton, Montana	27.26	692.4	30.12	765.0	45	7.2	71	nw.	10	4.5		0	0			0	0	clear	
Fort Buford, Dakota	27.92	709.2	29.93	760.2	50	10.0	74	w.	13	5.8		5 cs	0	nw.		0	0	fair	
Fort Custer, Montana	26.88	682.7	30.12	765.0	45	7.2	92	n.	6	2.7			10 n		calm	0.31	7.9	heavy rain	
Fort Davis, Texas	25.30	642.6	30.26	768.6	58	14.4	100	ne.	4	1.8			10 n			0.52	13.2	light rain	
Fort Elliott, Texas	27.38	695.4	30.57	776.5	61	16.1	84	se.			1		10 s		se.	inap.	inap.	cloudy	
Fort Gibson, Indian T'y	29.50	749.3	30.05	763.3	75.5	24.2	74	calm	0	0		10 cs	0	w.		0	0	cloudy	
Fort Grant, Arizona					60	15.6	90	calm	0	0		0	0			0	0	clear	
Fort Griffin, Texas	28.80	731.5	30.02	762.5	71.0	21.7	71	calm	0	0		10 cs	0			0	0	cloudy	
Fort Keogh, Montana	27.48	698.0	30.02	762.5	48	8.9	71	nw.	17	7.6		10 cs	0	nw.		0	0	cloudy	
Fort Macon, North Carolina	29.97	761.2	29.98	761.5	80	26.7	91	e.	24	10.7		4 ck	5 ks	calm	e.	0	0	cloudy	
Fort McKavett, Texas	27.84	707.1	29.70	754.4	70.1	21.2	90	calm	0	0		0	5 ks		s.	0.05	1.3	fair	
Fort Missoula, Montana	26.84	681.7	30.36	771.1	44	6.7	68	calm	0	0			10 ks			0	0	cloudy	
Fort St. Michaels	29.53	750.0	29.56	750.8	50	10.0	92	se.	3	1.3			10 s			0.32	8.1	cloudy	
Fort Shaw, Montana	26.53	673.8	30.13	765.3	41	5.0	82	nw.	8	3.6		10 cs	0	calm		0	0	cloudy	
Fort Sill, Indian Territory	28.84	732.5	30.09	764.3	67.8	19.9	91	n.	5	2.2		10 ck	0	w.		0	0	cloudy	
Fort Stevenson, Dakota	27.87	707.9	29.74	755.4	49	9.4	93	se.	2	0.9		0	0			0	0	clear	
Fort Verde, Arizona					60.1	16.1	71	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.35	720.1	29.86	758.4	73	22.8	97	ne.	1	0.4			10 s		e.	0.04	1.0	cloudy	
Galveston, Texas	30.02	762.5	30.06	763.5	81	27.2	74	se.	6	2.7		hz.	1 k		se.	0.06	1.5	clear	
Grand Haven, Michigan	29.48	748.8	30.15	765.8	59.0	15.0	87	n.	2	0.9		0	0			0	0	clear	
Hatteras, North Carolina	30.03	762.7	30.05	763.3	81	27.2	79	e.	22	9.8		4 cs	4 ks	se.	se.	0	0	cloudy	
Helena, Montana	25.91	658.1	30.30	769.6	55	12.8	86	nw.	9	4.0		0	8 s		calm	0	0	cloudy	
Henrietta, Texas																			
Huron, Dakota	28.47	723.1	29.86	758.4	55.2	12.9	93	se.	14	6.3		0	0			0	0	clear	
Indianapolis, Indiana	29.29	744.0	30.09	764.3	73	22.8	76	calm	0	0		hz.	hz.	calm	calm	0	0	fair	
Indianola, Texas	30.01	762.2	30.04	763.0	80.0	26.7	88	se.	6	2.7		hz.	3 ks		calm	0.35	8.9	fair	
Jacksboro, Texas	28.93	734.8	30.02	762.5	72	22.2	84	se.	1	0.4		2 ck	2 ks	s.	calm	0	0	fair	
Jacksonville, Florida	30.01	762.2	30.05	763.3	74	23.3	84	ne.	3	1.3		1 cs	0			0	0	clear	
Keokuk, Iowa	29.46	748.3	30.12	765.0	59.6	15.3	88	e.	9	4.0		0	0			0	0	clear	
Key West, Florida	30.01	762.2	30.04	763.0	78.0	25.6	82	ne.	12	5.4			10 n		ne.	0.25	6.3	light rain	
Kittyhawk, North Carolina	30.08	764.0	30.10	764.5	77	25.0	97	se.	14	6.3		4 c	hz.	s.		0	0	fair	
Knoxville, Tennessee	29.12	739.6	30.16	766.1	69	20.6	93	calm	0	0		sk.	fg.	calm	calm	0	0	dense fog	
La Crosse, Wisconsin	29.34	745.2	30.11	764.8	55	12.8	86	w.	2	0.9			fg.			0.02	0.5	dense fog	
La Mesilla, New Mexico	26.17	664.7	30.32	770.1	65.8	18.8	84	calm	0	0			10 s			0	0	cloudy	
Laredo, Texas																			
Leavenworth, Kansas	29.20	741.7	30.10	764.5	59	15.0	87	se.	1	0.4		3 k	fg.	s.		0	0	fair	
Lewiston, Idaho	29.35	745.5	30.20	767.1	53	11.7	48	w.	4	1.8		1 k	0	w.		0	0	clear	
Little Rock, Arkansas	29.76	755.9	30.08	764.0	71	21.7	90	n.	2	0.9		4 cs	hz.	n.		0	0	fair	
Los Angeles, California	29.56	750.8	29.94	760.5	59.0	15.0	93	e.	3	1.3		0	fg.		calm	0	0	clear	
Louisville, Kentucky	29.52	749.8	30.09	764.3	76.0	24.4	74	se.	1	0.4		4 cs	0			0	0	fair	
Lynchburg, Virginia	29.40	746.7	30.09	764.3	76.9	24.9	74	calm	0	0		hz.	hz.			0	0	dense haze	
Madison, Wisconsin	29.15	740.4	30.18	766.6	57	13.9	86	e.	5	2.2		0	0			0	0	clear	
Marquette, Michigan	29.44	747.8	30.17	766.3	53	11.7	86	nw.	4	1.8			10 s		nw.	0.19	4.8	cloudy	
Mason, Texas	28.43	722.1	30.12	765.0	74.8	23.8	85	calm	0	0		9 cs	0	se.		0.13	3.3	cloudy	
Memphis, Tennessee	29.78	756.4	30.12	765.0	70	21.1	84	calm	0	0		10 c	hz.	calm	calm	0	0	cloudy	

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.41	747.0	30.17	766.3	55	12.8	86	n.	3	1.3		0	fg			0.18	4.6	clear	
Mobile, Alabama	30.00	762.0	30.07	763.8	73.0	22.8	90	nw.	4	1.8		7 ck	hz			0	0	fair	
Montgomery, Alabama	28.86	758.4	30.10	764.5	71.6	22.0	95	e.	1	0.4		0	0			0	0	clear	
Moorhead, Minnesota	28.83	732.3	29.84	757.9	53	11.7	93	se.	18	8.0		0	0			0.02	0.5	clear	
Morgantown, W. Virginia	29.09	738.9	30.04	763.0	73.0	22.8	84	calm	0	0			10 s		s.	0	0	cloudy	
Mt. Washington, N. H.	23.94	608.1	30.14	765.5	53.8	12.1	95	nw.	66	29.6			sk; fg		nw.	0	0	dense fog	
Nashville, Tennessee	29.56	750.8	30.10	764.5	73.6	23.1	74	e.	1	0.4		1 ck	0			0	0	clear	
New Haven, Connecticut	30.04	763.0	30.15	765.8	63	17.2	90	calm	0	0		sk.	sk			0	0	light smoke	
New London, Connecticut	30.12	765.0	30.17	766.3	65	18.3	90	w.	1	0.4			fg			0	0	dense fog	
New Orleans, Louisiana	30.02	762.5	30.08	764.0	79.0	26.1	82	n.	1	0.4		1 cs	3 s; fg		n.	0	0	fair	
Newport, Rhode Island	30.11	764.8	30.16	766.1	66.0	18.9	73	s.	5	2.2			10 s		calm	0	0	cloudy	
New River, N. Carolina					78	25.6	90	ne.			4		10 n			inap.	inap.	raining	
New Shoreham, Rhode I'd.	30.11	764.8	30.14	765.5	65.8	18.8	78	se.	6	2.7		sk.	0	calm		0	0	clear	
New York, New York	29.97	761.2	30.15	765.8	69	20.6	90	e.	4	1.8			10 s			0	0	cloudy	
Norfolk, Virginia	30.06	763.5	30.10	764.5	76	24.4	97	se.	5	2.2			10 s			0	0	cloudy	
North Platte, Nebraska	27.00	685.8	29.94	760.5	60.1	15.6	88	s.	18	8.0			10 s		s.	0	0	cloudy	
Olympia, Washington T'y	30.22	767.6	30.26	768.6	42.0	5.6	92	w.	2	0.9		0	fg		calm	0	0	clear	
Omaha, Nebraska	28.89	733.8	30.08	764.0	56.5	13.6	85	s.	3	1.3		1 cs	3 s		sw.	0	0	fair	
Oswego, New York	29.69	754.1	30.02	762.5	72.0	22.2	82	s.	1	0.4		10 cs	sk	w.		0	0	cloudy	
Pensacola, Florida	30.05	763.3	30.08	764.0	73	22.8	90	s.	4	1.8		0	hz			0	0	clear	
Philadelphia, Pa.	30.08	764.0	30.14	765.5	73	22.8	90	se.	1	0.4		hz	hz			0	0	dense haze	
Phœnix, Arizona	28.78	731.0	30.52	775.2	70	21.1	76	e.	1	0.4		3 c	0	s.		0	0	fair	
Pike's Peak, Colorado	17.90	454.7	30.11	764.8	26	— 3.3	73	sw.	24	10.7		0	0			0	0	clear	
Pioche, Nevada	24.15	613.4	30.17	766.3	55	12.8	40	s.	3	1.3		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.28	743.7	30.10	764.5	73	22.8	90	w.	1	0.4		4 ck	0	w.		0.09	2.3	fair	
Port Eads, Louisiana	30.07	763.8	30.08	764.0	78.0	25.6	82	ne.	6	2.7		3 cs	2 ks; hz	n.	ne.; c	0	0	fair	
Port Huron, Michigan	29.43	747.5	30.12	765.0	63.2	17.3	78	n.	10	4.5		hz	hz	calm	calm	0	0	dense haze	
Portland, Maine	30.05	763.3	30.10	764.5	60	15.6	75	sw.	6	2.7			10 s		w.	0	0	cloudy	
Portland, Oregon	30.18	766.0	30.26	768.6	45.2	7.3	92	calm	0	0			fg			0	0	dense fog	
Portsmouth, N. Carolina					80	26.7	79	ne.	24	10.7		6 c	0	n.		0	0	fair	
Prescott, Arizona	24.83	630.7	30.02	762.5	52	11.1	80	sw.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	30.02	762.5	30.03	762.7	76.5	24.7	88	e.	6	2.7		9 cs	1 k	calm	calm	0.02	0.5	cloudy	
Red Bluff, California	29.55	750.6	29.89	759.2	71.0	21.7	33	n.	3	1.3		0	0			0	0	clear	
Rio Grande City, Texas	29.83	757.7	30.04	763.0	77	25.0	91	se.	1	0.4		5 c	0	calm		0.02	0.5	fair	
Rochester, New York	29.44	747.8	30.08	764.0	73	22.8	71	sw.	4	1.8			10 s; sk		s.	0	0	cloudy	
Roseburg, Oregon	29.61	752.1	30.19	766.8	43.5	6.4	84	e.	3	1.3		0	0			0	0	clear	
Sacramento, California	29.80	756.9	29.88	758.9	58.5	14.7	70	se.	4	1.8		0	0			0	0	clear	
St. Louis, Missouri	29.52	749.8	30.13	765.3	71.2	21.8	90	ne.	4	1.8			10 s		nw.	0.03	0.8	cloudy	
St. Paul, Minnesota	29.17	740.9	30.05	763.3	54.5	12.5	92	e.	10	4.5		0	0			inap.	inap.	clear	
Salt Lake City, Utah	25.65	651.5	29.98	761.5	58	14.4	34	nw.	13	5.8		3 k	0	w.		0	0	clear	
San Antonio, Texas	29.35	745.5	30.05	763.3	74.6	23.7	90	ne.	4	1.8			fg			0	0	dense fog	
San Diego, California	29.79	756.7	29.86	758.4	61.6	16.4	87	s.	2	0.9			fg			0	0	dense fog	
Sandusky, Ohio	29.42	747.3	30.11	764.8	74	23.3	82	nw.	16	7.2		5 ck	sk			0	0	fair	
Sandy Hook, New Jersey	30.11	764.8	30.14	765.5	73.0	22.8	90	se.	3	1.3			10 s		se.	0	0	cloudy	
San Francisco, California	29.86	758.4	29.92	760.0	53	11.7	93	w.	2	0.9			fg		sw.	0	0	dense fog	
Santa Fé, New Mexico	23.38	593.8	30.18	766.6	56	13.3	90	calm	0	0			10 s		calm	0	0	cloudy	
Savannah, Georgia	29.96	761.0	30.05	763.3	75.8	24.3	82	nw.	1	0.4			10 s			0	0	threatening	
Shreveport, Louisiana	29.84	757.9	30.07	763.8	75	23.9	88	s.	4	1.8		0	0			0.33	8.4	clear	
Silver City, New Mexico	24.35	618.5	29.92	760.0	60	15.6	88	calm	0	0			10 s		calm	0.18	4.6	cloudy	
Sitka, Alaska	29.84	757.9	29.91	759.7	54	12.2	93	sw.	16	7.2			10 n		calm	1.32	33.5	light rain	
Smithville, North Carolina	29.81	757.2	29.85	758.2	76	24.4	97	n.	18	8.0			10 n		n.	0.11	2.8	heavy rain	
Spokane Falls, Wash. Ter.	28.13	714.5	30.15	765.8	39	3.9	82	ne.	2	0.9		0	0			0	0	clear	
Springfield, Illinois	29.44	747.8	30.14	765.5	67	19.4	87	ne.	5	2.2		0	7 s; sk		w.	0.32	8.1	fair	
Springfield, Massachusetts	30.01	762.2	30.14	765.5	63.4	17.4	84	s.	3	1.3			10 s			0	0	cloudy	
Stockton, Texas	27.09	688.1	30.16	766.1	67.2	19.6	100	calm	0	0			10 s		calm	0.21	5.3	cloudy	
St. Vincent, Minnesota	28.96	735.6	29.85	758.2	45.5	7.5	94	se.	8	3.6		0	0			0	0	clear	
Thatcher's Island, Mass.	30.09	764.3	30.14	765.5	62.4	16.9	84	s.	12	5.4			10 s		s.	0	0	cloudy	
Toledo, Ohio	29.41	747.0	30.11	764.8	68	20.0	84	n.	6	2.7		2 cs	8 s; sk	w.		0	0	dense smoke	
Tucson, Arizona	27.46	697.5	29.82	757.4	73	22.8	68	se.	4	1.8		2 k	0	s.		0	0	clear	
Umatilla, Oregon	29.91	759.7	30.32	770.1	46.0	7.8	80	calm	0	0		0	0			0	0	clear	
Uvalde, Texas	29.09	738.9	29.89	759.2	75	23.9	97	calm	0	0			10 ks		s.	0.45	11.4	cloudy	
Vicksburg, Mississippi	29.84	757.9	30.10	764.5	71	21.7	84	se.	4	1.8		hz.	2 s	calm	calm	inap.	inap.	fair	
Visalia, California	29.49	749.0	29.85	758.2	58	14.4	64	se.	4	1.8		0	0			0	0	clear	
Washington, D. C.	30.01	762.2	30.12	765.0	72.5	22.5	98	n.	4	1.8			10 s; fg			0	0	cloudy	
Wickenburg, Arizona					63	17.2	90	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	29.85	758.2	29.91	759.7	76	24.4	97	ne.	13	5.8			10 n		calm	0.10	2.5	light rain	
Winnemucca, Nevada	25.75	654.0	30.08	764.0	45	7.2	31	ne.	8	3.6		0	0			0	0	clear	
Wood's Holl, Mass.	30.11	764.8	30.15	765.8	64	17.8	78	s.	9	4.0			10 s		w.	0	0	cloudy	
Yankton, Dakota	28.63	727.2	29.94	760.5	58	14.4	87	calm	0	0		0	0			0	0	clear	
Yuma, Arizona	29.67	753.6	29.81	757.2	67.4	19.7	72	e.	1	0.4		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	30.02	762.5	30.04	763.0	85	29.4	87	e.	6	2.7		5 k	5 ks	e.		0	0		J. A. Racker.
Bogota, U. S. Columbia	22.07	560.6			53.8	12.1	79	s.	5	2.2			8n; g			0.03	0.8	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.93	760.2	29.93	760.2	81	27.2	87	e.				2 k	0			0	0	clear	B. Bigar.
Havana, Cuba, W. I.	30.00	762.0	30.04	763.0	79	26.1	85	calm	0	0			10 ks		calm	0.22	5.6	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.99	761.7	30.00	762.0	76.8	24.9	86	calm	0	0			10 s			0.04	1.0		Robert Johnstone.
Navassa, W. I.	29.91	759.7	29.99	761.7	84	28.9	75	e.	9	4.0		8cs; hz	2 kn	e.	se.	blank	blank	hazy	F. M. Everett.
Paramaribo, S. A.	30.08	764.0	30.08	764.0	78	25.6	83	se.			2	0	0			0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.40	746.7	29.95	760.7	82	27.8	90	calm			0		10 ks		s.	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					77.9	25.5		ne.			2	cs	2 ks		ne.	0	0		Earl Flint.
Santiago de Cuba, W. I.	29.98	761.5	30.00	762.0	82	27.8	78	calm	0	0		4 c	0			0	0	fair	Robert Mason.
St. Thomas, W. I.‡	29.93	760.2	30.05	763.3	82	27.8	79	e.	5	2.2		1 c	2 ks	se.		0	0	clear	G. O. Gyllich.
York Factory, B. A.	30.04	763.0	30.09	764.3	38.0	3.3	95	nw.	10	4.5		2 c	0	s.		0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Off Guard Bank, Torres St	29.92	760.0	76.2	24.6	81	ese.			4-6		7							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Palma, Majorca, Spain	30.03	762.7	76	24.4	76	ene.			1		10							raining	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.92	760.0	76	24.4		nne.			2		3	n.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 12° 07′, E. 44° 53′	29.66	753.4	87	30.6	84	s.			2		2	sw.				sm'h		d. clouds	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 17° 00′, W. 61° 45′	30.05	763.3	82	27.8	87	calm			0		2							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 60° 05′, E. 120° 14′	30.05	763.3	72	22.2	80	wsw.			2		3	ssw.				3	wsw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A, T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.85	758.2	82	27.8		calm			0		1	calm						blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 31° 23′, E. 14° 05′	30.01	762.2	65	18.3		nne.			2		8	nnw.				4	wsw.	misty	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.09	764.3	80	26.7	80	w.			1-2		7	w.						d. clouds.	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	29.85	758.2	53	11.7	79	w.			2		1	w.						blue sky	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 22° 24′, E. 59° 40′	29.53	750.0	88	31.1		calm			0		3	se.						d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 13° 04′, E. 80° 14′	29.70	754.4	85	29.4		sw.			1		9							d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 45° 45′, W. 25° 00′	30.14	765.5	64	17.8		se.			5		9					3	s.	d. clouds	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 4° 32′, E. 53° 10′	29.94	760.5	80	26.7	70	ese.			3-4		4	ese.				3	se.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19′	29.93	760.2	80	26.7		nne.			3		1					1	nne.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Hakodate, Yezo, Japan	29.91	759.7	64	17.8	89	ene.			2		5							misty	Capt. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich Is'ds	30.05	763.3	76	24.4	69	ne.			2-5		5							showery	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argt. Rep.	29.98	761.5	47	8.3	85	nnw.			6		7							squally	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, Levuka, Fiji Islands	30.04	763.0	73	22.8	85	se.			5		6	se.				2	se.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris, Hammamet, Tunis, Africa	29.98	761.5	77	25.0	86	w.			4		5	wnw.				1-2	nw.	d clouds	Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 41° 47′, E. 140° 43′	30.12	765.0	69	20.6		ne.			1		4							d. clouds	Capt. R. E. Tracey.
H. M. S. Kingfisher																			Comm. R. H. Thornton.
H. M. S. Lapwing, S. 9° 30′, E. 99° 00′	29.80	758.4	78	25.6		se.			5		2	se.				3	se.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, N. 1° 58′, W. 20° 49′	30.13	765.3	79	26.1	78	sse.			3		2					2	s.	d. clouds	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, N. 20° 04′, E. 110° 18′			85.6	29.8	69	se.			1		6					1-2	ne.	misty	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Malabar																			
H. M. S. Minotaur																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.01	762.2	80	26.7	82	ene.			2		2	ene.						d. clouds	Capt. G. C. Tryon
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S Northampton, Charlotte Town P. E. Id.	30.03	762.7	54	12.2	86	wnw.			6		6	wnw.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 49° 50′, W. 53° 37′	29.92	760.0	55	12.8	90	nw.			3		1					3	nw.	blue sky	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready, N. 12° 22′, E. 89° 58′	29.66	753.4	76	24.4		wsw.			6–7		7	sw.				6	ssw.	raining	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 6° 24′, E. 39° 18′	30.08	764.0	75.3	24.1	90	s.			1–3		10							showery	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 12° 04′, E. 43° 36′	29.66	753.4	78	25.6	86	ese.			3		5	e.				5	ene.	d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 48° 01′, W. 65° 14′	30.08	764.0	51	10.6	78	wnw.			1		9							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	29.99	761.7	60	15.6	88	nnw.			1		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I	29.99	761.7	80	26.7		n.			1		8							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.70	754.4	81.5	27.5	78	w.			3–4		3	sw.						squally	Capt. T. P. Nesham.
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela India	30.07	763.8	75.6	24.2	74	n.			3		0					1		blue sky	Carlos Candid dos Reis
Quanza, St. Vincent, Cape Verd Id's	30.04	763.1	82.8	28.2	78	ene.			1		8			4 h'r	4 h'r	1	se.	showery	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.76	756.0	81.5	27.5	88	se.			3		8			6 h'r	6 h'r			raining	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M Frigate Vanadis																			Com. Th. Ulner

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				

UNITED STATES NAVAL SERIES.

By authority of the Secretary of the Navy.

Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.

N. Yard, Pensacola, Fla	30.15	765.8	73	22.8	85	n.	2	0.9			8		ne.	o	o			fair	
N. Yard, Portsmouth, N. H.	30.10	764.5	61	16.1	88	ne.	7	3.1			8		sw.	o	o			cloudy	
Naval Hospital, Yokohama, Japan	29.87	758.7	72	22.2	88	e.			3		10		e.	0.03	0.8			light rain	
Adams, N. 14° 11′, W. 95° 53′	29.71	754.6	81	27.2	83	ne.			1		5		calm			long	s.	fair	
Alaska, Callao, Peru	29.95	760.7	60	15.6	100	n.			1		10			o	o	sm'h		cloudy	
Alert, Yokohama, Japan *	29.85	758.2	74	23.3	86	ne.			2-3		10		ne.			mod.	ne.	rainy	
Alliance, N. 71° 19′, E. 13° 10′	29.93	760.2	41	5.0	82	wsw.			4		8		w.	light	light	sm'h		fair	
Ashnelot, Kobe, Japan	29.93	760.2	78	25.6	78	nnw.			2		10		w.					cloudy	
Colorado, New York, N. Y.	30.12	765.0	68	20.0	90	sw.	1	0.4			10			o	o			hazy	
Constitution, New London, Conn	30.08	764.0	70	21.1	90	n.	3	1.3			5?		ene.					cloudy?	
Franklin, Norfolk, Va	30.03	762.7	76	24.4	?	se.	3	1.3			0			0.78	19.8			foggy	
Galena, Leghorn, Italy	29.87	758.7	73	22.8	72	wsw.			3		2							fair	
Independence, N. Yard, Mare I'd, Cal	29.80	756.9	57	13.9	81	sw.	2.4	1.1			8		sw.					cloudy	
Jamestown, Mare Isl'd, Cal *	29.82	757.4	56	13.3	94	sw.			1		8		sw.	o	o			foggy	
Kearsarge, N. 38° 55′, W. 74° 35′	30.13	765.3	73	22.8	95	ese.			3		10					mod	s;e	misty	
Lackawanna, Mare Isl'd, Cal †	30.06	763.5	56	13.3	94	sw.			0-1		8		sw.					fair	
Lancaster, Portsmouth, N. H.	30.12	765.0	66	18.9	79	sw.	6	2.7			8			o	o			hazy	
Marion, Buenos Ayres, La Plata, [S. A.*	29.77	756.1	47	8.3		sw.			6		10		sw.			mod.	sw.	cloudy	
Michigan, Erie, Pa	30.02	762.5	76	24.4	82	wsw.			1									hazy	
Minnesota, Newport, R. I.	30.15	765.8	69	20.6	75	s.			2		10					sm'h		overcast	
Monocacy, Yokohama, Japan	30.04	763.0	75	23.9	86	ne.			3		10		n.					rainy	
Nipsic, Villafranca, France	29.80	756.9	75	23.9	56	wsw.			3		0					sm'h		blue sky	
Onward, Callao, Peru †	29.99	761.7	60	15.6	100	nw.			1		10					long	w.	cloudy	
Palos, Hong Kong, China	29.82	757.4	81	27.2	87	se.			2		10		n;w					threatening	
Passaic, Washington, D. C.	30.15	765.8	73	22.8	95	ne.			1		10		ne.					overcast	
Pensacola, Panama, Panama	29.90	759.4	80	26.7	87	wnw.			1		8			o	o	sm'h		fair	
Portsmouth, Gloucester, Mass	30.13	765.3	63	17.2	94	sw.			3		2		s.			sm'h		fair	
Powhatan, N. 21° 10′, W. 74° 14′	30.04	763.0	84	28.9	91	e.			3		5		se.					fair	
Quinnebaug, Marseilles, France	29.96	761.0	71	21.7	85	nw.			3		5					sm'h		fair	
Ranger, Mare Island, Cal *	29.86	758.4	57	13.9	87	sw.			1		8		sw.			sm'h		cloudy	
Richmond, N. 15° 37′, W. 102° 48′	29.87	758.7	80	26.7	96	ssw.			2		8		sw.	0.32	8.1	sm'h		cloudy	
Shenandoah, Maldonado, Uruguay *	29.92	760.0	53	11.7	93	w.			4		10					mod.	w.	rainy	
St. Louis, League Island, Pa	29.86	758.4	72	22.2	95	ne.	2	0.9			10			o	o			cloudy	
Swatara, Chefoo, China †	30.00	762.0	75	23.9	86	ese.			3		8		w.			mod.	ese.	cloudy	
Tennessee, N. 40° 24′, W. 73° 23′	30.17	766.3	71	21.7	100	ssw.	10	4.5			10			o	o	mod.	ssw.	hazy	
Trenton, N. 39° 80′, E. 0° 55′ *	30.02	762.5	73	22.8	72	ne.			4		8			o	o			fair	
Vandalia, Huntington, Long Isl'd	30.13	765.3	68	20.0	90	se.			1		10		calm					misty	
Wabash, Boston, Mass	30.17	766.3	66	18.9	68	sw.	10	4.5			0							clear	
Wachusetts, Sitka, Alaska	30.17	766.3	56	13.3	94	ne.			1-2		10		calm	mod.	mod.			overcast	
Wyoming, Port Royal, S. C.	30.35	770.9	76	24.4	82	wnw.	8	3.6			8		calm	o	o			cloudy	
Yantic, N. 40° 51′, W. 73° 45′ *	30.09	764.3	68	20.0	90	ese.			1									hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 55° 26′, W. 36° 37′ *†	29.47	748.5				sw.	6		8		wsw.			r'gh	ssw.	cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 43° 23′, W. 65° 04′	30.20	767.1	60	15.6		sw.	2		2		w.			sm'h		clear	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn	30.13	765.3	75	23.9	95	se.	4		10		se.					overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 50° 41′, W. 14° 53′ †	30.23	767.8	63	17.2	62	nnw.	6		2		nw.	light	light	sm'h	nw.	fine	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 41° 21′ W. 43° 12′ *†	30.10	764.5	60	15.6	88	n.	4		5?		nw.			h'vy	n.	clear?	
S. S. Pennsylvania, Capt G. H. Dodge, Liverpool, Eng †	30.03	762.7	65	18.3	73	n.	3		8		n.					cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall																	
S. British Merchant, Capt. E. J. Moloney, N. 34° 50′, W. 34° 39′ ‡	30.00	762.0	77.5	25.3	84	s.	6		8							drizzling	
S. S. Cipero, Capt. W. N. Lailey, N. 11° 16′, W. 59° 48′	30.07	763.8	82.1	27.8	87	se.	2		4					1	se.	d. clouds	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 30° 22′, W. 48° 30′	29.93	760.2	79.0	26.1	86	wnw.	5		5							blue sky	
Bk. Glaramara, Capt. R. Morton, N. 42° 51′, W. 148° 32′ ‡	30.40	772.1	56	13.3	100	s.	4		1							d. clouds	
Bg. Hermine, Capt. S. G. Jones, N. 18° 59′, W. 25° 14	30.11	764.8	77	25.0	88	nne.	5		9							overcast	
Bkt. Hope, Capt. Jas. Campbelle, N. 24° 47′, W. 35° 00′	30.21	767.3	80.5	26.9	80	wnw.	1		0							blue sky	
Island Belle, Capt. A. McBride, N. 10° 16′, W. 54° 09′	30.10	764.5	82.5	28.1		ene.	1-5		3							blue sky	
S. Lochee, Capt. J. Raeburn, ‡ S. 33° 48′, W. 26° 55′	30.20	767.1	55.4	13.0	85	ssw.	6		7							showery	
Bk. Mertola, Capt. E. W. Turner,																	
Naiad, Capt. J. Smith, S. 34° 04′, W. 72° 36	30.20	767.1	52.5	11.4	91	sse.	2		4							d. clouds	
S. Pleione, Capt. C. H. Renaut, S. 35° 46′, W. 18° 08′	29.96	761.0	54	12.2	64	ssw.	6		3							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow, N. 15° 48′, E. 73° 24′	29.82	757.4	81	27.2	72	wnw.	3		4							d. clouds	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 4° 00′, W. 27° 20′	30.09	764.3	80.5	26.9	76	s.	4		6					sm'h		d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, N. 30° 27′, E. 122° 48	29.91	759.7	79.5	26.4	96	ne.	2		4							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, N. 29° 10′, W. 116° 42′ †	29.92	760.0	63	17.2	89	nw.	3		10		nw.	0	0	light	wnw	light fog	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains N. 43° 23′, W. 49° 22′	29.99	761.7	51	10.6		w.	2		0			0	0	mod.	w.	clear	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 36° 59′, W. 75° 19′	30.04	763.0	81.0	27.2	93	se.	2		10		se.			sm'h	se.	hazy	
S. S. Hermann, Capt. H. Baur N. 50° 07′, W. 4° 00′	29.96	761.0	63.5	17.5		nw.	2		10?		sw.	2 h'r	2 h'r	light	w.	clear ?	E. Schmidt, 3d Officer
S. S. Köln, Capt. T. Jüngst. N. 50° 58′, W. 1° 11′	29.91	759.7	64.0	17.8	92	n.	2		4		n.	0	0	sm'h	n.	fair	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche N. 44° 25′, W. 39° 39′	29.79	756.7	64.5	18.1	86	wnw.	3		8		wnw.	3 h'rs	3 h'rs	mod.	sw; nw.	cloudy	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 36° 40′, E. 153° 12′ †	30.06	763.5	75	23.9	81	n.	4		8		nw.	0	0	mod.	n.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 43° 57′, W. 138° 00′ *†	30.62	777.7	62	16.7	77	nw.	1		8		ne.			sm'h		cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, Yokohama, Japan	30.00	762.0	75	23.9	90	ne.	5		7		ne.	0	0			cloudy	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann Portland, Oregon †	30.27	768.8	57	13.9	94	calm	0		0							dense fog	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 33° 41′, W. 118° 14′ †	29.91	759.7	66	18.9	94	e.	1		10		se.			sm'h		cloudy	J. N. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound †	30.31	769.9	52	11.1	86	n.	4		10?		nw.	0	0	sm'h	nnw.	clear?	
S. S. Idaho, Capt. T. Huntington,																	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson,																	G. H. Harrison.
S. S. Senator. Capt. Wallace, Eureka, Cal †	29.96	761.0	47	8.3	100	calm	0		10							foggy	T. Wallace.
S. S. State of California, Capt. Debney, N. 40° 26′, W. 124° 30′ †	29.85	758.2	52	11.1	79	nw.	5		5		wnw.			short	wnw.	fair	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, San Francisco, Cal †	29.92	760.0	51	10.6	100	calm	0		fg							foggy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——, S. 34° 10′, E. 158° 55′	30.19	766.8	62	16.7	77	nnw.	4		8?		nw.			mod.	sw.	clear?	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W †	30.08	764.0	58	14.4	82	n.	3		10			0	0			overcast	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin, Panama, Panama †	29.97	761.2	82	27.8	87	nnw.	1	0	4 k		se.	0	0			fair	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry																	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, Panama, Panama †	29.96	761.0	83	28.3	91	n.	1		5		n.	1 h'r	1 h'r	sm'h	s.	fine	
S. S. City of Sidney, Capt. H. C. Dearborn,																	E. L. Saik.
S. S. City of Tokio, Com. J. Maury Hong Kong, China †	29.90	759.4	83	28.3	79	e.	4		10		ne.	0	0			cloudy	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, N. 21° 43′, W. 106° 01′ †	29.90	759.4	81	27.2	96	nw.	2		8		nw.	0.41	10.4	small	ssw.	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly Mazatlan, Mexico †	29.83	757.7	80	26.7	96	s.	2		5?		ssw.	0	0	light	sw.	clear	M. Connolly.
S. S. Zelandia, Capt. H. Webber, N. 0° 37′, W. 165° 27′	29.94	760.5	81	27.2	83	se.	2		2		se.			sm'h	e.	raining	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Fedderson, 2d Off
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †	29.81	757.2	61	16.1	77	nnw.	5		10		nnw.	0	0			cloudy	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 40° 37′, W. 70° 12′ †	30.07	763.8	71	21.7	78	s.	2		0			0	0	sm'h		fine	R. Horsfall.
S. S. Britannic, Capt. H. Perry. N. 48° 34′, W. 31° 13′ †	29.85	758.2	63	17.2		ssw.	5		fg.			0	0	r'gh	ssw.	misty	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, N. 41° 09′, W. 65° 47′ †	30.30	769.6	61	16.1	?	var.	2		0			0	0	sm'h		blue sky	
S. S. Republic. Capt. P. J. Irving N. 51° 15′, W. 24° 28′ †	30.03	762.7	60	15.6	100	s.	5		8		sw.	0	0	mod.	ssw.	d. clouds	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass †	30.14	765.5	64	17.8	94	sse.	3	2c	5 k			0	0			cloudy	
Golden Fleece																	
Hassler, Lt. Com. Nichols, Sitka, Alaska †*	30.00	762.0	55	12.8		ene.	2-3		10					sm'h		overcast	
S. Iron Cross, Capt. Randall, S. 12° 50′, W. 9° 06′ *	30.15	765.8	70.5	21.4	97	ese.	3		3		se.	0	0	sli't	sse.	d. clouds	W. Randall.
S. Pawashick, Capt. E. Fry																	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	30.17	766.3	76	24.4	55	ne.	6		5		ene.	mod.	mod			fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 10, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours			29.86	758.4	77.7	25.4	65	w.			2		2			0	0	fair	Raynard.
Algiers ‡			29.85	758.1	79.2	26.2	75	n.			4		10			0	0	covered	Nicolas.
La Calle ‡			29.87	758 7	78.4	25.8	75	nnw.			1		6			inap.	inap.	very cloudy	Fonfréde.
Tunis ‡			29.88	759.0															Jacques.
Stax ‡																			Gau.
Saida ‡			29.91	759.8	89.6	32.0	41	ne.			1		2			0	0	fair	Dumas.
Tebessa ‡			29.90	759.5	91.0	32.8	19	ssw.			5		4			0	0	cloudy	Derché.
Geriville ‡					90.0	32.2	11	n.			1		2			0	0	fair	Lonchamp.
Laghouat ‡			29.91	759.6	88.2	31.2	11	n.			2		3			inap.	inap.	pretty fair	Herbin.
Biskra ‡			29.90	759.4	92.1	33.4	43	nnw.			1		9			inap.	inap.	covered	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.89	759.2	29.98	761.5	53.0	11.7	86	s.	8	3.6			10			0	0	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.45	748.0	29.98	761.5	70.2	21.2	66	e.			2		8			0.102	2.6		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.20	741.7	29.95	760.7	66.7	19.3	61	s.	4.9	2.2			2			0.283	7.2		Dr. Wiersbicki.
Eperies	29.04	737.5	29.88	759.0	70.5	21.4	64	s.			2	cs	7 s		n.	0	0		Julius Mikolik.
Gratz ‡	28.74	730.1	29.97	761.2	63.9	17.7	77.	sw.			2		5			0.374	9.5		Andreas Rospini.
Hermannstadt	28.56	725.5	29.93	760.3	74.1	23.4	56	nw.			3		10			0.038	16.2		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.58	725.9	29.89	759.2	62.2	16.8	69	ne.			1		2			0.098	2.5		The Staff.
Lemberg	28.97	735.8	29.92	760.0	67.6	19.8	84	s.			1		10			0.114	2.9		Dr. T. Stanecki.
Pola	29.80	757.0	29.91	759.8	66.7	19.3	66	sse.			1		6			0.669	17.0	thunder	I. R. Hydrographic Office.
Szathmar	29.53	750.0	29.98	761.6	64.4	18.0	93	e.			2		10			0.236	6.0		Beicht Peter, S. J.
Szegedin	29.69	754.2	29.97	761.1	70.2	21.2	74	calm			0		4			0.079	2.0		Karl Stancel.
Trieste	29.85	758.2	29.95	760.8	73.8	23.2	64	wsw.			1		1			2.669	67.8		Secco.
Vienna	29.27	743.4	29.97	761.2	65.7	18.7	58	sse.			1		2			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maesseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 13, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.11	764.8	30.24	767.3	52.6	11.4	79	n.	15	6.7			7			0	0	d. clouds	W. Boswell.
Armagh, Observatory	29.98	761.5	30.20	767.1	59.4	15.2	76	ne.	6	2.7			8					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.11	764.8	56.8	13.8	77	n.	14	6.3			10					misty	John Hartnup.
Bolton, Sharples	29.56	750.8	30.10	764.5	54.4	12.4	84	ene.	12	5.4			10					overcast	Thomas Mackereth.
Bradford, Yorkshire	29.69	754.1	30.09	764.3	57.9	14.4	75	ne.			2		6			0	0	d. clouds	J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.01	762.2	58.0	14.4	87	nw.			1.0		10			...		foggy	John McLaren.
Chatham, School M. E.	29.88	758.9	30.01	762.2	54.9	12.7	90	n.			1		10			blank	blank	overcast	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.85	758.2	30.08	764.0	59.0	15.0	78	e.			1		5					d. clouds	The Staff.
Fort Napier, Natal	27.95	709.9	30.17	766.3	74.2	23.4	42	se.			2		0					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.70	754.4	29.93	760.2	83.0	28.3	79	se.			1		5					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.15	765.8	64	17.8	62	n.			2		6					d. clouds	J. O'Donaghue.
Gibraltar, Mediterranean	29.93	760.2	29.98	761.5	79.2	26.2	78	w.			2		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.97	761.2	30.18	766.6	59.9	15.5	64	ene.			1		6					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.84	757.9	30.02	762.5	55.1	12.8	89	nnw.			1		10					drizzling	The Staff.
Guernsey	29.79	756.7	30.00	762.0	61	16.1	77	ne.			2		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.99	761.7	30.03	762.7	55.6	13.1	80	n.	13	5.8			10					threatening	The Staff.
Leicester, Museum	29.80	756.9	30.05	763.3	57.0	13.9	74	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.82	757.4	29.90	759.4	80.6	27.0	80	e.			2		1					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.03	762.7	30.07	763.8	84.5	29.2	77	e.			2		6					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Emall.
Oxford, Radcliffe Obs'y	29.82	757.4	30.05	763.3	56.7	13.7	75	n.			3		10					squally	The Staff.
Plymouth	29.98	761.5	30.05	763.5	57.5	14.2	90	e.			1		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.28	769.1	51.1	10.6	72	ne.	16	7.2			8					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.85	758.2	29.91	759.7	84.8	29.3	59	ne.			2		4					d. clouds	Serg't W. H. Lyne.
Sheffield	29.79	756.7	30.07	763.8	58.8	14.9	81	nne.			1		10			0	0	overcast	W. F. Cooper.
Silloth Rectory	30.13	765.3	30.16	766.1	55.3	12.9	84	ne.			3		10			0	0	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.13	765.3	56.0	13.3	80	nne.	1	0.4			10			blank	blank	overcast	Rev. S. J. Perry.
Stratfield Turgiss					57.1	13.9	81	ne.			3		9					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.04	763.0	30.06	763.5	68	20.0	64	s.			4		8					gloomy	W. Newcombe.
Valencia, Observatory	30.15	765.8	30.17	766.3	60.6	15.9	85	nne.	16	7.2			6			blank	blank	d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.09	764.3	30.13	765.3	57	13.9	84	ne.	4	1.8			10 s			0	0	threatening	H. J. Cundall, C. E.
Chatham, N. B.*	30.11	764.8	30.17	766.3	54	12.2	86	nw.	6	2.7			10 ks		w.	0	0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.18	766.6	30.20	767.1	42	5.6	93	sw.	5	2.2		0	2 s			0	0	clear	J. McWilliams.
Fort Garry, Manitoba*	28.92	734.6	29.74	755.4	47	8.3	86	nw.	6	2.7		5 k	5 n	nw.	nw.	Inap.	inap.	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.97	761.2	30.10	764.5	54	12.2	96	nw.	8	3.6		0	0			0	0	smoky	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.71	754.6	30.04	763.0	62	16.7	87	ne.	9	4.0			sk.			0	0	dense smoke	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.94	760.5	30.14	765.5	55	12.8	86	ne.	10	4.5			sk.			0	0	smoky	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.34	745.2	30.02	762.5	59	15.0	90	e.	12	5.4		sk.	sk.			0	0	smoky	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.34	745.2	30.02	762.5	60	15.6	94	n.	7	3.1			sk.			0	0	smoky	H. Morgan.
Port Stanley, Ontario	29.39	746.5	30.02	762.5	58	14.4	87	ne.	3	1.3			sk.			0.15	3.8	smoky	M. Payne.
Quebec, Quebec*	29.88	758.9	30.19	766.8	55	12.8	86	ne.			5	5 c	5 s		e.	0	0	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.65	753.1	30.10	764.5	57	13.9	83	e.	6	2.7			10 ks		n.	0	0	cloudy	W. H. McIntyre.
Saugeen, Ontario*	29.30	744.2	30.02	762.5	48	8.9	93	se.	5	2.2			fg.			0	0	foggy	K. Stewart.
St. Andrews, N. B.	30.10	764.5	30.15	765.8	53	11.7	89	n	2	0.9		hz.	hz.			0.05	1.3	hazy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.10	764.5	30.15	765.8	53	11.7	90	calm	0	0			10 s			0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.66	753.4	30.03	762.7	60	15.6	78	n.	6	2.7		5 cs	sk.	e.		0	0		Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.03	762.7	30.10	764.5	57	13.9	96	nw.	1	0.4		hz.	0			0	0	hazy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.00	762.0	30.25	768.3	56	13.3	81	se.	1	0.4			10 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	30.05	763.3	30.08	764.0	71.2	21.8	93	calm	10.7	4.8		0	0			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.29	744.0			85.9	29.9	32	w.			1	4	4			0	0	cloudy	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai.	29.88	758.9	29.91	759.6	75.6	24.2	97	e.	3.1	1.4		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.78	756.5	29.83	757.7	60.3	15.7	79	nnw.	16	7			4						Oversergent Fischer
Fanöe	29.87	758.6	29.89	759.1	63.9	17.7	78	ene.			4		9						Overloerer Lauridsen
Godthaab, Greenland	29.38	746.3	29.43	747.4	33.3	0.7	94	nw.			5		10						S. Kleinschmidt.
Stykkisholm, Iceland	29.68	753.8	29.72	754.9	53.6	12.0	86	se.			8		10					snowing	A. O. Thorlacius.
Thorshavn	30.30	769.6	30.34	770.5	50.2	10.1	75	calm	0	0			0					raining	Overloerer Bergh.
Vestervig	29.83	757.7	29.92	760.0	62.2	16.8	76	nne.			4		3						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.39	746.4	30.02	762.5	63.7	17.6	80	se.			1	0	8n; kn			0	0	very cloudy	M. Labroue, Director.
Alençon Normal School	29.45	748.0	30.00	762.0	62.2	16.8	89	n.			2		n	s.	s.	0.04	1.		M. Nicot, Director.
Arras, Engineer School	29.65	753.0	29.91	759.6	53.8	12.1	100	nw.					10		nw.			heavy rain	M. Klein, Commandant.
Avignon, Normal School	29.82	757.5	29.90	759.4	64.4	18	65	n.			1		8		nw.	0	0	very cloudy	M. Giraud, Director.
Bar-sur-Seine	29.40	746.8	29.95	760.8	59.7	15.4	80	nw.			1		10		nw.	0.146	3.7	covered	M. Saillard, Director.
Beauvais, Normal School	29.72	755.0	29.99	761.7	58.1	14.5	76	w.			1		10		nw.	0.098	2.5	covered	M. Frère Eugène Marie.
Besançon, Normal School	29.08	738.5	29.95	760.7	63.3	17.4	63	w.			1		2		n.	0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.67	753.6	29.93	760.1	66.2	19.0	54	e.			1		8		s.	0	0	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.40	746.7	29.94	760.5	62.6	17	61	n.			2		5		n.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.78	756.5	30.02	762.6	63.7	17.6	74	ne.			2		7		n.	0.031	0.8		M. de Kermaree, Dir.
Caen, Normal School	29.91	759.8	29.99	761.7	62.6	17	72	w.			1		8		w.	0	0	very cloudy.	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					62.6	17.0	72	wsw.			2		2		wnw.	0.020	0.5	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.39	746.4	29.89	759.2	58.3	14.6	63	wsw.			2		10		w.	1.165	29.6	rainy	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.59	726.1	29.92	759.9	60.6	15.9	62	n.			1		10			0.004	0.1	covered.	M. Allnard, Director.
Cluny, Normal School	29.11	739.5	29.97	761.2	65.5	18.6	60	n.			1		2	sw.		0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.07	738.4	29.93	760.1	57.9	14.4	72	w.			1		5	w.	w.	0.55	14.	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.36	694.8	29.82	757.5	64.4	18	62	se.			2	0	0			1.02	26.		M. Jeangirard, Director.
Grénasque, du. Rhone	28.82	731 9	29.96	760.9	72.7	22.6	37	s.			1		8		sw.	0	0	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.15	740.5	29.90	759.5	64.6	18.1	56	ene.			1	0	ks			0.071	1.8		M. Ablard, Director.
Guéret, Normal School	28.38	720.9	29.94	760.5	61.0	16.1	77	sw.			1	0	k			0	0		M. Rivoire, Director.
Lamballe, Normal School	29.74	755.4	30.01	762.2	64.0	17.8	71	w.			1				w.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.91	759.8	30.02	762.4	69.8	21.0	57	ne.			1		8		ne.	0.276	7.0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.90	734.0	29.94	760.5	62.2	16.8	46	n.			1		10	n	s.	0.008	0.2	covered.	M. André, Director.
Mans, Normal School	29.67	753.5	29.97	761.3	60.8	16	65	ne.			1		2		ne.	0	0	slightly cl'dy	M. Piboen, Director.
Marseille, Observatory	29.59	751.6	29.85	758.3	71.8	22.1	58	sw.			1		10		wsw.	0	0		M. Stephan, Director.
Montlouis Pinstituteur	24.74	628.3	29.97	761.3	47.8	8.8	76	nw.	3.8	1.7			10			0.059	1.5		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.76	755.8	29.86	758.5	57.9	14.4	58	nne.			1		2	sw.	ne.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.17	740.8	29.91	759.8	61.2	16.2	81	nw.			1	0	2 k			0.835	21.2	slightly cl'dy	M. Hasse.
Nantes, Observatory	29.84	757.9	30.00	762.0	63.1	17.3	84	nnw.			0–1		9kn; n	nne.	ne.	0.08	2.	covered	M. Larocque, Director.
Nice	29.82	757.5	29.86	758.4	69.1	20.6	58	e.			4		10	e.	e.	0	0	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.76	756.0	29.87	758.6	67.6	19.8	48	ne.	9.4	4.2			8		wsw.	0.102	2.6		Dr. Fines.
Pic-du-Midi, Plantade	22.45	570.3			32.0	0.0							10		sw.	0.760	19.3	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.83	732.3	29.88	758.9	60.8	16	71	sw.			1		5	sw.	sw.	0	0	cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.10	637.4			41.2	5.1	100	ne.			2		10			0.134	3.4	foggy	M. Allnard, Director.
Rochefort, Naval Obs'y	29.97	761.3	30.00	762.1	68.9	20.5	81	nw.			1		8		nne.	0.008	0.2	¾ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.75	755.6	29.96	761.0	62.6	17	76	sse.			1		8		se.	0.161	4.1	very cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.95	760.8	30.04	763.0	57.2	14	83	nw.			1		10					covered.	M. Platrier, Director.
Saint Lô, Normal School	29.85	758.3	30.01	762.3	61.7	16.5	74	n.			6		5		e.	0	0	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.82	757.3	29.98	761.5	58.1	14.5	78	nw.			1		10		nnw.	0.094	2.4		M. Renou, Director.
Toulouse, Observatory	29.30	744.2	30.02	762.6	63.7	17.6	68	nnw.			1		10	w.		0.024	0.6	covered	M Bailland, Director.
Tours	29.72	754.8	29.91	759.8	64.4	18.0	62	e.			1		8		w.	0	0	¾ covered	M. de Tastes.
Versailles, Observatory	29.49	749.0	29.98	761.5	56.8	13.8	80	nw.			1					0.488	12.4		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.71	754.5	30.00	761.9	57.0	13.9	76	nw.			1		10		wnw.	0.134	3.4	sprinkling	M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.05	737.9	29.91	759.7	59.7	15.4	70	w.			3	0	8 k		w.	0.197	5.0		Prof. Dr. Hoh.
Berlin	29.64	752.8	29.81	757.1	63.5	17.5	65	se.			1		10			0.047	1.2		Prof. Dr. Arndt.
Breslau	29.38	746.3	29.91	759.7	65.1	18.4	51	sw.			5		7			0.173	4.4		Royal University Obs'y.
Carlsruhe	29.48	748.7	29.89	759.3	62.6	17.0	69	sw.			4		9	sw.		0	0		Albert Senz.
Cassel	29.07	738.4	29.79	756.6	59.7	15.4	85	nnw.			1		8	n.		0.039	1.0		Dr. H. Möhl.
Frankfort on the Main	29.48	748.9	29.85	758.1	58.1	14.5	85	ssw.			1		10			0.260	6.6		Physical Society.
Friedrichshafen	28.49	723.6	29.89	759.3	62.2	16.8	64	sw.			2		4	w.		0.142	3.6		Wilhelm, Chief Tel.
Hamburg	29.76	755.8	29.87	758.6	58.3	14.6	98	ne.			3		10			0.386	9.8		E. Preller.
Kiel	29.82	757.5	29.84	757.9	59.7	15.4	84	ene.			2		10			0.028	0.7		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.43	747.4	29.84	758.0	60.6	15.9	78	sw.			2		9	sw.		0.016	0.4	foggy	H. Leppig, Asst.
Magdeburg	29.62	752.3	29.80	757.0	62.1	16.7	69	ese.			1		10 ks		wsw.	0	0		Dr. Assmann.
Memel	29.81	757.1	29.85	758.3	70.0	21.1	77	s.			4		5 ck	0					Isermann.
Munich	28.11	714.0	29.97	761.2	62.4	16.9	53	nw.			2		3	s.		0.047	1.2		Central Station.
Neufahrwasser	29.78	756.3	29.79	756.7	63.9	17.7	83	s.			3		10			0.169	4.3		A. Lothes.
Neustadt, Palatinate	29.35	745.4	29.87	758.7	61.3	16.3	68	w.			4		5	w.		0	0		Dicknether.
Stuttgart	28.94	735.1	29.82	757.3	63.3	17.4	62	w.			2		4	w.		0.024	0.6		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.43	722.0	29.89	759.1	61.9	16.6	53	w.			2		5	w.		0.055	1.4		Fischer.
Wustrow	29.82	757.4	29.84	758.0	58.3	14.6	87	ene.			4		10			0.228	5.8		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.57	751.0	29.94	760.5	86.4	30.2		sw.			2.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.62	752.3	29.67	753.6	85.7	29.8	70	ssw.	30.0	13.4			0			0	0	blue sky	
Deesa	29.16	740.8	29.63	752.6	88.9	31.6	61	wsw.	5.3	2.4			5	sw.		0	0	d. clouds	
Bombay	29.68	753.7	29.71	754.7	82.2	27.9	81	w.	9.0	4.0			7		wsw.	0	0	d. clouds	
Poona, Yarrowda	27.84	707.0	29.68	753.8	80.2	26.8	62	wnw.	18.0	8.0			9		w.	0	0	d. clouds	
Belgaum	27.29	693.1	29.84	758.0	72.6	22.6	83	sw.	8.0	3.6			8		sw.	0.13	3.3	showery	
Lahore	28.87	733.3	29.59	751.5	95.7	35.4	43	w.	1.6	0.7			0			0	0	blue sky	
Roorkee	28.69	728.6	29.56	750.7	92.4	33.6	54	e.	1.8	0.8			1			0	0		
Agra	29.03	737.4	29.58	751.3	93.6	34.2	52	w.	2.9	1.3			5			0	0		
Nagpur	28.55	725.3	29.59	751.5	80.7	27.1	88	calm	4.0	1.8			10		e.	0.87	22.1	overcast	
Jubbulpore	28.27	718.0	29.60	751.8	86.2	30.1	65	nne.	2.3	1.0			9			0.06	1.5	overcast	
Lucknow	29.22	742.2	29.60	751.7	82.2	27.9	89	calm	1.5	0.7			10			0	0	overcast	
Allahabad	29.25	742.9	29.56	750.7	82.7	28.2	95	nw.	0.7	0.3			7			1.86	47.2	d. clouds	
Patna	29.41	747.0	29 59	751.6	87.6	30.9	79	ne.	3.6	1.6			8	ne.	ne.	0	0	d. clouds	
Hazaribagh	27.59	700.8	29.56	750.9	82.3	27.9	68	s.	4.4	2.0			2			0	0		
Cuttack	29.50	749.3	29.58	751.4	85.0	29.4	78	sw.	0.5	0.2			6			0	0	d. clouds	
Calcutta, Alipore	29.56	750.7	29.58	751.2	87.1	30.6	74	se.	3.0	1.3			1			0	0	d. clouds	
Dhubri	29.48	748.7	29.60	751.8	82.0	27.8	90	calm	0.5	0.2			5			0	0	d. clouds	
Chittagong	29.59	751.6	29.68	753.9	85.7	29 8	84	wnw.	3.0	1.3			4			0	0	blue sky	
Sibsagar	29.26	743.3	29.59	751.6	86.0	30.0	83	sw.	1.1	0.5			10	sw.	sw.	0.04	1.0	d. clouds	
Jeypore	28.20	716.4	29.60	751.9	93.7	34.3	40	ese.	4.2	1.9			4		ese.	0	0	d. clouds	
Zanzibar, Africa			30.06	763.5	82.5	28.1	55	sse.	5	2.2			7			0	0	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.56	750.8	29.96	761.0	69.8	21.0	62	ne.	2.5	1.1			6			1.752	44.5		Prof. Giovanni Clodig.
Milan	29.42	747.3	29.93	760.1	70.3	21.3	70	ne.	5.6	2.5			9	s.		0.181	4.6		Prof. Schiaparelli.
Padua	29.82	757.5	29.93	760 1	71.6	22.0	61	ene.	5.6	2.5			6	wsw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.03	737.3	29.91	759.8	63.7	17.6	75	n.	5.6	2.5			8	nw.		0.689	17.5		Prof. P. F. Denza.
Genoa	29.74	755.4	29.93	760.3	70.2	21.2	55	s.	3.8	1.7			10	s.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.02	711.7	29.89	759.1	63.9	17.7	65	w.			4		8			0	0		Prof. D. C. Bruno.
Pesaro	29.86	758.4	29.91	759.6	72.3	22.4	61	e.	11.2	5.0			4	sw.		0	0		Prof. Luigi Guidi.
Florence	29.64	752.8	29.89	759.1	75.2	24.0	46	w.			2		10	sw.		0	0		Prof. Costantino Pitter.
Leghorn	29.82	757.3	29.90	759.4	71.8	22.1	53	ene.	1.3	0.6			10			0	0		Prof. P. Monte.
Rome	29.74	755.4	29.91	759.7	80.6	27.0	41	s.	10.5	4.7			4			0	0		Prof. P. S. Ferrari.
Lecce	29.72	754.8	29.97	761.1	85.8	29.9	57	sse.	9.4	4.2			2			0	0		Prof. C. de Giorgi.
Cosenza	29.07	738.3	29.92	759.9	84.9	29.4	59	sse.	9.4	4.2			2	se.		0	0		Prof. D. Conti.
Cagliari	29.63	752.7	29.82	757.4	84.2	29.0	45	sse.			2		7	w.		0	0		Prof. A. Pacinotti.
Palermo	29.68	753.8	29.91	759.8	80.2	26.8	64	ene.	3.8	1.7			7			0	0		Prof. G. Ciacciatore.
Syracuse	29.90	759.5	29.95	760.6	78.1	25.6	74	e.	3.8	1.7			5	sw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.41	747.1	29.92	759.9	78.6	25.9	47	se.	0	0			3	w.		0	0		Prof. F. Brioschi.
Stelvio	22.15	562.6			41.0	5.0	54	w.			4	8 cks	0	s.		0.091	2.3	misty	Prof. P. F. Denza.
Valdobbia	22.19	563.5			36.9	2.7	74	n.			2		10 ks	sw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.89	759.2	29.90	759.4	77.8	25.4	68	nne.	8.3	3.7		c;ck	10 ks			0	0	overcast	K. Sasaki.
Kioto	29.79	756.6	29.95	761.0	75.8	24.3	79	nne.	1.7	0.8		cs;ck	10 s		se.	0.070	1.8	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.72	754.9	29.92	759.9	77.7	25.4	76	n.	3.7	1.6		ck	9 s			0	0	cloudy	S. Takehayashi.
Niigata	29.97	761.2	30.01	762.2	70.2	21.2	54	se.	19.4	8.7		10 ck;cs	0			0	0	cloudy	
Nobiru	30.14	765.5	30.15	765.8	64.3	17.9	95	ne.	5.2	2.3			10 s			0.670	17.0	cloudy	
Supporo	30.10	764.5	30.16	766.0	60.9	16.1	78	se.	12.0	5.4			0			0	0		
Tokei Obs'y, Yeddo	30.03	762.7	30.10	764.5	62.7	17.1	96	n.	10.7	4.8			10 n			2.255	57.3	light rain	The Staff.
Wakayama	29.89	759.2	29.94	760.5	76.4	24.7	82	e.	5.1	2.3		ck	2 ks			0.152	3.9	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.98	761.5	30.17	766.3	70.1	21.2	75	ese.	13.0	5.8			7		sse.	0	0	cloudy	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.71	602.2	29.93	760.2	59.0	15.0	92	calm	0	0			10 n		e.	0.262	6.7	covered	Vicente Fernandez.
Leon	24.41	620.0	30.00	762.0	66.0	18.9	90	ne.			1		10 n			0.030	0.8	covered	Prof. M. Leal.
Mazatlan	29.63	752.5	29.88	759.0	77.0	25.0	95	e.	5.3	2.3		8 cs	1 k	ese.	ese.	0.118	3.0	very cloudy	F. Quijano, U. E.
Mexico, Central Obs'y	23.12	587.3	30.12	765.1	57.6	14.2	87	calm	0	0			10 pk			0.358	9.1	overcast	The Staff.
Morelia	24.04	610.5	30.38	764.1	57.6	14.2	74	ssw.			3	2	1	se.	e.	0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.95	608.2	29.86	758.4	64.8	18.2	80	nne.			1		10 kn		se.	0.028	0.7	covered	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.48	596.4	30.20	767.1	56.7	13.7	69	ne.	0.9	0.4			10		s.	0.079	2.0	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.57	573.5	30.17	766.5	55.4	13.0		e.	5.1	2.3			10 n		e.	0.118	3.0	covered	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.85	758.3	29.85	758.3	63.5	17.5		nne.			4					0.480	12.2		
Groningen	29.79	756.7	29.85	758.1	62.1	16.7		ne.			1					0.295	7.5		
Helder	29.85	758.2	29.85	758 2	61.7	16.5		ne.			1					0.035	0.9		
Hellevoetsluis	29.83	757.7	29.83	757.7	62.6	17.0	73	ene.			2					0.335	8.5		
Utrecht	29.80	757 0	29.85	758.2	63.5	17.5	67	nne.			2		8			0.205	5.2	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.94	760.5	30.00	762.1	64.4	18.0	63	calm	0	0			0			0	0		
Christiania	29.84	757.9	29.98	761.5	66.4	19.1	58	nne.	18	8			9			0	0		
Gjæsvær	30.02	762.6	30.05	763.2	44.1	6.7		w.			6		10						
Lodingen	30.11	764.7	30.15	765.9	48.7	9.3	65	s.			2		9			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.87	758.8	30.02	762.6	71.2	21.8	86	sse.	7.4	3.3			5			0	0		Dr. J. A. Sampaio.
Campo Major	28.96	735.5	29.93	760.1	72.3	22.4	32	wnw.	6.3	2.8			2			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.04	762.9	30.12	765.1	74.7	23.7	72	sse.	4.3	1.9			5			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.72	754.8	30.07	763.8	66.0	18.9	39	nne.	21.0	9.4			3			blank	blank		The Staff.
Ponta Delgada, Azores	30.01	762.3	30.08	764.1	75.6	24.2	75	se.	9.8	4.4			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.90	734.1	29.98	761.6	48.6	9.2	36	wnw.	11	5		0	0						Capt. Lasarew.
Archangel	30.02	762.6	30.04	763.1	61.5	16.4	81	calm	0	0			10						Capt. Seeliwerstow.
Astrakhan	30.11	764.9	30.03	762.8	65.1	18.4	46	ne.	13	6			10 s						Capt. Wisganow.
Barnaul ‡	29.32	744.6	29.81	757.2	51.3	10.7	37	w.	9	4			1						Meteorological Obs'y.
Dorpat	29.72	754.9	29.95	760.8	75.4	24.1	62	ssw.	9	4		6 ck	0						Observatory.
Ekaterinburg	29.20	741.6	30.19	766.7	40.6	4.8	44	nw.	13	6			10						Meteorological Obs'y.
Kasan	30.02	762.4	30.29	769.3	55.4	13.0	32	calm	0	0		2 cs	0						Observatory.
Kertch	30.05	763.3	30.07	763.8	67.8	19.9	64	ne.	18	8		0	0			0	0		Lagorio & Sastyrex.
Kieff	29.50	749.2	30.12	765.0	69.1	20.6	34	ese.	9	4		5 c	0					light clouds	Observatory.
Lugan	29.98	761.5	30.18	766.5	74.3	23.5	30	ene.	18	8			0						Meteorological Obs'y.
Moscow	29.67	753.5	30.12	765.0	72.5	22.5	36	calm	0	0		0	0						Meteorological Obs'y.
Nikolaiev	30.12	765.1	30.19	766.9	78.3	25.7	35	e.	4	2		1 c	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	29.91	759.6	29.99	761.8	62.8	17.1	76	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.80	757.0	29.95	760.6	78.3	25.7	82	calm	0	0		0	7 n			0	0		Physical Observatory.
St. Petersburg	29.95	760.8	29.97	761.2	68.7	20.4	84	calm	0	0		0	8 n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.33	719.5	29.82	757.5	76.1	24.5	56	calm	0	0			0						Teich, A. M.
Tiflis	28.55	725.2	29.89	759.2	83.5	28.6	44	calm	0	0		0	3 k						Physical Observatory.
Warsaw	29.50	749.4	29.91	759.8	64.4	18.0	78	sw.	9	4			10 ks						Astronomical Obs'y.
Wilna	29.55	750.5	29.95	760.8	72.3	22.4	65	sse.	9	4			6						Berg, Assistant.
Yeniseisk	29.69	754.1	29.98	761.5	43.2	6.2	77	e.	9	4			9						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.21	767.3	56.0	13.3	75	e.			3	0	3 k			0	0	fine	Andrew Gibb.
Monach Lt. House, Hebrides			30.28	769.1	54	12.2	93	ene.			4	5	5	ene.		0	0	d. clouds	J. Youngclause
North Unst, Shetland Isl'ds			30.24	768.1				n.			6	0	5						Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.80	756.9	29.90	759.5	67.3	19.6	61	sse.	6.3	2.8						0.264	6.7		Antonio Rave, Director.
Bilbao, Met. Obs'y	29.96	761.0	30.02	762.4	68.7	20.4	63	nw.	0.9	0.4		2	3	se.		0.043	1.1	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.05	687.0			56.7	13.7	61	n.	5.4	2.4			9			0	0	almost cov'd	Domingo Martin.
Madrid, Royal Obs'y	27.71	703.8	29.88	759.0	66.9	19.4	37	n.	6.5	2.9		0	4			0	0	clouds	The Staff.
Murcia, Met. Obs'y ‡	29.71	754.6	29.85	758.3	85.5	29.7	61	sse.	6.0	2.7		3	5	ene.		inap.	inap.	misty	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.13	739.8	30.01	762.3	62.1	16.7	66	n.	6.9	3.1			7			0.020	0.5	cloudy	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.97	761.1	30.03	762.8	76.8	24.9	85	calm	0	0		2 c;ck	1 s	e.		0.079	2.0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.78	756.3	29.83	757.6	78.7	25.9	94	ese.	0.7	0.3			10 kn		s.	0.24	6.1	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.90	759.5	30.00	762.0	71.4	21.9	58	w.	11.2	5.0		5	3	w.	w.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.95	760.6	30.04	762.9	81.3	27.4	86	w.	0	0		2 k	1 k			0.835	21.2	clear	E. Caden, Chief Engn'r.
Tuguegarao, Philippine Ids	29.71	754.5	29.84	757.9	80.8	27.1	86	wnw.	1.8	0.8			9 kn		se.	0.02	0.5	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.86	758.5	29.90	759.5	54.3	12.4	94	n.			4		10			0	0		
Umea	29.94	760.4	29.99	761.7	61.9	16.6	90	ne.			2		10			0.366	9.3		
Hernosand	29.93	760.2	29.98	761.5	64.9	18.3	72	nne.			2		9			0.055	1.4		
Stockholm	29.74	755.4	29.92	759.9	61.2	16.2	83	se.			2		9			0.004	0.1		
Wisby	29.77	756.1	29.83	757.6	59.0	15.0	93	e.			4		10			0.008	0.2		
Sub-Series.																			
Upsala	29.85	758.1	29.93	760.3	59.7	15.4	86	nne.	9.6	4.3			10		ne.	0.157	4.0		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.53	724.6	29.94	760.4	60.4	15.8	53	n.			2		7			0.035	0.9	cloudy	The Observatory.
Zurich ‡	28.32	719.3	29.93	760.2	62.2	16.8	62	nw.			1		5			0.276	7.0	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.97	761.3	77.0	25.0	57	ne.	11	5.0			4		ne.	0	0		The Observatory.
Valona			30.17	766.3	79.5	26.4		w.			1		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.84	757.9	85.8	29.9	58	nw.			1	0	1 k		s.	0	0		Prof. C. V. A. van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
UNITED STATES SERIES. By authority of the Secretary of War. Furnished by the co-operation of W. B. Hazen, Brigadier and Brev't Major General, Chief Signal Officer, U. S. Army.																			
Albany, New York	30.02	762.5	30.10	764.5	72	22.2	66	n.	2	0.9			sk.			inap.	inap.	dense smoke.	
Alpena, Michigan	29.34	745.2	30.01	762.2	54	12.2	86	se.	1	0.4		8 k	0	se.		0	0	fair	
Atlanta, Georgia	28.91	734.3	30.09	764.3	71.5	21.9	83	sw.	3	1.3		hz.	hz.			0	0	light haze	
Atlantic City, New Jersey	30.02	762.5	30.03	762.7	74	23.3	97	e.	10	4.5			10 s		calm	0.72	18.3	cloudy	
Augusta, Georgia	29.89	759.2	30.08	764.0	75.0	23.9	85	sw.	1	0.4			10 s		sw.	0	0	cloudy	
Baltimore, Maryland	29.95	760.7	30.00	762.0	76	24.4	85	ne.	8	3.6		6 cs	3 s;fg	sw.	ne.	0.84	21.3	cloudy	
Barnegat, New Jersey	30.03	762.7	30.05	763.3	73.0	22.8	100	se.	7	3.1			10 n		s.	0.01	0.3	thund'r st'm.	
Bismarck, Dakota	28.17	715.5	30.00	762.0	42	5.6	92	w.	15	6.7		0	0			0	0	clear	
Boise City, Idaho	27.43	696.7	30.27	768.8	40.0	4.4	50	n.	2	0.9		0	0			0	0	clear	
Boston, Massachusetts	29.97	761.2	30.13	765.3	65.0	18.3	90	ne.	7	3.1			10 s			0.01	0.3	cloudy	
Brackettville, Texas	28.84	732.5	29.86	758.4	76	24.4	85	e.	6	2.7			9 s			0	0	cloudy	
Brownsville, Texas	29.93	760.2	29.97	761.2	77	25.0	90	calm	0	0		3 c	0			0.22	5.6	fair	
Buffalo, New York	29.30	744.2	30.02	762.5	62.4	16.9	80	ne.	7	3.1			sk.			0	0	dense smoke.	
Burlington, Vermont	29.82	757.4	30.11	764.8	61.5	16.4	89	n.	5	2.2			sk.			inap.	inap.	dense smoke.	
Cairo, Illinois	29.62	752.3	30.02	762.5	74.0	23.3	82	s.	4	1.8		0	fg.			0	0	clear	
Campo, California	27.44	697.0	30.00	762.0	44	6.7	68	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.24	691.9			65	18.3	93	calm			0	1 ck	0			0	0	clear	
Cape Henry, Virginia	29.87	758.7	29.89	759.2	75	23.9	90	sw.	13	5.8			10 s		sw.	0.14	3.6	cloudy	
Cape May, New Jersey																0.30	7.6		
Castroville, Texas	29.23	742.4	29.90	759.4	78	25.6	88	calm	0	0			10 s		se.	0.02	0.5	threatening.	
Cedar Keys, Florida	30.07	763.8	30.09	764.3	80	26.7	91	e.	1	0.4		hz.	2 k			0	0	fair	
Champaign, Illinois	29.06	738.1	29.82	757.4	72.1	22.3	90	s.	9	4.0			10 s		s.	0.02	0.5	cloudy	
Charleston, S. Carolina	30.03	762.7	30.09	764.3	81	27.2	91	s.	4	1.8		0	9 s		s.	0	0	cloudy	
Charlotte, N. Carolina	29.20	741.7	30.08	764.0	71.4	21.9	84	nw.	1	0.4			10s;fg			0	0	cloudy	
Chattanooga, Tennessee	29.25	742.9	30.08	764.0	69.0	20.6	93	nw.	1	0.4		0	fog,sm		calm	0	0	clear	
Cheyenne, Wyoming	24.25	615.9	30.22	767.6	34.5	1.4	56	nw.	4	1.8		0	0			inap.	inap.	clear	
Chicago, Illinois	29.15	740.4	29.86	758.4	68.7	20.4	77	s.	8	3.6		2 ck	6 k	sw.	sw.	0	0	fair	
Chincoteague, Virginia	29.88	758.9	29.90	759.4	75	23.9	90	se.	32	14.3			10 ks		se.	0	0	cloudy	
Cincinnati, Ohio	29.35	745.5	30.01	762.2	75.5	24.2	79	calm	0	0		hz.	fg.			0	0	dense fog	
Cleveland, Ohio	29.27	743.4	30.01	762.2	65.4	18.6	88	se.	6	2.7		0	fg.			0	0	clear	
Coleman City, Texas																			
Columbus, Ohio	29.14	740.1	30.00	762.0	71	21.7	76	ne.	3	1.3		5 cs	fg.			0	0	fair	
Concho, Texas	28.12	714.2	30.06	763.5	71	21.7	97	s.	4	1.8			10 s			0.12	3.0	cloudy	
Corsicana, Texas	29.58	751.3	30.05	763.3	77	25.0	82	s.	8	3.6			10 s		sw.	0	0	cloudy	
Davenport, Iowa	29.10	739.1	29.76	755.9	71	21.7	90	s.	14	6.3			10 n		s.	0.45	11.4	light rain	
Dayton, Washington T'y	28.44	722.4	30.26	768.6	44.5	6.9	68	se.	5	2.2		0	0			0	0	clear	
Deadwood, Dakota	25.50	647.7	30.20	767.1	40	4.4	67	calm	0	0			8 ks		sw.	inap.	inap.	cloudy	
Decatur, Texas	28.77	730.7	29.89	759.2	76	24.4	82	sw.	7	3.1		3 ck	2 s			0	0	fair	
Delaware Breakwater, Del.	29.94	760.5	29.96	761.0	74	23.3	100	e.	21	9.4			10 ks		se.	inap.	inap.	cloudy	
Denison, Texas	29.19	741.4	30.00	762.0	80	26.7	74	sw.	12	5.4		0	6 s		sw.	0	0	fair	
Denver, Colorado	25.02	635.5	30.24	768.1	42.0	5.6	70	se.	4	1.8		0	0			0	0	clear	
Des Moines, Iowa	28.94	735.1	29.85	758.2	56	13.3	86	n.	16	7.2			10 s		n.	1.18	30.0	cloudy	
Detroit, Michigan	29.30	744.2	30.02	762.5	64.6	18.1	78	ca'm	0	0		0	sk.			inap.	inap.	dense smoke	
Dodge City, Kansas	27.59	700.8	30.18	766.6	52.4	11.3	68	n.	38	17.0		0	2 s			0.05	1.3	clear	
Dubuque, Iowa	28.99	736.3	29.71	754.6	67	19.4	90	s.	9	4.0			10 n		calm	1.04	26.4	heavy rain.	
Duluth, Minnesota	28.94	735.1	29.64	752.8	61	16.1	93	ne.	5	2.2			10n;fg		calm	0.27	6.9	light rain	
Eagle Pass, Texas	29.23	742.4	30.06	763.5	77.0	25.0	90	se.	4	1.8		0	5 s		se.	0	0	fair	
Eagle Rock, Idaho	25.50	647.7	30.35	770.9	37	2.8	58	w.	8	3.6		0	0			0	0	clear	
Eastport, Maine	30.09	764.3	30.16	766.1	53	11.7	90	nw.	7	3.1		hz.	0			0	0	dense haze	
El Paso, Texas	26.26	667.0	30.01	762.2	64.3	17.9	90	calm	0	0		0	1 s			inap.	inap.	clear	
Erie, Pennsylvania	29.28	743.7	30.01	762.2	67	19.4	84	e.	2	0.9		hz.	hz.			0	0	dense haze.	
Escanaba, Michigan	29.17	740.9	29.83	757.7	60	15.6	87	se.	11	4.9			10 s		se.	0	0	cloudy	
Florence, Arizona	28.43	722.1	30.03	762.7	68	20.0	61	calm	0	0		5 ck	0	w.		0	0	fair	
Fort Apache, Arizona	25.12	638.0	30.04	763.0	49	9.4	80	e.	4	1.8		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.24	691.9	30.05	763.3	46	7.8	71	sw.	8	3.6			10 s		sw.	0	0	cloudy	
Fort Bennett, Dakota	28.49	723.0	30.03	762.7	46	7.8	71	w.	8	3.6		0	0			0	0	clear	
Fort Benton, Montana	27.24	691.9	30.10	764.5	44	6.7	63	nw.	14	6.3		0	0			0	0	clear	
Fort Buford, Dakota	28.08	713.2	30.09	764.3	41	5.0	76	w.	6	2.7		5 k	0	sw.		0	0	fair	
Fort Custer, Montana	26.99	685.5	30.23	767.8	40	4.4	63	nw.	2	0.9		0	0			0.20	5.1	clear	
Fort Davis, Texas	25.30	642.6	30.20	768.6	62	16.7	90	w.	2	0.9		0	5 s			0.04	1.0	fair	
Fort Elliott, Texas	27.37	695.2	30.56	776.2	55	12.8	74	nw.	32	14.3			10 s		nw.	inap.	inap.	cloudy	
Fort Gibson, Indian T'y	29.36	745.7	29.91	759.7	79.5	26.4	69	s.	4	1.8			10 s		s.	inap.	inap.	cloudy	
Fort Grant, Arizona					62	16.7	78	ne.	4	1.8		0	1 s			0	0	clear	
Fort Griffin, Texas	28.73	729.7	29.94	760.5	77.6	25.3	58	s.	7	3.1			10 s			0.03	0.8	cloudy	
Fort Keogh, Montana	27.61	701.3	30.15	765.8	39	3.9	82	calm	0	0		0	0			0.08	2.0	clear	
Fort Macon, North Carolina	30.05	763.3	30.06	763.5	79	26.1	77	sw.	10	4.5		hz.	hz.	calm	calm	0.56	14.2	dense haze.	
Fort McKavett, Texas	27.80	706.1	29.65	753.1	70.8	21.6	90	sw.	6	2.7		6 cs	0			0	0	fair	
Fort Missoula, Montana	26.97	685.0	30.49	774.4	37	2.8	82	e.	1	0.4		0	0			0	0	clear	
Fort St. Michaels	29.54	750.3	29.57	751.1	47	8.3	92	ne.	10	4.5			10 s		ne.	inap.	inap.	cloudy	
Fort Shaw, Montana	26.50	673.1	30.10	764.5	46	7.8	56	w.	10	4.5		0	0			0	0	clear	
Fort Sill, Indian Territory	28.75	730.2	30.00	762.0	78	25.6	74	sw.	6	2.7			10 s		w.	0	0	cloudy	
Fort Stevenson, Dakota	28.12	714.2	30.00	762.0	39	3.9	92	w.	8	3.6		0	0			0	0	clear	
Fort Verde, Arizona					59.2	15.1	82	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas																			
Galveston, Texas	30.01	762.2	30.05	763.3	80.8	27.1	74	s.	5	2.2		hz.	1 k		s.	0	0	clear	
Grand Haven, Michigan	29.22	742.2	29.89	759.2	57.5	14.2	90	e.	6	2.7		6 k	0	sw.		0	0	fair	
Hatteras, North Carolina	30.03	762.7	30.05	763.3	80	26.7	74	sw.	30	13.4		hz.	hz			inap.	inap.	dense haze.	
Helena, Montana	25.97	659.6	30.36	771.1	48	8.9	56	se.	7	3.1		0	0			0	0	clear	
Henrietta, Texas	28.98	736.1	29.85	758.2	82	27.8	74	s.	8	3.6		0	2 s		calm	0	0	clear	
Huron, Dakota	28.62	726.9	30.01	762.2	49	9.4	68	nw.	19	8.5			9 s			0	0	cloudy	
Indianapolis, Indiana	29.15	740.4	29.95	760.7	75	23.9	74	se.	2	0.9		0	fg.		calm	0	0	clear	
Indianola, Texas	29.99	761.7	30.02	762.5	80.6	27.0	88	se.	5	2.2		hz.	hzl ks		calm	0.01	0.3	dense haze.	
Jacksboro, Texas	28.84	732.5	29.92	760.0	77	25.0	82	sw.	6	2.7		0	4 ks		w.	0	0	fair	
Jacksonville, Florida	30.04	763.0	30.08	764.0	81	27.2	79	sw.	7	3.1			10 s		sw.	0	0	cloudy	
Keokuk, Iowa	29.09	738.9	29.75	755.6	73.0	22.8	79	s.	28	12.5			10 ks		sw.	0.21	5.3	cloudy	
Key West, Florida	30.02	762.5	30.05	763.3	81.1	27.3	87	e.	2	0.9		3 cs	2 k;ks	se.	e.	inap.	inap.	fair	
Kittyhawk, North Carolina	29.97	761.2	29.99	761.7	76	24.4	82	sw.	26	11.6		0	8 s		sw.	0.15	3.8	cloudy	
Knoxville, Tennessee	29.07	738.4	30.11	764.8	67.9	19.9	88	ne.	3	1.3		0	sk.		calm	0	0	clear	
La Crosse, Wisconsin	28.84	732.5	29.62	752.3	66	18.9	93	w.	5	2.2			10 n			1.46	37.1	light rain	
La Mesilla, New Mexico	26.19	665.2	30.34	770.6	63.5	17.5	78	calm	0	0		2 c	0			0.03	0.8	clear	
Laredo, Texas																			
Leavenworth, Kansas	29.07	738.4	29.97	761.2	58	14.4	80	nw.	20	8.9			10 s		nw.	0.27	6.9	cloudy	
Lewiston, Idaho	29.54	750.3	30.39	771.9	47	8.3	86	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.68	753.9	30.00	762.0	75	23.9	85	w.	4	1.8		6 ck	hz;2 ks	nw.	nw.	inap.	inap.	fair	
Los Angeles, California	29.59	751.6	29.97	761.2	60.0	15.6	70	nw.	2	0.9		0	0			0	0	clear	
Louisville, Kentucky	29.40	746.7	29.97	761.2	73.0	22.8	76	sw.	2	0.9		0	1 s			0	0	clear	
Lynchburg, Virginia	29.32	744.7	30.01	762.2	76.5	24.7	64	w.	4	1.8		hz.	0			0.02	0.5	dense haze.	
Madison, Wisconsin	28.72	729.5	29.75	755.6	65	18.3	93	s.	12	5.4			10 n		calm	0.23	5.8	light rain	
Marquette, Michigan	29.09	738.9	29.82	757.4	56	13.3	93	s.	10	4.5			10 s		s.	0	0	cloudy	
Mason, Texas	28.38	720.8	30.07	763.8	72.3	22.4	97	calm	0	0		2 ck	0	se.		0.09	2.3	clear	
Memphis, Tennessee	29.69	754.1	30.03	762.7	74	23.3	76	calm	0	0		hz.	hz.	calm	calm	0	0	dense haze.	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.06	738.1	29.82	757.4	66	18.9	90	se.	11	4.9	.....	.....	10 s	.....	sw.	inap.	inap.	threatening.	
Mobile, Alabama	30.01	762.2	30.08	764.0	74.0	23.3	85	w.	3	1.3	.....	9 ck	fg	nw.	.....	0	0	cloudy	
Montgomery, Alabama	29.85	758.2	30.08	764.0	74	23.3	82	sw.	3	1.3	.....	10 c	0	.....	.....	0	0	cloudy	
Moorhead, Minnesota	28.88	733.5	29.89	759.2	47	8.3	86	w.	12	5.4	.....	.....	10 s	.....	w.	0	0	cloudy	
Morgantown, W. Virginia	29.01	736.8	29.96	761.0	70.5	21.4	87	calm	0	0	.....	hz.	4 s; fg	.....	.....	0	0	fair	
Mt. Washington, N. H.	24.04	610.6	30.24	768.1	47.0	8.3	79	nw.	24	10.7	.....	.....	10s; sk	.....	nw.	0.07	1.8	cloudy	
Nashville, Tennessee	29.48	748.8	30.02	762.5	74.0	23.3	79	calm	0	0	.....	3 ck	sk	.....	.....	0	0	dense smoke	
New Haven, Connecticut	29.97	761.2	30.08	764.0	70	21.1	93	s.	1	0.4	.....	.....	fg.	.....	.....	0	0	dense fog	
New London, Connecticut	30.05	763.3	30.10	764.5	69	20.6	100	calm	0	0	.....	.....	fg	.....	.....	0	0	dense fog	
New Orleans, Louisiana	30.01	762.2	30.07	763.8	78.2	25.7	77	calm	0	0	.....	9 cs	hz	.....	.....	0	0	cloudy	
Newport, Rhode Island	30.06	763.5	30.11	764.8	68.8	20.4	98	calm	0	0	.....	.....	fg	.....	.....	0	0	dense fog	
New River, N. Carolina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
New Shoreham, Rhode I'd.	30.07	763.8	30.10	764.5	68.0	20.0	100	sw.	1	0.4	.....	.....	fg.	.....	calm	0.04	1.0	dense fog	
New York, New York	29.90	759.4	30.08	764.0	72	22.2	100	e.	4	1.8	.....	.....	fg	.....	.....	0	0	dense fog	
Norfolk, Virginia	29.85	758.2	29.88	758.9	75.5	24.2	97	w.	12	5.4	.....	.....	10 ks	.....	w.	0.35	8.9	cloudy	
North Platte, Nebraska	27.28	692.9	30.22	767.6	42.6	5.9	94	nw.	12	5.4	.....	0	0	.....	.....	0.27	6.9	clear	
Olympia, Washington T'y	30.10	764.5	30.14	765.5	42.0	5.6	92	n.	1	0.4	.....	0	fg	.....	calm	0	0	clear	
Omaha, Nebraska	28.82	732.0	30.01	762.2	53.5	11.9	76	n.	22	9.8	.....	.....	10 s	.....	.....	1.37	34.8	cloudy	
Oswego, New York	29.71	754.6	30.04	763.0	67.5	19.7	86	s.	2	0.9	.....	4 cs	sk	w.	.....	0	0	fair	
Pensacola, Florida	30.05	763.3	30.08	764.0	72	22.2	90	sw.	4	1.8	.....	0	5 s	.....	w.	0	0	fair	
Philadelphia, Pa.	29.98	761.5	30.04	763.0	74	23.3	97	se.	5	2.2	.....	.....	10 n	.....	n.	0.10	2.5	light rain	
Phœnix, Arizona	28.78	731.0	30.53	775.4	67	19.4	47	calm	0	0	.....	3 ck	0	s.	.....	0	0	fair	
Pike's Peak, Colorado	17.97	456.4	30.18	766.6	24	— 4.4	73	sw.	20	8.9	.....	0	0	.....	.....	0	0	clear	
Pioche, Nevada	24.30	617.2	30.32	770.1	45	7.2	27	nw.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Pittsburg, Pennsylvania	29.21	741.9	30.03	762.7	69	20.6	93	w.	5	2.2	.....	.....	10 s	.....	calm	0	0	cloudy	
Port Eads, Louisiana	30.07	763.8	30.08	764.0	78.1	25.6	79	calm	0	0	.....	hz.	5ks; hz	calm	calm	0	0	dense haze	
Port Huron, Michigan	29.32	744.7	30.02	762.5	57.6	14.2	84	e.	2	0.9	.....	hz	sk	calm	calm	0	0	dense smoke	
Portland, Maine	30.10	764.5	30.15	765.8	64.5	18.1	78	ne.	7	3.1	.....	.....	10 s	.....	calm	0	0	cloudy	
Portland, Oregon	30.05	763.3	30.12	765.0	54.0	12.2	77	nw.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Portsmouth, N. Carolina	.....	.....	.....	.....	78	25.6	90	sw.	18	8.0	.....	hz	hz	calm	calm	0.59	15.0	light haze	
Prescott, Arizona	24.88	631.9	30.07	763.8	50	10.0	74	w.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Punta Rassa, Florida	30.04	763.0	30.05	763.3	77	25.0	85	e.	7	3.1	.....	2 c	1 k	calm	se.	inap.	inap.	fair	
Red Bluff, California	29.58	751.3	29.92	760.0	64.5	18.1	30	nw.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Rio Grande City, Texas	29.82	757.4	30.03	762.7	77	25.0	97	calm	0	0	.....	1 c	0	calm	.....	0	0	clear	
Rochester, New York	29.40	746.7	30.04	763.0	64	17.8	78	s.	4	1.8	.....	.....	fg	.....	.....	0	0	dense fog	
Roseburg, Oregon	29.52	749.8	30.10	764.5	46	7.8	89	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Sacramento, California	29.86	758.4	29.94	760.5	62.0	16.7	60	s.	4	1.8	.....	0	0	.....	.....	0	0	clear	
St. Louis, Missouri	29.30	744.2	29.91	759.7	72.1	22.3	84	s.	9	4.0	.....	4 c; ck	0	.....	.....	0.20	5.1	fair	
St. Paul, Minnesota	28.86	733.0	29.74	755.4	51.5	10.8	88	w.	16	7.2	.....	.....	10 n	.....	w.	0.56	14.2	light rain	
Salt Lake City, Utah	25.89	657.6	30.22	767.6	43	6.1	32	calm	0	0	.....	0	0	.....	.....	0	0	clear	
San Antonio, Texas	29.33	745.0	30.03	762.7	76.4	24.7	97	calm	0	0	.....	0	5 ks	.....	s.	inap.	inap	fair	
San Diego, California	29.83	757.7	29.90	759.4	62.2	16.8	87	nw.	2	0.9	.....	.....	10 s	.....	.....	0	0	cloudy	
Sandusky, Ohio	29.30	744.2	29.99	761.7	71	21.7	76	se.	6	2.7	.....	0	sk.	.....	.....	0	0	clear	
Sandy Hook, New Jersey	30.03	762.7	30.06	763.5	74.0	23.3	97	e.	4	1.8	.....	.....	fg	.....	calm	0.01	0.3	dense fog	
San Francisco, California	29.91	759.7	29.97	761.2	53	11.7	93	sw.	1	0.4	.....	0	fg	.....	sw.	0	0	clear	
Santa Fé, New Mexico	23.47	596.1	30.27	768.8	49	9.4	68	s.	2	0.9	.....	0	2 k	.....	calm	0	0	fair	
Savannah, Georgia	30.00	762.0	30.09	764.3	79	26.1	82	sw.	4	1.8	.....	.....	10 s	.....	.....	0	0	cloudy	
Shreveport, Louisiana	29.80	756.9	30.03	762.7	75.5	24.2	85	s.	4	1.8	.....	0	1 s	.....	calm	0	0	clear	
Silver City, New Mexico	24.34	618.2	29.91	759.7	59	15.0	70	nw.	2	0.9	.....	4 ck	1 s	calm	calm	0.51	13.0	fair	
Sitka, Alaska	29.78	756.4	29.84	757.9	54	12.2	93	sw.	12	5.4	.....	.....	10 n	.....	calm	1.44	36.6	light rain	
Smithville, North Carolina	30.04	763.0	30.08	764.0	78	25.6	90	w.	4	1.8	.....	0	fg	.....	.....	0	0	clear	
Spokane Falls, Wash. Ter.	28.19	716.0	30.21	767.3	40	4.4	82	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Springfield, Illinois	29.19	741.4	29.88	758.9	71	21.7	90	s.	10	4.5	.....	3 c	4 s	w.	sw.	0.30	7.6	fair	
Springfield, Massachusetts	29.96	761.0	30.09	764.3	70.7	21.5	94	calm	0	0	.....	.....	fg	.....	.....	0	0	dense fog	
Stockton, Texas	27.04	686.8	30.11	764.8	68.0	20.0	84	s.	5	2.2	.....	2 k	3 s	calm	s.	0	0	fair	
St. Vincent, Minnesota	28.93	734.8	29.82	757.4	45	7.2	93	nw.	12	5.4	.....	.....	10 s	.....	calm	0	0	cloudy	
Thatcher's Island, Mass.	30.13	765.3	30.18	766.6	61.1	16.2	100	ne.	8	3.6	.....	.....	10 s	.....	se.	0	0	cloudy	
Toledo, Ohio	29.26	743.2	29.96	761.0	70	21.1	79	e.	1	0.4	.....	0	sk	.....	.....	0	0	dense smoke.	
Tucson, Arizona	27.46	697.5	29.82	757.4	72	22.2	55	n.	1	0.4	.....	1 k	0	.....	.....	0	0	clear	
Umatilla, Oregon	29.85	758.4	30.27	768.8	43.0	6.1	74	se.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Uvalde, Texas	29.06	738.1	29.84	757.9	77	25.0	90	calm	0	0	.....	.....	10 ks	.....	s.	0.02	0.5	cloudy	
Vicksburg, Mississippi	29.81	757.2	30.07	763.8	74	23.3	76	s.	6	2.7	.....	5 ck	2 s	calm	calm	0	0	cloudy	
Visalia, California	29.52	749.8	29.88	758.9	62	16.7	60	se.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Washington, D. C.	29.85	758.2	29.96	761.0	74.5	23.6	95	n.	8	3.6	.....	3 ck	5 s	w	.....	0.40	10.2	cloudy	
Wickenburg, Arizona	.....	.....	.....	.....	63	17.2	90	calm	.....	.....	0	0	0	.....	.....	0	0	clear	
Wilmington, N. Carolina	30.02	762.5	30.08	764.0	75	23.9	90	w.	5	2.2	.....	hz	fg	calm	calm	1.90	48.3	hazy	
Winnemucca, Nevada	25.82	655.8	30.15	765.8	38	3.3	25	ne	10	4.5	.....	0	0	.....	.....	0	0	clear	
Wood's Holl, Mass.	30.06	763.5	30.09	764.3	68	20.0	100	calm	0	0	.....	.....	fg	.....	calm	0	0	dense fog	
Yankton, Dakota	28.74	730.0	30.05	763.3	51	10.6	80	nw.	8	3.6	.....	.....	10 s	.....	nw	0.10	2.5	cloudy	
Yuma, Arizona	29.68	753.9	29.82	757.4	70.0	21.1	53	sw.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	30.04	763.0	30.06	763.5	84	28.9	87	e.	3	1.3	.....	5 k	5 ks	e.	.....	0	0	.....	J. A. Racker.
Bogota, U. S. Columbia	22.05	560.1	.....	.....	59.0	15.0	85	se.	2	0.9	.....	.....	10 n	.....	sw.	0.49	12.4	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.94	760.5	29.94	760.5	83	28.3	87	e.	.....	.....	.....	2 k	2 ks	.....	ese.	0	0	.....	B. Bigar.
Havana, Cuba, W. I.	30.01	762.2	30.06	763.5	79	26.1	82	calm	0	0	.....	8 cs	5 ks	calm	calm	0.10	2.5	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	30.00	762.0	30.01	762.2	75.4	24.1	91	calm	0	0	.....	0	9 s	.....	.....	0.01	0.3	.....	Robert Johnstone.
Navassa, W. I.	29.93	760.2	30.01	762.2	79	26.1	82	ne.	6	2.7	.....	k	8kn	ne.	e.	0.18	4.6	cloudy	F. M. Everett.
Paramaribo, S. A.	30.06	763.5	30.07	763.8	79	26.1	83	se.	.....	.....	2	0	3 k	.....	e.	0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.36	745.7	29.91	759.7	80	26.7	89	n.	.....	.....	.....	.....	10 ks	.....	n.	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	77.9	25.5	.....	se.	.....	.....	1	2 cs	1 ks	.....	ese.	0	0	.....	Earl Flint.
Santiago de Cuba, W. I.	30.00	762.0	30.03	762.7	80	26.7	82	n.	2.4	1.1	.....	8 cs	0	.....	.....	0.22	5.6	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.92	760.0	30.04	763.0	82	27.8	83	se.	6	2.7	.....	0	6 ks	.....	.....	0	0	clear	G. O. Gyllich.
York Factory, B. A.	29.65	753.1	29.70	754.4	36.0	2.2	100	s.	26	11.6	.....	5 k	5 s	s.	s.	.....	.....	raining	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Off Guard Bank, Torres St.	29.92	760.0	76.5	24.7	81	ese.			3-4		10							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Palma, Majorca, Spain	30.01	762.2	69	20.6	75	ene.			1		10							overcast	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.96	761.0	78	25.6		ne.			3		4	n.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 12° 45′, E. 45° 03′	29.66	753.4	88	31.1	84	ssw.			3		1	sw.				3	sw.	blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 17° 00′, W. 61° 45′	30.07	763.8	84	28.9	83	se.			2		3							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, Turtle Cove, Congo River	30.04	763.0	74	23 3	74	wsw.			1-2		10	calm				4	wsw.	d. clouds	Capt. F. W. Richards.
H. M S. Champion																			Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′. E. 20° 43′	29.86	758.4	82	27.8		wnw.			1		1	calm						blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 29° 51′, E. 12° 13′	30.15	765.8	60	15.6		sw.			1-2		4	wnw.				5	wsw.	d. clouds	Capt C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.15	765.8	81	27.2	87	nne.			1		4	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.14	765.5	54	12.2	89	e.			1		7	se.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 22° 24′, E. 59° 40′	29.52	749.8	81	27.2		ese.			2		7	se.				2	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 13° 04′, E. 80° 14′	29.71	754.6	87.5	30.8		ssw.			1-2		10					3	se.	overcast	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 46° 45′, W. 20° 30′	30.15	765.8	65	18.3		se.			3		10					2	sse.	misty	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Seychelles Islands, Africa	29.92	760.0	82	27.8	63	se.			2		4	se.						d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19	29.80	756.9	78	25.6		se.			3-4		3					3	se.	squally	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 16° 36′, W. 77° 12′	29.98	761.5	86	30.0	88	ene.			3		4	e.				2	e.	d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish, Hakodate, Yezo, Japan.	30.18	766.6	65	18.3	78	ene.			2		5	e.				1	se.	d. clouds	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich I'ds	30.09	764.3	73.5	23.1	69	ne.			2-4		7							showery	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argentine Rep	30.09	764.3	52	11.1	86	wsw.			2		0							blue sky	Capt. L. F. Jones
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 18° 00′, E. 177° 30′	30.10	764.5	75	23.9	85	se.			6		6	se.				5	se.	squally	Capt. C. C. P. Fitzgerald.
H. M. S. Iris, Hammamet, Tunis	29.90	759.4	79	26.1	82	ese.			2		5					1	sse.	d. clouds	Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 41° 47′ E. 140° 43′	30.19	766.8	67	19.4		ene.			1		5	ene.						d. clouds	Capt. R. E. Tracey.
H. M. S. Kingfisher																			Comm. R. H. Thornton.
H. M. S. Lapwing, S. 11° 30′, E. 95° 00′	29.84	757.9	78	25.6		e.			4		9	e.				4	e.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, N. 0° 26′, W. 22° 45′	30.09	764.3	79	26.1	78	sse.			3-4		2					2	sse.	d. clouds	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.80	756.9	80.8	27.1	86	e.			2		8					1	ene.	raining	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch, Sfax, Tunis	29.91	759.7	80	26.7	78	sse.			2		8	sse.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Charlotte Town, P. E. Id	30.04	763.0	57.5	14.2	97	n.			2		10							d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 44° 04′, W. 55° 22′	30.13	765.3	59	15.0	94	calm			0		9					2	n.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready, N. 12° 10′, E. 88° 44′	29.67	753.6	79	26.1		sw.			5-6		6	sw.				6	sw.	showery	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 4° 33′, E. 39° 35′	30.11	764.8	76.3	24.6	86	sse.			2-3		4					6	sse.	d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 12° 19′, E. 43° 35′	29.66	753.4	78	25.6	82	se.			3-4		5	e.				4	e.	d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 48° 01′, W. 65° 14′	30.17	766.3	55	12.8	90	ene.			2		9							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	30.04	763.0	59	15.0	94	sw.			1		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.99	761.7	80	26.7		nne.			1		4					1		d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D. C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.65	753.1	81.5	27.5	78	wnw.			2-3		3	w.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela India	30.07	763.7	76.1	24.4	71	n.			3		1					1		blue sky	Carlos Candid dos Reis.
Quanza, St. Vincent, Cape Verd Ids	30.03	762.8	82.6	28.1	80	ene.			1		1		ne.					blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.90	759.5	81.5	27.5	80	se.			4		7		se.	1h'r	1 h'r			d. clouds	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES. By authority of the Secretary of the Navy. Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.14	765.5	76	24.4	86	nw.	2	0.9			5		nw.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.09	764.3	58	14.4	?	sw.	6	2.7		10 c	0							rainy	
Naval Hospital, Yokohama, Japan	29.92	760.0	62.5	16.9	97	n.			4		10		n.	0.67	17.0			light rain	
Adams, N. 12° 53′, W. 93° 23′	29.70	754.4	83	28.3	91	e.			6		8		e.			mod.	e.	light rain	
Alaska, Callao, Peru	29.98	761.5	60	15.6	100	calm			0		10			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.89	759.2	65	18.3	94	nnw.			5		10		n.			sm'h		rainy	
Alliance, N. 70° 56′, E. 180° 22′	30.07	763.8	46	7.8	77	ssw.			3		5		s.	light	light	sm'h		fair	
Ashuelot, Kobe, Japan	29.94	760.5	79	26.1	74	nne.			3		2		calm					clear	
Colorado, New York, N. Y.	30.06	763 5	72	22.2	100	se.	1	0.4			fg			0	0			dense fog	
Constitution, New London, Conn	30.04	763.0	70	21.1	100	calm	0	0			10							foggy	
Franklin, Norfolk, Va	29.80	756.9	74	23.3	?	ssw.	3	1.3			10		sw.	0	0			threatening.	
Galena, Leghorn, Italy	29.89	759.2	72	22.2	76	se.			0-1		10							cloudy	
Independence, N. Yard, Mare I'd, Cal	29.84	757.9	59	15.0	82	sw.	3.6	1.6			8		sw.					cloudy	
Jamestown, Mare Isl'd, Cal *	29.87	758.7	59	15.0	82	wsw.			2		0			0	0			clear	
Kearsarge, off Wilmington, Del	30.02	762.5	75	23.9	90	ene.			2		10					sm'h		raining	
Lackawanna, Mare Isl'd, Cal †	29.93	760.2	58	14.4	94	sw.			1		0							clear	
Lancaster, Portsmouth, N. H.	30.12	765.0	63	17.2	83	ne.	8	3.6			10		nw.	0.02	0.5			raining	
Marion, [S. A.* Buenos Ayres, La Plata,	29.87	758.7	54	12.2		wsw.			3		0					sm'h		clear	
Michigan, Erie, Pa	29.98	761.5	67	19.4	84	e.			2									hazy	
Minnesota, Newport, R. I	30.09	764.3	68	20.0	95	sw.			1		10					sm'h		foggy	
Monocacy, Yokohama, Japan	30.12	765.0	64	17.8	94	nnw.			3		10		n.					rainy	
Nipsic, Villafranca, France	29.87	758.7	71	21.7	66	w.			2		10					sm'h		overcast	
Onward, Callao, Peru †	30.01	762.2	60	15.6	100	calm			0		8					long	w.	cloudy	
Palos, Hong Kong, China	29.90	759.4	82	27.8	91	e.			2		8		n;e					fair	
Passaic, Washington, D. C.	29.99	761.7	76	24.4	91	e.			1		0							clear	
Pensacola, Panama, Panama	29.91	759.7	78	25.6	82	calm			0		10			h'vy	h'vy	sm'h		cloudy	
Portsmouth, Gloucester, Mass	30.12	765.0	62	16.7	94	ne.			2		10					sm'h		raining	
Powhatan, N. 18° 33′, W. 74° 40′	30.04	763.0	84	28.9	83	nnw.			2		8		nw.			sm'h		cloudy	
Quinnebaug, Villafranca, France	29.85	758.2	74	23.3	68	se.			3		5					sm'h		fair	
Ranger, Mare Island, Cal *	29.92	760.0	57	13.9	94	sw.			1		0					sm'h		clear	
Richmond, N. 15° 19′, W. 102° 11′	29.88	758.9	83	28.3	91	nne.			1		10		nne.	0.01	0.3	long	s.	threatening.	
Shenandoah, Maldonado, Uruguay *	30.10	764.5	54	12.2	93	wsw.			4		2					sm'h		fair	
St. Louis, League Island, Pa	29.80	756.9	76	24.4	100	se	8	3.6			10			0.2	5.			rainy	
Swatara, Chefoo, China †	29.99	761.7	76	24.4	86	e.			1		0							clear	
Tennessee, New York, N. Y.	30.07	763.8	75	23.9	100	nne.	3	1.3			10			0.18	4.6			hazy	
Trenton, N. 36° 50′, W. 2° —′ *	29.83	757.7	75	23.9	81	w.			4		5			0	0			fair	
Vandalia, Glen Cove, Long Isl'd	30.05	763.3	73	22.8	95	sse.			1		0							clear	
Wabash, Boston, Mass	30.12	765.0	69	20.6	85	n.	3	1.3			10		calm	0.07	1.8			cloudy	
Wachusetts, Sitka, Alaska	29.85	758.2	55	12.8	100	s.			1		10		calm	mod.	mod.	sm'h		rainy	
Wyoming, Port Royal, S. C.	30.42	772.7	79	26 1	86	ssw.	5	2.2			10		calm	0	0			hazy	
Yantic, New York, N. Y. *	30.02	762.5	72	22.2	100	calm			0									foggy	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 56° 05′ W. 27° 57′ *†..	29.93	760.2	.....	.....	.....	sw.	3	.....	5	.....	sw.	.....	.....	mod.	ssw.	fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson Halifax, N. S	30.00	762.0	58	14.4	.....	wnw.	4	.....	5?	.....	wnw.	.....	.....	.....	.....	clear?	
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn	30.03	762.7	77	25.0	95	e.	5	.....	10	.....	e.	.....	.....	.....	.....	raining	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 49° 28′, W. 22° 37′ †..	30.08	764.0	62	16.7	88	ssw.	6	.....	2	.....	sw.	0	0	sm'h	sw.	fine	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, N. 43° 50′, W. 36° 01′ *†	30.04	763.0	59	15.0	88	n.	2	.....	5?	.....	wnw.	.....	.....	he'vy	nnw;	cloudy ?	
S. S. Pennsylvania, Capt. G. H. Dodge, Liverpool, Eng †..	30.11	764.8	64	17.8	73	n.	2	.....	10	.....	n.	.....	.....	.....	.....	cloudy	C. Rodman, 3d Off.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, N. 25° 57′, W. 20° 55′	30.09	764.3	81	27.2	78	nne.	2	.....	2	.....	.....	.....	.....	.....	.....	blue sky	
S. British Merchant, E. J. Moloney, N. 36° 32′, W. 33° 44′ ‡..	29.82	757.4	74.5	23.6	86	e.	0-1	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Cipero, Capt. W. N. Lailey, Port of Spain, Trinidad, W. I	30.07	763.8	81.6	27.6	91	ne.	1	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Coppename, Capt. A. Buchan, N. 33° 24′, W. 46° 00′	30.04	763.0	75.5	24.2	70	n.	5	.....	2	.....	.....	.....	.....	.....	.....	blue sky	
Bk. Glaramara, Capt. R. Morton, N. 43° 24′, W. 146° 08′ ‡.	30.35	770.9	54.5	12.5	100	ssw.	4	.....	9	.....	.....	.....	.....	.....	.....	d. clouds	
Bg. Hermine, Capt. S. G. Jones, N. 16° 46′, W. 26° 33′	30.08	764.0	80.4	26.9	78	se.	5	.....	2	.....	.....	.....	.....	.....	.....	d. clouds	
Bkt. Hope, Capt. J. Campbell	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Island Belle, Capt. A. McBride, N. 10° 21′, W. 53° 55′	30.06	763.5	82.7	28.2	.....	e.	1-5	.....	2	.....	.....	.....	.....	.....	.....	blue sky	
S. Lochee, Capt. J. Raeburn, S. 35° 48′, W. 22° 02′ ‡..	30.14	765.5	52	11.1	93	s.	7	.....	5	.....	.....	.....	.....	.....	.....	squally	
Bk. Mertola. Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Pleione, Capt. C. H. Renant, S. 36° 26′, W. 14° 27′	29.92	760.0	52	11.1	86	wsw.	6	.....	10	.....	.....	.....	.....	.....	.....	raining	
S. S. Rosetta. Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Shun Lee, Capt. J. N. Gray, N. 6° 24′, W. 27° 15′ ‡..	30.04	763.0	79.7	26.5	82	s.	4	.....	9	.....	.....	.....	.....	con.	.....	overcast	
S. S. Strathleven, Capt. C. W. Pearson, N. 31° 15′, E. 121° 28′	29.86	758.4	80.5	26.9	91	e.	3	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt, E. Rogers N. 26° 15′, W. 113° 40′ †	29.86	758.4	71	21.7	90	w.	2	.....	10	.....	w.	0	0	g'tl	wnw.	cloudy.	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains N. 42° 09′ W. 56° 55′	30.20	767.1	69	20.6	.....	var-	2	.....	10	.....	sw.	0	0	sm'h	.....	overcast	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 37° 58′, W. 69° 43′	30.09	764.3	79.0	26.1	95	se.	2	.....	10	.....	s.	.....	.....	sm'h	sw.	hazy..	E. Schmidt, 3d Officr.
S. S. Hermann, Capt. H. Baur, N. 50° 11′, W. 11° 05′	30.17	766.3	62.6	17.0	.....	ne.	5	.....	8	.....	wsw.	0	0	light	w.	cloudy	T. Jüngst.
S. S. Koln, Capt. T. Jüngst, N. 53° 39′, W. 5° 18′	29.83	757.7	63.0	17.2	91	nne.	4	.....	10	.....	nne.	10 h'r	sh'rs	mod.	nne.	cloudy	Walter & Reschler.
S. S. Leipzig, Capt. F. Pfeifer	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Englehart & von [Goesset.
S. S. Strassburg, Capt. O. Heimbrouche N. 45° 52′, W. 33° 32′	29.90	759.4	58.5	14.7	?	nne.	5	.....	8	.....	ene.	0	0	r'gh	ne.	fair	
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 36° 12′, E. 146° 40 †..	30.25	768.3	75	23.9	81	ne.	4	.....	8	.....	ne.	0	0	mod.	ne.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 42° 18′, W 132° 45′ *†..	30.48	774.2	62	16.7	77	ne.	5	.....	6?	.....	e.	.....	.....	mod.	ne.	clear?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 35° 17′, E. 141° 14′	30.10	764.5	76	24.4	77	ene.	6	.....	9	.....	ne.	0	0	mod.	e.	cloudy	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Pohl, 1st Officer.
S. S. Oregon, Capt. Pollmann Portland, Oregon †..	30.13	765.3	53	11.7	93	nnw.	1	.....	0	.....	.....	.....	.....	.....	.....	clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 34°, 23′ W. 120° 06′ †.	29.95	760.7	57	13.9	94	wsw.	1		10		w.			sm'h		dense fog	J. N. Ingalls.
S. S. Dakota, Capt. ——, Esquimalt, Vancouver's Id †.	30.19	766.8	53	11.7	86	n.	4		10?		nw.	0	0	sm'h	nnw.	clear?	
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal †.	29.98	761.5	53	11.7	93	sw.	1		0					sm'h		clear	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,																	
S. S. Senator, Capt. Wallace, Eureka, Cal	29.97	761.2	48	8.9	92	s.	1		9							foggy	G. H. Harrison. T. Wallace.
S. S. State of California, Capt. Debney, N. 44° 10′, W. 124° 30′ †.	29.93	760.2	52	11.1	86	nw.	3		5		nw.			mod.	nw.	fair	G. Debney.
S. S. Victoria, H. M. Hayward, N. 38° 57′, W. 123° 52′ †.	30.00	762.0	50	10.0	93	var.	4		fg					mod.	w.	foggy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J Bulay, Supt. New York.*																	
S. S. Australia, Capt. ——, S. 34° 20′, E. 165° 20′	30.15	765.8	61	16.1	77	nnw.	4		5?		n.			mod.	nw.	clear?	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W †.	29.98	761.5	68	20.0	84	calm	0		10			0	0			overcast	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry																	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama †.	29.96	761.0	84	28.9	91	n.	1		2		n.	1 h'r	1 h'r	sm'h	s.	fine	
S. S. City of Sydney, Capt. H. C. Dearborn,																	E. L. Salk.
S. S. City of Tokio, Com. J. Maury Hong Kong, China †.	29.95	760.7	86	30.0	84	e.	1		10		ne.	0	0			fair	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle, N. 23° 05′, W. 107° 55′ †.	29.87	758.7	83	28.3	87	wsw.	2		10		sw.	0.65	16.5	mod.	ssw.	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 20° 38′, W. 105° 58′ †.	29.81	757.2	77	25.0	95	s.	3		10		s.	6 h'rs	6 h'rs	long	s.	raining	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 4° 13′, W. 167° 28′	29.97	761.2	81	27.2	78	e.	1		1		e.				se.	clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †.	30.04	763.0	61	16.1	82	nnw.	3		7		n.	0.3	8.			cloudy	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 41° 06′, W. 62° 56′ †.	30.15	765.8	70	21.1	82	wsw.	3		10		sw.	0	0	sm'h		cloudy	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 49° 31′, W. 22° 07′ †.	30.21	767.3	62	16.7		s.	5		10			3 h'r	3 h'r	mod.	sw.	cloudy	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 40° 26′, W. 72° 50′ †.	30.19	766.8	68	20.0	100	calm	0		10			8 h'r	8 h'r	sm'h		rain & fog	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 50° 16′, W. 32° 52′ †.	29.91	759.7	58	14.4	88	w.	3		2		nw.	shr's	shr's	mod.	wnw.	d. clouds	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass †.	30.10	764.5	70	21.1	100	calm	0		10 n			0	0			foggy	
Golden Fleece																	
Hassler Lt. Com. Nichols, Sitka, Alaska *†.	29.92	760.0	55	12.8		s.	2		10		se.			mod.	sw.	overcast	
S. Iron Cross, Capt. Randall, S. 11° 40′, W. 11° 15′ *.	30.14	765.5	71.5	21.9	100	se.	4		8		se.	0	0	sli't	sse.	d. clouds	W. Randall.
S. Pawahick, Capt. E. Fry,																	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †.	30.07	763.8	74	23.3	64	ne.	7		0			0	0			clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 11, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.97	761.1	75.6	24.2	66	calm			0		0			0	0	clear	Raynard.
Algiers ‡			30.06	763.5	79.5	26.4	43	n.			2		3			0	0	pretty fair	Nicolas.
La Calle ‡			30.05	763.2	78.4	25.8	84	e.			5		5			0	0	cloudy	Fonfréde.
Tunis ‡			29.98	761.6															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.99	761.7	78.4	25.8	33	n.			2		0			0	0	clear	Dumas.
Tebessa ‡			29.98	761.6	93.9	34.4	12	ssw.			7		0			inap.	inap.	clear	Derché.
Geriville ‡					80.4	30.2	10	nw.			2		0			0	0	clear	Lonchamp.
Laghouat ‡			29.98	761.4	88.2	31.2	13	w.			2		3			0	0	pretty fair	Herbin.
Biskra ‡			29.97	761.3	97.2	36.2	34	nnw.			1		7			0	0	very cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.87	758.7	29.96	761.0	51.3	10.7	75	se.	12	5.4			10			0	0	squally	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.37	746.1	29.91	759.7	65.7	18.7	90						10			0.354	9.0	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.16	740.7	29.91	759.7	65.5	18.6	83	ene.	15.0	6.7			10			0.043	1.1	raining	Dr. Wiersbicki.
Eperies	29.06	738.2	29.92	759.9	66.9	19.4	87	calm			0		10 s		n.	0.055	1.4		Julius Mikolik.
Gratz ‡	28.62	726.9	29.83	757.7	64.8	18.2	92	e.			2		7			0.287	7.3	thunder	Andreas Rospini.
Hermannstadt	28.64	727.5	30.01	762.3	75.0	23.9	53	sse.			4		10			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.39	721.1	29.69	754.1	63.7	17.6	86	w.			1		3			0.161	4.1		The Staff.
Lemberg	29.04	737.5	29.99	761.7	68.0	20.0	65	s.			2		10			0	0		Dr. T. Stanecki.
Pola	29.74	755.5	29.85	758.2	75.0	23.9	81	wsw.			1		10			0.512	13.0	thunder	I. R. Hydrographic Office.
Szathmar	29.52	749.7	29.96	761.0	76.6	24.8	61	e.			3		8			0	0		Belcht Peter, S. J.
Szegedin	29.07	753.7	29.94	760.5	76.1	24.5	60	s.			6		6			0	0		Karl Stancel.
Trieste	29.79	756.6	29.89	759.2	72.7	22.6	66	calm			0		10			0.220	5.6	thnd'r storm	Secco.
Vienna	29.08	738.7	29.78	756.4	63.5	17.5	93	se.			2		6			0.287	7.3		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post-Office at Washington, D. C., as Second-Class Matter. Printed September 14, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.05	763.3	30.15	765.8	54.7	12.6	78	nnw.	10	4.5			9			0	0	overcast	W. Boswell.
Armagh, Observatory	29.92	760.0	30.15	765.8	55.3	12.9	83	n.	2	0.9									S. Call.
Bidston, Liverpool Obs'y			30.07	763 8	54.2	12.3	73	nnw.	11	4.9			10					overcast	John Hartnup.
Bolton, Sharples	29.53	750.0	30.07	763.8	53.7	12.1	82	nne.	12	5.4			10					overcast	Thomas Mackereth.
Bradford, Yorkshire																0.08	2.0		[A.S. J.McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.02	762.5	56.0	13.3	90	n.			0.6		10					foggy	John McLaren.
Chatham, School M. E.	29.82	757.4	29.95	760.7	55.1	12.8	93	ne.			1		10					raining	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.84	757.9	30.07	763.8	59.0	15.0	69	nnw.			2		9					overcast	The Staff.
Fort Napier, Natal	27.84	707.1	30.05	763.3	80.3	26.8	26	se.			1		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.71	754.6	29.94	760.5	82.0	27.8	87	s.			1		4					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.05	763.3	54	12.2	86	wnw.			2		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.96	761.0	30.02	762.5	80.2	26.8	80	nw.			3		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.91	759.7	30.11	764.8	54.8	12.7	73	w.			2		3					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.78	756.4	29.95	760.7	54.4	12.4	93	n.			1		10					showery	The Staff.
Guernsey	29.79	756.7	30.00	762.0	56	13.3	77	nnw.			3		8					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.94	760.5	29.98	761.5	54.5	12.5	92	n.	13	5.8			10					drizzling	The Staff.
Leicester, Museum	29.76	755.9	30.01	762.2	55.0	12.8	86	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.86	758.4	29.93	760.2	81.0	27.2	79	e			3		0					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.02	762.5	30.06	763.5	84.0	28.9	79	e.			2		5					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.78	756.4	30.01	762.2	53.2	11.8	85	n.			3		10					overcast	The Staff.
Plymouth	29.97	761.2	30.04	763.0	58.9	14.9	76	nw.			1		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.19	766.8	52.8	11.6	83	ne.	11	4.9			10					misty	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	30.01	762.2	30.07	763.8	82.8	28.2	46	ne.			2		1					blue sky	Serg't W. H. Lyne.
Sheffield	29.76	755.9	30.04	763.0	57.7	14.3	87	nne.			2		10			0.07	1.8	overcast	W. F. Cooper.
Silloth Rectory	30.07	763.8	30.10	764.5	56.9	13.8	76	calm			0		8			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.09	764.3	54.0	12.2	81	nne.	8	3.6			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss					55.3	12.9	87	n.			3		10					overcast	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.03	762.7	30.05	763.3	62	16.7	72	nw.			4		10					gloomy	W. Newcombe.
Valencia, Observatory	30.13	765.3	30.16	766.1	58.0	14.4	75	nnw.	13	5.8			10					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.22	767.6	30.27	768.8	55	12.8	92	sse.	10	4.5		0	5 s		se.	0	0	fair	H. J. Cundall, C. E.
Chatham, N. B. *	30.16	766.1	30.22	767.6	47	8.3	96	calm	0	0		0	0			0	0	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	29.93	760.2	29.96	761.0	61	16.1	72	sw.	35	15.6		2 k	hz.	sw.		0	0	dense haze	J. McWilliams.
Fort Garry, Manitoba *	28.89	733.8	29.72	754.9	44	6.7	89	calm	0	0		8 k	2 s	nw.	nw.	0	0	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	30.14	765.5	30.27	768.8	54	12.2	96	e.	4	1.8			10 ks		se.	0	0	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.58	751.3	29.91	759.7	65	18.3	78	w.	5	2.2			10 s		s.	0.02	0.5	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.64	752.8	29.83	757.7	66	18.9	84	s.	18	8.0			10 n		w.	0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.22	742.2	29.90	759.4	58	14.4	75	w.	21	9.4		2 k	2 ks	w.	w.	0.66	16.8	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.34	745.2	30.02	762.5	56	13.3	94	sw.	5	2.2		10 c	0	sw.		0.03	0.8	fair	H. Morgan.
Port Stanley, Ontario	29.39	746.5	30.03	762.7	53	11.7	83	w.	7	3.1		5 ck	0	sw.		0.05	1.3	fair	M. Payne.
Quebec, Quebec *	29.63	752.6	29.95	760.7	66	18.9	63	e.			1	5 c	2 n	w.	w.	0	0	hazy	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.42	747.3	29.87	758.7	57	13.9	75	w.	4	1.8		5 c	5 ks	sw.	w.	0.41	10.4	cloudy	W. H. McIntyre.
Saugeen, Ontario *	29.26	743.2	29.97	761.2	56	13.3	66	w.	17	7.6			10 n			0.35	8.9	cloudy	K. Stewart.
St. Andrews, N. B.	30.12	765.0	30.17	766.3	53	11.7	91	se.	7	3.1			10 n			0	0	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	30.27	768.8	30.32	770.1	49	9.4	100	s.	4	1.8		0	5 k?			0	0	clear?	T. C. Hill, C. E.
Toronto, Ontario *	29.62	752.3	29.99	761.7	60	15.6	70	w.	8	3.6		5 cs	2 k	sw.	sw.	0.02	0.5	fair	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	30.12	765.0	30.18	766.6	58	14.4	93	e.	3	1.3		hz.	5 k		w.	0	0	hazy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.20	767.1	30.45	773.4	52	11.1	86	s.					10			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House ‡	30.04	763.0	30.07	763.8	64.8	18.3	95	wsw.	9.9	4.4			10 s			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester * †	29.24	742.7			75	23.9	58	ssw.			1	5	5			0	0	cloudy	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.83	757.6	29.85	758.2	73.8	23.2	96	ese.	4.5	2.0		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.82	757.5	29.87	758.7	60.8	16.0	86	sse.	9	4			10						Oversergent Fischer
Fanöe	29.84	758.0	29.86	758.5	61.0	16.1	85	ne.			4		9						Overloerer Lauridsen
Godthaab, Greenland	29.87	758.7	29.91	759.8	35.6	2.0	73	nne.			4		0						S. Kleinschmidt.
Stykkisholm, Iceland	29.85	758.1	29.89	759.2	52.5	11.4	83	s.			2		10						A. O. Thorlacius.
Thorshavn	30.24	768.1	30.28	769.0	50.0	10.0	86	calm	0	0			0					raining	Overloerer Bergh.
Vestervig	29.84	757.8	29.93	760.1	56.3	13.5	88	nne.			6		10						Loerrer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.34	745.3	29.99	761.7	61.9	16.6	72	wnw.			1	0	8kn;n			0	0	very cloudy	M. Labroue, Director.
Alençon Normal School	29.39	746.6	29.95	760.6	58.6	14.8	98	sw.			3		10 n	n.	s.			light rain	M. Nicot, Director.
Arras, Engineer School																			M. Klein, Commandant.
Avignon, Normal School	29.84	758.0	29.92	760.0	70.2	21.2	57	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.34	745.2	29.89	759.2	58.5	14.7	82	ssw.			1		10		sw.	0	0	covered	M. Saillard, Director.
Beauvais, Normal School	29.59	751.6	29.85	758.2	63.7	17.6	71	wnw.			1		8		ne.	0.47	12.	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.02	737.7	29.90	759.4	59.7	15.4	76	n.			1		2		s.	0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.71	754.5	29.96	761.0	66.9	19.4	54	n.			1		5	ese.	nw.	0.020	0.5	cloudy	M. Rayet, Director.
Bourges, Normal School	29.36	745.8	29.91	759.7	57.9	14.4	89	sw.			2		8		sw.	0	0	very cloudy	M. Postel, Director.
Brest, Naval Observatory	29.81	757.2	30.06	763.4	60.8	16.0	75	nne.			1		9		nne.	0.020	0.5		M. de Rermarese, Dir.
Caen, Normal School	29.85	758.3	29.93	760.2	56.1	13.4	98	nnw.			1		8		nnw.	0.346	8.8	very cloudy.	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l					60.8	16.0	79	sw.			2		2			0	0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.36	745.7	29.86	758.5	56.7	13.7	75	s.			1		10			0.220	5.6	covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.57	725.7	29.91	759.6	60.4	15.8	64	w.			1		10			0	0	covered	M. Alluard, Director.
Cluny, Normal School	29.10	739.1	29.93	760.2	61.2	16.2	73	w.			3		1	s.		0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.07	738.3	29.91	759.8	60.1	15.6	66	w.			1		5	w.	w.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.36	694.9	29.83	757.6	64.4	18	41	n.			1	0	k			0.31	8.		M. Jeangirard, Director.
Gréasque, du. Rhone	28.84	732.6	29.98	761.6	68.4	20.2	36	nw.			2		2		nw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.17	740.8	29.93	760.2	57.6	14.2	76	e.			1	ck	0			0	0		M. Ablard, Director.
Guéret, Normal School	28.36	720.4	29.92	760.0	56.5	13.6	77	w.			1		n		e.	0.087	2.2		M. Rivoire, Director.
Lamballe, Normal School	29.75	755.6	30.02	762.4	59.0	15	78	w.			2		10		w.	0.59	15.	light mist	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.95	760.8	30.06	763.4	66.2	19.0	72	nne.			2		10			0.051	1.3	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.89	733.9	29.95	760.6	58.3	14.6	72	n.			1		10	w.	ene.			raining	M. André, Director.
Mans, Normal School	29.62	752.3	29.92	760.0	62.6	17	73	n.			1		10		n.	0	0	covered	M. Piboen, Director.
Marseille, Observatory	29.60	751.9	29.87	758.6	70.0	21.1	43	wnw.			2		5		wnw.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.75	628.7	29.99	761.7	48.6	9.2	61	e.	5.6	2.5			10			0.276	7.0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.74	755.3	29.84	758.0	72.0	22.2	55	wnw.			1		2		nnw.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.17	741.0	29.93	760.2	57.2	14.0	86	w.			1	0	5 n			0	0	cloudy	M. Hasse.
Nantes, Observatory	29.88	759.0	30.01	762.3	59.0	15	84	nw.			2-3		10 n	nnw.	nw.	0.024	0.6	rainy	M. Larocque, Director.
Nice	29.82	757.4	29.85	758.3	69.8	21.0	57	sw.			2		10	sw.	sw.	0	0	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.82	757.4	29.92	760.0	67.5	19.7	45	nw.	5.6	2.5			8	ese.	se.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.48	571.1			33.4	0.8							10		nw.	0.161	4.1	snowy	Gen'l de Nansouty Dir.
Privas, Normal School					68.0	20	72	calm			0		2			0	0	slightly cl'dy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.06	636.6			38.3	3.5	100	w.			4		10			0.008	0.2	sprinkling	M. Alluard, Director.
Rochefort, Naval Obs'y	29.97	761.2	30.00	762.0	63.1	17.3	91	w.			1		8		nw.	0	0	¾ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.78	756.4	29.99	761.8	60.4	15.8	81	n.			1		10			0.047	1.2	covered	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School					58.6	14.8	78	nw.			1		5			0.43	11.	cloudy	M. Platrier, Director.
Saint Lô, Normal School	29.80	756.8	29.95	760.8	54.9	12.7	92	n.					10		n.	0.209	5.3	raining	M. Delaplanche, Dir.
Saint Maur, Observatory	29.70	754.3	29.86	758.5	60.8	16.0	80	nw.			1		10		nw.	0.409	10.4		M. Renou, Director.
Toulouse, Observatory	29.30	744.1	30.02	762.5	61.2	16.2	81	nw.			1		10			0.083	2.1	covered	M. Bailland, Director.
Tours	29.72	755.0	29.92	760.0	60.8	16.0	85	wsw.			1		8		w.	0.516	13.1	¾ covered	M. de Tastes.
Versailles, Observatory	29.38	746.2	29.87	758.7	60.8	16.0	89	nw.			1					0.232	5.9		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.58	751.3	29.87	758.7	59.5	15.3	84	nw.			1		10		wnw.	0.539	13.7	rainy	M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.99	736.3	29.85	758.1	62.6	17.0	70	n.			2	0	6 k		nw.	0.020	0.5		Prof. Dr. Hoh.
Berlin	29.67	753.6	29.84	757.8	67.3	19.6	58	calm			0		10			0	0		Prof. Dr. Arndt.
Breslau	29.37	746.1	29.90	759.5	59.7	15.4	90	s.			3		10			0.228	5.8	raining	Royal University Obs'y.
Carlsruhe	29.47	748.6	29.90	759.4	53.8	12.1	97	wsw.			1		10	n.		0.394	10.0	raining	Albert Senz.
Cassel	29.13	739.8	29.84	758.0	60.4	15.8	73	s.			1		7	s.		0.020	0.5		Dr. H. Möhl.
Frankfort on the Main	29.50	749.2	29.86	758.4	57.4	14.1	88	w.			1		10			0.012	0.3		Physical Society.
Friedrichshafen	28.45	722.6	29.86	758.5	59.0	15.0	73	w.			5		10	w.		0	0		Wilhelm, Chief Tel.
Hamburg	29.80	756.9	29.89	759.3	58.5	14.7	88	calm			0		10			0.012	0.3	foggy	E. Preller.
Kiel	29.84	757.9	29.85	758.3	61.3	16.3	82	nne.			2		7			0	0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.44	747.8	29.86	758.4	61.3	16.3	73	nne.			1		9			0	0		H. Leppig, Asst.
Magdeburg	29.66	753.4	29.84	758.0	66.0	18.9	63	e.			1	0	7 k; ks		ne.	0	0		Dr. Assmann.
Memel	29.98	761.6	30.03	762.8	64.0	17.8	78	sw.			3	0	3 s						Isermann.
Munich	28.01	711.5	29.86	758.5	60.8	16.0	67	nw.			2		9	w.		0	0		Central Station.
Neufahrwasser	29.96	760.9	29.97	761.3	69.1	20.6	64	ssw.			4		5			0	0		A. Lothes.
Neustadt, Palatinate	29.35	745.4	29.87	758.7	59.0	15.0	82	wsw.			1		10	wsw.		0.606	15.4		Dicknether.
Stuttgart	28.91	734.2	29.80	756.8	54.5	12.5	95	nw.			1		10			0.339	8.6	raining	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.34	719.9	29.81	757.2	61.2	16.2	68	n.			2		10	nw.		0.047	1.2		Fischer.
Wustrow	29.87	758.8	29.90	759.4	57.7	14.3	94	wnw.			2		10			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.69	754.1	30.06	763.6	88.0	31.1		ne.			2.5		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.67	753.5	29.72	754.8	85.9	29.9	72	wsw.	15.0	6.7			1	sw.		0	0	d. clouds	
Deesa	29.20	741.7	29.67	753.5	88.9	31.6	61	nnw.	5.2	2.3			8	nnw.		0	0	d. clouds	
Bombay	29.70	754.3	29.73	755.2	83.3	28.5	73	wnw.	7.0	3.1			10		nw.	0.01	0.3	overcast	
Poona, Yarrowda.	27.90	708.7	29.76	755.9	76.1	24.5	74	nw.	8.0	3.6			10	wnw.	wnw.	0.46	11.7	overcast	
Belgaum	27.22	691.5	29.77	756.1	73.3	22.9	80	sw.	6.0	2.7			3	se.	w.	0	0	d. clouds	
Lahore	28.89	733.8	29.60	751.9	97.2	36.2	38	w.	1.6	0.7			0			0	0	blue sky	
Roorkee	28.73	729.8	29.61	752.1	88.8	31.6	71	s.	2.9	1.3			5			0	0		
Agra	29.05	737.8	29.60	751.7	92.1	33.4	58	calm	1.4	0.6			6			0	0		
Nagpur	28.57	725.6	29.59	751.6	85.7	29.8	75	se.	3.6	1.6			10		w.	2.15	54.6	overcast	
Jubbulpore	28.30	718.7	29.65	753.1	77.0	25.0	91	w.	1.3	0.6			10			0.20	5.1	overcast	
Lucknow	29.26	743.2	29.63	752.6	89.1	31.7	65	ene.	1.8	0.8			4		nw.	0	0	d. clouds	
Allahabad	29.28	743.6	29.58	751.4	88.7	31.5	80	e.	1.3	0.6			6			0	0	d. clouds	
Patna	29.44	747.9	29.62	752.3	91.2	32.9	68	calm	4.1	1.8			5			0	0	d. clouds	
Hazaribagh	27.62	701.4	29.59	751.6	83.8	28.8	67	e.	5.4	2.4			8	e.	w.	0	0		
Cuttack	29.54	750.2	29.62	752.3	84.1	28.9	83	s.	0.2	0.1			9			0.07	1.8	d. clouds	
Calcutta, Alipore	29.56	750.9	29.59	751.5	83.5	28.6	83	ssw.	7.0	3.1			9			0	0	d. clouds	
Dhubri	29.50	749.2	29.61	752.2	86.0	30.0	81	calm	4.1	1.8			1			0	0	d. clouds	
Chittagong	29.56	750.9	29.67	753.7	84.2	29.0	86	sw.	1.9	0.8			6			0	0	d. clouds	
Sibsagar	29.30	744.3	29.63	752.6	90.1	32.3	75	ese.	1.5	0.7			0			0	0	blue sky	
Jeypore	28.22	716.7	29.62	752.2	93.9	34.4	42	nne.	3.7	1.6			7		ne.	0	0	d. clouds	
Zanzibar, Africa			30.07	763.8	84.7	29.3	45	sse.	8	3.6			1			0	0	blue sky	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.48	748.9	29.89	759.1	69.1	20.6	75	calm	0	0			6			0.839	21.3		Prof. Giovanni Clodig.
Milan	29.39	746.4	29.89	759.3	64.2	17.9	71	sw.	3.8	1.7			6	sw.		0.563	14.3		Prof. Schiaparelli.
Padua	29.76	755.8	29.86	758.5	68.5	20.3	73	nnw.	4.3	1.9			5	w.		0.638	16.2		Prof. Dott. Lorenzoni.
Moncalieri	28.97	735.8	29.86	758.4	64.6	18.1	65	ese.	3.8	1.7			4	ene.		0.366	9.3		Prof. P. F. Denza.
Genoa	29.71	754.6	29.90	759.4	68.5	20.3	59	s.	6.3	2.8			4	sw.		0.047	1.2		Prof. G. M. Garibaldi.
Mondovi	27.97	710.2	29.84	757.9	61.0	16.1	70	wnw.			2		3	ese.		0.358	9.1		Prof. D. C. Bruno.
Pesaro	29.80	757.0	29.85	758.2	71.2	21.8	82	ne.					9	sw.		0.264	6.7		Prof. Luigi Guidi.
Florence	29.63	752.6	29.88	759.0	71.6	22.0	60	sw.			2		10	ssw.		0.728	18.5		Prof. Costantino Pitter.
Leghorn	29.89	759.3	29.98	761.4	69.6	20.9	61	nw.	3.1	1.4			4			0.453	11.5		Prof. P. Monte.
Rome	29.72	754.9	29.89	759.2	75.9	24.4	65	s.	11.9	5.3			10			0.228	5.8		Prof. P. S. Ferrari.
Lecce	29.75	755.6	30.00	762.0	90.5	32.5	50	s.	20.6	9.2			3			0	0		Prof. C. de Giorgi.
Cosenza	29.10	739.1	29.96	760.9	86.7	30.4	60	ne.	3.8	1.7			6	e.		0	0		Prof. D. Conti.
Cagliari	29.66	753.4	29.85	758.2	76.3	24.6	72	calm			0		10			0.031	0.8		Prof. A. Pacinotti.
Palermo	29.65	753.1	29.89	759.3	81.3	27.4	65	ene.	6.9	3.1			7	wsw.		0	0		Prof. G. Cincciatore.
Syracuse	29.93	760.3	29.98	761.4	79.9	26.6	76	e.	5.6	2.5			8	sw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.40	746.7	29.91	759.6	77.0	25.0	67	sse.	0.7	0.3			10	w.		0.012	0.3		Prof. F. Brioschi.
Stelvio	22.09	561.0			38.8	3.8	68	w.			4		10 kn	s.		0.031	0.8	misty	Prof. P. F. Denza.
Valdobbia	22.11	561.6			40.5	4.7	82	n.			2		10 ks	ssw.		0.650	16.5	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.86	758.4	29.87	758.7	76.4	24.7	81	nne.	4.5	2.0		ck	1 k			0.005	0.1	clear	K. Sasaki.
Kioto	29.81	757.2	29.98	761.5	73.8	23.2	76	ne.	3.0	1.3		2 ck	0			0.040	1.0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.66	753.3	29.85	758.2	80.1	26.7	68	ne.	7.1	3.2		0	1 s			0	0	clear	S. Takehayashi.
Niigata	29.95	760.7	29.99	761.7	70.6	21.4	65	se.	12.8	5.7		1 ck	0			0	0	clear	
Nobiru	30.08	764.0	30.10	764.5	64.6	18.1	95	nnw.	7.7	3.4			10 n;s			0.005	0.1	raining	
Supporo	30.08	764.0	30.15	765.8	57.5	14.2	81	ese.	7.8	3.5			0			0	0		
Tokei Obs'y, Yeddo	29.99	761.7	30.06	763.5	66.0	18.9	91	n.	5.8	2.6		7ck;cs	0	nw.		0.010	0.3	fair	The Staff.
Wakayama	29.91	759.7	29.96	761.0	72.7	22.6	90	nne.	2.4	1.1		ck	9 s		w.	0.545	13.8	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.09	764.3	30.28	769.2	68.8	20.4	57	ese.	27.0	12.1			10			0.04	1.0	squally	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.74	603.0	29.96	761.0	59.9	15.5	88	calm	0	0			10 kn		e.	1.197	30.4	covered	Vicente Fernandez.
Leon	24.46	621.2	30.08	763.9	64.5	18.1	90	e.			1	9 ck	0			0.320	8.1	very cloudy	Prof. M. Leal.
Mazatlan	29.69	754.1	29.94	760.6	76.8	24.9	93	ese.	0.9	0.4			10 n		ese.	2.757	70.0	covered	F. Quijano, C. E.
Mexico, Central Obs'y	23.15	588.1	30.17	766.2	56.7	13.7	21	calm	0	0		7 cs	3 k			0.173	4.4	covered	The Staff.
Morelia	24.04	610.7	30.10	764.6	56.7	13.7	75	s.			1	1	3	s.	se.	0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.99	609.4	29.91	759.8	63.1	17.3	89	calm	0	0		0	8 ks		se.	0.536	13.6	cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.49	596.8	30.21	767.4	57.2	14.0	61	calm	0	0		0	9		n.	0.217	5.5	very cloudy.	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.63	575.0	30.24	768.3	54.1	12.3	92	ne.	5.1	2.3			10 n			inap.	inap.	covered	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.87	758.6	29.87	758.6	61.0	16.1		ene.			2					1.323	33.6		
Groningen	29.81	757.2	29.87	758.6	63.0	17.2		ene.			1					0	0		
Helder	29.88	758.9	29.88	758.9	61.7	16.5		ne.			3					0	0		
Hellevoetsluis	29.86	758.4	29.86	758.4	63.0	17.2	81	ne.			2					1.024	26.0		
Utrecht	29.83	757.7	29.88	758.9	63.1	17.3	80	ne.			1		8			0.067	1.7	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.00	762.1	30.07	763.7	65.8	18.8	34	calm	0	0			0			0	0		
Christiania	29.95	760.8	30.10	764.5	59.9	15.5	57	nne.	11	5			7			0	0		
Gjæsvær	30.04	763.0	30.06	763.6	45.9	7.7		wsw.			7		10					foggy	
Lodingen	30.21	767.4	30.26	768.6	48.6	9.2	76	wsw.			5		10			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.58	751.2	29.72	755.0	70.5	21.8	89	sw.	17.4	7.8			6			0	0		Dr. J. A. Sampaio.
Campo Major	28.99	736.4	29.96	760.9	76.3	24.6	28	nnw.	1.3	0.6			1			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.00	762.1	30.09	764.3	73.2	22.9	68	se.	6.3	2.8			8			0.059	1.5		Capt. D. A. de Cunha.
Lisbon, Observatory	29.71	754.6	30.00	763.5	69.1	20.6	37	n.	15.4	6.9			0			0	0		The Staff.
Ponta Delgada, Azores	29.77	756.2	29.84	758.0	72.3	22.4	91	s.	15.4	6.9			10			0.244	6.2		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.90	734.0	29.99	761.7	44.2	6.8	47	ne.	20	9		0	6 k						Capt. Lasarew.
Archangel	29.90	759.5	29.92	760.0	55.9	13.3	95	ssw.	4	2			10						Capt. Sseliwerstow.
Astrakhan	30.50	774.7	30.42	772.6	66.7	19.3	25	ne.	9	4		0	0						Capt. Wisganow.
Barnaul ‡	29.51	749.5	30.02	762.4	44.6	7.0	55	calm	0	0			10						Meteorological Obs'y.
Dorpat	29.80	757.0	30.04	763.0	69.4	20.8	62	wsw.	4	2		0	6 k						Observatory.
Ekaterinburg	29.35	745.5	30.35	770.8	39.9	4.4	48	w.	4	2		9 ck	0						Meteorological Obs'y.
Kasan	30.02	762.0	30.29	769.4	58.3	14.6	56	s.	9	4			10						Observatory.
Kertch	30.17	766.3	30.19	766.8	72.3	22.4	54	e.	18	8		0	0			0	0		Lagorio & Sastyres.
Kieff	29.82	757.4	30.20	767.0	72.9	22.7	32	sse.	11	5		c;cs	8 ks						Observatory.
Lugan	30.20	767.0	30.40	772.1	76.5	24.7	25	e.	22	10			0						Meteorological Obs'y.
Moscow	29.72	754.9	30.18	766.5	71.2	21.8	31	sw.	4	2		0	3 ks						Meteorological Obs'y.
Nikolaiev	30.23	767.9	30.30	769.7	79.2	26.2	35	ese.	13	6		1 c	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	29.84	757.9	29.93	760.1	66.4	19.1	63	calm			0	0	6 k			0	0		Lieut. Iwanow.
Pekin, China	29.92	759.9	30.06	763.5	63.0	17.2	98	nw.	13	6			10 n			1.012	25.7	thnd'r str'm	Physical Observatory.
St. Petersburg	29.99	761.7	30.00	762.1	66.6	19.2	81	sw.	13	6			10 kn						Central Physical Obs'y.
Tashkend, Laboratory	28.39	721.0	29.89	759.1	77.0	25.0	59	calm	0	0			0						Teich, A. M.
Tiflis	28.80	731.6	30.19	766.8	70.3	21.3	74	s.	4	2			9 ks						Physical Observatory.
Warsaw	29.56	750.8	29.97	761.2	70.7	21.5	62	se.	11	5		9 cs	0						Astronomical Obs'y.
Wilna	29.67	753.7	30.08	764.0	71.2	21.8	51	ssw.	2	1			5						Berg, Assistant.
Yeniseisk	29.64	752.8	29.93	760.2	38.1	3.4	86	w.	7	3			1						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.15	765.8	56.1	13.4	69	e.			1	0	0			0.02	0.5	fine	Andrew Gibb.
Monach Lt. House, Hebrides			30.17	766.3	55	12.8	93	e.			3	3	0	e.		0	0	clear	J. Youngclause
North Unst, Shetland Isl'ds			30.17	766.3				ne.			4		10						Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.81	757.2	29.91	759.8	68.0	20.	73	se.	4.3	1.9						0.528	13.4		Antonio Rave, Director.
Bilbao, Met. Obs'y	30.00	762.1	30.06	763.5	67.5	19.7	65	nw.	1.6	0.7		3	6	n.		0.154	3.9	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.09	688.1			57.4	14.1	57	n.	4.3	1.9			10			0	0	covered	Domingo Martin.
Madrid, Royal Obs'y	27.77	705.4	29.96	761.0	68.0	20.0	38	nw.	5.8	2.6		0	1			0	0	almost clear	The Staff.
Murcia, Met. Obs'y ‡	29.77	756.2	29.92	759.9	82.6	28.1	41	se.	4.0	1.8		4	4	e.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.15	740.5	30.04	762.9	64.2	17.9	75	wnw.	2.5	1.1			9			0.031	0.8	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.98	761.6	30.05	763.3	76.2	24.6	86	e.	3.6	1.6		2 c;ck	1 s	n.		0.457	11.6	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.82	757.5	29.87	758.8	82.6	28.1	77	sw.	5.5	2.5		0	2 n		s.	0.18	4.5	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.93	760.1	30.03	762.5	70.9	21.6	57	wsw.	8.5	3.8		0	0			0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W.I	29.94	760.4	30.03	762.7	81.3	27.4	88	s.	0	0		5 k	4 k			0	0	d. clouds	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.74	755.5	29.88	758.9	77.1	25.1	90	nnw.	2.0	0.9			10 n		nnw.	0.40	10.2	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.19	766.9	30.23	767.9	50.4	10.2	65	n.			2		0			0	0		
Umea	30.19	766.8	30.24	768.1	53.6	12.0	56	nne.			4		5			0	0		
Hernosand	30.20	767.0	30.25	768.3	51.6	10.9	67	ne.			6		2			0.016	0.4		
Stockholm	29.82	757.5	30.00	762.0	50.0	10.0	95	nne.			6		10			1.658	42.1	raining	
Wisby	29.84	757.8	29.89	759.3	57.6	14.2	98	wnw.			2		10			0.228	5.8	raining	
Sub-Series.																			
Upsala	29.96	760.9	30.04	763.1	48.6	9.2	91	nne.	15.4	6.9			10		nne.	0.591	15.0	raining	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.53	724.7	29.94	760.5	59.7	15.4	75	sw.			1		9			0.228	5.8	covered	The Observatory.
Zurich ‡	28.31	719.1	29.95	760.6	54.9	12.7	79	w.			4		10			0.087	2.2	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.14	765.5	75.7	24.3	51	ne.	25	11.0		2		ne.		0	0		The Observatory.
Valona			30.15	765.8	82.8	28.2		w.			1	2				0	0	slightly cld,y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.88	758.9	85.1	29.5	61	n.			2	0	0			0	0		Prof. C. V. A. van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
UNITED STATES SERIES. By authority of the Secretary of War. Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.																			
Albany, New York	29.91	759.7	29.99	761.7	69	20.6	78	s.	5	2.2		hz.	hz.			0	0	dense haze.	
Alpena, Michigan	29.28	743.7	29.95	760.7	50	10.0	77	sw.	10	4.5		0	0			0.46	11.7	clear	
Atlanta, Georgia	28.93	734.8	30.11	764.8	73.5	23.1	72	sw.	7	3.1		5 k	hz.	nw.		0	0	fair	
Atlantic City, New Jersey	30.01	762.2	30.02	762.5	68.2	20.1	93	n.	5	2.2			10 s		calm	0.44	11.2	cloudy	
Augusta, Georgia	29.89	759.2	30.08	764.0	77.0	25.0	82	s.	1	0.4		4 cs	hz.			inap.	inap.	fair	
Baltimore, Maryland	29.95	760.7	30.00	762.0	74	23.3	90	se.	2	0.9			fg;10s		c;so	0.01	0.3	cloudy	
Barnegat, New Jersey	29.97	761.2	29.99	761.7	67.0	19.4	97	n.	13	5.8			10 s		e.	2.39	60.7	cloudy	
Bismarck, Dakota	28.02	711.7	29.85	758.2	50	10.0	58	sw.	4	1.8			10 s		w.	0	0	cloudy	
Boise City, Idaho	27.31	693.7	30.15	765.8	44.0	6.7	63	calm	0	0		0	0			0	0	clear	
Boston, Massachusetts	29.90	759.4	30.06	763.5	60.0	15.6	97	n.	10	4.5			10 n			0.32	8.1	light rain	
Brackettville, Texas	28.93	734.8	29.94	760.5	76	24.4	90	ne.	2	0.9			10 n		ne.	0.05	1.3	light rain	
Brownsville, Texas	30.02	762.5	30.06	763.5	77	25.0	90	calm	0	0		4 cs	0			0	0	fair	
Buffalo, New York	29.30	744.2	30.02	762.5	61	16.1	65	w.	10	4.5			10 s		w.	inap.	inap.	cloudy	
Burlington, Vermont	29.66	753.4	29.95	760.7	65.0	18.3	81	s.	15	6.7			10 s,sk		s.	0	0	dense smoke.	
Cairo, Illinois	29.83	757.7	30.23	767.8	61.6	16.4	77	ne.	8	3.6		0	0			0.77	19.6	clear	
Campo, California	27.38	695.4	29.95	760.7	50	10.0	58	nw.	3	1.3		2 ck	0	w.		0	0	clear	
Camp Thomas, Arizona	27.30	693.4			70	21.1	66	se.			2	2 ck	0			0	0	clear	
Cape Henry, Virginia	29.98	761.5	30.00	762.0	77	25.0	85	s.	13	5.8		5 k	hz.	sw.		0.02	0.5	fair	
Cape May, New Jersey	29.96	761.0	29.99	761.7	72	22.2	90	e.	6	2.7			10 s		e.	0.35	8.9	cloudy	
Castroville, Texas	29.32	744.7	30.01	762.2	75	23.9	76	e.	6	2.7			10 s		ne.	0.01	0.3	cloudy	
Cedar Keys, Florida	30.07	763.8	30.09	764.3	78	25.5	91	ne.	5	2.2		hz.	0			0	0	clear	
Champaign, Illinois	29.36	745.7	30.17	766.3	50.6	10.3	70	w.	6	2.7		0	0			0.65	16.5	clear	
Charleston, S. Carolina	30.03	762.7	30.09	764.3	81	27.2	88	sw.	3	1.3		0	7 s		s.	0	0	cloudy	
Charlotte, N. Carolina	29.16	740.7	30.04	763.0	77	25.0	76	sw.	5	2.2		2 ck	8 k;hz		calm	0	0	cloudy	
Chattanooga, Tennessee	29.28	743.7	30.11	764.8	75.0	23.9	76	calm	0	0		3 ck	sk.	calm	calm	inap.	inap.	fair	
Cheyenne, Wyoming	24.19	614.4	30.16	766.1	46.1	7.8	34	w.	4	1.8		0	0			0	0	clear	
Chicago, Illinois	29.41	747.0	30.12	765.0	49.0	9.4	77	w.	4	1.8		0	0			0.56	14.2	clear	
Chincoteague, Virginia	30.00	762.0	30.02	762.5	73	22.8	100	se.	7	3.1			10 ks		se.	0.10	2.5	cloudy	
Cincinnati, Ohio	29.51	749.5	30.17	766.3	60	15.6	54	n.	8	3.6		9 cs	0	w.		0	0	cloudy	
Cleveland, Ohio	29.36	745.7	30.10	764.5	60	15.6	64	nw.	12	5.4			10 k		w.	0.17	4.3	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.28	743.7	30.14	765.5	59	15.0	65	nw.	8	3.6		6 ck	3 s	nw.	nw.	0.02	0.5	cloudy	
Concho, Texas	28.29	718.6	30.23	767.8	63	17.2	78	n.	4	1.8		10 ck	0	ne.		0.13	3.3	cloudy	
Corsicana, Texas	29.70	754.4	30.17	766.3	65	18.3	84	ne.	4	1.8		3 cs	7 ks			1.70	43.2	cloudy	
Davenport, Iowa	29.51	749.5	30.17	766.3	52	11.1	80	sw.	4	1.8		0	0			0.32	8.1	clear	
Dayton, Washington T'y	28.31	719.1	30.12	765.0	48.8	9.3	52	se.	30	13.4		0	0			0	0	clear	
Deadwood, Dakota	25.39	644.9	30.09	764.3	48	8.9	54	s.	4	1.8		0	0			0	0	clear	
Decatur, Texas	29.00	736.6	30.17	766.3	60	15.6	70	n.	8	3.6		0	0			inap.	inap.	clear	
Delaware Breakwater, Del.	29.98	761.5	30.00	762.0	73	22.8	90	e.	8	3.6		3 ck	3 ks			0.03	0.8	fair	
Denison, Texas	29.39	746.5	30.20	767.1	58	14.4	100	n.	4	1.8		0	0			0.90	22.9	clear	
Denver, Colorado	24.91	632.7	30.13	765.3	47.3	8.5	60	s.	6	2.7		0	0			0	0	clear	
Des Moines, Iowa	29.24	742.7	30.15	765.8	47	8.3	93	nw.	2	0.9		0	0			0	0	clear	
Detroit, Michigan	29.38	746.2	30.10	764.5	55.0	12.8	74	calm	0	0		0	0			0.30	7.6	clear	
Dodge City, Kansas	27.59	700.8	30.18	766.6	49	9.4	80	sw.	3	1.3		0	0			0	0	clear	
Dubuque, Iowa	29.42	747.3	30.14	765.5	46.2	7.9	76	calm	0	0		0	0			0.18	4.6	clear	
Duluth, Minnesota	29.18	741.2	29.89	759.2	48	8.9	71	w.	12	5.4		1 cs	0	w.		0.60	15.2	clear	
Eagle Pass, Texas	29.34	745.2	30.17	766.3	68.0	20.0	93	nw.	7	3.1			10 s		calm	1.01	25.7	cloudy	
Eagle Rock, Idaho	25.37	644.4	30.22	767.6	34	1.1	66	w.	4	1.8		0	0			0	0	clear	
Eastport, Maine	30.13	765.3	30.20	767.1	53.5	11.9	86	e.	3	1.3		2 cs	8 s		sw.	0	0	cloudy	
El Paso, Texas	26.38	670.0	30.13	765.3	63.4	17.4	73	n.	6	2.7			10 s		ne.	inap.	inap.	cloudy	
Erie, Pennsylvania	29.33	745.0	30.06	763.5	62	10.7	73	nw.	10	4.5			10 ks		w.	0.10	2.5	cloudy	
Escanaba, Michigan	29.26	743.2	29.92	760.0	47	8.3	93	sw.	9	4.0		0	0			0.64	16.3	clear	
Florence, Arizona	28.42	721.9	30.02	762.5	80.2	26.8	60	e.	13	5.8		3 c	0	e.		0	0	fair	
Fort Apache, Arizona	25.11	637.8	30.02	762.5	58	14.4	77	e.	1	0.4		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.14	689.3	29.94	760.5	50	10.0	66	sw.	10	4.5		0	8 s		sw.	0	0	fair	
Fort Bennett, Dakota	28.32	719.3	29.86	758.4	45	7.2	76	nw.	1	0.4		3 cs	0			0	0	fair	
Fort Benton, Montana	27.12	688.8	29.98	761.5	53	11.7	50	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	27.88	708.1	29.89	759.2	52	11.1	61	w.	7	3.1		2 cs	0	sw.		0	0	clear	
Fort Custer, Montana	26.84	681.7	30.08	764.0	48	8.9	64	nw.	3	1.3		1 ck	0	calm		0	0	clear	
Fort Davis, Texas	25.38	644.6	30.34	770.6	53	11.7	100	n.	5	2.2			10 s			0.27	6.9	threatening.	
Fort Elliott, Texas	27.45	697.2	30.64	778.2	44	6.7	68	w.			1	0	0			0	0	clear	
Fort Gibson, Indian T'y	29.66	753.4	30.21	767.3	46.1	7.8	93	calm	0	0			fg.			0.06	1.5	dense fog	
Fort Grant, Arizona					62	10.7	90	sw.	6	2.7		1 cs	1 s			0	0	clear	
Fort Griffin, Texas	28.94	735.1	30.20	767.1	62.2	16.8	54	n.	6	2.7			10 s			0.03	0.8	cloudy	
Fort Keogh, Montana	27.45	697.2	29.99	761.7	46	7.8	71	sw.	5	2.2		6 c	0	sw.		0	0	fair	
Fort Macon, North Carolina	30.09	764.3	30.10	764.5	79	26.1	91	sw.	14	6.3		hz.	7 k	calm	sw.	0	0	cloudy	
Fort McKavett, Texas	27.94	709.7	29.84	757.9	65.2	18.4	68	e.	9	4.0			9 s			0.03	0.8	cloudy	
Fort Missoula, Montana	26.79	680.5	30.31	769.9	39	3.9	82	nw.	1	0.4		0	0			0	0	clear	
Fort St. Michaels	29.55	750.6	29.58	751.3	47	8.3	92	s.	2	0.9			10 s			0.34	8.6	cloudy	
Fort Shaw, Montana	26.38	670.0	29.98	761.5	52	11.1	55	w.	6	2.7		8 cs	0	nw.		0	0	cloudy	
Fort Sill, Indian Territory	29.00	736.6	30.25	768.3	49	9.4	86	calm	0	0		0	0			0.04	1.0	clear	
Fort Stevenson, Dakota	27.97	710.4	29.84	757.9	49	9.4	80	w.	6	2.7			10 s		calm	0	0	cloudy	
Fort Verde, Arizona					64	17.8	83	se.			1		10 s		se.	0	0	cloudy	
Fredericksburg, Texas	28.43	722.1	29.96	761.0	71	21.7	71	ne.	5	2.2			10 s			0.68	17.3	cloudy	
Galveston, Texas	30.05	763.3	30.09	764.3	81	27.2	87	nw.	4	1.8		0	3 ks		nw.	0	0	clear	
Grand Haven, Michigan	29.37	746.0	30.04	763.0	60.0	15.6	60	w.	15	6.7		0	0			0.92	23.4	clear	
Hatteras, North Carolina	30.04	763.0	30.06	763.5	80	26.7	97	sw.	28	12.5		5 k	5 ks	sw.	sw.	0	0	cloudy	
Helena, Montana	25.84	656.3	30.23	767.8	58	14.4	47	s.	4	1.8		0	8 s		calm	0	0	cloudy	
Henrietta, Texas	29.22	742.2	30.15	765.8	60	15.6	70	n.	4	1.8		0	0			inap.	inap.	clear	
Huron, Dakota	28.57	725.7	29.95	761.0	39.7	4.3	90	s.	6	2.7		0	0			0	0	clear	
Indianapolis, Indiana	29.36	745.7	30.16	766.1	55	12.8	74	n.	1	0.4		0	hz.			0.55	14.0	clear	
Indianola, Texas	30.05	763.3	30.08	764.0	81.2	27.3	88	ne.	10	4.5		5 ck	3 ks	nw.	calm	inap.	inap.	fair	
Jacksboro, Texas	29.05	737.9	30.09	764.3	54	12.2	86	n.	2	0.9		0	2 s		calm	0.10	2.5	clear	
Jacksonville, Florida	30.06	763.5	30.10	764.5	78	25.6	77	se.	3	1.3		4 cs	fg.			0	0	fair	
Keokuk, Iowa	29.50	749.3	30.16	766.1	53.0	11.7	80	w.	3	1.3		0	0			0.66	16.8	clear	
Key West, Florida	30.04	763.0	30.07	763.8	82.0	27.8	80	e.	2	0.9		3 cs	4 ks		e.	0	0	fair	
Kittyhawk, North Carolina	30.03	762.7	30.05	763.3	78	25.6	90	sw.	15	6.7		4 ck	hz.	sw.		0	0	dense haze.	
Knoxville, Tennessee	29.09	738.9	30.13	765.3	72.2	22.3	80	w.	3	1.3		4 cs	4 s	sw.	w.	0	0	cloudy	
La Crosse, Wisconsin	29.29	744.0	30.06	763.5	50.8	10.4	66	s.	4	1.8		0	0			0.15	3.8	clear	
La Mesilla, New Mexico	26.28	667.5	30.44	773.2	59.3	15.2	88	calm	0	0			10 s			0	0	cloudy	
Laredo, Texas																			
Leavenworth, Kansas	29.31	744.5	30.21	767.3	50	10.0	77	nw.	1	0.4		0	0			0	0	clear	
Lewiston, Idaho	29.26	743.2	30.11	764.8	50	10.0	44	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.84	757.9	30.16	766.1	68	20.0	73	ne.	5	2.2		c	0			0.05	1.3	clear	
Los Angeles, California	29.52	749.8	29.90	759.4	59.0	15.0	81	sw.	1	0.4		0	4 s		calm	0	0	fair	
Louisville, Kentucky	29.57	751.1	30.14	765.5	60.0	15.6	60	n.	8	3.6		0	9 k			0.03	0.8	cloudy	
Lynchburg, Virginia	29.30	744.2	29.99	761.7	75.5	24.2	75	calm	0	0		hz.	0			0	0	clear	
Madison, Wisconsin	29.05	737.9	30.08	764.0	47	8.3	86	sw.	5	2.2		0	0			0.75	19.0	clear	
Marquette, Michigan	29.15	740.4	29.88	758.9	50	10.0	72	sw.	10	4.5		0	0			0.28	7.1	clear	
Mason, Texas	28.56	725.4	30.30	769.6	68	20.0	61	n.	8	3.6			10 s		n.	0	0	cloudy	
Memphis, Tennessee	29.83	757.7	30.17	766.3	66	18.9	78	n.	4	1.8			10 s		calm	0.20	5.1	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.31	744.5	30.07	763.8	48	8.9	71	sw.	11	4.9	.....	0	0	.....	.....	0.66	16.8	clear	
Mobile, Alabama	30.04	763.0	30.11	764.8	72.0	22.2	90	nw.	3	1.3	.....	4 c	hz	nw.	.....	c	0	fair	
Montgomery, Alabama	29.87	758.7	30.10	764.5	74	23.3	82	sw.	3	1.3	.....	6 c	0	.....	.....	0	0	fair	
Moorhead, Minnesota	28.84	732.5	29.85	758.2	46	7.8	68	sw.	12	5.4	.....	0	0	.....	.....	0	0	clear	
Morgantown, W. Virginia	29.06	738.1	30.01	762.2	71.0	21.7	90	sw.	3	1.3	.....	.....	10 n	.....	w.	0.32	8.1	light rain	
Mt. Washington, N. H.	23.96	608.6	30.16	766.1	49.7	9.8	96	sw.	44	19.7	.....	.....	fg	.....	sw.	0.06	1.5	dense fog	
Nashville, Tennessee	29.59	751.6	30.13	765.3	65.6	18.7	86	nw.	4	1.8	.....	.....	10 n	.....	nw.	0.06	1.5	light rain	
New Haven, Connecticut	29.89	759.2	30.00	762.0	61	16.1	87	ne.	12	5.4	.....	.....	10s;sk	.....	ne.	0.01	0.3	cloudy	
New London, Connecticut	29.94	760.5	29.99	761.7	63	17.2	90	ne.	7	3.1	.....	.....	10 s	.....	ne.	0.08	2.0	cloudy	
New Orleans, Louisiana	30.02	762.5	30.08	764.0	78.0	25.6	82	s.	1	0.4	.....	2 ck	0	.....	.....	0	0	clear	
Newport, Rhode Island	29.94	760.5	29.99	761.7	63.5	17.5	95	n.	8	3.6	.....	.....	10n;fg	.....	calm	0.13	3.3	light rain	
New River, N. Carolina	.....	.....	.....	.....	80	26.7	82	sw.	.....	.....	2	0	4 ks	.....	.....	0	0	fair	
New Shoreham, Rhode I'd.	29.94	760.5	29.97	761.2	63.0	17.2	100	ne.	21	9.4	.....	.....	10 n	.....	ne.	1.26	32.0	light rain	
New York, New York	29.84	757.9	30.02	762.5	65	18.3	93	ne.	7	3.1	.....	.....	10 s	.....	.....	0.35	8.9	cloudy	
Norfolk, Virginia	29.97	761.2	30.00	762.0	77	25.0	90	sw.	7	3.1	.....	6 ck	0	sw.	.....	0.01	0.3	fair	
North Platte, Nebraska	27.16	689.9	30.10	764.5	46.6	8.1	83	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Olympia, Washington T'y	30.03	762.7	30.07	763.8	45.0	7.2	93	nw.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Omaha, Nebraska	28.97	735.8	30.16	766.1	51	10.6	72	s.	5	2.2	.....	0	0	.....	.....	0.01	0.3	clear	
Oswego, New York	29.61	752.1	29.94	760.5	69.0	20.6	78	sw.	10	4.5	.....	.....	10 s	.....	nw.	0	0	cloudy	
Pensacola, Florida	30.07	763.8	30.10	764.5	75	23.9	90	s.	4	1.8	.....	0	1 ks	.....	calm	0	0	clear	
Philadelphia, Pa	29.96	761.0	30.02	762.5	68	20.0	93	se.	4	1.8	.....	hz	hz	.....	.....	0.20	5.1	dense haze	
Phœnix, Arizona	28.76	730.5	30.47	773.9	80	26.7	67	e.	1	0.4	.....	6 k	0	n.	.....	0	0	fair	
Pike's Peak, Colorado	18.05	458.5	30.26	768.6	32	0.0	65	nw.	21	9.4	.....	0	0	.....	.....	0	0	clear	
Pioche, Nevada	24.25	615.9	30.27	768.8	51	10.6	30	s.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Pittsburg, Pennsylvania	29.25	742.9	30.07	763.8	69	20.6	81	nw.	8	3.6	.....	.....	10 s	.....	nw.	0	0	cloudy	
Port Eads, Louisiana	30.09	764.3	30.10	764.5	78.0	25.6	85	se.	3	1.3	.....	hz	hz	calm	calm	0	0	dense haze.	
Port Huron, Michigan	29.38	746.2	30.06	763.5	53.6	12.0	73	sw.	5	2.2	.....	0	0	.....	.....	0.27	6.9	clear	
Portland, Maine	30.05	763.3	30.10	764.5	59	15.0	87	ne.	7	3.1	.....	.....	10s;fg	.....	calm	0.08	2.0	light fog	
Portland, Oregon	29.99	761.7	30.06	763.5	51.1	10.6	83	nw.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Portsmouth, N. Carolina	.....	.....	.....	.....	79	26.1	88	sw.	16	7.2	.....	.....	10 s	.....	calm	0	0	cloudy	
Prescott, Arizona	24.85	631.2	30.04	763.0	56	13.3	72	calm	0	0	.....	10 k	0	se.	.....	0	0	cloudy	
Punta Rassa, Florida	30.05	763.3	30.06	763.5	79.5	26.4	88	ne.	5	2.2	.....	9 c	1 ks	calm	calm	0.04	1.0	cloudy	
Red Bluff, California	29.55	750.6	29.89	759.2	64.5	18.1	51	nw.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Rio Grande City, Texas	29.88	758.9	30.08	764.0	78	25.6	91	se.	1	0.4	.....	3 c	0	calm	.....	0	0	clear	
Rochester, New York	29.35	745.5	29.99	761.7	66	18.9	73	n.	10	4.5	.....	.....	10 ks	.....	n.	0.01	0.3	cloudy	
Roseburg, Oregon	29.50	749.3	30.08	764.0	47.5	8.6	81	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Sacramento, California	29.83	757.7	29.91	759.7	58.2	14.6	70	s.	4	1.8	.....	0	0	.....	.....	0	0	clear	
St. Louis, Missouri	29.62	752.3	30.22	767.6	54.6	12.6	86	nw.	3	1.3	.....	0	0	.....	.....	0.11	2.8	clear	
St. Paul, Minnesota	29.13	739.9	30.01	762.2	44.5	6.9	88	sw.	9	4.0	.....	0	0	.....	.....	0.09	2.3	clear	
Salt Lake City, Utah	25.78	654.8	30.11	764.8	47	8.3	27	calm	0	0	.....	0	0	.....	.....	0	0	clear	
San Antonio, Texas	29.44	747.8	30.14	765.5	69.5	20.8	93	n.	8	3.6	.....	.....	10 s	.....	n.	4.89	124.2	cloudy	
San Diego, California	29.76	755.9	29.83	757.7	62.5	16.9	87	nw.	3	1.3	.....	0	4 s	.....	.....	0	0	fair	
Sandusky, Ohio	29.42	747.3	30.11	764.8	57	13.9	74	w.	12	5.4	.....	0	5 ks	.....	w.	0.17	4.3	fair	
Sandy Hook, New Jersey	29.99	761.7	30.02	762.5	66.0	18.9	90	ne.	8	3.6	.....	10 k	0	ne.	.....	0.48	12.2	cloudy	
San Francisco, California	29.92	760.0	29.98	761.5	54	12.2	90	w.	7	3.1	.....	.....	fg	.....	sw.	0	0	dense fog	
Santa Fé, New Mexico	23.46	595.9	30.26	768.6	42	5.6	66	calm	0	0	.....	5 ck	0	calm	.....	0	0	fair	
Savannah, Georgia	29.99	761.7	30.08	764.0	81	27.2	88	sw.	5	2.2	.....	hz	5 ks	.....	sw.	0	0	fair	
Shreveport, Louisiana	29.88	758.9	30.11	764.8	72	22.2	84	n.	7	3.1	.....	.....	10 s	.....	calm	0	0	cloudy	
Silver City, New Mexico	24.42	620.3	29.98	761.5	56	13.3	81	calm	0	0	.....	2 c	0	calm	.....	0	0	clear	
Sitka, Alaska	29.60	751.8	29.67	753.6	53	11.7	86	e.	3	1.3	.....	.....	10 s	.....	calm	0.35	8.9	cloudy	
Smithville, North Carolina	30.04	763.0	30.08	764.0	80	26.7	91	sw.	10	4.5	.....	hz	hz	.....	.....	0	0	dense haze	
Spokane Falls, Wash. Ter.	28.00	711.2	30.02	762.5	44	6.7	86	sw.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Springfield, Illinois	29.52	749.8	30.21	767.3	55.0	12.8	72	nw.	4	1.8	.....	0	0	.....	.....	0.44	11.2	clear	
Springfield, Massachusetts	29.90	759.4	30.03	762.7	60.3	15.7	93	n.	4	1.8	.....	.....	10s;fg	.....	.....	0.18	4.6	cloudy	
Stockton, Texas	27.16	689.9	30.23	767.8	58.1	14.5	93	calm	0	0	.....	.....	10 s	.....	calm	0.08	2.0	cloudy	
St. Vincent, Minnesota	28.87	733.3	29.76	755.9	48	8.9	63	w.	8	3.6	.....	.....	10 s	.....	calm	0	0	cloudy	
Thatcher's Island, Mass	30.00	762.0	30.05	763.3	62.0	16.7	100	e.	5	2.2	.....	.....	10 s	.....	e.	0.27	6.9	cloudy	
Toledo, Ohio	29.40	746.7	30.10	764.5	59.5	15.3	83	sw.	7	3.1	.....	0	0	.....	.....	0.38	9.7	clear	
Tucson, Arizona	27.44	697.0	29.80	756.9	79	26.1	44	se.	14	6.3	.....	1 k	0	sw.	.....	0	0	clear	
Umatilla, Oregon	29.70	754.4	30.11	764.8	49.4	9.7	67	se.	9	4.0	.....	2 cs	0	calm	.....	0	0	clear	
Uvalde, Texas	29.12	739.6	29.91	759.7	76	24.4	85	e.	4	1.8	.....	.....	10 ks	.....	s.	0	0	cloudy	
Vicksburg, Mississippi	29.82	757.4	30.08	764.0	77	25.0	76	e.	6	2.7	.....	5 k	5 s	calm	calm	0	0	cloudy	
Visalia, California	29.50	749.3	29.86	758.4	63.5	17.5	53	se.	6	2 7	.....	8 ck	0	.....	.....	0	0	fair	
Washington, D. C.	29.88	758.9	29.99	761.7	72.5	22.5	98	ne.	3	1.3	.....	.....	10s;fg	.....	.....	inap.	inap.	cloudy	
Wickenburg, Arizona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Wilmington, N. Carolina	30.02	762.5	30.08	764.0	78	25.6	88	sw.	3	1.3	.....	hz	0	calm	.....	0	0	dense haze	
Winnemucca, Nevada	25.74	653.8	30.07	763.8	37	2.8	30	ne.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Wood's Holl, Mass	29.94	760.5	29.97	761.2	68	20.0	93	e.	10	4.5	.....	.....	10 s	.....	ne.	0.06	1.5	cloudy	
Yankton, Dakota	28.70	729.0	30.01	762.2	50	10.0	77	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Yuma, Arizona	29.63	752.6	29.77	756.1	80.3	26.8	56	ne.	2	0.9	.....	8 k	0	se.	.....	0	0	cloudy	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.96	761.0	29.98	761.5	83	28.3	91	se.	1	0.4	.....	8 ck	10 ks	calm	.....	0	0	.....	J. A. Racker.
Bogota, U. S. Columbia	22.08	560.8	.....	.....	49.8	9.9	76	se.	1	0.4	.....	8 k	2 ks	.....	w.	0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.94	760.5	29.94	760.5	83	28.3	87	e.	.....	.....	.....	2 k	5 ks	.....	ese.	0	0	.....	B. Bigar.
Havana, Cuba, W. I.	30.02	762.5	30.07	763.8	78	25.6	76	calm	0	0	.....	10 cs	0	calm	.....	0.42	10.7	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.99	761.7	30.00	762.0	80.0	26.7	75	calm	0	0	.....	3 cs	0	.....	.....	0	0	fair	Robert Johnstone.
Navassa, W. I.	29.89	759.2	29.97	761.2	81	27.2	83	ne.	4	1.8	.....	hz	5 k;hz	ne.	n.	0	0	hazy	F. M. Everett.
Paramaribo, S. A.	30.01	762.2	30.01	762.2	80	26.7	82	se.	.....	.....	2	3 c	4 k	e.	e.	0.010	0.3	fair	Dr. O. J. Hering.
Puerto Berrio, U. S. Col'mba	29.43	747.5	29.99	761.7	76	24.4	84	n.	.....	.....	.....	.....	7 ks	.....	calm	0	0	fair	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	75.2	24	.....	n.	.....	.....	1	5 ck	3 ks	e.	se.	0.55	14.	.....	Earl Flint.
Santiago de Cuba, W. I.	29.99	761.7	30.02	762.5	81	27.2	78	calm	0	0	.....	4 c	0	.....	.....	0	0	fair	Robert Mason.
St. Thomas, W. I.‡	30.02	762.5	30.03	762.7	82	27.8	82	ne.	6	2.7	.....	3 c	4 ks	nw.	ne.	0.29	7.4	fair	G. O. Gyllich.
York Factory, B. A.	29.62	752.3	29.67	753.6	38.0	3.3	95	s.	16	7.2	.....	4 k	5 s	nw.	s.	0.20	5.1	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Off Guard Bank, Torres St	29.97	761.2	77.5	25.3	84	ese.			3		1							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Palma, Majorca, Spain	30.01	762.2	71.5	21.9	71	e.			3		10					1	ene.	overcast	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.13	765.3	73	22.8		ne.			2		3	nne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 12° 40′, E. 46° 06′	29.67	753.6	89	31.7	76	sw.			5		0					4	sw.	blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante,																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 17° 08′, W. 62° 38′	30.03	762.7	83	28.3	83	ne.			2-3		7							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, Turtle Cove, Congo River	30.00	762.0	72.5	22.5	81	ssw.			1-2		10	calm				3	w.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A, T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.94	760.5	83	28.3		calm			0		0							blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 28° 16′, E. 10° 04′	30.18	766.6	60	15.6		wsw.			1-3		7	wnw.				5	wsw.	thnd'r storm	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.11	764.8	79	26.1	78	nne.			1		1	nne.						blue sky	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.34	770.6	52.5	11.4	93	calm			0		8	sw.						d. clouds.	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 22° 24′, E. 59° 40′	29.65	753.1	82	27.8		sse.			2		7	se.				2	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 13° 04′, E. 80° 14′	29.63	752.6	89	31.7		nnw.			1		6					4	s.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 47° 25′, W. 17° 10′	30.08	764.0	63	17.2		se.			2-3		3	se.				2	se.	d. clouds	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Seychelles Islands	29.93	760.2	81	27.2	70	se.			2-3		4	se.						d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 35° 48′, E. 10° 19′	29.80	756.9	81	27.2		ne.			3		3					3	ne.	misty	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 14° 12′, W. 77° 20′	29.92	760.0	86	30.0	91	e.			4		8					2		d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish, Hakodate, Yezo, Japan	30.14	765.5	68	20.0	84	ese.			3-4		10	ese.				1	ese.	heavy rain	Capt. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich Is'ds	30.08	764.0	73	22.8	76	ne.			2-5		9							showery	Comm. E. G. Bourke.
H. M. S. Garnet																			Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 17° 00′, E. 175° 30′	30.02	762.5	76	24.4	86	se.			4-5		7	ese.				3	se.	showery	Capt. C. C. P. Fitzgerald.
H. M. S. Iris, Hammamet, Tunis, Africa	29.85	758.2	78	25.6	77	nnw.			2		9	wnw.				1	nnw.	d clouds	Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 41° 47′, E. 140° 43′	30.17	766.3	67	19.4		e.			2-3		5	e.				3	e.	raining	Capt. R. E. Tracey.
H. M. S. Kingfisher, S. 11° 49′, W. 77° 29′	30.04	763.0	60	15.6		s.			1		10	calm				1	w.	overcast	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 13° 30′, E. 92° 30′	29.90	759.4	78	25.6		ese.			4		2	e.				3	e.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 1° 13′, W. 24° 00′	30.09	764.3	80	26.7	78	se.			3		3					2	sse.	d. clouds	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.82	757.4	82.8	28.2	79	ene.			1		1					1	ne.	misty	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Malabar																			
H. M. S. Minotaur																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.83	757.7	85	29.4	96	ene.			2		2	ese.						d. clouds	Capt. G. C. Tryon
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S Northampton, N. 45° 57′, W. 61° 50′	30.23	767.8	57.5	14.2	90	se.			3		4	sse.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican, S. 13° 22′, W. 76° 38′	30.03	762.7	59.5	15.3	100	calm			0		10					2	s.	drizzling	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 44° 19′, W. 58° 55′	30.27	768.8	56	13.3	80	ene.			2		3					1	ene.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton.
H. M. S. Ready, N. 12° 09′, E. 87° 42′	29.77	756.1	78	25.6		sw.			6-8		5	sw.				6	sw.	showery	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 2° 19′, E. 41° 02′	30.08	764.0	78.3	25.7	73	se.			3-4		6					5	sse.	d. clouds	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 12° 19′, E. 43° 35′	29.67	753.6	79	26.1	82	se.			3-5		5	ese.				4	e.	d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 48° 12′, W. 64° 27′	30.21	767.3	59	15.0	84	sse.			3		5							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	30.03	762.7	59	15.0	87	calm			0		10	calm						d. clouds	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I	29.99	761.7	80	26.7		n.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.71	754.6	82.5	28.1	83	wsw.			2-3		3	w.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			

GERMAN NAVAL SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

PORTUGUESE NAVAL SERIES.

Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.

Bengo, St. Paul de Loando, Benguela	30.04	763.1	77.4	25.2	68	nnw.			3		6					1		d. clouds	Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Id's	30.05	763.2	82.4	28.0	79	ne.			1		6					1	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.82	757.4	82.0	27.8	71	ese.			1									blue sky	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.

H. M. Corvette Saga																			Capt. M. von Krusenstiern.
H. M Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.12	765.0	76	24.4	82	nw.	1	0.4			8		se.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.11	764.8	63	17.2	72	ne.	5	2.2		10 c	0	ne.		0.2	5.			misty	
Naval Hospital, Yokohama, Japan	29.89	759.2	68.5	20.3	84	n.			3		5		w.	0.03	0.8			clearing	
Adams, N. 11° 45′, W. 90° 54′	29.69	754.1	83	28.3	91	ene.			3		8		ene.			mod.	se.	fair	
Alaska, Callao, Peru	29.97	761.2	59	15.0	100	calm			0		10			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.88	758.9	71	21.7	85	n.			3		5		n.			mod.	ne.	fair	
Alliance, Hammerfest, Norway	30.11	764.8	49	9.4	78	w.			3		8			0	0	sm'h		cloudy	
Ashuelot, Kobe, Japan	29.96	761.0	75	23.9	81	ne.			3		2		calm					clear	
Colorado, New York, N. Y.	30.02	762.5	66	18.9	94	nne.	4	1.8			10			blank	blank			misty	
Constitution, New London, Conn	29.92	760.0	61	16.1	100	nne.	12	5.4			10							raining	
Franklin, Norfolk, Va	29.95	760.7	80	26.7	100	ssw.	10.8	4.8			5		s.	0.58	14.7			fair	
Galena, Leghorn, Italy	29.89	759.2	70	21.1	70	wnw.			1		8		wnw.					cloudy	
Independence, N. Yard, Mare I'd, Cal	29.81	757.2	56	13.3	81	wsw.	7.2	3.2			10		wsw.					overcast	
Jamestown, Mare Isl'd, Cal *	29.91	759.7	53	11.7	?	wsw.			3		10		ssw.	0	0			cloudy	
Kearsarge, League Island, Pa	30.01	762.2	71	21.7	90	ene.			2		10					sm'h		misty	
Lackawanna, Mare Isl'd, Cal †	29.93	760.2	55	12.8	93	sw.			3		0?							cloudy	
Lancaster, Portsmouth, N. H.	30.08	764.0	60	15.6	100	ne.	2	0.9						1.5	38.			foggy	
Marion, [S. A.* Buenos Ayres, La Plata,	29.87	758.7	57	13.9		ne.			2		2		calm	0	0	sm'h		clear	
Michigan, Erie, Pa	30.09	764.3	64	17.8	73	nw.			3		10		nw.					cloudy	
Minnesota, Newport, R. I.	29.99	761.7	64	17.8	100	nne.			4		10							drizzling	
Monocacy, Yokohama, Japan	30.05	763.3	70	21.1	90	n.			2		10		n.					cloudy	
Nipsic, Villafranca, France	29.88	758.9	70	21.1	70	ssw.			1		5					sm'h		d. clouds	
Onward, Callao, Peru †	30.01	762.2	58	14.4	100	calm			0		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.88	758.9	80	26.7	78	calm			0		2		calm					fair	
Passaic, Washington, D. C.	30.04	763.0	73	22.8	95	e.			1		10		e.					overcast	
Pensacola, Panama, Panama	29.93	760.2	77	25.0	91	w.			1		10			sli't	sli't	sm'h		cloudy	
Portsmouth, Provincetown, Mass	30.02	762.5	62	16.7	100	e.			4							sm'h		foggy	
Powhatan, N. 15° 32′, W. 76° 00′	29.99	761.7	85	29.4	87	ese.			4		2		e.			mod.	e.	fair	
Quinnebaug, Villafranca, France	29.87	758.7	70	21.1	94	nw.			3		8		s.			sm'h		cloudy	
Ranger, Mare Island, Cal. *	29.92	760.0	55	12.8	87	wsw.			3		10		calm			sm'h		foggy	
Richmond, N. 15° 08′, W. 102° 16′	29.92	760.0	78	25.6	100	se.			3		10			0.35	8.9	sm'h	sse.	raining	
Shenandoah, Maldonado, Uruguay *	30.15	765.8	54	12.2	74	n.			3		2					sm'h		fair	
St. Louis, League Island, Pa	29.76	755.9	70	21.1	90	ne.	5	2.2			10			0.8	20.			misty	
Swatara, Chefoo, China †	29.96	761.0	71	21.7	85	e.			4		10		calm			mod.	e.	squally	
Tennessee, New York, N. Y.	30.02	762.5	67	19.4	100	ne.	3	1.3			10			0.075	1.9			hazy	
Trenton, Gibraltar, Mediterranean *	29.95	760.7	69	20.6	75	w.			4		0			0	0			clear	
Vandalia, New York, N. Y.	30.01	762.2	66	18.9	94	ne.			2		10		calm					misty	
Wabash, Boston, Mass	30.09	764.3	62	16.7	94	nne.	7	3.1			10		ne.	0.28	7.1			drizzling	
Wachusetts, Sitka, Alaska	29.75	755.6	55	12.8	93	calm			0		10			hv'y	h'vy	sm'h		rainy	
Wyoming, Port Royal, S. C.	30.41	772.4	79	26.1	86	s.	4	1.8			5		s.	0	0			fair	
Yantic, New York, N. Y. *	29.97	761.2	66	18.9	95	ne.			2		10							cloudy	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
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ALLAN LINE. *A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 56° 06′, W. 20° 30′ *†	30.06	763.5				s.	5		10		s.			r'gh	s.	rainy	N. McLean.
S. S. Circassian, Capt. W. H. Smith N. 49° 12′, W. 66° 30′	30.26	768.6	57	13.9	87	s.	4		8		sw.	o	o	sm'h		d. clouds	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson Halifax, N. S	30.24	768.1	56	13.3		var.	1		10		sw.					cloudy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn	30.10	764.5	72	22.2	95	sse.	3		10		e.					overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 47° 59′, W. 29° 25′ †..	29.85	758.2	58	14.4	82	nne.	4		2		ne.	h'vy	h'vy	mod.	ne.	fine	C. W. Walker, 2d Offi.
S. S. Ohio, Capt. H. Morrison, N. 47° 20′, W. 30° 10′ *†..	30.01	762.2	59	15.0	88	n.	4		8		nnw.			cross	nnw.	cloudy	
S. S. Pennsylvania, Capt. G. H. Dodge, Liverpool, Eng †..	30.09	764.3	64	17.8	78	ne.	2		10		ne.					cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, Capt. E. J. Moloney, N. 38° 41′, W. 31° 11′ ‡	29.77	756.1	70.5	21.4	85	nnw.	6		9							drizzling	
S. S. Clpero, Capt. W. N. Lailey, Port of Spain, Trinidad, W. I	30.00	762.0	81	27.2	89	e.	2		3							d. clouds	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 33° ′, 18 W. 42° 50′	29.94	760.5	75.5	24.2	84	nne.	4		10							overcast	
Bk. Glaramara, Capt. R. Morton, N. 44° 06′, W. 143° 13′ ‡..	30.09	764.3	52.5	11.4	100	sw.	5		10							raining	
Bg. Hermine, Capt. S. G. Jones, N. 16° 04′, W. 26° 53′	30.08	764.0	80.7	27.1	82	nnw.	2		7							d clouds	
Bkt. Hope, Capt. Jas. Campbelle N. 25° 06′ W. 34° 31′ ‡..	30.08	764.0	79.5	26.4	87	sse.	2		2							d. clouds	
Island Belle, Capt. A. McBride, N. 10° 19′, W. 53° 35′	30.03	762.7	84	28.9		e.	2		2							blue sky	
S. Lochee, Capt. J. Raeburn, S. 37° 00′, W. 18° 00′ ‡..	30.24	768.1	54.7	12.6	69	sw.	4		9							d. clouds	
Bk. Mertola, Capt. E. W. Turner																	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant, S. 37° 09′, W. 9° 21′	30.09	764.3	53.5	11.9	70	wsw.	6		4							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow,																	
Queen of Cambria, Capt. M. Parry N. 46° 50′, W. 11° 45′	30.12	765.0	63.5	17.5	85	ne.	2		4							hazy	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 8° 38′, W. 27° 04′	30.03	762.7	78.0	25.6	84	var.	4		10							raining	
S. S. Strathleven, Capt. C. W. Pearson Shanghai, China	29.80	756.9	79.5	26.4	91	e.	3		5							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA, AND MEXICAN S. S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern. Capt. E. Rogers N. 23° 46′, W. 111° 10′ †..	29.86	758.4	75	23.9	86	wnw.	2		10		w.	o	o	gentle	wnw.	cloudy	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains, N. 41° 15′, W. 64° 28′	30.15	765.8	60	15.6		e.	4		10		sw.			sm'h		hazy	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
Braunschweig, Capt. C. Pohle N. 39° 20′, W. 63° 24′	30.09	764.3	78.5	25.8	84	se.	3		8		se.			sm'h	e.	cloudy	
S. S. Hermann, Capt. H. Baur N. 50° 32′, W. 18° 24′	30.10	764.5	59.9	15.5		s.	5		2		sw.	o	o		n.	fine	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jungst,																	T. Jüngst.
S. S. Leipsic, Cept. F. Pfeiffer																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 47° 08′, W. 27° 36′	29.78	756.4	59.5	15.3	97	n.	5		10		nne.	8 h'r	8 h'r	mod.	n; s.	light rain	Englehart and von [Goessel
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 34° 54′, E. 141° 26′ †..	30.05	763.3	78	25.6	86	se.	4		10			rain	rain	mod.	ese.	overcast	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 40° 10′, W. 127° 47′ *†..	30.24	768.1	63	17.2	83	nnw.	3		6?		nne.			mod.	n.	clear?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 38° 00′, E. 145° 36′	30.14	765.5	71	21.7	80	ene.	5		9		ene.	o	o	mod.	ese.	cloudy	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann, N. 43° 24′, W. 124° 29′ †..	30.13	765.3	53	11.7	93	nnw.	4		haze					sm'h	nw.	clear	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 36° 05′, W. 121° 36′ †	29.96	761.0	54	12.2	93	wnw.	3		10		nw.			sm'h		hazy	J. N. Ingalls.
S. S. Dakota, Capt. ——, N. 46° 23′, W. 125° 19′ †	30.13	765.3	54	12.2	93	sw.	1		10		n.	0	0	sm'h	nnw.	foggy	
S. S. Idaho, Capt. T. Huntington, N. 38° 35′, W. 123° 52′ †	29.96	761.0	52	11.1	93	nw.	1		0					mod.	w.	foggy	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 35° 15′, W. 120° 52′ †	30.02	762.5	59	15.0	76	calm	0		fg		nw.	0	0	mod.	nw.	foggy	G. H. Harrison.
S. S. Senator. Capt. Wallace, Eureka, Cal. †	29.96	761.0	49	9.4	93	sw.	1		10							foggy	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †	30.03	762.7	52	11.1	86	calm	0		2							clear	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 42° 17′, W. 124° 40′ †	30.00	762.0	47	8.3	92	nw.	2		5		nw.			light	nw.	hazy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——, S. 34° 20′, E. 171° 50′	30.10	764.5	59	15.0	82	nw.	4		8		w.			mod.	nw.	cloudy	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W. †	29.85	758.2	62	16.7	83	s.	2		10			rain	rain			overcast	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry																	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, Panama, Panama †	29.99	761.7	83	28.3	91	n.	2		5		n.	0	0	sm'h	s.	fine	
S. S. City of Sidney, Capt. H. C. Dearborn,																	E. L. Salk.
S. S. City of Tokio, Com. J. Maury Hong Kong, China †	29.94	760.5	81	27.2	91	ese.	1		0			0	0			clear	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, N. 24° 16′, W. 111° 46′ †	29.88	758.9	73	22.8	95	wnw.	4		10		wnw.	0	0	mod.	w.	cloudy	R. R. Searle.
S. S. Grenada. Capt. M. Connolly N. 18° 18′, W. 103° 28′ †	29.86	758.4	84	28.9	91	ese.	6		10		ese.	3 h'r	3 h'r	mod.	ese.	fair	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 8° 53′, W. 169° 08′	29.93	760.2	80	26.7	78	e.	1		2		e.			sm'h	se.	clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Fedderson, 2d Off
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †	30.06	763.5	64	17.8	78	ene.	2		8		ese.	0.05	1.3			cloudy	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 41° 49′, W. 56° 06′ †	30.09	764.3	68	20.0	86	e.	6		5		e.	light	light	r'gh	e.	fair	R. Horsfall.
S. S. Britannic, Capt. H. Perry. N. 51° 00′, W. 12° 21′ †	30.26	768.6	60	15.6		e.	2		2		e.	0	0	sm'h	e.	clear	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, New York, N. Y. †	30.12	765.0	70	21.1	90	nnw.	2		8		n.	sh'rs	sh'rs			raining	
S. S. Republic. Capt. P. J. Irving N. 48° 23′, W. 40° 47′ †	30.10	764.5	57	13.9	87	nnw.	4		5		nw.	0	0	mod.	nw.	d. clouds	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass †	30.03	762.7	70	21.1	100	e.	3		10 n			0.03	0.8			cloudy	
Golden Fleece																	
Hassler, Lt. Com. Nichols, Sitka, Alaska †*	29.82	757.4	53	11.7		calm	0		10		ene.			mod.	sw.	overcast	
S. Iron Cross, Capt. Randall, S. 10° 04′, W. 12° 35′ *	30.08	764.0	73	22.8	100	se.	4–5		10		se.	sli't	sl't	long	se; ssw.	overcast	W. Randall.
S. Pawashick, Capt. E. Fry																	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	30.10	764.5	75	23.9	60	ne.	6		0			0	0			clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 12, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.06	763.6	76.5	24.7	73	w.			3		0			0	0	clear	Raynard.
Algiers ‡			30.11	764.7	77.4	25.2	77	ene.			4		0?			0	0	cloudy ?	Nicolas.
La Calle ‡			30.14	765.5	74.8	23.8	83	ne.			5		5			0	0	cloudy	Fonfréde.
Tunis ‡			30.16	766.0															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.06	763.4	79.7	26.5	33	n.			1		0			0	0	clear	Dumas.
Tebessa ‡			30.06	763.5	80.6	27.0	41	nne.			4		1			0	0	very fair	Derché.
Geriville ‡					92.1	33.4	9	sw.			4		0			0	0	clear	Lonchamp.
Laghouat ‡			30.05	763.2	88.5	31.4	10	e.			2		0			0	0	clear	Herbin.
Biskra ‡			30.06	763.5	92.1	33.4	36	nnw.			1		10			inap.	inap.		Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.19	766.8	29.98	761.5	46.3	7.9	83	ese.	9	4.0			1			0.01	0.3	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.45	748.0	29.98	761.5	71.1	21.7	60	s.			2		2			0.142	3.6		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.13	740.0	29.89	759.1	61.9	16.6	94	wnw.	3.1	1.4			10			1.409	35.8	raining	Dr. Wiersbicki.
Eperies	29.04	737.7	29.89	759.3	68.0	20.0	81	s.			3	c	8 ks		n.	0.079	2.0		Julius Mikolik.
Gratz ‡	28.72	729.5	29.94	760.4	65.5	18.6	76	wsw.			2		7			0.650	16.5		Andreas Rospini.
Hermannstadt	28.66	727.9	30.00	762.1	81.3	27.4	38	sse.			5		5			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.69	728.6	30.02	762.4	57.7	14.3	78	wsw.			2		9			0	0	gloomy	The Staff.
Lemberg	28.98	736.1	29.93	760.3	68.0	20.0	81	s.			3		10			0.075	1.9		Dr. T. Stanecki.
Pola	29.97	761.3	30.08	764.1	70.5	21.4	71	wnw.			1		3			0	0		I. R. Hydrographic Office.
Szathmar	29.63	752.5	30.07	763.7	82.4	28.0	52	e.			5		8			0	0		Beicht Petér, S. J.
Szegedin	29.65	753.1	29.92	759.9	78.4	25.8	59	sw.			4		6			0	0		Karl Stancel.
Trieste	29.99	761.8	30.10	764.4	64.9	18.3	72	wnw.			1		1			0.055	1.4	clear	Secco.
Vienna	29.26	743.1	29.96	761.0	61.5	16.4	76	w.			3		4			0.079	2.0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.01	762.2	30.11	764.8	52.4	11.3	79	n.	6	2.7			10			0	0	overcast	W. Boswell.
Armagh, Observatory	29.90	759.4	30.14	765.5	56.9	13.8	77	ne.	4	1.8			8					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.07	763.8	58.2	14.6	80	nw.	8	3.6			9					overcast	John Hartnup.
Bolton, Sharples	29.51	749.5	30.05	763.3	55.2	12.9	86	ene.	18	8.0			10					raining	Thomas Mackereth.
Bradford, Yorkshire	29.65	753.1	30.04	763.0	55.1	12.8	85	ne.			3		10			0.02	0.5	overcast	J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.98	761.5	57.6	14.2	90	nw.			0.4		10					foggy	John McLaren.
Chatham, School M. E.	29.87	758.7	30.00	762.0	58.8	14.9	80	n.			1		9					gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.89	759.2	30.12	765.0	60.5	15.8	68	wnw.			5		6†					overcast?	The Staff.
Fort Napier, Natal	27.68	703.1	29.90	759.4	85.1	29.5	20	se.			1		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.76	755.9	29.99	761.7	83.0	28.3	87	s.			1		4					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.09	764.3	55	12.8	87	w.			2		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	30.06	763.5	30.12	765.0	71.6	22.0	74	e.			3		8					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	29.86	758.4	30.07	763.8	53.9	12.2	86	sw.			1		10					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.83	757.7	30.00	762.0	57.9	14.4	81	wnw.			1		10					raining	The Staff.
Guernsey	29.84	757.9	30.06	763.5	57.5	14.2	87	nw.			1		10					misty	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.98	761.5	30.02	762.5	57.7	14.3	78	nw.	10	4.5			10					drizzling	The Staff.
Leicester, Museum	29.80	756.9	30.05	763.3	55.0	12.8	93	n.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.93	760.2	30.00	762.0	86.0	30.0	66	se.			3		0					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.00	762.0	30.04	763.0	84.0	28.9	73	e.			3		5					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.80	756.9	30.03	762.7	56.1	13.4	83	nw.			1		10					drizzling	The Staff.
Plymouth	30.01	762.2	30.09	764.3	59.8	15.4	78	calm			0		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.11	764.8	53.1	11.7	85	calm	0	0			10					misty	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	30.09	764.3	30.15	765.8	85.4	29.7	44	ne.			2		1					blue sky	Serg't W. H. Lyne.
Sheffield	29.78	756.4	30.06	763.5	56.1	13.4	94	nne.			2		10			0.03	0.8	overcast	W. F. Cooper.
Silloth Rectory	30.05	763.3	30.08	764.0	60.0	15.6	74	e.			1		7			0.073	1.9	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.08	764.0	56.3	13.5	84	nne.	6	2.7			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss					57.8	14.3	85	nw.			1		10					raining	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.08	764.0	30.10	764.5	63	17.2	61	nw.			4		5					d. clouds	W. Newcombe.
Valencia, Observatory	30.12	765.0	30.15	765.8	57.1	13.9	65	nnw.	7	3.1			10					misty	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.97	761.2	30.01	762.2	63	17.2	91	sse.	14	6.3			10 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	29.93	760.2	29.99	761.7	58	14.4	100	s.	1	0.4			10 n		s.	1.50	38.1	heavy rain	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.92	760.0	29.95	760.7	50	10.0	100	sw.	5	2.2			fg.			0.12	3.0	dense fog	J. McWilliams.
Fort Garry, Manitoba*	29.17	740.9	30.00	762.0	47	8.3	86	nw.	1	0.4		2 k	5 ks	nw.	nw.	0	0	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.90	759.4	30.03	762.7	64	17.8	93	e.	6	2.7			8 ks		se.	0	0	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.72	754.9	30.05	763.3	50	10.0	83	nw.	2	0.9			sk.			0	0	dense smoke	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.78	756.4	29.98	761.5	56	13.3	90	w.	6	2.7			fg.			0.45	11.4	foggy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.35	745.5	30.04	763.0	49	9.4	93	calm	0	0		0	0			0	0	clear	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.38	746.2	30.08	764.0	47	8.3	92	calm	0	0		0	0			0	0	clear	H. Morgan.
Port Stanley, Ontario	29.44	747.8	30.09	764.3	44	6.7	96	nw.	1	0.4		0	sk.			0	0	smoky	M. Payne.
Quebec, Quebec*	29.66	753.4	29.97	761.2	56	13.3	93	w.			1	2 k	2 s		sw.	0.46	11.7	fair	Capt. Ashe, R. N.
Rockcliffe, Ontario*	29.60	751.8	30.06	763.5	42	5.6	93	nw.	2	0.9			fg.		n.	0	0	foggy	W. H. McIntyre.
Saugeen, Ontario*	29.32	744.7	30.03	762.7	49	9.4	77	s.	6	2.7			fg.			0	0	foggy	K. Stewart.
St. Andrews, N. B.	29.90	759.4	29.95	760.7	53	11.7	96	calm	0	0			10 n			1.46	37.1	heavy rain	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.10	764.5	30.15	765.8	61	16.1	87	s.	13	5.8			10 ks			0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.70	754.4	30.08	764.0	53	11.7	66	nw.	4	1.8		5 ck	hz.	w.		0	0	fair	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.87	758.7	29.93	760.2	64	17.8	100	se.	1	0.4			10 n		se.	0.19	4.8	light rain	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.20	767.1	30.46	773.7	55	12.8	80	s.	1	0.4		0	2 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	29.93	760.2	29.96	761.0	65.0	18.3	97	sw.	11.5	5.1		0	7 s			0.040	1.0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.19	741.4			65.3	18.5	62	nw.			1	0	2			0.32	8.1	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai.	29.71	754.5	29.73	755.2	74.3	23.5	86	wsw.	1.8	0.8		7 ck	0			0	0	very cloudy	M. Marc Dechevrens, S. J.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.69	754.0	29.73	755.2	55.9	13.3	97	n.	16	7			10					raining	Oversergent Fischer
Fanöe	29.87	758.7	29.89	759.2	57.4	14.1	87	nne.			4		10						Overloerer Lauridsen
Godthaab, Greenland	29.60	751.8	29.64	752.9	38.5	3.6	80	s.			4		10					raining	S. Kleinschmidt.
Stykkisholm, Iceland	29.93	760.2	29.97	761.3	49.6	9.8	95	se.			2		10					raining	A. O. Thorlacius.
Thorshavn	30.13	765.2	30.16	766.1	49.1	9.5	80	e.	9	4			10						Overloerer Bergh.
Vestervig	29.84	757.9	29.93	760.2	53.4	11.9	89	ne.			6		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.50	749.3	30.14	765.5	66.2	19	72	wnw.			1		10 kn			0	0	covered	M. Labroue, Director.
Alençon Normal School	29.55	750.6	30.10	764.6	57.2	14	89	w.			3	0	k	n.	s.	0.04	1.		M. Nicot, Director.
Arras, Engineer School					59.4	15.2	87	nnw.			2	0	k						M. Klein, Commandant.
Avignon, Normal School	30.08	763.9	30.15	765.9	71.8	22.1	58	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.48	748.8	30.03	762.8	59.5	15.3	79	wsw.			2		10		w.	0	0	covered	M. Saillard, Director.
Beauvais, Normal School	29.76	756.0	30.03	762.7	61.3	16.3	72	nw.			2		8		n.	0.047	1.2	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.19	741.4	30.08	764.0	58.3	14.6	84	sw.			3		10			0	0	covered	M. Gobin, Director.
Bordeaux, Observatory	29.91	759.8	30.17	766.4	64.8	18.2	65	w.			1		8		ssw.	0	0	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.52	749.8	30.07	763.8	58.6	14.8	76	sw.			1		8		sw.	0.272	6.9	very cloudy	M. Postel, Director.
Brest, Naval Observatory	29.90	759.4	30.14	765.6	59.4	15.2	87	nw.			1		10		calm	0	0		M. de Kermaree, Dir.
Caen, Normal School	29.98	761.6	30.06	763.5	63.0	17.2	77	nnw.			1		8		nnw.	0.661	16.8	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					65.1	18.4	59	se.			2		5			0.079	2.0	cloudy	M. Jadot, Director.
Charleville, Normal School	29.46	748.3	29.97	761.2	63.7	17.6	67	sw.			1		8			0	0	¾ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.74	730.1	30.11	764.8	59.0	15.0	68	wsw.			3		8			0.071	1.8	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.29	744.0	30.12	765.1	67.3	19.6	75	w.			4		1		sw.	0.04	1.		M. de Villemontée, Dir.
Commercy, Normal School	29.17	740.9	30.02	762.6	57.6	14.2	76	w.			1		5	w.	w.	0.08	2.	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.56	700.1	30.05	763.2	64.4	18	79	n.			1	0	2 k		w.	0	0	¼ covered	M. Jeangirard, Director.
Grénasque, du. Rhone	29.10	739.1	30.24	768.1	70.2	21.2	40	nw.			1		2		nw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.36	745.8	30.12	765.1	64.0	17.8	62	nw.			1	0	kn		w.	0	0		M. Ablard, Director.
Guéret, Normal School	28.58	725.9	30.18	766.5	53.8	12.1	80	sw.			1	0	n		ne.	0.087	2.2		M. Rivoire, Director.
Lamballe, Normal School	29.84	757.0	30.08	763.9	59.9	15.5	80	nnw.			2		mist			0	0	light mist	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.06	763.5	30.16	766.1	64.4	18.0	66	w.			2		5		calm	0	0	½ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.10	739.1	30.15	765.8	63.1	17.3	70	w.			1		10		n.	0.413	10.5	covered	M. André, Director.
Mans, Normal School	29.79	756.7	30.06	763.5	59.9	15.5	77	wnw.			1		8		nw.	0.322	8.2	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.85	758.3	30.12	765.1	67.6	19.8	53	wsw.			3		0			0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.98	634.5	30.22	767.5	52.7	11.5	58	w.	9.4	4.2			6		e.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.03	762.7	30.13	765.4	76.8	24.9	43	ne.			2		5	ese.	nne.	0	0	fair	M. Pourle, Director.
Nancy, Normal School	29.24	742 7	30.00	761.9	61.5	16.4	85	sw.			1	0	5 n		sw.	0	0	cloudy	M. Hasse.
Nantes, Observatory	30.02	762.5	30.18	766.6	64.6	18.1	62	wnw.			1-2	ck	8-k	wnw.	wnw.	0	0	hazy	M. Larocque, Director.
Nice	29.95	760.8	29.99	761.7	72.7	22.6	59	s.			4	1	1	s.	s.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	30.06	763.4	30.16	766.0	69.3	20.7	47	sw.	5.6	2.5			5	nw.	nw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.64	575.1			38.8	3.8							1		sw.	0.063	1.6	clear	Gen'l de Nansouty Dir.
Privas, Normal School					66.2	19	72	s.			1		5	s.	s.	0	0	cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.25	641.4			40.8	4.9	100	wsw.			4		10			0.322	8.2	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.17	766.3	30.20	767.1	66.6	19.2	82	calm			0		2		w.	0	0	¼ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.96	760.9	30.17	766.3	63.7	17.6	71	ssw.			1		8		nw.	0.039	1.0	very cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.96	761.0	30.05	763.2	59.0	15	89	ne.			1		10			0.35	9.	covered	M. Platrier, Director.
Saint Lô, Normal School	29.91	759 8	30.07	763.8	58.5	14.7	86	nw.			3		10		nw.	0.165	4.2	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.87	758.8	30.04	763.0	63.0	17.2	74	nw.			1		10		nw.	0.236	6.0		M. Renou, Director.
Toulouse, Observatory	29.51	749.5	30.24	768.0	69.8	21.0	59	w.			1		2	nw.		0	0	slightly cl'dy	M Baillaud, Director.
Tours	29.91	759.8	30.11	764.8	63.3	17.4	76	wsw.			1		10		w.	0.346	8.8	covered	M. de Tastes.
Versailles, Observatory	29.56	750.7	30.05	763.2	63.3	17.4	70	nw.			1					0.201	5.1		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.76	755.8	30.05	763.2	64.6	18.1	71	nw.			2		8		wnw.	0.516	13.1		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.14	740.1	30.00	762.0	63.7	17.6	64	w.			1	0	5 k		w.	0.472	12.0	raining	Prof. Dr. Hoh.
Berlin	29.69	754.0	29.85	758.3	63.3	17.4	72	sw.			2		10			0.193	4.9		Prof. Dr. Arndt.
Breslau	29.41	747.0	29.94	760.4	65.1	18.4	63	sw.			1		10			0.035	0.9		Royal University Obs'y.
Carlsruhe	29.58	751.2	30.00	761.9	62.2	16.8	75	sw.			2		5	sw.		0	0		Albert Senz.
Cassel	29.21	742.0	29.93	760.3	60.3	15.7	77	ssw.			2		7	s.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.61	752.1	29.97	761.2	63.7	17.6	72	ssw.			1		9			0.035	0.9		Physical Society.
Friedrichshafen	28.63	727.1	30.04	763.1	59.7	15.4	78	wsw.			1		7	wsw.		0	0		Wilhelm, Chief Tel.
Hamburg	29.80	756.9	29.89	759.3	59.2	15.1	84	nnw.			1		10					raining	E. Preller.
Kiel	29.84	758.0	29.86	758.4	59.4	15.2	85	nnw.			3		10			0.008	0.2		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.52	749.9	29.94	760.4	63.3	17.4	68	sw.			3		8	wsw.		0.098	2.5		H. Leppig, Asst.
Magdeburg	29.70	754.4	29.88	759.0	64.0	17.8	68	w.			4		9 ks; k		w.			raining	Dr. Assmann.
Memel	29.85	758.1	29.89	759.3	63.7	17.6	95	w.			1-2		10 csk					thndr & light'g	Issermann.
Munich	28.23	717.1	30.10	764.5	61.0	16.1	61	sw.			2		7	s.		0.067	1.7		Central Station.
Neufahrwasser	29.80	758.5	29.88	758.9	66.6	19.2	60	s.			6		10			0.417	10.6		A. Lothes.
Neustadt, Palatinate	29.44	747.8	29.97	761.1	62.6	17.0	67	wsw.			1		10			0	0		Dicknether.
Stuttgart	29.04	737.7	29.92	760.0	62.2	16.8	72	sw.			1		7	w.		0.051	1.3		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.53	724.6	30.00	762 1	60.3	15.7	65	sw.			4		6	nw.		0.059	1.5		Fischer.
Wustrow	29.77	756.1	29.79	756.7	54.9	12.7	100	wnw.			5		10 s			2.402	61.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.76	755.8	30.13	765.2	92.1	33.4		ne.			3.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.74	755.3	29.79	756.6	85.3	29.6	66	sw.	21.0	9.4			0			0	0	blue sky	
Deesa	29.16	740.8	29.53	750.0	87.8	31.0	66	n.	6.7	3.0			9	n.		0.05	1.3	overcast	
Bombay	29.70	754.2	29.73	755.2	76.0	24.4	97	nnw.	9.0	4.0			10		w.	0.38	9.6	overcast	
Poona, Yarrowda	27.88	708.0	29.74	755.3	75.1	23.9	73	wnw.	13.0	5.8			9		w.	0.02	0.5	d. clouds	
Belgaum	27.20	691.0	29.74	755.3	74.3	23.5	73	wnw.	7.0	3.1			4	e.	w.	0	0	d. clouds	
Lahore	28.86	733.1	29.58	751.2	97.2	36.2	42	calm	1.5	0.7			0			0	0	blue sky	
Roorkee	28.71	729.2	29.58	751.4	92.6	33.7	56	s.	1.5	0.7			4			0	0		
Agra	29.04	737.6	29.60	751.8	84.7	29.3	76	w.	3.9	1.7			8			0	0		
Nagpur	28.54	724.9	29.57	751.1	80.5	26.9	84	nw.	2.9	1.3			10		n.	0	0	overcast	
Jubbulpore	28.24	717.4	29.59	751.6	77.8	25.4	89	s.	2.3	1.0			10			0.23	5.8	raining	
Lucknow	29.24	742.7	29.61	752.0	91.1	32.8	59	e.	1.9	0.8			5	ne.		0	0	blue sky	
Allahabad	29.26	743.1	29.56	750.9	84.7	29.3	90	se.	1.6	0.7			10			0.05	1.3	overcast	
Patna	29.44	747.8	29.62	752.4	87.6	30.9	71	e.	6.1	2.7			8	e.	e.	0.03	0.8	d. clouds	
Hazaribagh	27.65	702.3	29.66	753.4	75.3	24.1	86	e.	10.9	4.9			10			0.29	7.4	thund'r st'm.	
Cuttack	29.46	748.2	29.54	750.3	82.2	27.9	85	calm	0.9	0.4			8			6.29	159.8	d. clouds	
Calcutta, Alipore	29.59	751.6	29.61	752.1	82.2	27.9	88	sse.	8.0	3.6			9		se.	0.25	6.4	gloomy	
Dhubri	29.58	751.2	29.70	754.2	85.1	29.5	85	calm	1.2	0.5			1	ene.		0.60	15.2	d. clouds	
Chittagong	29.60	751.8	29.69	754.1	81.7	27.6	81	sse.	5.7	2.6			7			0	0	d. clouds	
Sibsagar	29.34	745.4	29.67	753.7	88.3	31.3	79	s.	3.1	1.4			0			1.35	34.3	blue sky	
Jeypore	28.24	717.2	29.65	753.1	88.7	31.5	68	ese.	4.1	1.8			8		ese.	0.01	0.3	d. clouds	
Zanzibar, Africa			30.08	764.0	78.6	25.9	76	calm	5	2.2			7			0.26	6.6	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.68	753.8	30.08	764.0	65.3	18.5	76	s.	0.7	0.3			8			0.720	18.3		Prof. Giovanni Clodig.
Milan	29.57	751.1	30.08	764.0	67.3	19.6	60	ssw.	3.8	1.7			0			0.240	6.1		Prof. Schiaparelli.
Padua	29.95	760.7	30.06	763.4	70.3	21.3	51	wnw.	12.5	5.6			2	w.		0.091	2.3		Prof. Dott. Lorenzoni.
Moncalieri	29.15	740.3	30.04	762.9	64.9	18.3	67	se.	3.1	1.4			3	nw.		0.008	0.2		Prof. P. F. Denza.
Genoa	29.90	759.4	30.09	764.2	69.8	21.0	66	sw.	3.8	1.7			2	s.		0.035	0.9		Prof. G. M. Garibaldi.
Mondovi	28.14	714.8	30.02	762.5	64.4	18.0	80	nw.			4		1	e.		0.055	1.4		Prof. D. C. Bruno.
Pesaro	30.04	763.1	30.09	764.3	69.4	20.8	61	ne.					9	w.		0.142	3.6		Prof. Luigi Guidi.
Florence	29.86	758.4	30.11	764.8	68.4	20.2	67	nw.			2		2	sw.		0.098	2.5		Prof. Costantino Pitter.
Leghorn	30.04	763.0	30.12	765.1	71.4	21.9	65	sw.	1.3	0.6			4			0.177	4.5		Prof. P. Monte.
Rome	29.96	760.9	30.13	765.2	76.5	24.7	46	sw.	4.9	2.2			4			0.398	10.1		Prof. P. S. Ferrari.
Lecce	29.82	757.5	30.08	763.9	84.0	28.9	65	wsw.	20.6	9.2			5	sw.		0	0		Prof. C. de Giorgi.
Cosenza	29.17	740.9	30.03	762.7	89.2	31.8	62	se.	2.5	1.1			3	s.		0	0		Prof. D. Conti.
Cagliari	29.99	761.8	30.18	766.6	77.2	25.1	29	nw.			4		3			0.157	4.0		Prof. A. Pacinotti.
Palermo	29.89	759.3	30.14	765.5	78.8	26.0	55	e.	8.7	3.9			3			0	0		Prof. G. Ciacciatore.
Syracuse	30.00	761.9	30.04	763.0	80.2	26.8	81	e.	4.3	1.9			9	sw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.60	751.9	30.11	764.9	74.8	23.8	72	w.	0.7	0.3			10	w.		0.020	0.5		Prof. F. Brioschi.
Stelvio	22.23	564.7			40.1	4.5	72	w.			6		10 n	w.		0.421	10.7	misty	Prof. P. F. Denza.
Valdobbia	22.27	565.6			40.6	4.8	68	n.			2		10 kn	w.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y	29.75	755.6	29.77	756.1	74.0	23.3	92	nne.	2.8	1.2		9ck;ct	0			0.330	8.4	very cloudy	K. Sasaki.
Kioto	29.76	755.9	29.93	760.2	70.7	21.5	87	ese.	2.6	1.2			10 n			0.350	8.9	raining	M. Tojima.
Nagasaki, I. M. Obs'y	29.51	749.5	29.70	754.4	81.2	27.3	67	ene.	7.4	3.3		0	8 s			0	0	cloudy	S. Takehayashi.
Niigata	29.90	759.4	29.93	760.2	73.6	23.1	70	se.	7.1	3.2		10 ck	0			0.310	7.9	cloudy	
Nobiru	30.03	762.7	30.05	763.3	69.1	20.6	86	ene.	6.9	3.1			10ks;s			0.290	7.4	cloudy	
Supporo	29.98	761.5	30.05	763.3	64.0	17.8	73	se.	12.8	5.7			9			0	0		
Tokei Obs'y, Yeddo	29.97	761.2	30.04	763.0	69.2	20.7	94	ene.	4.4	2.0			10 n			1.020	25.9	raining	The Staff.
Wakayama	29.80	756.9	29.85	758.2	74.6	23.7	80	ene.	6.7	3.0		ck	10 n			0.699	19.8	raining	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.10	764.5	30.29	769.4	68.5	20.3	72	e.	21.0	9.4			8		ese.	0.06	1.5	squally	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.76	603.7	29.99	761.7	59.0	15.0	82	ne.	0	0		0	4 k		e.	0.024	0.6	clear	Vicente Fernandez.
Leon	24.49	622.0	30.12	765.1	64.0	17.8	88	s.			1	3 c	4 k			0.151	3.8	cloudy	Prof. M. Leal.
Mazatlan	29.74	755.5	30.00	762.0	76.5	24.7	93	ene.	1.6	0.8			10 n		se.	2.087	53.0	rainy	F. Quijano, C. E.
Mexico, Central Obs'y	23.16	588.3	30.19	766.9	55.2	12.9	85	nw.	0.2	0.1		0	5 ks			0.083	2.1	½ cloudy	The Staff.
Morelia	24.05	610.8	30.12	765.0	56.5	13.6	78	s.			2	0	0			0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	24.03	610.4	29.96	761.0	63.3	17.4	83	se.			1	0	9 ks		ese.	0	0	very cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.50	596.9	30.28	769.2	53.4	11.9	65	calm	0	0		0	2		e.	inap.	inap.	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.64	575.0	30.25	768.5	53.6	12.0	90	e.	1.7	0.8		1 c	2 s			0	0	clear	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.97	761.2	29.97	761.2	61.0	16.1		wnw.			4					0.071	1.8		
Groningen	29.85	758.1	29.90	759.5	62.4	16.9		nw.			1					0	0		
Helder	29.90	759.4	29.90	759.4	60.4	15.8		wsw.			1					0.004	0.1		
Hellevoetsluis	29.93	760.2	29.93	760.2	62.2	16.8	81	wnw.			2					0.039	1.0		
Utrecht	29.85	758.3	29.90	759.5	63.1	17.3	76	wnw.			1		8			0.055	1.4	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.01	762.2	30.07	763.8	60.1	15.6	40	w.	1.1	0.5			0			0	0		
Christiania	29.98	761.4	30.12	765.1	52.9	11.6	62	ne.	11	5			8			0	0		
Gjæsvær	30.06	763.4	30.08	764.0	49.3	9.6		wsw.			8		10					foggy	
Lodingen	30.21	767.2	30.25	768.4	51.8	11.0	83	sw.			2		10			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.79	756.6	29.94	760.4	68.0	20.0	78	nw.	10.5	4.7			4			0.224	5.7		Dr. J. A. Sampaio.
Campo Major	29.11	739.3	30.07	763.8	79.2	26.2	23	ese.	1.3	0.6			0			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.05	763.3	30.14	765.5	73.4	23.0	74	sw.	2.5	1.1			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.78	756.3	30.13	765.3	70.9	21.6	37	ene.	3.1	1.4			1			0	0		The Staff.
Ponta Delgada, Azores	29.91	759.8	29.98	761.6	72.0	22.2	74	nw.	9.8	4.4			3			0.236	6.0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.15	740.5	30.26	768.6	43.2	6.2	52	w.	16	7			9 n						Capt. Lasarew.
Archangel	30.16	766.1	30.18	766.6	51.6	10.9	71	w.	9	4			9 ks						Capt. Sseliwerstow.
Astrakhan	30.68	779.3	30.60	777.2	72.1	22.3	44	s.	9	4		0	0						Capt. Wisganow.
Barnaul ‡	29.43	747.4	29.93	760.3	41.0	5.0	80	nw.	2	1			10						Meteorological Obs'y.
Dorpat	29.87	758.7	30.11	764.7	67.8	19.9	72	ese.	7	3			10k|ks						Observatory.
Ekaterinburg	28.91	734.3	29.87	758.6	51.8	11.0	86	w.	22	10			10						Meteorological Obs'y.
Kasan	29.95	760.8	30.22	767.5	70.9	21.6	44	w.	9	4			10						Observatory.
Kertch	30.24	768.2	30.26	768.7	72.1	22.3	79	se.	7	3		2 cs	0			0	0		Lagorio & Sastyrez.
Kieff	29.58	751.4	30.19	766.9	74.5	23.6	25	se.	16	7		5 c	0						Observatory.
Lugan	30.24	768.1	30.44	773.2	75.2	24.0	23	ese.	22	10			6					light clouds	Meteorological Obs'y.
Moscow	29.84	757.9	30.30	769.5	74.7	23.7	36	s.	4	2		0	0						Meteorological Obs'y.
Nikolaiev	30.24	768.2	30.32	770.0	80.6	27.0	41	ese.	9	4		8 cs	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.95	760.8	30.04	763.0	52.0	11.1	82	calm			0		10 n			0.047	1.2		Lieut. Iwanow.
Pekin, China	29.85	758.3	30.00	761.9	72.0	22.2	86	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.23	767.9	30.25	768.3	61.3	16.3	88	se.	7	3			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.71	729.3	30.28	769.1	61.7	16.5	47	calm	0	0			0						Teich, A. M.
Tiflis	29.08	738.6	30.49	774.4	66.4	19.1	56	se.	13	6			10 ks						Physical Observatory.
Warsaw	29.51	749.6	29.93	760.2	61.2	16.2	94	calm	0	0			10 n					raining	Astronomical Obs'y.
Wilna	29.62	752.3	30.03	762.7	66.9	19.4	70	sse.	4	2			10					heavy cl'ds.	Berg, Assistant.
Yeniseisk	29.61	752.2	29.91	759.7	36.9	2.7	86	w.	7	3			2						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.13	765.3	53.2	11.8	93	e.			1		10 s			0	0	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			30.10	764.5	59	15.0	94	w.			3	5	5	w.		0	0	cloudy	J. Youngclause
North Unst, Shetland Isl'ds			30.04	763.0				n.			3	0	0						Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	30.05	763.2	30.15	765.9	70.5	21.4	74	ssw.	0	0						0.480	12.2	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.12	765.0	30.17	766.4	74.8	23.8	53	se.	4.5	2.0		2	0	w.		0	0	almost clear	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.22	691.4			67.3	19.6	34	s.	3.1	1.4			1			0	0	almost clear	Domingo Martin.
Madrid, Royal Obs'y	27.93	709.5	30.08	764.0	76.5	24.7	35	s.	6.7	3.0		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	29.62	752.4	29.77	756.1	79.0	26.1	50	ese.	2.2	1.0		4	4	ene.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.19	741.5	30.07	763.8	67.1	19.5	58	ne.	4.3	1.9			1			0	0	almost clear	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.96	761.1	30.03	762.7	78.6	25.9	86	ese.	1.1	0.5		1 c|ck	0	n.		0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.84	758.0	29.89	759.3	84.1	28.9	80	sw.	4.4	2.0		0	2 ks		sw.	0	0	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.98	761.5	30.08	763.9	79.0	26.1	42	ese.	8.0	3.6		4	8	w.	se.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I.	29.89	759.1	29.98	761.4	80.2	26.8	86	sw.	0	0		3 k	3 k			0.071	1.8	d. clouds	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.76	755.9	29.89	759.3	79.2	26.2	91	nnw.	3.4	1.5			10 kn		nw.	0 01	0.2	very cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.25	768.4	30.29	769.4	53.6	12.0	82	sw.			4		2			0	0		
Umea	30.22	767.6	30.27	768.9	57.9	14.4	57	s.			2		0			0	0		
Hernosand	30.23	767.9	30.28	769.2	52.3	11.3	67	nne.			2		0			0	0		
Stockholm	29.88	758.9	30.06	763.4	54.0	12.2	98	ne.			6		10			0.642	16.3	raining	
Wisby	29.82	757.3	29.88	758.8	58.6	14.8	96	e.			6		10			0.539	13.7	raining	
Sub-Series.																			
Upsala	30.00	762.0	30.09	764.2	51.1	10.6	100	ne.	13.2	5.9			10			0.878	22.3	raining	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.72	729.5	30.13	765.2	60.4	15.8	71	se.			3		10			0.094	2.4	covered	The Observatory.
Zurich ‡	28.46	722.8	30.00	763.6	60.4	15.8	73	w.			2		7			0.012	0.3	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.22	767.7	77.4	25.2	56	ne.	17	7.5			0			0	0		The Observatory.
Valona			30.20	768.7	85.6	29.8		s.			2		2			0	0	slightly cld'y	A. Bertrand.
Sub-Series.													0						
Beirut, Lee Obs'y, Syria			29.91	759.7	85.5	29.7	67	n.			2	0				0	0		Prof. C. V. A. van Dyck

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
UNITED STATES SERIES. By authority of the Secretary of War. Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.																			
Albany, New York	29.94	760.5	30.02	762.5	62	16.7	73	n.	4	1.8			10 ks			0.11	2.8	cloudy	
Alpena, Michigan	29.34	745.2	30.01	762.2	52	11.1	72	sw.	11	4.9			10 n		w.	0.01	0.3	light rain	
Atlanta, Georgia	28.91	734.3	30.09	764.3	69.5	20.8	83	nw.	6	2.7		5 k	0	nw.		0	0	fair	
Atlantic City, New Jersey	29.98	761.5	29.99	761.7	70.8	21.6	100	nw.	3	1.3			10 s		calm	0.84	21.3	cloudy	
Augusta, Georgia	29.87	758.7	30.06	763.5	76.0	24.4	76	w.	2	0.9		0	0			0	0	clear	
Baltimore, Maryland	29.99	761 7	30.04	763.0	70	21.1	66	n.	8	3.6		3 c	6 ks	calm	w.	1.60	40.6	fair	
Barnegat, New Jersey	29.95	761.0	29.98	761.5	67.0	19.4	100	n.	7	3.1			10 n		n.	0.99	25.1	light rain	
Bismarck, Dakota	28.29	718.6	30.12	765.0	44	6.7	86	nw.	3	1.3		0	0			inap.	inap.	clear	
Boise City, Idaho	27.30	693.4	30.14	765.5	46.0	7.8	56	nw.	4	1.8		0	0			0	0	clear	
Boston, Massachusetts	29.79	756.7	29.95	760.7	63.0	17.2	95	nw.	2	0.9			10n;fog		ne.	0.07	1.8	light rain	
Brackettville, Texas	28.91	734.3	29.94	760.5	69	20.6	90	ne.	4	1.8		0	4 s		calm	0.33	8.4	fair	
Brownsville, Texas	30.02	762.5	30.06	763.5	76	24.4	90	calm	0	0		0	0			0.43	10.9	clear	
Buffalo, New York	29.37	746.0	30.09	764.3	52	11.1	83	se.	4	1.8		0	sk.			0	0	dense smoke.	
Burlington, Vermont	29.72	754.9	30.00	762.0	57.2	14.0	82	e.	1	0.4		10 cs	sk.	w.		0.12	3.0	dense smoke.	
Cairo, Illinois	29.82	757.4	30.22	767.6	60.6	15.9	80	ne.	1	0.4		0	fg.			0	0	clear	
Campo, California	27.39	695.7	29.96	761.0	40.2	4.6	59	se.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.28	692.9			69	20.6	90	e.			1		10 n			0.20	5.1	light rain	
Cape Henry, Virginia	30.02	762.5	30.04	763.0	73	22.8	97	sw.	6	2.7		5 k	0	sw.		0.67	17.0	fair	
Cape May, New Jersey	29.96	761.0	29.98	761.5	73	22.8	90	w.	15	6.7			10 s		nw.	0.50	12.7	cloudy	
Castroville, Texas	29.30	744.2	29.99	761.7	72	22.2	84	calm	0	0		0	0			0	0	clear	
Cedar Keys, Florida	30.04	763.0	30.06	763.5	81	27.2	82	nw.	4	1.8		hz.	0			0	0	clear	
Champaign, Illinois	29.32	744.7	30.12	765.0	53.1	11.7	66	sw.	7	3.1		0	0			0	0	clear	
Charleston, S. Carolina	29.97	761.2	30.03	762.7	80	26.7	88	s.	4	1.8		0	8 s		sw.	0.01	0.3	cloudy	
Charlotte, N. Carolina	29.18	741.2	30.06	763.5	69	20.6	90	calm	0	0		hz.	hz.	calm	calm	inap.	inap.	dense haze.	
Chattanooga, Tennessee	29.30	744.2	30.13	765.3	64.2	17.9	93	w.	3	1.3		0	1 k;fg			0.04	1.0	clear	
Cheyenne, Wyoming	24.21	614.9	30.18	766.6	45.1	7.3	27	nw.	6	2.7		0	0			0	0	clear	
Chicago, Illinois	29.33	745.0	30.04	763.0	57.8	14.3	56	sw.	11	4.9		0	6 k		sw.	0	0	fair	
Chincoteague, Virginia	30.01	762.2	30.03	762.7	71	21.7	100	nw.	3	1.3		0	2 s		nw.	1.15	29.2	fair	
Cincinnati, Ohio	29.52	749.8	30.18	766.6	59	15.0	70	nw.	2	0.9			fg.			0	0	dense fog	
Cleveland, Ohio	29.40	746.7	30.14	765.5	54.1	12.3	73	s.	4	1.8		0	fg.			0	0	clear	
Coleman City, Texas																			
Columbus, Ohio	29.30	744.2	30.16	766.1	53	11.7	72	nw.	1	0.4		0	sk.			0	0	clear	
Concho, Texas	28.19	716.0	30.13	765.3	64	17.8	90	calm	0	0		4 cs	0			0	0	fair	
Corsicana, Texas	29.66	753.4	30.14	765.5	67	19.4	61	n.	2	0.9		3 cs	0			0	0	clear	
Davenport, Iowa	29.40	746.7	30.06	763.5	61	16.1	60	sw.	12	5.4		0	0			0	0	clear	
Dayton, Washington T'y	28.31	719.1	30.12	765.0	52.0	11.1	50	n.	6	2.7		0	0			0	0	clear	
Deadwood, Dakota	25.52	648.2	30.22	767.6	41	5.0	86	calm	0	0		0	0			0	0	clear	
Decatur, Texas																			
Delaware Breakwater, Del.	29.97	761.2	29.99	761.7	70	21.1	100	w.	8	3.6		7 ck	0	w.		0.47	11.9	fair	
Denison, Texas	29.34	745.2	30.15	765.8	66	18.9	68	nw.	1	0.4			10 ks		nw.	0	0	cloudy	
Denver, Colorado	24.92	633.0	30.14	765.5	49.0	9.4	50	s.	8	3.6		0	0			0	0	clear	
Des Moines, Iowa	29.16	740.7	30.07	763.8	50	13.3	80	w.	3	1.3		0	0			0	0	clear	
Detroit, Michigan	29.40	746.7	30.12	765.0	53.8	12.1	74	n.	4	1.8		0	0			0	0	clear	
Dodge City, Kansas	27.49	698.2	30.08	764.0	54.9	12.7	87	s.	2	0.9		3 cs	0	w.		0	0	fair	
Dubuque, Iowa	29.30	744.2	30.02	762.5	50.8	13.8	74	sw.	4	1.8		0	hz.			0	0	clear	
Duluth, Minnesota	29.26	743.2	29.97	761.2	54	12.2	86	w.	17	7.6		0	0			0	0	clear	
Eagle Pass, Texas	29.30	744.2	30.13	765.3	74.0	23.3	97	sw.	1	0.4		0	0			1.86	47.2	clear	
Eagle Rock, Idaho	25.41	645 4	30.26	768.6	41	5.0	33	n.	3	1.3		0	0			0	0	clear	
Eastport, Maine	29.88	758.9	29.95	760.7	58	14.4	93	n.	3	1.3			10 n			0.29	7.4	light rain	
El Paso, Texas	26.32	668.5	30.07	763.8	61.9	16.6	100	ne.	3	1.3			10 s			0.65	16.5	cloudy	
Erie, Pennsylvania	29.36	745.7	30.09	764.3	56	13.3	74	s.	8	3.6		4 k;hz	hz.	sw.		0	0	dense haze	
Escanaba, Michigan	29.26	743.2	29.92	760.0	54	12.2	93	calm	0	0			10 n		calm	0.13	3.3	light rain	
Florence, Arizona	28.40	721.3	30.00	762.0	71	21.7	90	ne.	1	0.4		3 ck	0			0.69	17.5	fair	
Fort Apache, Arizona	25.14	638.5	30.05	763.3	58	14.4	90	e.	6	2.7			10 s		calm	2.97	75.4	cloudy	
Fort Assinnaboine, Montana	27.21	691.1	30.02	762.5	50	10.0	66	sw.	9	4.0		0	0			0	0	clear	
Fort Bennett, Dakota	28.50	723.9	30.04	763.0	45	7.2	86	nw.	3	1.3		0	0			0	0	clear	
Fort Benton, Montana	27.27	692.6	30.13	765.3	49	9.4	52	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	28.13	714.5	30.14	765.5	43	6.1	83	nw.	1	0.4			8 s		sw.	0	0	cloudy	
Fort Custer, Montana	26.91	683.5	30.15	765.8	45	7.2	92	s.	3	1.3		0	0			0	0	clear	
Fort Davis, Texas	25.31	642.9	30.27	768.8	60	15.6	84	n.	3	1.3		0	5 s			0.02	0.5	fair	
Fort Elliott, Texas	27.35	694.7	30.54	775.7	61	16.1	78	se.	8	3.6			10 s		se.	0	0	cloudy	
Fort Gibson, Indian T'y	29.59	751.6	30.14	765.5	54.5	12.5	80	calm	0	0		0	5 s		s.	0	0	fair	
Fort Grant, Arizona					62	16.7	93	n.	3	1.3			10 s			0.54	13.7	cloudy	
Fort Griffin, Texas	28.84	732.5	30.08	764.0	67.5	19.7	53	s.	2	0.9			10 s		s.	0	0	cloudy	
Fort Keogh, Montana	27.57	700.3	30.11	764.8	44	6.7	76	ne.	1	0.4		0	0			0	0	clear	
Fort Macon, North Carolina	30.04	763.0	30.05	763.3	75	23.9	84	nw.	4	1.8			10 ks		sw.	0	0	cloudy	
Fort McKavett, Texas	27.90	708.6	29.78	756.4	66.7	19.3	74	calm	0	0		0	0			inap.	inap.	clear	
Fort Missoula, Montana	26.86	682.2	30.38	771.6	40	4.4	59	calm	0	0		0	0			0	0	clear	
Fort St. Michaels	29.54	750.3	29.57	751.1	42	5.6	83	se.	8	3.6			10 s			0.05	1.3	cloudy	
Fort Shaw, Montana	26.48	672.6	30.08	764.0	46	7.8	63	w.	4	1.8		0	0			0	0	clear	
Fort Sill, Indian Territory	28.90	734.0	30.15	765.8	66	18.9	45	calm	0	0			10 s		w.	0	0	cloudy	
Fort Stevenson, Dakota	28.26	717.8	30.12	765.0	43	6.1	83	w.	3	1.3		4 ck	0	calm		0	0	fair	
Fort Verde, Arizona					62	16.7	83	ne.			2	0	0			0	0	clear	
Fredericksburg, Texas	28.39	721.1	29.91	759.7	70	21.1	90	calm	0	0		0	0			0	0	clear	
Galveston, Texas	30.04	763.0	30.08	764.0	81	27.2	78	w.	3	1.3		2 c;hz	3 ks	w.		0	0	fair	
Grand Haven, Michigan	29.32	744.7	29.98	761.5	66.5	19.2	61	s.	24	10.7			10 s		sw.	0	0	cloudy	
Hatteras, North Carolina	30.02	762.5	30.04	763.0	73	22.8	97	ne.	12	5.4			10 s		ne.	1.75	44.5	cloudy	
Helena, Montana	25.93	658.6	30.32	770.1	50	10.0	39	s.	1	0.4		0	0			0	0	clear	
Henrietta, Texas	29.11	739.4	30.01	762.2	70	21.1	50	s.	1	0.4			10 s		calm	0	0	cloudy	
Huron, Dakota	28.71	729.2	30.10	764.5	47	8.3	83	ne.	3	1.3		0	0			0	0	clear	
Indianapolis, Indiana	29.35	745.5	30.15	765.8	55	12.8	74	calm	0	0		0	hz.		calm	0	0	clear	
Indianola, Texas	30.05	763.3	30.08	764.0	79.5	26.4	91	w.	4	1.8		2 cs	2 s	n.	calm	0.07	1.8	fair	
Jacksboro, Texas	28.97	735.8	30.08	764.0	65	18.3	73	ne.	2	0.9			10 ks		calm	0	0	cloudy	
Jacksonville, Florida	30.00	762.0	30.04	763.0	80	26.7	79	sw.	2	0.9		5 cs	0	sw.		0	0	fair	
Keokuk, Iowa	29.44	747.8	30.10	764.5	61.0	16.1	60	sw.	10	4.5		0	0			0	0	clear	
Key West, Florida	30.04	763.0	30.07	763.8	76.4	24.7	84	s.	12	5.4			10 n		s.	1.28	32.5	thund'rst'm.	
Kittyhawk, North Carolina	30.02	762.5	30.04	763.0	75	23.9	90	nw.	6	2.7		5 ck	4 s	nw.		0	0	cloudy	
Knoxville, Tennessee	29.11	739.4	30.15	765.8	65	18.3	86	n.	3	1.3		0	5 s		w.	inap.	inap.	fair	
La Crosse, Wisconsin	29.17	740.9	29.94	760.5	59	15.0	81	sw.	4	1.8		0	0			0	0	clear	
La Mesilla, New Mexico	26.22	666.0	30.37	771.4	62.5	16.9	94	calm	0	0			10 s			1.11	28.2	cloudy	
Laredo, Texas																			
Leavenworth, Kansas	29.25	742.9	30.15	765.8	54	12.2	74	s.	2	0.9		0	0			0	0	clear	
Lewiston, Idaho	29.26	743.2	30.11	764.8	52	11.1	52	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.87	758.7	30.19	766.8	60	15.6	87	calm	0	0		4 cs	hz.			0	0	fair	
Los Angeles, California	29.53	750.0	29.91	759.7	59.8	15.4	75	n.	3	1.3		0	0			0	0	clear	
Louisville, Kentucky	29.59	751.6	30.16	766.1	55.0	12.8	80	calm	0	0		0	hz.		calm	0	0	clear	
Lynchburg, Virginia	29.37	746.0	30.06	763.5	72.6	22.6	82	calm	0	0			10s;fg		w.	0.39	9.9	cloudy	
Madison, Wisconsin	28.96	735.6	29.99	761.7	57	13.9	74	sw.	8	3.6		0	1 s		sw.	0	0	clear	
Marquette, Michigan	29.19	741.4	29.92	760.0	55	12.8	86	w.	6	2.7			10 s		w.	inap.	inap.	cloudy	
Mason, Texas	28.48	723.4	30.21	767.3	67	19.4	90	calm	0	0		1 c	0	calm		0	0	clear	
Memphis, Tennessee	29 85	758.2	30.19	766.8	60	15.6	87	calm	0	0		0	1 s		calm	0	0	clear	

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.21	741.9	29.97	761.2	60	15.6	75	sw.	9	4.0		0	5 ks		sw.	0	0	fair	
Mobile, Alabama	30.00	762.0	30.08	764.0	74.0	23.3	90	nw.	5	2.2		0	0			0	0	clear	
Montgomery, Alabama	29.86	758.4	30.09	764.3	72.1	22.3	90	nw.	1	0.4		hz	0			0	0	clear	
Moorhead, Minnesota	29.04	737.6	30.05	763.3	44	6.7	93	nw.	8	3.6		0	0			0	0	clear	
Morgantown, W. Virginia	29.14	740.1	30.12	765.0	56.2	13.4	90	calm	0	0			fg			0.02	0.5	dense fog	
Mt. Washington, N. H.	23.87	606.3	30.07	763.8	47.0	8.3	89	sw.	22	9.8			10 s		sw.	0.36	9.1	cloudy	
Nashville, Tennessee	29.62	752.3	30.16	766.1	56.0	13.3	80	calm	0	0			fg			0.01	0.3	dense fog	
New Haven, Connecticut	29.87	758.7	29.98	761.5	57	13.9	96	n.	8	3.6			10 n		w.	0.70	17.8	light rain	
New London, Connecticut	29.92	760.0	29.97	761.2	63	17.2	100	n.	4	1.8			10 n		n.	0.05	1.3	light rain	
New Orleans, Louisiana	30.02	762.5	30.08	764.0	80.0	26.7	79	nw.	6	2.7		6 c;ck	hz	n.		0	0	fair	
Newport, Rhode Island	29.89	759.2	29.94	760.5	66.3	19.1	96	n.	2	0.9			10 n		calm	0.12	3.0	light rain	
New River, N. Carolina					74	23.3	90	calm			0		10 s			0	0	threatening.	
New Shoreham, Rhode I'd.	29.91	759.7	29.94	760.5	65.5	18.6	100	calm	0	0			fg		calm	0.26	6.6	dense fog	
New York, New York	29.83	757.7	30.01	762.2	63.5	17.5	86	ne.	8	3.6			10 s		w.	0.81	20.6	cloudy	
Norfolk, Virginia	30.00	762.0	30.03	762.7	74.5	23.6	90	w.	2	0.9		3 ck	5 ks		nw.	0.30	7.6	fair	
North Platte, Nebraska	27.19	690.6	30.13	765.3	50	10.0	80	ne.	4	1.8		0	0			0	0	clear	
Olympia, Washington T'y	29.93	760.2	29.97	761.2	45.0	7.2	93	n.	1	0.4			fg		calm	0	0	dense fog	
Omaha, Nebraska	28.94	735.1	30.13	765.3	56	13.3	86	sw.	2	0.9		0	0			0	0	clear	
Oswego, New York	29.73	755.1	30.06	763.5	60.4	15.8	61	n.	6	2.7		1 k	8k	nw.		0	0	clear	
Pensacola, Florida	30.04	763.0	30.07	763.8	77	25.0	85	sw.	4	1.8		0	0			0	0	clear	
Philadelphia, Pa.	29.98	761.5	30.04	763.0	67	19.4	78	ne.	12	5.4			10 s			0.52	13.2	cloudy	
Phœnix, Arizona	28.87	733.3	30.63	778.0	68	20.0	70	sw.	2	0.9		0	0			0.50	12.7	clear	
Pike's Peak, Colorado	18.05	458.5	30.26	768.6	31	— 0.6	78	calm	0	0		8 cs	0			0	0	cloudy	
Pioche, Nevada	24.24	615.7	30.26	768.6	58	14.4	20	w.	5	2.2		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.33	745.0	30.15	765.8	51.2	10.7	86	w.	5	2.2		0	0			0	0	clear	
Port Eads, Louisiana	30.08	764.0	30.09	764.3	79.1	26.2	82	w.	5	2.2		hz	1 s	calm	calm	0	0	clear	
Port Huron, Michigan	29.40	746.7	30.09	764.3	50.6	10.3	72	sw.	6	2.7		1 ck	sk	w.	calm	0	0	clear	
Portland, Maine	29.89	759.2	29.94	760.5	62.5	16.9	93	n.	5	2.2			10 s		n.	0.14	3.6	cloudy	
Portland, Oregon	29.90	759.4	29.97	761.2	49.7	9.8	87	calm	0	0		0	0			0	0	clear	
Portsmouth, N. Carolina					70	21.1	90	sw.	3	1.3		3 k	6 ks	calm	e.	0.06	1.5	cloudy	
Prescott, Arizona	24.88	631.9	30.07	763.8	53	11.7	83	w.	1	0.4		0	0			0	0	clear	
Punta Rassa, Florida	30.03	762.7	30.04	763.0	77.5	25.3	79	e.	4	1.8		1 c	1 k	calm	calm	0.58	14.7	clear	
Red Bluff, California	29.56	750.8	29.90	759.4	62.5	16.9	75	calm	0	0		0	0			0	0	clear	
Rio Grande City, Texas	29.86	758.4	30.07	763.8	77	25.0	76	calm	0	0		0	0			0	0	clear	
Rochester, New York	29.45	748.0	30.09	764.3	54	12.2	80	sw.	4	1.8		1 k	0	calm		0	0	clear	
Roseburg, Oregon	29.42	747.3	30.00	762.0	51	10.6	86	calm	0	0		0	0			0	0	clear	
Sacramento, California	29.83	757.7	29.91	759.7	56.9	13.8	74	se.	10	4.5		0	0			0	0	clear	
St. Louis, Missouri	29.58	751.3	30.20	767.1	56.8	13.8	80	s.	2	0.9			fg			0	0	dense fog	
St. Paul, Minnesota	29.14	740.1	30.02	762.5	51.5	10.8	88	nw.	2	0.9		0	hz			0.02	0.5	clear	
Salt Lake City, Utah	25.78	654.8	30.11	764.8	52	11.1	28	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.41	747.0	30.11	764.8	70.4	21.3	94	calm	0	0		0	0			0	0	clear	
San Diego, California	29.76	755.9	29.83	757.7	63.2	17.3	78	e.	3	1.3		2 c	0	sw.		0	0	clear	
Sandusky, Ohio	29.44	747.8	30.12	765.0	56	13.3	80	w.	6	2.7		0	0			0	0	clear	
Sandy Hook, New Jersey	29.97	761.2	30.00	762.0	62.0	16.7	93	n.	19	8.5		10 k	0	n.		1.99	50.5	cloudy	
San Francisco, California	29.93	760.2	29.99	761.7	56	13.3	86	sw.	5	2.2			fg		sw.	0	0	dense fog	
Santa Fé, New Mexico	23.39	594.1	30.19	766.8	51	10.6	90	calm	0	0			10 s		calm	0	0	cloudy	
Savannah, Georgia	29.93	760.2	30.02	762.5	79	26.1	82	w.	3	1.3		1 k	3 s	w.	w.	0.02	0.5	fair	
Shreveport, Louisiana	29.90	759.4	30.13	765.3	69.5	20.8	78	ne.	4	1.8		3 ck	4 s	calm	n.	0	0	fair	
Silver City, New Mexico	24.38	619.2	29.95	760.7	59	15.0	94	calm	0	0			10 n		calm	0.13	3.3	light rain	
Sitka, Alaska	29.49	749.0	29.56	750.8	54.6	12.6	84	e.	10	4.5			10 ks		calm	0.32	8.1	cloudy	
Smithville, North Carolina	30.00	762.0	30.04	763.0	79	26.1	88	w.	4	1.8			10 ks		sw.	0	0	cloudy	
Spokane Falls, Wash. Ter.	28.06	712.7	30.08	764.0	45	7.2	86	se.	1	0.4		0	0			0	0	clear	
Springfield, Illinois	29.48	748.8	30.16	766.1	57.0	13.9	69	sw.	7	3.1		0	0			0	0	clear	
Springfield, Massachusetts	29.85	758.2	29.98	761.5	60.8	16.0	87	nw.	2	0.9			10 n		w.	0.08	2.0	light rain	
Stockton, Texas	27.10	688.3	30.17	766.3	63.2	17.3	90	se.	1	0.4		0	3 s		calm	0	0	fair	
St. Vincent, Minnesota	29.16	740.7	30.04	763.0	37	2.8	96	nw.	4	1.8		0	0			0.13	3.3	clear	
Thatcher's Island, Mass.	29.91	759.7	29.96	761.0	62.0	16.7	100	n.	6	2.7			10 n		n.	0.33	8.4	light rain	
Toledo, Ohio	29.42	747.3	30.12	765.0	55	12.8	74	w.	5	2.2		0	0			0	0	clear	
Tucson, Arizona	27.49	698.2	29.85	758.2	73	22.8	84	se.	7	3.1			10 ks		nw.	0.40	10.2	cloudy	
Umatilla, Oregon	29.68	753.9	30.09	764.3	50.0	10.0	71	se.	3	1.3		0	0			0	0	clear	
Uvalde, Texas	29.12	739.6	29.93	760.2	72	22.2	90	se.	2	0.9		0	0			0.03	0.8	clear	
Vicksburg, Mississippi	29.87	758.7	30.13	765.3	69	20.6	84	n.	4	1.8			10 s		n.	inap.	inap.	cloudy	
Visalia, California	29.50	749.3	29.86	758.4	61.3	16.3	66	s.	2	0.9		0	0			0	0	clear	
Washington, D. C.	29.93	760.2	30.04	763.0	68.2	20.1	78	nw.	2	0.9		3 ck	5 s	w.	sw.	1.33	33.8	cloudy	
Wickenburg, Arizona																			
Wilmington, N. Carolina	30.00	762.0	30.06	763.5	75	23.9	90	calm	0	0		10 k	fg	sw.	calm	0	0	cloudy	
Winnemucca, Nevada	25.73	653.5	30.06	763.5	44	6.7	37	ne.	6	2.7		0	0			0	0	clear	
Wood's Holl, Mass.	29.88	758.9	29.91	759.7	65	18.3	97	ne.	3	1.3			10 n		sw.	0.06	1.5	light rain	
Yankton, Dakota	28.80	731.5	30.11	764.8	52	11.1	86	calm	0	0		0	0			0	0	clear	
Yuma, Arizona	29.76	755.9	29.90	759.4	81.2	27.3	72	s.	4	1.8		1 ck	0	se.		0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	29.99	761.7	30.01	762.2	82	27.8	91	e.	4	1.8		5 ck	5 ks	e.		0	0		J. A. Racker.
Bogota, U. S. Columbia	22.09	561.1			47.0	8.3	70	n.	2	0.9		5 k	2 ks	ne.		0	0	fair	Joaquin Gomez.
Guadeloupe, W. I.‡	29.89	759.2	29.89	759.2	82	27.8	83	e.				0	5 ks		ese.	0	0		B. Bigar.
Havana, Cuba, W. I.	30.00	762.0	30.05	763.3	80	26.7	88	calm	0	0		2 cs	0	calm		0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.97	761.2	29.98	761.5	77.7	25.4	81	calm	0	0		10 cs	0	ne.		0	0		Robert Johnstone
Navassa, W. I.	29.91	759.7	29.99	761.7	80	26.7	87	ne.	6	2.7			8 kn		ne.	0.01	0.3	squally	F. M. Everett.
Paramaribo, S. A.	30.03	762.7	30.03	762.7	81.5	27.5	81	se.			2	5 k	5 ks	e.	e.	0	0	½ cloudy	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.44	747.8	30.00	762.0	74	23.3	89	n.					10 ks		n.	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24		ne.			1	1 cs	1 ks	ne.	se.	0.04	1.		Earl Flint.
Santiago de Cuba, W. I.	29.97	761.2	29.99	761.7	82	27.8	78	calm	0	0		8 cs	0			0.73	18.5	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.99	761.7	30.00	762.0	82	27.8	74	e.	6	2.7		3 c	3 ks	ne.	e.	0.01	0.3	fair	G. O. Gyllich.
York Factory, B. A.	29.85	758.2	29.90	759.4	37.0	2.8	95	nw.	10	4.5		4 k	4 s	n.	n.	0.10	2.5	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Thursday Island, Torres St.	29.97	761.2	78.8	26.0	85	ese.			2		8							drizzling	Capt. J. P. Maclear.
H. M. S. Alexandra, Palma, Majorca, Spain	30.01	762.2	73	22.8	67	ssw.			1		8							d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.21	767.3	76	24.4		nne.			2		2	n.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 12° 35′, E. 46° 31′	29.71	754.6	88	31.1	75	sw.			3		2	s.				3	sw.	d. clouds	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 17° 35′, W. 63° 31′	29.99	761.7	81	27.2	87	ene.			2–3		8					1	e.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 7° 32′, E. 12° 33′	30.04	763.0	72	22.2	85	s.			3		6	sse.				2	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	30.01	762.2	85	29.4		calm			0		1	calm						blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 26° 54′, E. 8° 30′	30.27	768.8	62	16.7		sw.			2		2	wnw.				6	wsw.	d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.09	764.3	79.5	26.4	78	ese.			1		4	ese.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.30	769.6	53	11.7	82	ssw.			1–2		2	w.						d. clouds	Capt. W. R. Kennedy.
H. M. S Dryad, N. 22° 24′, E. 59° 40′	29.66	753.4	80	26.7		e.			2		5	se.				2	e.	d. clouds	Comm. John Hext.
H M. S. Eclipse, N. 13° 04′, E. 80° 14′	29.67	753.6	87	30.6		sse.			2		7					3	se.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 48° 08′, W. 14° 45′	30.05	763.3	62	16.7		ese.			2–3		3	sw.				3	w.	d. clouds	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Seychelles Islands, Africa	29.94	760.5	82	27.8	74	ese.			3		5	e.						d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19	30.03	762.7	79	26.1		nne.			2		1					1	nne.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 12° 41′, W. 79° 14′	29.96	761.0	87	30.6	84	ene.			3–4		3	ne.				3	ne.	d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish, Hakodate, Yezo, Japan.	30.05	763.3	69	20.6	75	se.			3–4		9	ese.				3	se.	misty	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich I'ds	30.07	763.8	72.5	22.5	73	ne.			2–5		6							showery	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argentine Rep	29.93	760.2	60	15.6		ese.			5		5	nw.						misty	Capt. L. F. Jones
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 14° 00′, E. 174° 00′	30.00	762.0	79	26.1	78	ese.			5–6		4	ese.				4	ese.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 41° 47′ E. 140° 43′	30.06	763.5	69	20.6		ese.			3–5		4	se.				3	se.	raining	Capt. R. E. Tracey.
H. M. S. Kingfisher, S. 11° 11′, W 77° 44′	30.10	764.5	58	14.4		sse.			3		2	nnw.						d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 15° 00′, E. 90° 00′	29.83	757.7	78	25.6		se.			3		6	wsw.				2	e.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 3° 53′, W. 24° 56′	30.10	764.5	81	27.2	70	ese.			4		4					2	sse.	d. clouds	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.78	756.4	82.6	28.1	79	nne.			1		0					1	nne.	misty	Capt. A. Carpenter.
H. M. S Midge																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch, Sfax, Tunis	30.08	764.0	83	28.3	91	nne.			3		0							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, N. 45° 30′, W. 61° 01′	30.10	764.5	63.5	17.5	97	sse.			3		8	sse.						misty	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 15° 20′, W. 75° 30′	30.17	766.3	60.5	15.8	97	ese.			2		8					2	sse.	d. clouds	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 44° 41′, W. 62° 28′	30.00	762.0	63	17.2	83	s.			3-4		10					3	s.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready, N. 12° 39′, E. 86° 10′	29.76	755.9	81	27.2		sw.			5-6		5	sw.				5	sw.	squally	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, S. 0° 51′, E. 42° 17′	29.93	760.2	78.3	25.7	78	ssw.			3		2					3	sse.	d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 12° 17′, E. 44° 20′	29.69	754.1	80	26.7	82	ssw.			2							5	sse.	blue sky	Comm. W. Byles.
H. M. S. Serapis, N. 44° 30′, W. 8° 06′	30.20	767.1	65	18.3	100	calm			0		5					sm'h		d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 48° 50′, W. 64° 29′	29.94	760.5	59	15.0	97	calm			0		10							overcast	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	30.12	765.0	61	16.1	82	ssw.			3		10	ssw.						d. clouds	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.95	760.7	80	26.7		nne.			1		3							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.68	753.9	83.5	28.6	79	wnw.			3-4		2	w.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	30.08	764.0	78.1	25.6	83	nw.			3		5					1		d. clouds	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.02	762.6	83.3	28.5	72	ne.			1		8					1	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.82	757.3	82.0	27.8	79	se.			2									blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES. By authority of the Secretary of the Navy. Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	30.12	765.0	76	24.4	82	nw.	2	0.9			5		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	29.95	760.7	59	15.0	?	n.	0	0		10 c	0	ne.		0.1	3.			rainy	
Naval Hospital, Yokohama, Japan	29.86	758.4	71	21.7	87	e.			2		10		ne.	0.01	0.3			drizzling	
Adams, N. 10° 35′, W. 88° 45′	29.75	755.6	81	27.2	87	s.			2		8		calm			sm'h		fair	
Alaska, Callao, Peru	30.04	763.0	60	15.6	100	sse.			2		10			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.87	758.7	74	23.3	86	ene.			2		10		calm			sm'h		drizzling	
Alliance, Hammerfest, Norway	30.11	764.8	48	8.9	100	wnw.			6		10		wnw.	light	light	sm'h		cloudy	
Ashuelot, Kobe, Japan	29.93	760.2	77	25.0	82	ne.			4		10		ne.					overcast	
Colorado, New York, N. Y.	29.95	760.7	64	17.8	83	ne.	2	0.9			10			0	0			overcast	
Constitution, Fishers Isl'd, Conn.	29.99	761.7	63	17.2	94	nnw.	8	3.6			10							misty	
Franklin, Norfolk, Va.	29.95	760.7	73	22.8	100	w.	5	2.2			8		wsw.	0	0			cloudy	
Galena, Leghorn, Italy	30.08	764.0	71	21.7	75	wsw.			3		2							clear.	
Independence, N. Yard, Mare I'd, Cal.	29.79	756.7	55	12.8	87	sw.	6.0	2.7			10		sw.					overcast	
Jamestown, Mare Isl'd, Cal. *	29.91	759.7	57	13.9	94	sw.			3		10		sw.	0	0			cloudy	
Kearsarge, Philadelphia, Pa.	30.00	762.0	69	20.6	80	nnw.			3		10					sm'h		cloudy	
Lackawanna, Mare Isl'd, Cal. †	30.15	765.8	57	13.9	87	w.			1-2		10		w.					overcast	
Lancaster, Portsmouth, N. H.	29.96	761.0	61	16.1	100	s.	2	0.9			2			0.86	21.8			foggy	
Marion, Maldonado, Uruguay	29.81	757.2	60	15.6		ne.			2		5		calm			sm'h		fair	
Michigan, Erie, Pa.	30.02	762.5	50	10.0	?	s.			2		8		nw.					fair	
Minnesota, Newport, R. I.	30.02	762.5	64	17.8	100	nw.			3		10							drizzling	
Monocacy, Yokohama, Japan	30.01	762.2	73	22.8	90	ene.			1		10		ne.					cloudy	
Nipsic, Villafranca, France	30.04	763.0	74	23.3	56	se.			1		2					sm'h		d. clouds	
Onward, Callao, Peru †	30.05	763.3	60	15.6	100	sse.			3		10		nw.			long	w.	cloudy	
Palos, Hong Kong, China	29.82	757.4	80	26.7	82	se.			1		2		calm					fair	
Passaic, Washington, D. C.	30.02	762.5	68	20.0	95	nw.			2		8		nw.					cloudy	
Pensacola, Panama, Panama	29.96	761.0	80	26.7	87	nw.			1		2		nw.	0	0	sm'h		fair	
Portsmouth, Provincetown, Mass.	29.93	760.2	62	16.7	100	wnw.			3							sm'h		drizzling	
Powhatan, N. 12° 20′, W. 78° 14′	29.97	761.2	85	29.4	87	e.			3		2		e.			mod.	e.	fair	
Quinnebaug, Marseilles, France	30.12	765.0	66	18.9	68	wsw.			4		0					sm'h		fair	
Ranger, Mare Island, Cal. *	29.93	760.2	56	13.3	94	sw.			3		10		sw.	0	0			cloudy	
Richmond, N. 15° 00′, W. 102° 05′	29.94	760.5	84	28.9	96	ene.			4		8		ene.	0.12	3.0	long	se.	cloudy	
Shenandoah, Maldonado, Uruguay *	30.07	763.8	60	15.6	88	e.			2		5					sm'h		fair	
St. Louis, League Island, Pa.	29.69	754.1	70	21.1	85	n.	5	2.2			10			0.2	5.			cloudy	
Swatara, Chefoo, China †	29.92	760.0	73	22.8	72	ne.			4		0					mod.	ne.	clear	
Tennessee, New York, N. Y.	30.02	762.5	65	18.3	94	nne.	5	2.2			10		ne.	0.88	22.4			cloudy	
Trenton, Gibraltar, Mediterranean *	30.11	764.8	71	21.7	80	n.			3-4		5			0	0			fair	
Vandalia, New York, N. Y.	29.99	761.7	64	17.8	83	n.			2		10		calm					cloudy	
Wabash, Boston, Mass.	29.97	761.2	64	17.8	100	nw.	1	0.4			10		ne.	0.21	5.3			raining	
Wachusetts, Sitka, Alaska	29.53	750.0	56	13.3	94	n.			1		10		se.	0	0	sm'h		cloudy	
Wyoming, Port Royal, S. C.	30.35	770.9	78	25.6	86	calm	0	0			8		sw.	0.03	0.8			cloudy	
Yantic, New York, N. Y. *	29.96	761.0	65	18.3	78	n.			3		10							misty	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 55° 51′, W. 13° 30′ *†	30.24	768.1				se.	1		10		s.			sm'h		cloudy	N. McLean. C. Gapou, 2d Officer.
S. S. Circassian, Capt. W. H. Smith N. 50° 00′, W. 60° 00′	30.27	768.8	53	11.7	100	ssw.	4		10		sw.	10 h'r	10 h'r	3	sw.	raining	W. Richardson.
S. S. Nova Scotian, Capt. W. Richardson Halifax, N. S.	30.06	763.5	61	16.1		ese.	3		10		ese.					hazy	
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn.	30.14	765.5	74	23.3	95	e.	2		2		e.					fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 45° 42′, W. 36° 16′ †	30.19	766.8	56	13.3	75	n.	5		5†		n.	0	0	mod.	nw.	cloudy ?	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 50° 00′ W. 24° 18′ *†	29.88	758.9	59	15.0	88	nne.	2		10		nne.			var.	nw; s.	stormy	
S. S. Pennsylvania, Capt G. H. Dodge, Liverpool, Eng	30.07	763.8	64	17.8	73	n.	2		8		n.					cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall N. 22° 10′, W. 22° 52′	30.13	765.3	80	26.7	82	nne.	3		4							blue sky	
S. British Merchant, Capt. E. J. Moloney, N. 40° 50′, W. 27° 01′ ‡	29.81	757.2	66.2	19.0	94	nnw.	7		9							drizzling	
S. S. Cipero, Capt. W. N. Lailey, Port of Spain, Trinidad, W. I.	30.00	762.0	80	26.7	91	ene.	2		2							d. clouds	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 33° 24′, W. 41° 12′	29.97	761.2	75.5	24.2	91	s.	2		10							drizzling	
Bk. Haramara, Capt. R. Morton, N. 44° 55′, W. 140° 02′ ‡	30.09	764.3	50	10.0	94	nw.	4		8							overcast	
Bg. Hermine, Capt. S. G. Jones, N. 15° 12′, W. 26° 55	30.09	764.3	83	28.3	65	nw.	2		2							blue sky	
Bkt. Hope, Capt. Jas. Campbelle, N. 25° 28′, W. 34° 00′ ‡	30.16	766.1	79.7	26.5	92	se.	2		0							blue sky	
Island Belle, Capt. A. McBride, N. 9° 57′, W. 53° 25′	30.04	763.0	82	27.8		ne.	2		5							d. clouds	
S. Lochee, Capt. J. Raeburn, S. 38° 15′, W. 14° 25′ ‡	30.17	766.3	51.6	10.9	93	n.	6		10							overcast	
Bk. Mertola, Capt. E. W. Turner,																	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant,																	
S. S. Rosetta, Capt. A. E. Barlow																	
Queen of Cambria, Capt. M. Parry N. 46° 07′, W. 12° 10′	30.15	765.8	68	20.0	65	calm	0		0							blue sky	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, N. 10° 00′, W. 26° 40′ ‡	30.17	766.3	79.0	26.1	84	var.	3		7							raining	
S. S. Strathleven, Capt. C. W. Pearson, Shanghai, China	29.66	753.4	76.5	24.7	91	ne.	3		6							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, N. 23° 04′, W. 107° 48′ †	29.76	755.9	83	28.3	83	ese.	5		8		se.	light	light	mod.	ese.	cloudy	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains N. 40° 31′, W. 72° 27′	29.97	761.2	68	20.0		var.	2		10		sw.	light	light	sm'h		misty	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 40° 37′, W. 58° 20′	30.10	764.5	74.0	23.3	65	sse.	4		10		sse.			mod.	e.	cloudy	
S. S. Herman, Capt. H. Baur N. 50° 38′, W. 26° 19′	29.88	758.9	57.2	14.0		n.	4		10		nw.	6 h'r	6 h'r	high	n.	cloudy	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst																	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche N. 48° 03′, W. 21° 19′	29.87	758.7	61.0	16.1	?	sse.	6		10		s.	18h'rs	18h'rs	r'gh	s.	cloudy	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Yokohama, Japan †	30.10	764.5	75	23.9	72	ne.	3		10			rain	rain	sm'h		overcast	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 37° 55′, W, 123° 25′ *†	30.19	766.8	59	15.0	88	calm	0		10		sw.			sm'h		overcast	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 39° 48′, E. 150° 53′	30.04	763.0	68	20.0	79	ese.	6		5		ene.	0	0	r'gh	ese.	fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann N. 38° 49′, W. 128° 23′ †	30.14	765.5	56	13.3	94	sse.	1		fg.					sm'h	nw.	foggy	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, San Francisco, Cal †.	29.96	761.0	55	12.8	93	w.	1		10		nw.					cloudy	J. N. Ingalls.
S. S. Dakota, Capt. ——, N. 42°, 19′ W. 125° 02′ †.	29.95	760.7	55	12.8	93	se.	2		10		se.	0	0	sm'h	nnw.	foggy	
S. S. Idaho, Capt. T. Huntington, N. 43° 01′, W. 124° 50′ †.	29.94	760.5	48	8.9	92	nw.	1		0					sm'h		foggy	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 33° 43′, W. 119° 47′ †.	29.88	753.9	62	16.7	77	calm	0		0			0	0	sm'h	nw.		G. H. Harrison.
S. S. Senator, Capt. Wallace, Eureka, Cal †.	30.00	762.0	52	11.1	93	calm	0		10							hazy	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †.	29.97	761.2	50	10.0	86	calm	0		2							clear	G. Debney.
S. S. Victoria, H. M. Hayward, N. 45° 19′, W. 124° 40′ †.	29.98	761.5	58	14.4	94	nw.	4		0					light	nw.	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J Bulley, Supt. New York.*																	
S. S. Australia, Capt. ——, Auckland, New Zealand	29.69	754.1	50	10.0	100	sw.	6		10							raining	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W †.	30.05	763.3	60	15.6	94	sw.	2		10			h'vy	h'vy			raining	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry																	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama †.	30.11	764.8	82	27.8	91	n.	2		5			0	0	sm'h	s.	fine	
S. S. City of Sydney, Capt. H. C. Dearborn,																	E. L. Saik.
S. S. City of Tokio, Com. J. Maury Hong Kong, China †.	29.93	760.2	83	28.3	60	ese.	1		0			0	0			clear	A. L. Ritchie, 2d Offl.
S. S. Colima, R. R. Searle, N. 27° 30′, W. 115° 04′ †.	29.90	759.4	67	19.4	100	wnw.	2		10		wnw.	0	0	sm'h	w.	misty	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 16° 54′, W. 100° 05′ †.	29.92	760.0	84	28.9	75	e.	3		5?		ne.	0	0	small	se.	clear?	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 13° 46′, W. 170° 20′	30.08	764.0	79	26.1	78	ese.	6		8		se.			h'vy	se.	cloudy	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †.	30.08	764.0	65	18.3	89	wsw.	2		10		wsw.	0.1	3.			rainy	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 43° 48′, W. 49° 47′ †.	30.25	768.3	65	18.3	?	e.	4		0			0	0	mod.	e.	fine	A. Horsfall.
S. S. Britannic, Capt. H. Perry,																	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, New York, N. Y †.	30.13	765.3	66	18.9	94	n.	2		5		n.	shr's	shr's			showery	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 46° 17′, W. 48° 37′ †.	30.31	769.9	54	12.2	100	wsw.	2		0			0	0	mod.	nw.	fair	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass †.	29.96	761.0	66	18.9	100	e.	1		10 n			0.04	1.0			raining	
Golden Fleece																	
Hassler. Lt. Com. Nichols, Sitka, Alaska *†.	29.58	757.3	54	12.2		calm	0		7		se.			mod.	sw.	d. clouds	
S. Iron Cross, Capt. Randall, S. 8° 30′, W. 14° 35′ *.	30.08	764.0	74.6	23.7	98	ese.	4–5		5		se.	sl't	sl't	long	se; ssw.	misty	W. Randall.
S. Pawahick, Capt. E. Fry,																	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †.	30.12	765.0	74	23.3	68	e.	3		0			0	0			clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer, U. S. A.

Heliotype Printing Co Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 13, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.08	764.1	78.1	25.6	71	n.			3		1			0	0	very fair	Raynard.
Algiers ‡			30.11	764.7	79.5	26.4	73	ne.			5		0			inap.	inap.	clear	Nicolas.
La Calle ‡			30.15	765.7	78.4	25.8	85	e.			6		4			0	0	cloudy	Fonfréde.
Tunis ‡			30.19	766.8															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.10	764.5	83.3	28.5	11	sw.			4		2			inap.	inap.	fair	Dumas.
Tebessa ‡			30.08	764.1	91.0	32.8	19	nnw.			4		2			0	0	fair	Derché.
Geriville ‡					94.6	34.8	7	se.			5		0			0	0	clear	Lonchamp.
Laghouat ‡			30.08	764.1	91.8	33.2	10	n.			2		3			inap.	inap.	pretty fair	Herbin.
Biskra ‡			30.10	764.4	92.1	33.4	32	se.			2		2			0	0	fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.22	767.6	30.31	769.9	52.0	11.1	80	e.	4	1.8			1			0	0	aurora	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.65	753.2	30.19	766.8	69.8	21.0	61						0			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.41	747.1	30.17	766.3	65.8	18.8	56	w.	11.2	5.0			9			0	0		Dr. Wiersbicki.
Eperies	29.27	743.5	30.13	765.3	66.6	19.2	63	s.			4	0	2 8			0.051	1.3		Julius Mikolik.
Gratz ‡	28.95	735.2	30.17	766.3	66.2	19.0	75	s.			2		2			0.098	2.5	thunder	Andreas Rospini.
Hermannstadt	28.73	729.8	30.11	764.9	73.6	23.1	81	ne.			3		10			0.146	3.7	thnd'r str'm	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.85	732.8	30.17	766.3	63.7	17.6	59	w.			1		3			0	0		The Staff.
Lemberg	29.15	740.3	30.10	764.5	68.5	20.3	56	w.			1		5			0	0		Dr. T. Stanecki.
Pola	30.13	765.3	30.24	768.1	73.0	22.8	64	wnw.			1		1			0	0		I. R. Hydrographic Office.
Szathmar	29.72	754.9	30.17	766.4	71.6	22.0	56	w.			3		3			0	0		Beicht Petér, S. J.
Szegedin	29.90	759.4	30.17	766.3	72.3	22.4	63	sw.			1		6			0	0		Karl Stancel.
Trieste	30.16	766.0	30.20	768.6	70.9	21.6	64	sw.			1		1			0	0	clear	Secco.
Vienna	29.50	749.4	30.21	767.3	66.7	19.3	63	w.			2		7			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 15, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.94	760.5	30.03	762.7	53.4	11.9	76	nnw.	5	2.2			10			0	0	overcast	W. Boswell.
Armagh, Observatory	29.87	758.7	30.10	764.5	55.0	12.8	83	ne.	3	1.3			9					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.09	764.3	58.0	14.4	77	w.	10	4.5			9					overcast	John Hartnup.
Bolton, Sharples	29.54	750.3	30.07	763.8	57.8	14.3	84	wsw.	4	1.8			9					overcast	Thomas Mackereth. [A.S.
Bradford, Yorkshire	29.66	753.4	30.06	763.5	57.6	14.2	80	sw.			1		10			0	0	overcast	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.09	764.3	60.0	15.6	87	sw.			0.1		10					foggy	John McLaren.
Chatham, School M. E.	30.00	762.0	30.13	765.3	59.2	15.1	87	nw.			1		10					overcast	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.90	759.4	30.13	765.3	61.9	16.6	63	wsw.			2		5					d. clouds	The Staff.
Fort Napier, Natal	27.48	698.0	29.70	754.4	86.3	30.2	61	calm			0		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.74	755.4	29.98	761.5	84.0	28.9	87	e.			1		4					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.04	763.0	58	14.4	69	nw.			2		8					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	30.10	764.5	30.15	765.8	72.8	22.7	87	ne.			3		7					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	29.84	757.9	30.05	763.3	56.0	13.3	70	wnw.			5		9			blank	blank	d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.95	760.7	30.12	765.0	59.8	15.4	78	ssw.			1		7					d. clouds	The Staff.
Guernsey	29.93	760.2	30.13	765.3	62	16.7	66	wsw.			2		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.09	764.3	30.13	765.3	61.1	16.2	68	w.	1	0.4			7					misty	The Staff.
Leicester, Museum	29.84	757.9	30.09	764.3	58.2	14.6	81	sw.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	30.05	763.3	30.12	765.0	80.0	26.7	82	e.			2		4					d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.94	760.5	29.99	761.7	85.0	29.4	71	s.			1		6					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.88	758.9	30.10	764.5	60.0	15.6	75	sse.			1		9					d. clouds	The Staff.
Plymouth	30.04	763.0	30.12	765.0	60.3	15.7	76	sw.			2		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.00	762.0	51.1	10.6	82	wnw.	12	5.4			5					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.99	761.7	30.06	763.5	86.4	30.2	49	ne.			1		0					blue sky	Serg't W. H. Lyne.
Sheffield	29.83	757.7	30.10	764.5	60.9	16.1	85	sw.			1		10			0.02	0.5	overcast	W. F. Cooper.
Silloth Rectory	30.02	762.5	30.06	763.5	59.8	15.4	82	calm			0		10			0	0	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.10	764.5	57.9	14.4	81	sw.	8	3.6			10					overcast	Rev. S. J. Perry.
Straifield Turgiss					63.0	17.2	75	sw.			2		5					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.08	764.0	30.10	764.5	64	17.8	66	nw.			2		6					d. clouds	W. Newcombe.
Valencia, Observatory	30.08	764.0	30.11	764.8	61.8	16.6	63	se.	6	2.7			8					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.92	760.0	29.96	761.0	57	13.9	98	n.	8	3.6			10 n			0.390	9.9	sprinkling	H. J. Cundall, C. E.
Chatham, N. B.*	29.94	760.5	30.00	762.0	53	11.7	100	s.	1	0.4		5 ck	0	s.		0.22	5.6	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.01	762.2	30.03	762.7	52	11.1	86	sw.	10	4.5		5 k	5 s	sw.	sw.	0	0	cloudy	J. McWilliams.
Fort Garry, Manitoba*	29.06	738.1	29.87	758.7	57	13.9	69	sw.	5	2.2		2 ck	5 s	nw.	sw.	0	0	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.85	758.2	29.97	761.2	63	17.2	97	n.	2	0.9			fg.			1.303	33.1	foggy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.65	753.1	29.98	761.5	60	15.6	75	sw.	6	2.7		hz.	0			0	0	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.81	757.2	30.00	762.0	58	14.4	80	e.	3	1.3		2 k	8 s	nw.	nw.	0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.41	747.0	30.10	764.5	52	11.1	93	w.	5	2.2		2 k	2 ks	n.	n.	0.30	7.6	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.44	747.8	30.14	765.5	52	11.1	93	calm	0	0		0	0			0	0	clear	H. Morgan.
Port Stanley, Ontario	29.50	749.3	30.15	765.8	49	9.4	93	w.	3	1.3		5 k	fg; sk.	nw.		0	0	foggy	M. Payne.
Quebec, Quebec*	29.70	754.4	30.02	762.5	54	12.2	86	calm			0	2 c	2 s	w.	sw.	0	0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.58	751.3	30.03	762.7	53	11.7	93	w.	6	2.7			10 s		n.	0.19	4.8	light rain	W. H. McIntyre.
Saugeen, Ontario*	29.42	747.3	30.12	765.0	58	14.4	64	n.	13	5.8		5 k?	0			0.06	1.5	cloudy?	K. Stewart.
St. Andrews, N. B.	29.94	760.5	29.99	761.7	58	14.4	91	nw.	1	0.4		0	0			2.23	56.6	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.90	759.4	29.95	760.7	63	17.2	93	s.	8	3.6		5 ck	0	w.		0.92	23.4	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.72	754.9	30.11	764.8	53	11.7	86	sw.	8	3.6		0	5 ks		nw.	Inap.	inap.	fair	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.94	760.5	30.00	762.0	54	12.2	100	nw.	3	1.3		fg.	fg.			0.47	11.9	foggy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.10	764.5	30.35	770.9	60	15.6	88	se.	6	2.7			10 n			0	0	threatening	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	29.92	760.0	29.95	760.7	61.0	16.1	94	wsw.	15.1	6.8		0	6 s			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.18	741.2			59.1	15.1	51	nw.			6	0	3			0	0		C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.82	757.5	29.85	758.1	70.7	21.5	98	wnw.	9.8	4.4			10 n			0.130	3.3	raining	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.70	754.4	29.75	755.6	55.2	12.9	93	w.	20	9			10					raining	Oversergent Fischer
Fanöe	29.88	759.0	29.90	759.5	59.5	15.3	77	wnw.			6		9						Overloerer Lauridsen
Godthaab, Greenland	29.77	756.2	29.82	757.3	42.8	6.0	85	s.			6–7		10					raining	S. Kleinschmidt.
Stykkisholm, Iceland	29.88	759.0	29.93	760.1	52.2	11.2	90	s.			2		10					raining	A. O. Thorlacius.
Thorshavn	30.00	762.1	30.04	763.0	53.6	12.0	73	e.	7	3			10						Overloerer Bergh.
Vestervig	29.74	755 4	29.83	757.7	56.8	13.8	82	nw.			6		9						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.45	748.0	30.08	763.9	77.0	25.0	47	ese.			1		0			0	0	clear	M. Labroue, Director.
Alençon Normal School	29.65	753.0	30.20	767.0	63.7	17.6	84	sw.			2		k	w.	sw.	0	0		M. Nicot, Director.
Arras, Engineer School					54.1	12.3	100	w.											M. Klein, Commandant.
Avignon, Normal School	30.17	766.4	30.25	768.4	73.6	23.1	59	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.66	753.3	30.21	767.4	63.9	17.7	62	sw.			1	0	8 kn		wsw.	0.138	3.5	very cloudy.	M. Saillard, Director.
Beauvais, Normal School	29.93	760.1	30.19	766.8	61.0	16.1	66	w.			1		8		wsw.	0.087	2.2	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.34	745.3	30.22	767.7	64.0	17.8	65	sw.			1		2		ne.	0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.86	758.5	30.12	765.0	72.1	22.3	48	sse.			1		5			0.004	0.1	cloudy	M. Rayet, Director.
Bourges, Normal School	29.63	752.6	30.17	766.4	67.1	19.5	50	sw.			2		5		sw.	0.016	0.4	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.93	760.1	30.17	766.3	70.2	21.2	69	se.			1		2		s.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.08	764.0	30.15	765.9	67.3	19.6	70	ssw.			1		5		ssw.	0	0	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					66.0	18.9	73	ne.			2		10			0	0	covered.	M. Jadot, Director.
Charleville, Normal School	29.65	753.1	30.15	765.9	65.7	18.7	53	sw.			2		2	sw.	sw.	0.083	2.1	¼ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.84	732.4	30.15	765.8	71.6	22.0	43	se.			1		2			0	0	¼ covered	M. Alluard, Director.
Cluny, Normal School	29.39	746.4	30.22	767.6	66.9	19.4	54	e.			2		3			0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.34	745.3	30.20	767.0	62.2	16.8	66	w.			1		5	w.	w.	0.453	11.5	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.72	704.2	30.21	767.3	66.6	19.2	39	w.			1	0	2 k		w.	0	0	¼ covered	M. Jeangirard, Director.
Grénasque, du. Rhone	29.21	742.0	30.35	771.0	74.1	23.4	39	nw.			2		5		w.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.51	749.5	30.20	768.6	68.0	20	55	ene.			1		k			0	0		M. Ablard, Director.
Guéret, Normal School	28.62	726.9	30.13	765.4	64.9	18.3	53	s.			1	0	0	n		0	0		M. Rivoire, Director.
Lamballe, Normal School	29.87	758.7	30.14	765.5	65.5	18.6	63	nnw.			3				nnw.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.10	764.4	30.20	767.0	68.0	20.0	72	s.			2		2	e.	s.	0	0	¼ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.18	741.1	30.22	767.5	68.5	20.3	53	se.			1		5		s.	0.012	0.3	cloudy	M. André, Director.
Mans, Normal School	29.87	758.7	30.18	766.5	60.6	15.9	64	sw.			1		2		sw.	0.020	0.5	slightly cl'dy	M. Piboen, Director.
Marseille, Observatory	29.96	760.9	30.22	767.6	73.8	23.2	60	wsw.			2		4		w.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	25.05	636.3	30.29	769.3	56.8	13.8	42	w.	5.6	2.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.11	764.7	30.21	767.4	73.4	23	64	ese.			3		2		ssw.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.46	748.3	30.22	767.5	63.0	17.2	61	w.			1	5 ck	0	w.		0.106	2.7	cloudy	M. Hasse.
Nantes, Observatory	30.04	763.1	30.21	767.2	67.6	19.8	70	ese.			0–1	0	3 k	nne.	ne.	0	0		M. Larocque, Director.
Nice	30.20	767.1	30.23	767.9	71.2	21.8	67	w.			3	1	1	w.	w.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	30.09	764.3	30.19	766.9	68.2	20.1	72	se.	5.6	2.5			1		nw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.72	577.2			48.9	9.4							1		s.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					64.8	18.2	69	calm			0		0			0	0	clear	M. Talhen.
Puy de Dôme Obs'y, Summit	25.36	644.2			49.8	9.9	63	sw.			2	0	2 k			0.012	0.3	¼ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.14	765.5	30.17	766.3	71.6	22.0	89	se.			1		2		ene.	0	0	¼ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.95	760.8	30.17	766.2	66.9	19.4	61	se.			1		2		sw.	0.004	0.1	slightly cl'dy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.09	764.2	30.17	766.4	60.8	16	74	sw.			1		2			0	0	slightly cl'dy	M. Platrier, Director.
Saint Lô, Normal School	30.01	762.2	30.17	766.2	60.3	15.7	89	nw.			3		8		nw.	0.020	0.5	raining	M. Delaplanche, Dir.
Saint Maur, Observatory	30.02	762.6	30.19	766.8	65.5	18.6	61	sw.			1		5	w.	sw.	0.079	2.0		M. Renou, Director.
Toulouse, Observatory	29.48	748.7	30.21	767.2	80.1	26.7	29	sse.			3		1	w.		0	0	clear	M Baillaud, Director.
Tours	30.00	762.0	30.20	767.0	64.0	17.8	71	sw.			1		8		w.	0	0	¾ covered	M. de Tastes.
Versailles, Observatory	29.70	754.3	30.19	766.8	62.6	17.0	57	sw.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.91	759.6	30.20	767.0	64.2	17.9	64	w.			1		7	w.		0.067	1.7		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.30	744.3	30.17	766.3	60.8	16.0	66	nw.			3	0	4 n		w.	0.043	1.1	raining	Prof. Dr. Hob.
Berlin	29.80	756.9	29.97	761.2	62.2	16.8	85	w.			2		10			0.189	4.8		Prof. Dr. Arndt.
Breslau	29.58	751.4	30.11	764.9	66.0	18.9	59	sw.			2		6			0	0		Royal University Obs'y.
Carlsruhe	29.77	756.1	30.19	766.9	64.2	17.9	67	wsw.			3		1	sw.		0	0		Albert Senz.
Cassel	29.34	745.2	30.06	763.5	57.2	14.0	91	s.			3		10	s.		0.102	2.6		Dr. H. Möhl.
Frankfort on the Main	29.76	755.8	30.12	765.0	64.9	18.3	60	wsw.			2		9			0.075	1.9		Physical Society.
Friedrichshafen	28.81	731.7	30.23	767.9	61.5	16.4	76	sw.			1		3	w.		0	0		Wilhelm, Chief Tel.
Hamburg	29.88	758.9	29.97	761.3	58.8	14.9	73	w.			3		8			0.417	10.6	raining	E. Preller.
Kiel	29.88	758.9	29.89	759.3	59.7	15.4	73	wnw.			4		10			0.110	2.8		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.66	753.3	30.08	763.9	61.5	16.4	69	wsw.			4		9	wsw.		0.016	0.4	raining	H. Leppig, Asst.
Magdeburg	29.80	757.0	29.99	761.8	62.2	16.8	69	wsw.			5	0	6 ks; n		wsw.	0.130	3.3		Dr. Assmann.
Memel	29.88	758.9	29.93	760.1	62.8	17.1	79	ssw.			6	4 cs	0						Issermann.
Munich	28.41	721.6	30.29	769.3	63.7	17.6	47	w.			2		3	w.		0.020	0.5		Central Station.
Neufahrwasser	29.90	759.4	29.91	759.8	65.1	18.4	67	s.			7		9			0.063	1.6		A. Lothes.
Neustadt, Palatinate	29.45	747.9	29.97	761.2	64.4	18.0	57	wsw.			5		7	w.		0	0		Dicknether.
Stuttgart	29.23	742.4	30.11	764.7	64.8	18.2	58	w.			1		6	w.		0.008	0.2		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.71	729.3	30.20	767.1	59.4	15.2	62	w.			4		7	w.		0.016	0.4		Fischer.
Wustrow	29.87	758.7	29.89	759.3	55.6	13.1	89	wnw.			5		10			0.380	9.8		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.67	753.6	30.04	762.9	93.4	34.1		sw.			1.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.55	750.4	29.60	751.7	85.7	29.8	76	sw.	28.0	12.5		1		sw.		0	0	blue sky	
Deesa	29.06	738.0	29.52	749.9	80.8	27.1	83	nw.	7.8	3.5		10	nw.			0.05	1.3	overcast	
Bombay	29.63	752.5	29.66	753.5	78.3	25.7	95	wnw.	13.0	5.8		10		wsw.		1.10	27.9	overcast	
Poona, Yarrowda	27.81	706.4	29.66	753.4	77.0	25.0	70	w.	20.0	8.9		8		w.		0	0	d. clouds	
Belgaum	27.17	690.2	29.72	754.9	71.4	21.9	85	wsw.	8.0	3.6		10		w.		0	0	overcast	
Lahore	28.82	732.1	29.54	750.2	97.2	36.2	40	calm	0.4	0.2		0				0	0	blue sky	
Roorkee	28.72	729.5	29.60	751.8	88.8	31.6	78	calm	3.1	1.4		8				0	0		
Agra	28.99	736.4	29.54	750.4	85.2	29.6	76	e.	5.2	2.3		4				0	0		
Nagpur	28.51	724.2	29.55	750.6	77.7	25.4	89	s.	9.0	4.0		9		s.		2.81	71.4	drizzling	
Jubbulpore	28.14	714.6	29.47	748.5	81.8	27.7	71	w.	6.7	3.0		10				0.36	9.1	overcast	
Lucknow	29.22	742.1	29.59	751.6	81.2	27.3	85	e.	7.1	3.2		8				0.15	3.8	d. clouds	
Allahabad	29.26	743.1	29.56	750.9	83.6	28.7	91	e.	7.0	3.1		7		e.		0.24	6.1	d. clouds	
Patna	29.45	748.1	29.63	752.6	86.6	30.3	72	ese.	11.5	5.1		6	ese.	ese.		0.04	1.0	d. clouds	
Hazaribagh	27.64	702.1	29.64	752.8	78.6	25.9	87	s.	12.2	5.4		7		s.		1.61	40.9	thund'r st'm	
Cuttack	29.58	751.3	29.68	753.8	84.6	29.2	76	w.	1.6	0.7		6				0.04	1.0	d. clouds	
Calcutta, Alipore	29.66	753.2	29.68	753.8	80.3	26.8	93	s.	1.0	0.4		9	s.	s.		0.60	15.2	d. clouds	
Dhubri	29.59	751.5	29.71	754.6	82.2	27.9	83	sw.	0.9	0.4		2	ene.			0.50	12.7	d. clouds	
Chittagong	29.67	753.7	29.76	756.0	81.9	27.7	85	ssw.	5.2	2.3		9				0	0	d. clouds	
Sibsagar	29.39	746.5	29.72	755.0	83.2	28.4	95	ssw.	3.2	1.4		10	w.	w.		0.55	14.0	overcast	
Jeypore	28.11	714.0	29.51	749.7	88.6	31.4	57	e.	8.1	3.6		9		e.		0	0	d. clouds	
Zanzibar, Africa			30.02	762.5	78.0	25.6	75	wnw.	3	1.3		5		se.		0	0	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.83	757.6	30.23	767.8	70.5	21.4	69	s.	0.7	0.3		2				0	0		Prof. Giovanni Clodig.
Milan	29.74	755.4	30.25	768.3	70.0	21.1	62	ssw.	3.8	1.7		4	sw.			0.559	14.2		Prof. Schiaparelli.
Padua	30.13	765.3	30.24	768.0	70.3	21.3	59	wsw.	1.8	0.8		1				0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.32	744.6	30.21	767.2	68.0	20.0	71	ese.	0.9	0.4		5	nw.			0	0		Prof. P. F. Denza.
Genoa	30.07	763.7	30.26	768.5	69.1	20.6	68	se.	12.5	5.6		6	se.			0	0		Prof. G. M. Garibaldi.
Mondovi	28.34	719.7	30.21	767.4	64.4	18.0	62	wnw.			2	2				0	0		Prof. D. C. Bruno.
Pesaro	30.19	766.8	30.24	768.0	70.9	21.6	53	ne.				0				0	0		Prof. Luigi Guidi.
Florence	30.00	762.1	30.26	768.5	71.2	21.8	50	wsw.			2	1				0	0		Prof. Costantino Pitter.
Leghorn	30.19	766.9	30.28	769.0	72.7	22.6	65	sw.	2.5	1.1		3				0	0		Prof. P. Monte.
Rome	30.06	763.6	30.23	767.9	77.4	25.2	31	nne.	2.5	1.1		0				0	0		Prof. P. S. Ferrari.
Lecce	29.91	759.7	30.16	766.1	78.8	26.0	72	nnw.	15.0	6.7		2	nw.			0	0		Prof. C. de Giorgi.
Cosenza	29.28	743.7	30.14	765.5	86.4	30.2	60	sse.	3.1	1.4		0				0	0		Prof. D. Conti.
Cagliari	30.02	762.6	30.21	767.4	77.2	25.1	61	se.			2	0				0	0		Prof. A. Pacinotti.
Palermo	29.97	761.3	30.22	767.5	79.0	26.1	66	ne.	3.1	1.4		5				0	0		Prof. G. Ciacciatore.
Syracuse	30.08	764.0	30.12	765.1	77.5	25.3	77	ne.	6.3	2.8		4	sw.			0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.67	753.6	30.17	766.4	79.3	26.3	59	e.	0	0		0				0	0		Prof. F. Brioschi.
Stelvio	22.37	568.1			39.9	4.4	66	w.			4	5 cks	0	sw.		0	0		Prof. P. F. Denza.
Valdobbia	22.43	569.6			44.2	6.8	73	n.			2	8 cs	0	sw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y	29.40	746.7	29.41	747.0	79.4	26.3	68	n.	10.6	4.7		ck	10 ks;s			0.054	1.4	gloomy	K. Sasaki.
Kioto	29.21	741.9	29.88	758.9	77.1	25.1	86	nne.	13.5	6.0			10 n			4.255	108.1	raining	M. Tojima.
Nagasaki, I. M. Obs'y	29.42	747.2	29.61	752.1	78.7	25.9	76	n.	7.7	3.4		0	8 s			0.110	2.8	cloudy	S. Takehayashi.
Niigata	29.69	754.1	29.72	754.9	72.5	22.5	76	se.	10.8	4.8		ck	10 n			1.065	27.0	raining	
Nobiru	29.85	758.2	29.85	758.4	68.1	20.1	96	se.	22.3	10.1			10 n			3.170	80.5	raining	
Supporo	29.86	758.4	29.92	759.9	64.0	17.8	81	ese.	9.0	4.0			10			0	0		
Tokei Obs'y, Yeddo	29.74	755.4	29.80	756.9	68.7	20.4	97	n.	2.5	1.1			10 n			1.075	27.3	raining	The Staff.
Wakayama	29.93	760.2	29.89	759.2	73.9	23.3	98	nne.	43.2	19.3			10 n			3.755	95.4	stormy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.03	762.7	30.22	767.6	69.9	21.1	67	e.	20.5	9.2			8		ese.	0.14	3.6	squally	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.74	603.1	29.96	761.1	58.3	14.6	81	nne.	1.1	0.5		0	2 k		se.	0	0	clear	Vicente Fernandez.
Leon	24.46	621.2	30.08	764.1	61.0	16.1	88	sw.			1	0	0			0	0	fine	Prof. M. Leal.
Mazatlan	29.75	755.5	30.00	762.0	80.0	26.7	87	nnw.	1.8	0.8		1 cs	5 n		ese.	0	0	½ cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.18	588.8	30.24	768.0	52.3	11.3	79	nw.	1.8	0.8		0	4 ks			0.197	5.0	fair	The Staff.
Morelia	24.03	610.4	30.08	764.0	57.7	14.3	74	calm			0	0	0			0	0	very fine	M. Tena, M. D.
Pabellon, Aguascalientes	24.05	610.7	30.04	763.0	60.6	15.9	82	wsw.			1	1 cs	0			0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.50	596.9	30.31	769.8	51.8	11.0	60	calm	0	0		0	0			0.059	1.5	fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.65	575.3	30.27	768.8	53.8	12.1	92	e.	1.8	0.8		0	8 n		e.	0.197	5.0	cloudy	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.12	765.0	30.12	765.0	60.8	16.0		w.			4					0.539	13.7		
Groningen	29.96	761.0	30.02	762.4	61.7	16.5		nw.			1					0.020	0.5		
Helder	30.03	762.7	30.03	762.7	59.5	15.3		wsw.			1					0.083	2.1		
Hellevoetsluis	30.08	764.0	30.08	764.0	59.0	15.0	93	w.			3					0.165	4.2		
Utrecht	30.02	762.6	30.07	763.8	64.6	18.1	84	wsw.			3		8			0.087	2.2	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.76	755.9	29.82	757.5	60.4	15.8	68	w.	7.4	3.3			3			0	0		
Christiania	29.51	749.6	29.66	753.3	52.2	11.2	93	nw.	0	0			10			0.343	8.7	raining	
Gjæsvær	29.91	759.6	29.93	760.2	42.1	5.6		nne.			4		10						
Lodingen	29.93	760.3	29.98	761.5	53.2	11.8	69	ne.			2		0			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.01	762.3	30.16	766.1	64.8	18.2	71	nnw.	8.1	3.6			4			0	0		Dr. J. A. Sampaio.
Campo Major	29.10	739.1	30.06	763.4	81.7	27.6	26	ssw.	0.7	0.3			5			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.04	763.1	30.13	765.3	74.8	23.8	78	se.	4.3	1.9			2			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.76	755.9	30.11	764.8	73.9	23.3	35	ssw.	8.1	3.6			2	sw.		0	0		The Staff.
Ponta Delgada, Azores	30.11	764.7	30.18	766.5	68.0	20.0	55	n.	5.6	2.5			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.63	727.3	29.71	754.5	50.7	10.4	100	sw.	40	18			10 n						Capt. Lasarew.
Archangel	30.03	762.8	30.05	763.3	61.0	16.1	64	calm	0	0		0	0						Capt. Sselliwerstow.
Astrakhan	30.55	775.9	30.47	773.8	72.3	22.4	36	sse.	7	3		0	1 s						Capt. Wisganow.
Barnaul	29.30	744.3	29.82	757.3	39.0	3.9	84	sw.	22	10			10					raining	Meteorological Obs'y.
Dorpat	29.73	755.1	29.97	761.1	67.5	19.7	61	ssw.	9	4		8 ck	0						Observatory.
Ekaterinburg	28.89	733.7	29.84	758.0	49.1	9.5	59	nw.	31	14			9						Meteorological Obs'y.
Kasan	29.93	760.3	30.20	767.0	70.5	21.4	53	nw.	7	3		0	2 k						Observatory.
Kertch	30.15	765.7	30.17	766.2	68.7	20.4	85	ne.	9	4		0	0			0	0		Lagorio & Sastyrez.
Kieff	29.50	749.2	30.10	764.6	75.6	24.2	45	se.	4	2		c;cs	9 ks						Observatory.
Lugan	30.11	764.8	30.31	769.8	77.2	25.1	27	ese.	22	10			2					light clouds	Meteorological Obs'y.
Moscow	29.72	754.9	30.17	766.4	72.5	22.5	35	s.	4	2		0	3 ks						Meteorological Obs'y.
Nikolaiev	30.14	765.6	30.21	767.4	82.8	28.2	51	s.	9	4		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	29.77	756.1	29.85	758.3	58.5	14.7	91	calm			0		10 s			0	0		Lieut. Iwanow.
Pekin, China	29.70	754.3	29.84	757.9	73.0	22.8	83	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	29.95	760.6	29.96	761.0	63.5	17.5	71	s.	11	5			10 n;s						Central Physical Obs'y.
Tashkend, Laboratory	28.76	730.5	30.33	770.3	62.2	16.8	52	calm	0	0		0	0						Teich, A. M.
Tiflis	28.93	734.8	30.32	770.0	71.6	22.0	44	s.	2	1		0	1 ks						Physical Observatory.
Warsaw	29.67	753.5	30.08	763.9	66.0	18.9	63	sw.	16	7		0	7 k						Astronomical Obs'y.
Wilna	29.67	753.5	30.08	764.0	64.8	18.2	64	s.	9	4			5						Berg, Assistant.
Yeniseisk	29.65	753.1	29.95	760.6	37.4	3.0	77	sw.	9	4			8					snowing	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.05	763.3	58.1	14.5	70	w.			1		10 s			0.08	2.0	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			30.04	763.0	55	12.8	93	w.			3	5	5	w.		0	0	cloudy	J. Youngclause
North Unst, Shetland Isl'ds			29.96	761.0				nw.			1		10						Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	30.08	764.0	30.18	766.6	73.4	23	60	s.	0.7	0.3		0	1 k			0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.04	763.1	30.10	764.5	81.3	27.4	44	sw.	1.6	0.7		6	0	w.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.21	691.2			75.9	24.4	45	s.	3.1	1.4			0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.96	710.1	30.10	764.4	79.3	26.3	38	se.	11.4	5.1		0	2			0	0	clouds	The Staff.
Murcia, Met. Obs'y	30.01	762.2	30.15	765.9	78.8	26.0	57	ene.	5.4	2.4		4	3	w.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.10	739.2	29.98	761.4	69.1	20.6	58	sw.	5.6	2.5			4			0	0	cloudy	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.94	760.4	30.00	762.0	78.7	25.9	86	calm	0	0		4 c;ck	3 s;ks	n.		0.012	0.3	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.90	759.4	29.95	760.7	84.6	29.2	80	sw.	15.4	7.0		0	3 ks		s.	0	0	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.99	761.7	30.08	764.1	81.5	27.5	49	ese.	18.8	8.4		3	1	e.	e.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.90	759.4	29.99	761.7	79.9	26.6	91	n.	0	0		2 k	3 k			0.150	3.8		E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.74	755.5	29.88	758.9	83.4	28.6	84	wnw.	1.8	0.8		0	7 ks		wnw.	0	0	partly cov'd	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.95	760.7	29.99	761.7	53.2	11.8	72	se.			2		0			0	0		
Umea	29.84	758.0	29.89	759.3	51.4	10.8	72	ne.			4		10			0.185	4.7		
Hernosand	29.77	756.1	29.82	757.4	50.9	10.5	94	nne.			7		10			0.047	1.2		
Stockholm	29.38	746.2	29.56	750.7	55.8	13.2	98	sse.			2		10			0.535	13.6	raining	
Wisby	29.56	750.9	29.62	752.4	57.6	14.2	94	wsw.			6		10			0.601	16.8		
Sub-Series.																			
Upsala	29.44	747.7	29.52	749.9	55.4	13.0	100	se.	10.7	4.8			10		ssw.	0.382	9.7	raining	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.83	732.2	30.21	767.4	68.5	20.3	48	ssw.			3		2			0	0	clear	The Observatory.
Zurich	28.62	727.0	30.23	767.8	63.5	17.5	66	w.			2		3			0	0	clear	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.12	765.0	78.3	25.7	63	ne.	16	7.0			0			0	0		The Observatory.
Valona			30.28	769.2	78.4	25.8		w.			1		2			0	0	slightly cld'y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.83	757.7	86.9	30.5	55	n.			1	0	0			0	0		Prof. C. V. A. van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

Albany, New York	30.01	762.2	30.09	764.3	59	15.0	70	w.	1	0.4		0	sk.			0	0	dense smoke.	
Alpena, Michigan	29.54	750.3	30.21	767.3	46	7.8	93	nw.	7	3.1		0	0			0.05	1.3	clear	
Atlanta, Georgia	28.90	734.0	30.08	764.0	63.8	17.7	78	n.	6	2.7		2 c	7 k	calm	nw.	0	0	cloudy	
Atlantic City, New Jersey	30.09	764.3	30.10	764.5	65	18.3	93	sw.	2	0.9		4 c	fg.	calm	calm	0	0	fair	
Augusta, Georgia	29.86	758.4	30.05	763.3	75.2	24.0	84	calm	0	0		3 ck	2 s	ne.		0	0	fair	
Baltimore, Maryland	30.06	763.5	30.11	764.8	64	17.8	68	calm	0	0		0	fg.			0	0	light fog	
Barnegat, New Jersey	30.06	763.5	30.08	764.0	71.8	22.1	73	e.	6	2.7		0	0			0.01	0.3	clear	
Bismarck, Dakota	28.16	715.3	29.99	761.7	55	12.8	69	calm	0	0		0	0			0	0	clear	
Boise City, Idaho	27.32	693.9	30.16	766.1	55.0	12.8	53	sw.	2	0.9		5 k	0	calm		0	0	fair	
Boston, Massachusetts	29.91	759.7	30.07	763.8	55.0	12.8	88	w.	7	3.1		0	hz.			0	0	clear	
Brackettville, Texas	28.85	732.8	29.87	758.7	72	22.2	90	calm	0	0		0	4 s		calm	0	0	fair	
Brownsville, Texas	29.93	760.2	29.97	761.2	76	24.4	97	calm	0	0		2 c	fg.			0.15	3.8	clear	
Buffalo, New York	29.40	746.7	30.12	765.0	55	12.8	86	w.	9	4.0		1 k	0			0.18	4.6	clear	
Burlington, Vermont	29.75	755.6	30.04	763.0	55.7	13.2	81	s.	5	2.2		8 ck	sk.	w.		0	0	dense smoke.	
Cairo, Illinois	29.79	756.7	30.19	766.8	63.1	17.3	83	ne.	3	1.3		4 c	fg.	nw.		0	0	fair	
Campo, California																			
Camp Thomas, Arizona	27.35	694.7			64.8	18.2	93	calm			0	2 cs	0			inap.	inap.	clear	
Cape Henry, Virginia	30.06	763.5	30.08	764.0	75	23.9	90	ne.	11	4.9			10ks;s		w.	0	0	cloudy	
Cape May, New Jersey																			
Castroville, Texas	29.23	742.4	29.91	759.7	75	23.9	90	calm	0	0		10 c	0			0	0	clearing	
Cedar Keys, Florida	30.01	762.2	30.03	762.7	82	27.8	82	ne.	2	0.9		1 k	0			0	0	clear	
Champaign, Illinois	29.38	746.2	30.18	766.6	54.3	12.4	80	nw.	8	3.6		0	0			0	0	clear	
Charleston, S. Carolina	29.98	761.5	30.04	763.0	75	23.9	90	w.	4	1.8		0	8 s		w.	3.06	77.7	cloudy	
Charlotte, N. Carolina	29.21	741.9	30.09	764.3	70	21.1	76	n.	6	2.7		2 c;hz	1 k	calm	calm	0	0	fair	
Chattanooga, Tennessee	29.31	744.5	30.14	765.5	62.8	17.1	71	n.	1	0.4		3 cs	sk.	calm		0	0	fair	
Cheyenne, Wyoming	24.24	615.7	30.21	767.3	44.2	6.8	58	nw.	5	2.2		0	0			0	0	clear	
Chicago, Illinois	29.49	749.0	30.20	767.1	56.5	13.6	76	n.	3	1.3		0	0			0	0	clear	
Chincoteague, Virginia	30.09	764.3	30.11	764.8	72	22.2	90	se.	6	2.7		5 cs	5 ks	calm	calm	0	0	cloudy	
Cincinnati, Ohio	29.53	750.0	30.19	766.8	63	17.2	65	nw.	1	0.4		0	fg.			0	0	clear	
Cleveland, Ohio	29.45	748.0	30.19	766.8	64.4	18.0	60	n.	8	3.6		0	6 k		n.	0	0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.32	744.7	30.18	766.6	57	13.9	69	n.	3	1.3		0	0			0	0	clear	
Concho, Texas	28.13	714.5	30.07	763.8	73	22.8	84	calm	0	0		3 k	2 s	s.	calm	0	0	fair	
Corsicana, Texas	29.65	753.1	30.12	765.0	68	20.0	73	n.	4	1.8			10 n		ne.	0.38	9.7	light rain	
Davenport, Iowa	29.58	751.3	30.24	768.1	56	13.3	74	n.	1	0.4		1 cs	sk.	calm	n.	0	0	clear	
Dayton, Washington T'y	28.32	719.3	30.13	765.3	55.3	12.9	64	sw.	2	0.9		3 k	0	sw.		0	0	clear	
Deadwood, Dakota	25.52	648.2	30.22	767.6	45	7.2	65	sw.	4	1.8		0	0			0	0	clear	
Decatur, Texas																			
Delaware Breakwater, Del.	30.08	764.0	30.10	764.5	66	18.9	100	w.	7	3.1			fg.			0	0	dense fog	
Denison, Texas	29.36	745.7	30.17	766.3	63	17.2	100	e.	4	1.8			10 n		calm	1.10	27.9	heavy rain	
Denver, Colorado	24.95	633.7	30.17	766.3	52.3	11.3	48	s.	11	4.9		0	0			0	0	clear	
Des Moines, Iowa	29.30	744.2	30.21	767.3	55	12.8	86	n.	1	0.4		1 ck	4 s	nw.	nw.	0	0	fair	
Detroit, Michigan	29.50	749.3	30.22	767.6	55.0	12.8	86	nw.	5	2.2		0	0			0	0	clear	
Dodge City, Kansas	27.58	700.5	30.17	766.3	63.6	17.6	91	sw.	4	1.8			10 s			0	0	cloudy	
Dubuque, Iowa	29.50	749.3	30.22	767.6	51.1	10.6	93	calm	0	0			fg.		calm	0	0	dense fog	
Duluth, Minnesota	29.47	748.5	30.18	766.6	50	10.0	77	w.	3	1.3		2 ck	0	w.		0	0	clear	
Eagle Pass, Texas	29.23	742.4	30.06	763.5	77.0	25.0	90	se.	3	1.3		0	1 s		calm	0	0	clear	
Eagle Rock, Idaho	25.42	645.7	30.27	768.8	41	5.0	33	n.	4	1.8		0	0			0	0	clear	
Eastport, Maine	29.97	761.2	30.04	763.0	57	13.9	83	nw.	6	2.7		0	0			1.43	36.3	clear	
El Paso, Texas	20.34	669.0	30.09	764.3	65.5	18.6	100	nw.	1	0.4			10 s		nw.	inap.	inap.	cloudy	
Erie, Pennsylvania	29.43	747.5	30.16	766.1	61	16.1	72	nw.	7	3.1		0	0			0.06	1.5	clear	
Escanaba, Michigan	29.54	750.3	30.20	767.1	48	8.9	93	nw.	1	0.4		0	0			0.07	1.8	clear	
Florence, Arizona	28.56	725.4	30.16	766.1	72	22.2	82	sw.	1	0.4		0	0			0	0	clear	
Fort Apache, Arizona	25.18	639.6	30.09	764.3	54	12.2	86	e.	3	1.3		0	0			0.04	1.0	clear	
Fort Assinnaboine, Montana	27.08	687.8	29.89	759.2	52	11.1	50	sw.	12	5.4		0	1 s		sw.	0	0	clear	
Fort Bennett, Dakota	28.42	721.9	29.96	761.0	53	11.7	80	calm	0	0		0	0			0	0	clear	
Fort Benton, Montana	27.11	688.6	29.97	761.2	50	10.0	55	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	28.11	714.0	30.12	765.0	48	8.9	80	s.	4	1.8		0	0			0	0	clear	
Fort Custer, Montana	26.87	682.5	30.11	764.8	47	8.3	64	se.	6	2.7		0	0			0	0	clear	
Fort Davis, Texas	25.22	640.6	30.18	766.6	60	15.6	100	e.	2	0.9			10 s			1.33	33.8	cloudy	
Fort Elliott, Texas	27.39	695.7	30.58	776.7	60	15.6	93	ne.			1		10 n		ne.	1.14	29.0	heavy rain	
Fort Gibson, Indian T'y	29.59	751.6	30.14	765.5	66.0	18.9	84	calm	0	0			10 s		e.	0	0	cloudy	
Fort Grant, Arizona					60	15.6	90	calm	0	0		0	2 ks			0.91	23.1	clear	
Fort Griffin, Texas	28.80	731.5	30.05	763.3	65.3	18.5	100	ne.	6	2.7			10 n		ne.	1.16	29.5	light rain	
Fort Keogh, Montana	27.50	698.5	30.04	763.0	43	6.1	76	w.	2	0.9		0	0			0	0	clear	
Fort Macon, North Carolina	30.02	762.5	30.03	762.7	75	23.9	97	ne.	3	1.3			10 ks		calm	0	0	cloudy	
Fort McKavett, Texas	27.82	706.6	29.66	753.4	72.8	22.7	76	sw.	2	0.9		2 ck	0			0	0	clear	
Fort Missoula, Montana	26.78	680.2	30.30	769.6	42	5.6	76	sw.	2	0.9		6 cs	0			0	0	fair	
Fort St. Michaels	29.56	750.8	29.60	751.8	41	5.0	82	nw.	5	2.2			10 s			inap.	inap.	cloudy	
Fort Shaw, Montana	26.36	669.5	29.96	761.0	64	17.8	33	sw.	16	7.2		0	0			0	0	clear	
Fort Sill, Indian Territory	28.89	733.8	30.14	765.5	60.5	15.8	98	e.	4	1.8			10 n			2.09	53.1	light rain	
Fort Stevenson, Dakota	28.12	714.2	29.99	761.7	46	7.8	77	nw.	2	0.9		0	0			0	0	clear	
Fort Verde, Arizona					59.1	15.1	70	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.31	719.1	29.81	757.2	76	24.4	82	sw.	1	0.4			10 s			0	0	cloudy	
Galveston, Texas	29.98	761.5	30.02	762.5	81	27.2	85	se.	6	2.7		6 cs	4 ks	w.	se.	0.06	1.5	threatening.	
Grand Haven, Michigan	29.56	750.8	30.23	767.8	55.0	12.8	93	ne.	2	0.9		0	0			0.04	1.0	clear	
Hatteras, North Carolina	30.04	763.0	30.06	763.5	74	23.3	97	ne.	4	1.8			10 ks		n.	0.17	4.3	cloudy	
Helena, Montana	25.85	656.6	30.24	768.1	59	15.0	48	s.	4	1.8		0	0			0	0	clear	
Henrietta, Texas																2.10	53.3		
Huron, Dakota	28.67	728.2	30.06	763.5	51.2	10.7	83	s.	10	4.5		0	0			0	0	clear	
Indianapolis, Indiana	29.38	746.2	30.18	766.6	57	13.9	74	n.	2	0.9		0	hz.		calm	0	0	clear	
Indianola, Texas	29.98	761.5	30.01	762.2	79.1	26.2	82	s.	6	2.7		2 cs	2 k	calm	s.	0	0	fair	
Jacksboro, Texas	28.92	734.6	30.03	762.7	63	17.2	100	e.	14	6.3			10 n		e.	0.74	18.8	heavy rain	
Jacksonville, Florida	30.00	762.0	30.04	763.0	75	23.9	90	sw.	4	1.8		4 k	0	sw.		0.13	3.3	fair	
Keokuk, Iowa	29.54	750.3	30.20	767.1	60.5	15.8	70	e.	8	3.6		0	0			0	0	clear	
Key West, Florida	29.99	761.7	30.02	762.5	79.3	26.3	82	sw.	3	1.3			10s;n		sw.	0.13	3.3	threatening.	
Kittyhawk, North Carolina	30.05	763.3	30.07	763.8	74	23.3	97	e.	10	4.5		0	8 s;sk		e.	0	0	cloudy	
Knoxville, Tennessee	29.14	740.1	30.18	766.6	58.2	14.6	80	ne.	4	1.8		0	0			0	0	clear	
La Crosse, Wisconsin	29.42	747.3	30.18	766.6	55	12.8	86	sw.	4	1.8			fg.			0	0	dense fog	
La Mesilla, New Mexico	26.22	666.0	30.37	771.4	65.0	18.3	94	calm	0	0			10 s			0	0	cloudy	
Laredo, Texas																			
Leavenworth, Kansas	29.30	744.2	30.20	767.1	58	14.4	80	s.	1	0.4		5 cs	fg.	sw.		0	0	fair	
Lewiston, Idaho	29.19	741.4	30.04	763.0	59	15.0	65	ne.	1	0.4		8 k	0	ne.		0	0	cloudy	
Little Rock, Arkansas	29.83	757.7	30.15	765.8	67	19.4	73	n.	2	0.9			10 s			0	0	cloudy	
Los Angeles, California	29.57	751.1	29.95	760.7	58.0	14.4	74	se.	3	1.3		0	4 s		calm	0	0	fair	
Louisville, Kentucky	29.58	751.3	30.14	765.5	61.0	16.1	72	w.	1	0.4		0	hz;2 s		calm	0	0	clear	
Lynchburg, Virginia	29.42	747.3	30.11	764.8	69.5	20.8	60	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	29.20	741.7	30.23	767.8	56	13.3	86	nw.	4	1.8		0	0			0	0	clear	
Marquette, Michigan	29.47	748.5	30.20	767.1	50	10.0	72	nw.	5	2.2		1 c	0	nw.		0.06	1.5	clear	
Mason, Texas	28.42	721.9	30.10	764.5	74.6	23.7	79	calm	0	0			10 s		calm	0.02	0.5	cloudy	
Memphis, Tennessee	29.81	757.2	30.15	765.8	63	17.2	63	ne.	2	0.9		7 cs	0	sw.		0	0	fair	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.47	748.5	30.23	767.8	54	12.2	93	nw.	2	0 9	.....	0	fg	.....	.....	0	0	clear	
Mobile, Alabama	29.98	761.5	30.05	763.3	72.0	22.2	76	n.	7	3.1	.....	4 cs	0	nw.	.....	0.12	3.0	fair	
Montgomery, Alabama	29.84	757.9	30.07	763.8	68	20.0	84	nw.	2	0.9	.....	7 cs	0	nw.	.....	0	0	fair	
Moorhead, Minnesota	29.05	737.9	30.06	763.5	51	10.6	80	se.	16	7.2	.....	0	5 s	.....	s.	0	0	fair	
Morgantown, W. Virginia	29.17	740.9	30.16	766.1	51.0	10.6	83	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Mt. Washington, N. H	23.88	606.5	30.08	764.0	38.0	3.3	66	nw.	12	5.4	.....	0	sk	.....	.....	0	0	clear	
Nashville, Tennessee	29.61	752.1	30.15	765.8	57.9	14.4	80	calm	0	0	.....	4 cs	fg	nw.	.....	0	0	dense fog	
New Haven, Connecticut	29.98	761.5	30.09	764.3	55	12.8	74	nw.	1	0.4	.....	0	sk	.....	.....	inap.	inap.	dense smoke	
New London, Connecticut	30.03	762.7	30.08	764.0	62	16.7	73	n.	2	0.9	.....	0	fg	.....	.....	0.58	14.7	clear	
New Orleans, Louisiana	29.95	760.7	30.01	762.2	80.2	26.8	79	e.	6	2.7	.....	4 c	hz	.....	.....	0	0	fair	
Newport, Rhode Island	30.03	762.7	30.08	764.0	62.5	16.9	69	calm	0	0	.....	0	hz	.....	.....	0.24	6.1	dense haze	
New River, N. Carolina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
New Shoreham, Rhode I'd	30.05	763.3	30.08	764.0	61.2	16.2	78	nw.	6	2.7	.....	0	hz.	.....	calm	0	0	clear	
New York, New York	29.93	760.2	30.11	764.8	66	18.9	75	ne.	2	0.9	.....	0	fg.	.....	.....	0	0	clear	
Norfolk, Virginia	30.06	763.5	30.09	764.3	73	22.8	97	e.	3	1.3	.....	.....	10 ks	.....	sw.	0	0	cloudy	
North Platte, Nebraska	27.21	691.1	30.15	765.8	55.4	13.0	86	se.	2	0.9	.....	0	fg	.....	.....	0	0	light fog	
Olympia, Washington T'y	30.13	765.3	30.17	766.3	47.0	8.3	86	se.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Omaha, Nebraska	29.03	737.3	30.22	767.6	61	16.1	84	se.	2	0.9	.....	0	1 ks	.....	.....	0	0	clear	
Oswego, New York	29.69	754.1	30.02	762.5	60.0	15.6	81	s.	5	2.2	.....	2 k	2 ks	w.	w.	inap.	inap.	fair	
Pensacola, Florida	30.00	762.0	30.03	762.7	74	23.3	85	nw.	6	2.7	.....	0	8 s	.....	calm	0.01	0.3	cloudy	
Philadelphia, Pa	30.05	763.3	30.11	764.8	65	18.3	63	ne.	4	1.8	.....	0	hz	.....	calm	0	0	clear	
Phœnix, Arizona	28.90	734.0	30.66	778.7	71	21.7	60	e.	2	0.9	.....	0	0	.....	.....	0.02	0.5	clear	
Pike's Peak, Colorado	18.09	459.5	30.30	769.6	30	— 1.1	62	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Pioche, Nevada	24.31	617.5	30.33	770.4	55	12.8	21	s.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Pittsburg, Pennsylvania	29.36	745.7	30.18	766.6	53.8	12.1	80	nw.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Port Eads, Louisiana	30.01	762.2	30.02	762.5	80.2	26.8	90	ne.	7	3.1	.....	lck;hs	5 s	c; ne.	ne.	0	0	fair	
Port Huron, Michigan	29.50	749.3	30.19	766.8	47.3	8.5	96	nw.	6	2.7	.....	0	fg	.....	calm	0.02	0.5	dense fog	
Portland, Maine	29.98	761.5	30.04	763.0	59	15.0	81	nw.	3	1.3	.....	0	fg	.....	.....	0.55	14.0	clear	
Portland, Oregon	30.14	765.5	30.21	767.3	52.4	11.3	85	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Portsmouth, N. Carolina	.....	.....	.....	.....	75	23.9	90	ne.	17	7.6	.....	.....	10 ks	.....	ne.	0.56	14.2	cloudy	
Prescott, Arizona	24.94	633.5	30.13	765.3	53	11.7	83	w.	1	0.4	.....	0	0	.....	.....	inap.	inap	clear	
Punta Rassa, Florida	29.97	761.2	29.98	761.5	75.5	24.2	90	e.	6	2.7	.....	8 c	1 k	calm	calm	0.78	19.8	cloudy	
Red Bluff, California	29.72	754.9	30.06	763.5	63.0	17.2	58	sw.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Rio Grande City, Texas	29.81	757.2	30.02	762.5	78	25.6	88	se.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Rochester, New York	29.42	747.3	30.06	763.5	58	14.4	81	w.	8	3.6	.....	0	0	.....	.....	0.05	1.3	clear	
Roseburg, Oregon	29.65	753.1	30.23	767.8	51.2	10.7	86	calm	0	0	.....	.....	10s;sk	.....	.....	0	0	cloudy	
Sacramento, California	29.99	761.7	30.07	763.8	56.5	13.6	80	se.	9	4.0	.....	0	0	.....	.....	0	0	clear	
St. Louis, Missouri	29.58	751.3	30.20	767.1	62.0	16.7	72	nw.	4	1.8	.....	6 c	0	sw.	.....	0	0	fair	
St. Paul, Minnesota	29.30	744.2	30.18	766.6	51.0	10.6	93	ne.	1	0.4	.....	0	fg.	.....	.....	0	0	clear	
Salt Lake City, Utah	25.83	656.1	30.16	766.1	52	11.1	40	calm	0	0	.....	0	0	.....	.....	0	0	clear	
San Antonio, Texas	29.33	745.0	30.03	762.7	74.4	23.6	94	calm	0	0	.....	2 cs	1 s	calm	calm	0	0	clear	
San Diego, California	29.82	757.4	29.89	759.2	66.5	19.2	73	nw.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Sandusky, Ohio	29.49	749.0	30.18	766.6	64.2	17.9	63	ne.	14	6.3	.....	0	0	.....	.....	0	0	clear	
Sandy Hook, New Jersey	30.07	763.8	30.10	764.5	67.5	19.7	84	calm	0	0	.....	0	0	.....	.....	0	0	clear	
San Francisco, California	30.05	763.3	30.11	764.8	56	13.3	86	calm	0	0	.....	0	fg	.....	sw.	0	0	clear	
Santa Fé, New Mexico	23.46	595.9	30.26	768.6	45	7.2	59	n.	1	0.4	.....	0	2 s	.....	calm	0	0	fair	
Savannah, Georgia	29.94	760.5	30.03	762.7	78	25.6	88	s.	4	1.8	.....	3 cs	hz	.....	.....	0	0	fair	
Shreveport, Louisiana	29.89	759.2	30.12	765.0	69	20.6	61	calm	0	0	.....	.....	10 s	.....	n.	0	0	cloudy	
Silver City, New Mexico	24.36	618.7	29.92	760.0	64	17.8	73	calm	0	0	.....	0	3 s	.....	calm	0.75	19.0	clear	
Sitka, Alaska	29.84	757.9	29.91	759.7	54	12.2	87	se.	10	4.5	.....	.....	1c ks	.....	se.	0	0	cloudy	
Smithville, North Carolina	30.00	762.0	30.04	763.0	71	21.7	94	n.	4	1.8	.....	4 k	6 ks	calm	calm	0.73	18.5	cloudy	
Spokane Falls, Wash. Ter.	27.96	710.2	29.98	761.5	52	11.1	74	sw.	2	0.9	.....	5 k	0	w	.....	0	0	fair	
Springfield, Illinois	29.52	749.8	30.21	767.3	60.0	15.6	72	n.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Springfield, Massachusetts	29.96	761.0	30.09	764.3	56.3	13.5	93	calm	0	0	.....	0	fg	.....	.....	inap.	inap.	clear	
Stockton, Texas	27.05	687.1	30.12	765.0	68.7	20.4	97	calm	0	0	.....	.....	10 s	.....	calm	0.13	3.3	cloudy	
St. Vincent, Minnesota	29.08	738.6	29.97	761.2	53	11.7	86	s.	14	6.3	.....	10 c	0	calm	.....	0	0	cloudy	
Thatcher's Island, Mass	30.02	762.5	30.07	763.8	58.2	14.6	87	nw.	2	0.9	.....	fg	fg	.....	.....	0.21	5.3	light fog	
Toledo, Ohio	29.50	749.3	30.20	767.1	54	12.2	86	w.	8	3.6	.....	0	0	.....	.....	0	0	clear	
Tucson, Arizona	27.58	700.5	29.94	760.5	72	22.2	90	se.	1	0.4	.....	4 c	0	nw.	.....	0	0	fair	
Umatilla, Oregon	29.70	754.4	30.11	764.8	57.0	13.9	57	e.	4	1.8	.....	0	4 ks	.....	sw.	0	0	fair	
Uvalde, Texas	29.05	737.9	29.85	758.2	73	22.8	90	calm	0	0	.....	0	5 s	.....	.....	0	0	fair	
Vicksburg, Mississippi	29.82	757.4	30.08	764.0	66	18.9	63	ne	3	1.3	.....	8 k	0	calm	.....	0	0	cloudy	
Visalia, California	29.66	753.4	30.02	762.5	64	17.8	58	nw.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Washington, D. C	30.01	762.2	30.12	765.0	62.0	16.7	90	calm	0	0	.....	5 ck	fg	sw.	.....	0	0	fair	
Wickenburg, Arizona	.....	.....	.....	.....	66	18.9	78	calm	.....	.....	0	0	0	.....	.....	0	0	clear	
Wilmington, N. Carolina	29.97	761.2	30.03	762.7	73	22.8	90	calm	0	0	.....	5 c	5 s	calm	calm	0.03	0.8	cloudy	
Winnemucca, Nevada	25.79	655 1	30.12	765.0	46	7.8	40	n.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Wood's Holl, Mass	30.03	762.7	30.07	763.8	61.5	16.4	90	nw.	4	1.8	.....	1 k	hz	calm	.....	0.08	2.0	clear	
Yankton, Dakota	28.84	732.5	30.15	765.8	57	13.9	92	se.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Yuma, Arizona	29.83	757.7	29.97	761.2	80.7	27.1	85	se.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	30.00	762.0	30.02	762.5	83	28.3	87	e.	3	1.3	.....	2 k	10 ks	e.	.....	0	0	.....	J. A. Racker.
Bogota, U. S. Columbia	22.08	560.8	.....	.....	50.0	10.0	81	se.	1	0.4	.....	8 k	2 ks	sw.	.....	0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.90	759.4	29.91	759.7	82	27.8	83	e.	.....	.....	.....	2 k	5 ks	.....	ese.	0.1	3.	.....	B. Bigar.
Havana, Cuba, W. I	29.98	761.5	30.03	762.7	80	26.7	88	calm	0	0	.....	8 cs	hz.	calm	.....	inap.	inap.	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I	29.97	761.2	29.98	761.5	77.0	25.0	88	calm	0	0	.....	3 cs	0	e.	.....	0.01	0.3	.....	Robert Johnstone
Navassa, W. I	29.86	758.4	29.94	760.5	81	27.2	78	e.	10	4.5	.....	8 cs; k	2 k	e.	e.	0.30	7.6	fair	F. M. Everett.
Paramaribo, S. A	30.04	763.0	30.05	763.3	79	26.1	83	se.	.....	.....	2	4 c	3 k	e.	e.	0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.49	749.0	30.05	763.3	78	25.6	84	calm	.....	.....	0	.....	10 ks	.....	sw.	0.23	5.8	clearing	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	73.4	23	.....	w.	.....	.....	1	5 ck	2 ks	se.	se.	0.35	9.	.....	Earl Flint.
Santiago de Cuba, W. I	29.95	760.7	29.98	761.5	78	25.6	82	calm	0	0	.....	0	8 s	.....	.....	2.55	64.8	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.98	761.5	29.99	761.7	78	25.6	88	s.	5	2.2	.....	.....	8 n	.....	s.	1.48	37.6	cloudy	G. O. Gyllich.
York Factory, B. A	29.96	761.0	30.01	762.2	36.0	2.2	95	n.	8	3.6	.....	3 k	2 s	nw.	n.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Thursday Island, Torres St	29.96	761.0	77	25.0	86	ese.			3		3							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 38° 41′, E. 1° 14′	30.17	766.3	75	23.9	68	ene.			3-4		4	ne.				2	ene.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.12	765.0	78	25.6		nne.			2-3		3	ne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, N. 12° 49′, E. 45° 10′	29.65	753.1	86	30.0	83	s.			2		3					2	sw.	d. clouds	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 17° 35′, W. 63° 31′	29.99	761.7	80	26.7	95	s.			2		8					2	s.	thund'rst'm	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.99	761.7	71	21.7	85	w.			1		8	wsw.				1	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A, T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 18′, E. 21° 23′	30.02	762.5	83	28.3		nnw.			3		2	wnw.				2	nnw.	d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 25° 35′, E. 60° 51′	30.27	768.8	61	16.1		se.			4-5		5	ssw.				3	ssw.	squally	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.04	763.0	79.5	26.4	82	nne.			1		6	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.09	764.3	60	15.6	91	sse.			2-4		7	sw.						squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 22° 24′, E. 59° 40′	29.51	749.5	84	28.9		se.			1		3	se.				3	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 13° 04′, E. 80° 14′	29.63	752.6	88	31.1		sse.			2		4					2	sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 48° 52′, W. 11° 20′	29.94	760.5	64	17.8		ese.			4		6	ese.				4	cf'd	d. clouds	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Seychelles Islands	29.87	758.7	81	27.2	78	ese.			2-3		5	ese.						d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 35° 48′, E. 10° 19′	30.11	764 8	78	25.6		ne.			3		1					2	ne.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 12° 02′, W. 80° 37′	29.98	761.5	89	31.7	76	calm			0		3					1		showery	Comm. R. N. Custance.
H. M. S. Flying Fish, Hakodate, Yezo, Japan	29.94	760.5	68	20.0	90	se.			3-5		10					2	se.	heavy rain	Capt. R. F. Hoskyn.
H. M. S. Gannet, Honolulu, Sandwich Is'ds	30.07	763.8	76	24.4	69	ene.			2-4		4							showery	Comm. E. G. Bourke.
H. M. S. Garnet																			Capt. L. F. Jones.
H. M. S. Griffon, N. 17° 29′, W. 77° 23′	29.91	759.7	80	26.7	70	e.			1							1	e.	blue sky	Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 11° 40′, E. 172° 30′	29.97	761.2	80	26.7	78	ese.			4		9	ese.				3	ese.	raining	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 41° 47′, E. 140° 43′	29.89	759.2	68	20.0		e.			3-5		6	e.				4	e.	raining	Capt. R. E. Tracey.
H. M. S. Kingfisher, S. 9° 42′, W. 78° 30′	30.11	764.8	58	14.4		sse.			2-3		4	nnw.						d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 16° 00′, E. 87° 00′	29.92	760.0	76	24.4		sse.			5		3	sse.				4	s.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 6° 14′, W. 25° 51′	30.10	764.5	81	27.2	74	ese.			4-5		5					3	sse.	d. clouds	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.76	755.9	85.5	29.7	79	w.			1		0							misty	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Malabar																			
H. M. S. Minotaur																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.10	764.5	82	27.8	87	ene.			2		2	ene.						d. clouds	Capt. G. C. Tryon
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, N. 44° 32′, W. 63° 01′	29.92	760.0	63	17.2	?	wsw.			1		10					2	sse.	foggy	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican, S. 16° 07′, W. 74° 18′	30.12	765.0	60	15.6	97	ese.			3		10					3	se.	misty	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 44° 39′, W. 63° 35′	29.95	760.7	64	17.8	100	n.			0–1		10					sm'h		rain & fog	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready, N. 12° 29′, E. 83° 29′	29.75	755.6	82	27.8		ssw.			5		4	sw.				5	sw.	d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 1° 06′, E. 44° 03′	29.94	760.5	78.3	25.7	82	sw.			3		2					3	sse.	d. clouds	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 12° 17′, E. 44° 20′	29.65	753.1	80	26.7	74	sse.			2–3		2	se.				6	sse.	d. clouds	Comm. W. Byles.
H. M. S. Serapis, N. 40° 40′, W. 11° 10′	30.04	763.0	67	19.4	100	s.			4		9	s.				4	s.	overcast	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 48° 50′, W. 64° 29′	29.96	761.0	50.5	10.3	93	wsw.			2		2							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	30.10	764.5	60	15.6	88	ssw.			2		10	ssw.						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.98	761.5	80	26.7		n.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.56	750.8	81.5	27.5	91	w.			3		6	w.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			

GERMAN NAVAL SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

PORTUGUESE NAVAL SERIES.

Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.

Bengo, St. Paul de Loando, Benguela, India	30.03	762.7	75.6	24.2	69	w.			3		5					1		d. clouds	Carlos Candid dos Reis A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Id's	30.03	762.7	81.5	27.5	86	ne.			3		4	sw.				2	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.78	756.4	82.4	28.0	85	se.			2		3							blue sky	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.

H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M Frigate Vanadis																			Com. Th. Ulner.

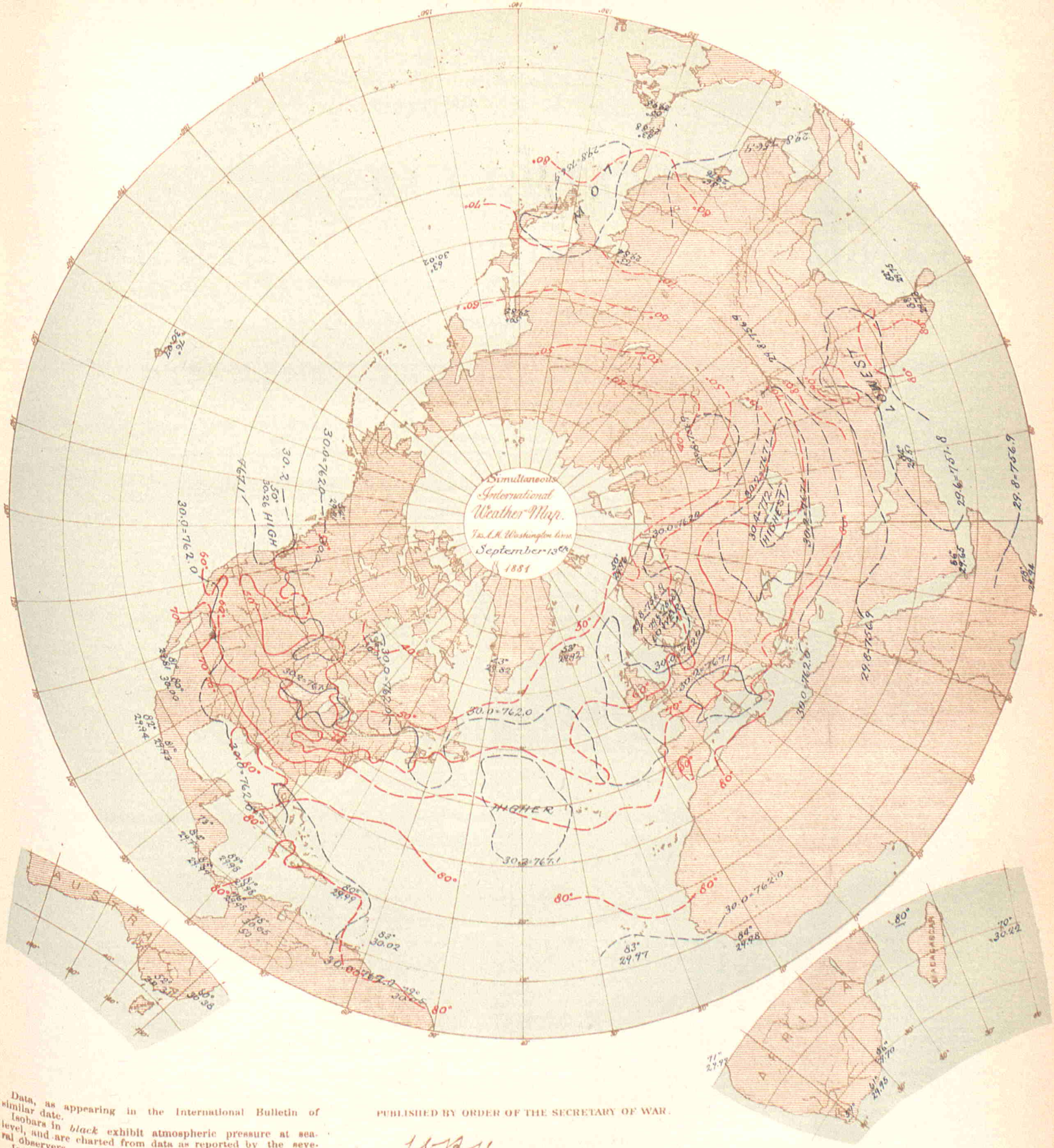
STATIONS AND VESSELS	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.09	764.3	75	23.9	81	nw.	2	0.9			8		nw.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.05	763.3	58	14.4	94	calm	0	0			0			0.2	5.			clear	
Naval Hospital, Yokohama, Japan	29.67	753.6	68.5	20.3	97	calm			0		10		n.	2.21	56.1			raining	
Adams, N. 9° 18′, W. 85° 56′	29.77	756.1	84	28.9	79	wnw.			3		2		calm			long	s.	fair	
Alaska, Callao, Peru	30.02	762.5	60	15.6	100	calm			0		10			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.70	754.4	71	21.7	95	nnw.			2		10		calm			sm'h		rainy	
Alliance, Hammerfest, Norway	29.96	761.0	50	10.0	93	nw.			2		10			light	light	sm'h		drizzling	
Ashuelot, Kobe, Japan	29.22	742.2	77	25.0	91	nne.			7		10							overcast	
Colorado, New York, N. Y.	30.06	763.5	67	19.4	79	calm	0	0						0	0			foggy	
Constitution, Fishers Isl'd, Conn	30.03	762.7	57	13.9	?	n.	2	0.9			0							hazy	
Franklin, Norfolk, Va	29.99	761.7	74	23.3	?		1	0.4			10			0	0			cloudy	
Galena, Leghorn, Italy	30.26	768.6	73	22.8	67	w.			1		2							fair	
Independence, N. Yard, Mare I'd, Cal	29.94	760.5	58	14.4	76	sw.	4.8	2.1			0							clear	
Jamestown, Mare Isl'd, Cal *	30.05	753.3	58	14.4	58	ssw.			2		10			0	0			clear	
Kearsarge, Philadelphia, Pa	30.09	764.3	67	19.4	69	nne.			1		0					sm'h		clear	
Lackawanna, Mare Isl'd, Cal †	30.27	768.8	60	15.6	88	sw.			1-2		0							clear	
Lancaster, N. 41° 13′, W. 69° 04′	30.05	763.3	62	16.7	100						10			0	0			misty	
Marion, Maldonado, Uruguay *	29.40	746.7	63	17.2		nnw.			3		10		n.	mod.	mod.	sm'h		cloudy	
Michigan, Erie, Pa	30.06	763.5	61	16.1	71	n.			4		0							clear	
Minnesota, Newport, R. I	30.08	764.0	62	16.7	83	calm			0		0					sm'h		misty	
Monocacy, Yokohama, Japan	29.85	758.2	71	21.7	95	nw.			1		10		nw.					cloudy	
Nipsic, Villafranca, France	30.25	768.3	74	23.3	68	s.			1		2					sm'h		hazy	
Onward, Callao, Peru †	30.03	762.7	60	15.6	94	calm			0		10		nw.			long	w.	misty	
Palos, Hong Kong, China	29.77	756.1	81	27.2	83	e.			1		2		n;e.					fair	
Passaic, Washington, D. C.	30.12	765.0	64	17.8	94	calm			0		0							clear	
Pensacola, Panama, Panama	29.98	761.5	76	24.4	91	nw.			2		5			0	0	sm'h		fair	
Portsmouth, Off Nauset Light, Mass.	30.06	763.5	57	13.9	100	wnw.			1		10					sm'h		dense fog	
Powhatan, N. 9° 55′, W. 79° 42′	29.98	761.5	81	27.2	91	sw.			3		8		e.			sm'h		cloudy	
Quinnebaug, Marseilles, France	30.24	768.1	68	20.0	79	w.			1		5					sm'h		fair	
Ranger, Mare Island, Cal. *	30.03	762.7	59	15.0	88	sw.			3		0							clear	
Richmond, N. 14° 50′, W. 101° 58′	29.94	760.5	82	27.8	91	se.			2		5?		se.	0	0	sm'h	sw.	cloudy?	
Shenandoah, Maldonado, Uruguay *	29.57	751.1	62	16.7	94	n.			2		10					sm'h		cloudy	
St. Louis, League Island, Pa	29.82	757.4	63	17.2	89	n.	14	6.3			0			0	0			clear	
Swatara, Chefoo, China †	29.87	758.7	74	23.3	72	nnw.			1		0							clear	
Tennessee, New York, N. Y.	30.11	764.8	66	18.9	89	ne.	5	2.2			2			0	0			hazy	
Trenton, N. 34° 49′, W. 9° 15′ *	30.07	763.8	78	25.6	73	nw.			2		2			0	0			fair	
Vandalia, New York, N. Y.	30.07	763.8	64	17.8	78	nnw.			1		0							clear	
Wabash, Boston, Mass.	30.05	763.3	58	14.4	82	wnw.	4	1.8			0			0.22	5.6			clear	
Wachusetts, Sitka, Alaska	29.91	759.7	56	13.3	94	se.			1		10		calm	light	light	sm'h		rainy	
Wyoming, Port Royal, S. C.	30.36	771.1	75	23.9	81	sse.	8	3.6			5?		sw.	0	0			cloudy?	
Yantic, New York, N. Y. *	30.02	762.5	65	18.3	73	n.			1		0							clear	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Seaswell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 55° 14′ W. 5° 33′ *†..	30.20	767.1	.....	.....	.....	ssw.	1	.....	10	.....	sw.	.....	.....	sm'h	.....	cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith. Strait of Belle Isle	30.11	764.8	47	8.3	100	se.	1	.....	9	.....	sw.	20 h'r	20 h'r	1	nw.	foggy.....	G. Gapon, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 45° 30′, W. 57° 07′	29.96	761.0	62	16.7	.....	ssw.	3	.....	10	.....	s.	.....	.....	mod.	s.	foggy	
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn	30.10	764.5	70	21.1	?	se.	3	.....	2	.....	s.	.....	.....	.....	.....	fine	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 43° 15′, W. 42° 17′ †..	30.38	771.6	63	17.2	57	w.	2	.....	2	.....	nw.	0	0	sm'h	nw.	fine.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, N. 50° 03′, W. 17° 04′ *†	30.10	764.5	66	18.9	89	ssw.	1	.....	2	.....	sw.	.....	.....	mod.	w.	fine.....	
S. S. Pennsylvania, Capt. G. H. Dodge, Liverpool, Eng †..	30.10	764.5	63	17.2	72	nw.	3	.....	10	.....	nw.	.....	.....	.....	.....	cloudy	C. Rodman, 3d Off.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. British Merchant, E. J. Moloney, N. 43° 03′, W. 23° 48′ ‡..	29.90	759.4	58.2	14.6	76	nw.	6	.....	7	.....	.....	.....	.....	.....	.....	raining.....	
S. S. Cipero, Capt. W. N. Lailey, Port of Spain, Trinidad, W. I	30.02	762.5	82.5	28.1	93	ese.	1	.....	3	.....	.....	.....	.....	.....	.....	d. clouds.....	
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Coppename, Capt. A. Buchan, N. 34° 35′, W. 40° 30′	30.17	766.3	77.0	25.0	93	e.	4	.....	10	.....	.....	.....	.....	.....	.....	overcast	
Bk. Glaramara, Capt. R. Morton, N. 45° 25′, W. 138° 19′ ‡.	30.26	768.6	50	10.0	100	calm	0	.....	10	.....	.....	.....	.....	.....	.....	overcast	
Bg. Hermine, Capt. S. G. Jones, N. 14° 03′, W. 26° 51′	30.07	763.8	82.7	28.2	87	n.	4	.....	7	.....	.....	.....	.....	.....	.....	d. clouds.....	
Bkt. Hope, Capt. J. Campbell	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Island Belle, Capt. A. McBride, N. 9° 24′, W. 54° 12′	30.06	763.5	83.5	28.6	.....	se.	2–5	.....	2	.....	.....	.....	.....	.....	.....	blue sky.. ...	
S. Lochee, Capt. J. Raeburn, S. 40° 38′, W. 9° 20′ ‡....	30.01	762.2	52	11.1	93	n.	8	.....	10	.....	.....	.....	.....	.....	.....	raining.....	
Bk. Mertola. Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Pleione, Capt. C. H. Renant,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Queen of Cambria, Capt. M. Parry, N. 44° 52′, W. 13° 49′	29.79	756.7	65	18.3	89	se.	6	.....	10	.....	.....	.....	.....	.....	.....	overcast.....	
S. S. Rosetta. Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Shun Lee, Capt. J. N. Gray, N. 10° 38′, W. 26° 32′ ‡..	30.04	763.0	81.0	27.2	83	calm	0	.....	5	.....	.....	.....	.....	.....	.....	d. clouds.....	
S. S. Strathleven, Capt. C. W. Pearson, Shanghai, China	29.73	755.1	75.5	24.2	98	ne.	2	.....	10	.....	.....	.....	.....	.....	.....	showery... ..	
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers N. 23° 29′, W. 107° 40′ †	29.81	757.2	81	27.2	79	calm.	0	.....	1	.....	se.	0	0	mod.	.....	clear.....	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Galla, Capt. W. H. P. Hains	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 41° 52′, W. 52° 40′	30.11	764.8	70.0	21.1	80	sse.	4	.....	2	.....	se.	.....	.....	mod.	se.	fair	.. ..
S. S. Hermann, Capt. H. Baur, N. 50° 04′, W. 33° 01′	30.10	764.5	58.1	14.5	.....	n.	6	.....	2	.....	nnw.	0	0	high	wsw.	clear.....	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 48° 56′, W. 15° 14′	29.80	756.9	63.0	17.2	86	se.	6	.....	8	.....	se.	4 h'r	4 h'r	r'gh	sse.	cloudy.....	Englehart & von [Goesset.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Yokohama, Japan †..	29.92	760.0	73	22.8	85	sw.	4	.....	10	.....	.....	rain	rain	sm'h	.....	overcast.....	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, San Francisco, Cal *†	30.30	769.6	59	15.0	88	sw.	4	.....	2	.....	s.	.....	.....	.....	.....	clear..	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 41° 48′, E. 155° 17′	30.02	762.5	63	17.2	72	nne.	5	.....	10	.....	ne.	0	0	mod.	e.	fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Pohl, 2d Officer.
S. S. Oregon, Capt. Pollmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, San Francisco, Cal.....†..	30.09	764.3	54	12.2	93	calm	0									clear	J. N. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, N. 45° 52′, W. 125° 03′.....†..	30.26	768.6	56	13.3	100	n.	3		6?		n.					cloudy?	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 32° 40′, W. 117° 15′.....†..	29.94	760.5	68	20.0	79	calm	0		0					sm'h	nw.		G. H. Harrison.
S. S. Senator. Capt. Wallace, N. 38° 53′, W. 123° 45′.....	30.12	765.0	55	12.8	87	nne.	2		0					mod.		clear	T. Wallace.
S. S. State of California, Capt. Debney, Po tland, Oregon.....†..	30.13	765.3	52	11.1	86	calm	0		5?							clear?	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 48° 15′, W. 124° 46′.....†..	30.23	767.9	52	11.1	100	ne.	2		0					light	nw.	hazy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. —— S. 30° 30′, E. 174° 56′.....	30.14	765.5	55	12.8	68	s.	4		5		se.					fine	A. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†	30.38	771.6	60	15.6	82	sse.	3		10			0	0			cloudy	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry.....																	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt.—— N. 7° 43′, W. 82° 43′.....†....	29.97	761.2	83	28.3	83	n.	2		2		n.	0	0	sm'h	w.	fine	
S. S. City of Sidney, Capt. H. C. Dearborn,																	E. L. Saik.
S. S. City of Tokio, Com. J. Maury Hong Kong, China.....†..	29.83	757.7	81	27.2	78	ese.	1		3		sw.	0	0			clear	A. L. Richie, 2d Offl.
S. S. Colima, Capt. R. R. Searle, N. 30° 33′, W. 117° 04′.....†..	29.95	760.7	67	19.4	100	nw.	3		0			0	0	mod.	nw.	clear	R. R. Searle.
S. S. Grenada. Capt. M. Connolly N. 15° 58′, W. 98° 00′.....†....	29.93	760.2	81	27.2	87	calm	0		5?		e.	3 h'r	3 h'r	small	sse.	clear?	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 18° 06′, W. 172° 20′.....	30.23	767.8	74	23.3	68	ese.	4		5?		ese.			mod.	se.	cloudy?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, ...																	A. Fedderson, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium.....†	30.27	768.8	63	17.2	83	ese.	3		10		ese.	0.2	5.			cloudy	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 46° 11′, W. 42° 53′.....†..	30.41	772.4	65	18.3	94	e.	1		0			0	0	long	ne.	fine	R. Horsfall.
S. S. Britannic, Capt. H. Perry.....																	
S. S. Celtic, Capt. B. Gleadell, ...																	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, New York, N. Y.....†..	30.20	767.1	68	20.0	84	var-	1		2			0	0			d. clouds	
S. S. Republic. Capt. P. J. Irving N. 44° 16′, W. 56° 30′.....†..	30.03	762.7	65	18.3	?	sse.	4		8		sw.	0	0	mod.	s.	d. clouds	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass.....†..	30.04	763.0	65	18.3	89	nnw.	2	0	2 s			0.09	2.3			clear	
Golden Fleece.....																	
Hassler, Lt. Com. Nichols, Sitka, Alaska.....†*..	29.92	760.0	56	13.3		se.	1		10					sm'h		overcast	
S. Iron Cross, Capt. Randall, S. 6° 45′. W. 16° 38′.....*..	30.06	763.5	73.8	23.2	98	se.	4–5		8		se.	mod.	mod.	mod.	s.	showery	W. Randall.
S. Pawashick, Capt. E. Fry.....																	E. Fry.
S. S. Proteus, Capt. Pike.....																	
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal.....†..	30.14	765.5	74	23.3	76	wsw.	5		2		w.	0	0			clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer. U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 14, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.12	765.0	78.8	26.0	76	n.			6		2			0	0	fair	Raynard.
Algiers ‡			30.14	765.6	80.6	27.0	78	nne.			3		0			inap.	inap.	clear	Nicolas.
La Calle ‡			30.13	765.2	81.0	27.2	75	ne.			3		2			0	0	fair	Fonfréde.
Tunis ‡			30.14	765.6															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.15	765.7	97.7	36.5	12	ssw.			4		2			0	0	fair	Dumas.
Tebessa ‡			30.13	765.3	93.9	34.4	11	nw.			6		4			inap.	inap.	cloudy	Derché.
Geriville ‡					93.2	34.0	11	sse.			7		0			0	0	clear	Lonchamp.
Laghount ‡			30.13	765.3	94.6	34.8	9	s.			3		1			inap.	Inap.	very fair	Herbin.
Biskra ‡			30.13	765.3	99.7	37.6	31	se.			1		1			0	0	very fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.06	763.5	30.15	765.8	56.4	13.6	74	e.	5	2.2			1			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.58	751.4	30.11	764.9	71.6	22.0	60	sw.			2		2			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.33	744.9	30.08	764.0	66.2	19.0	54	w.	11.2	5.0			9			0	0		Dr. Wiersbicki.
Eperies	29.17	740.9	30.02	762.5	69.8	21.0	55	s.			2	0	8 ks		n.	0	0		Julius Mikolik.
Gratz ‡	28.90	734.1	30.13	765.2	65.8	18.8	70	sw.			1		6			0.650	16.5		Andreas Rospini.
Hermannstadt	28.67	728.1	30.04	763.1	72.7	22.6	41	n.			2		5			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.79	731.3	30.11	764.7	64.0	17.8	75	ssw.			1		10			0	0		The Staff.
Lemberg	29.05	737.8	30.01	762.2	67.1	19.5	59	nw.			1		5			0.063	1.6		Dr. T. Stanecki.
Pola	30.02	762.6	30.13	765.4	71.8	22.1	71	wnw.			3		3			0	0		I. R. Hydrographic Office.
Szathmar	29.62	752.4	30.07	763.8	71.2	21.8	54	nw.			2		2			0	0		Beicht Peter, S. J.
Szegedin	29.82	757.5	30.10	764.4	71.2	21.8	55	calm			0		0			0	0		Karl Stancel.
Trieste	30.07	763.8	30.17	766.4	70.2	21.2	57	nw.			1		1			0	0	clear	Secco.
Vienna	29.43	747.6	30.14	765.5	66.9	19.4	63	sse.			2		5			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 16, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.97	761.2	30.06	763.5	54.1	12.3	68	e.	2	0.9			7			0	0	d. clouds	W. Boswell.
Armagh, Observatory	29.89	759.2	30.12	765.0	55.0	12.8	80	sw.	5	2.2			10					overcast	S. Call.
Bidston, Liverpool Obs'y			30.11	764.8	58.0	14.4	78	w.	12	5.4			8					overcast	John Hartnup.
Bolton, Sharples	29.56	750.8	30.10	764.5	56.7	13.7	81	wsw.	12	5.4			10					overcast	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.67	753.6	30.07	763.8	57.1	13.9	74	w.			1		4			0.01	0.3	d. clouds	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.10	764.5	61.6	16.4	77	sw.			0.2		10					foggy	John McLaren.
Chatham, School M. E.	30.00	762.0	30.13	765.3	67.9	19.9	66	nw.			1		8					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.91	759.7	30.14	765.5	59.2	15.1	84	e.			1		9					overcast	The Staff.
Fort Napier, Natal	27.73	704.3	29.95	760.7	54.2	12.3	68	sw.			1		7						Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.72	754.9	29.95	760.7	82.0	27.8	87	se.			1		3					d. clouds	Sgt. O. E. Keane.
Galway, Queen's College			30.11	764.8	60	15.6	62	sw.			2		2					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	30.08	764.0	30.14	765.5	72.6	22.6	89	ne.			3		7					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	29.86	758.4	30.06	763.5	55.2	12.9	76	w.			4		10					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.95	760.7	30.12	765.0	64.7	18.2	67	sw.			1		7					d. clouds	The Staff.
Guernsey	29.88	758.9	30.09	764.3	62.5	16.9	75	ese.			1		5					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.10	764.5	30.13	765.3	62.5	16.9	59	wnw.	7	3.1			6					d. clouds	The Staff.
Leicester, Museum	29.85	758.2	30.10	764.5	57.8	14.3	90	w.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	30.01	762.2	30.08	764.0	80.4	26.9	78	ne.			2		0					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.90	759.4	29.94	760.5	80.0	26.7	86	ne.			1		8			blank	blank	d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.89	759.2	30.12	765.0	63.0	17.2	60	wsw.			1		4					d. clouds	The Staff.
Plymouth	30.05	763.3	30.12	765.0	63.2	17.3	74	se.			1		7					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.07	763.8	50	10.0	87	nw.	8	3.6			10					misty	Rev. C. Clouston, L. L.D.
Scutari Cemetery, Turkey	29.84	757.9	29.91	759.7	84.8	29.3	47	ne.			2		3					d. clouds	Serg't W. H. Lyne.
Sheffield	29.83	757.7	30.10	764.5	64.3	17.9	69	sw.			2		5			0	0	d. clouds	W. F. Cooper.
Silloth Rectory	30.05	763.3	30.08	764.0	61.3	16.3	66	wsw.			1		2			0.015	0.4	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.11	764.8	55.4	13.0	80	wsw.	8	3.6			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss					63.4	17.4	69	w.			2		4					d. clouds	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	30.08	764.0	30.10	764.5	65	18.3	73	s.			4		8					gloomy	W. Newcombe.
Valencia, Observatory	30.12	765.0	30.15	765.8	58.7	14.8	68	n.	12	5.4			2					blue sky	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.15	765.8	30.19	766.8	53	11.7	99	sw.	2	0.9		0	fg.			inap.	inap.	light fog	H. J. Cundall, C. E.
Chatham, N. B.*	30.14	765.5	30.20	767.1	58	14.4	83	nw.	2	0.9		5 ck	0	nw.		0	0	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B																			H. A. Johnson.
Father Point, Quebec*	30.25	768.3	30.27	768.8	49	9.4	93	w.	10	4.5		0	0			0	0	clear	J. McWilliams.
Fort Garry, Manitoba*	28.95	735.3	29.75	755.6	56	13.3	83	n	6	2.7		5 k	5 n	n.	n.	0	0	cloudy	James Stewart.
Fredericton, N. B																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.05	763.3	30.18	766.6	54	12.2	100	nw.	5	2.2			fg.			0.024	0.6	foggy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.90	759.4	30.24	768.1	53	11.7	93	ne.	4	1.8		5 c ?	0	ne.		0	0	clear?	S. Woods, M. A.
Little Glace Bay, N. S																			C. H. Rigby.
Montreal, Quebec*	30.05	763.3	30.25	768.3	56	13.3	86	e.	5	2.2		0	sk.			0.07	1.8	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.52	749.8	30.22	767.6	47	8.3	100	e.	1	0.4		0	0			0	0	clear	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.50	749.3	30.19	766.8	55	12.8	93	calm	0	0		10 k	0	s.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.53	750.0	30.19	766.8	46	7.8	93	n.	4	1.8		5 k	hz; sk	s.		0	0	hazy	M. Payne.
Quebec, Quebec*	29.92	760.0	30.24	768.1	55	12.8	93	ne.			1	5 c	5 ks	n.	n.	0.08	2.0	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.81	757.2	30.28	769.1	40	4.4	96	calm	0	0			fg.			0	0	dense fog	W. H. McIntyre.
Saugeen, Ontario*	29.46	748.3	30.19	766.8	46	7.8	83	se.	6	2.7			fg.			0	0	foggy	K. Stewart.
St. Andrews, N. B	30.16	766.1	30.21	767.3	51	10.6	99	calm	0	0			fg.			0	0	foggy	
St. John, N. B																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.10	764.5	30.15	765.8	59	15.0	84	n.	3	1.3		2 ck	2 ks	w.	ne.	0.01	0.3	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.85	758.2	30.23	767.8	54	12.2	80	n.	5	2.2		2 k	0	s.		0	0	clear	Magnetic Observatory.
Windsor, N. S																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.29	769.4	30.35	770.9	50	10.0	100	calm	0	0		fg.	fg.			0	0	foggy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.99	761.7	30.24	768.1	62	16.7	100	se.				fg.	fg.			0.60	15.2	raining	John Delany.
St. Pierre, N. F																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.28	769.1	30.31	769.9	57.5	14.2	93	wsw.	22.7	10.1			10 n			0.520	13.2	showery	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.47	748.5			59.7	15.4	50	s.			1	2	4			0.01	0.3	cloudy	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.88	759.0	29.91	759.6	72.0	22.2	89	e.	3.1	1.4		0	1			0	0	clear	M. Marc Dechevrens, S.J

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.69	754.1	29.74	755.3	59.9	15.5	96	nw.	22	10			10					raining	Oversergent Fischer
Fanöe	29.91	759.6	29.93	760.1	56.5	13.6	78	wnw.			6		10						Overloerer Lauridsen
Godthaab, Greenland	29.92	760.0	29.97	761.1	37.9	3.3	88	s.			4		10						S. Kleinschmidt.
Stykkisholm, Iceland	30.06	763.6	30.11	764.7	47.1	8.4	91	sw.			4		10					raining	A. O. Thorlacius.
Thorshavn	30.01	762.3	30.05	763.2	50.7	10.4	71	w.	7	3			10						Overloerer Bergh.
Vestervig	29.77	756.1	29.86	758.4	54.9	12.7	88	nw.			6		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.46	748.3	30.08	764.0	84.6	29.2	64	sse.			1		0			0	0	clear	M. Labroue, Director.
Alençon Normal School	29.60	751.8	30.15	765.8	64.4	18	75	n.			2		ns	w.	sw.	0	0		M. Nicot, Director.
Arras, Engineer School					56.7	13.7	95	s.											M. Klein, Commandant.
Avignon, Normal School	30.14	765.5	30.22	767.5	73.6	23.1	63	nnw.			1					0	0		M. Giraud, Director.
Bar-sur-Seine	29.60	751.7	30.14	765.5	67.3	19.6	76	se.			1	0	8 kn		w.	0	0	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.89	759.3	30.15	765.7	65.5	18.6	66	ene.			1		8			0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.28	743.8	30.16	766.0	69.8	21	58	ssw.			1		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.85	758.3	30.11	764.7	77.7	25.4	48	s.			1		0			0	0	clear	M. Rayet, Director.
Bourges, Normal School	29.62	752.4	30.17	766.3	73.4	23	52	nw.			2		5		nw.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.85	758.1	30.09	764.3	64.4	18.0	68	ese.			1		10		e.	0.079	2.0		M. de Kermaree, Dir.
Caen, Normal School	30.06	763.4	30.13	765.3	64.4	18	76	n.			1		2			0	0	slightly cl'dy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					63.3	17.4	71	e.			2		10			0	0	covered	M. Jadot, Director.
Charleville, Normal School	29.61	752.1	30.11	764.8	68.4	20.2	39	ssw.			1		0			0	0	clear	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.80	731.4	30.09	764.2	79.2	26.2	34	sw.			1	5 ck	0			0	0	½ covered	M. Alluard, Director.
Cluny, Normal School	29.29	744.0	30.11	764.8	65.8	18.8	42	sw.			1		3			0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.29	743.9	30.13	765.4	64.8	18.2	66	w.			1		2	w.	w.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.82	706.6	30.29	769.4	70.2	21.2	39	e.			1		8			0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	29.16	740.7	30.30	769.7	75.2	24.0	36	nw.			1		2		sw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.43	747.5	30.17	766.4	72.7	22.6	53	ne.			2	c	0			0	0		M. Ablard, Director.
Guéret, Normal School	28.60	726.3	30.13	765.4	70.3	21.3	58	sw.			1	c	0			0	0		M. Rivoire, Director.
Lamballe, Normal School	29.85	758.3	30.13	765.2	59.4	15.2	94	ne.			1		10		ne.	0.106	2.7	sprinkling	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.04	762.9	30.14	765.5	64.4	18.0	96	se.			1		10			0	0	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.14	740.1	30.17	766.2	73.0	22.8	58	se.			1		0			0	0	hazy	M. André, Director.
Mans, Normal School	29.85	758.3	30.16	766.1	64.6	18.1	78	e.			1		8		w.	0	0	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.92	759.9	30.18	766.6	72.1	22.3	65	w.			2		9		w.	0	0		M. Stephan, Director.
Montlouis l'instituteur	25.07	636.8	30.31	769.8	61.7	16.5	59	s.	5.6	2.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.08	764.0	30.19	766.7	74.8	23.8	66	s.			3		2		wsw.	0	0	foggy	M. Pourle, Director.
Nancy, Normal School	29.41	747.1	30.16	766.1	63.0	17.2	74	sw.			1	5 ck	0			0.098	2.5	cloudy	M. Hasse.
Nantes, Observatory	29.98	761.6	30.15	765.8	66.2	19.2	79	ene.			0–1		10 n		wsw.	0	0		M. Larocque, Director.
Nice	30.15	765.8	30.19	766.7	71.6	22.0	71	s.			2	1	1	s.	s.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	30.08	763.9	30.18	766.5	71.6	22.0	69	se.	7.4	3.3			1		nw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.80	579.2			54.7	12.6							1		w.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					66.9	19.4	79	calm			0		2			0	0	slightly cl'dy	M. Talheu.
Puy de Dôme Obs'y, Summit	25.37	644.3			55.0	12.8	61	wnw.			4		8			0	0	misty	M. Alluard, Director.
Rochefort, Naval Obs'y	30.09	764.2	30.12	765.0	74.5	23.6	100	calm			0		2			0	0	¼ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.91	759.8	30.12	765.1	70.9	21.6	72	se.			1		5		sw.	0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.03	762.8	30.12	765.0	64.4	18	80	s.			1		2			0	0	slightly cl'dy	M. Platrier, Director.
Saint Lô, Normal School	29.97	761.3	30.13	765 3	65.3	18.5	74	nw.			1		10		nw.	0	0	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.99	761.7	30.15	765.9	65.1	18.4	76	s.			1		10		w.	0	0		M. Renou, Director.
Toulouse, Observatory	29.47	748.6	30.20	767.1	81.3	27.4	42	sse.			4		1	w.		0	0	clear	M Bailland, Director.
Tours	29.95	760.6	30.14	765.6	68.0	20.0	72	e.			1		10		w.	0	0	covered	M. de Tastes.
Versailles, Observatory	29.66	753.4	30.16	766.0	63.7	17.6	74	se.			1					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.87	758.8	30.17	766.2	63.9	17.7	79	sse.			1		10			0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.30	744.1	30.16	766.1	63.1	17.3	77	w.			2	0	7 k		w.	0.008	0.2		Prof. Dr. Hoh.
Berlin	29.82	757.3	29.98	761.6	63.0	17.2	83	se.			1		8			0.024	0.6		Prof. Dr. Arndt.
Breslau	29.54	750.3	30.07	763.8	65.5	18.6	49	w.			3		4			0	0		Royal University Obs'y.
Carlsruhe	29.72	754.9	30.15	765.7	65.7	18.7	73	sw.			2		1	sw.		0	0		Albert Senz.
Cassel	29.37	746.0	30.09	764.2	61.2	16.2	72	w.			1		7	sw.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.78	756.3	30.14	765.5	63.5	17.5	76	sw.			1		4			0.04	1.		Physical Society.
Friedrichshafen	28.75	730.2	30.16	766.1	63.7	17.6	76	sw.			2		7	w.		0	0		Wilhelm, Chief Tel.
Hamburg	29.93	760.2	30.02	762.6	58.6	14.8	74	wnw.			4		10			0	0		E. Preller.
Kiel	29.93	760.3	29.95	760.7	56.1	13.4	81	w.			0		10			0.008	0.2		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.67	753.5	30.08	764.0	63.7	17.6	58	w.			5		5	w.		0.004	0.1		H. Leppig, Asst.
Magdeburg	29.81	757.2	30.00	762.0	60.4	15.8	69	wnw.			5	0	7 ks; k		wnw.	0.197	5.0		Dr. Assmann.
Memel	29.74	755.5	29.79	756.7	54.5	12.5	89	sw.			0–7		10 n						Issermann.
Munich	28.35	720.1	30.22	767.7	66.7	19.3	39	nw.			2		5	w.		0	0		Central Station.
Neufahrwasser	29.79	756.7	29.83	757.7	57.9	14.4	74	s.			7		10			0.110	2.8	raining	A. Lothes.
Neustadt, Palatinate	29.61	752.0	30.14	765.5	66.4	19.1	71	s.			3		7	sw.		0	0		Dicknether.
Stuttgart	29.21	741.8	30.08	764.1	65.3	18.5	71	w.			1		7	w.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.65	727.8	30.14	765.6	59.9	15.5	61	w.			4		9	w.		0	0		Fischer.
Wustrow	29.89	759.1	29.91	759.7	53.8	12.1	94	wnw.			5		10			0.079	2.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.52	749.8	29.89	759.1	93.0	33.9		ne.			1.5		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.54	750.4	29.59	751.7	82.7	28.2	83	ssw.	19.0	8.5			8			0	0	d. clouds	
Deesa	29.08	738.5	29.55	750.5	77.6	25.3	84	w.	11.9	5.3			10		w.	2.43	61.7	overcast	
Bombay	29.69	754.1	29.73	755.0	83.3	28.5	77	wsw.	16.0	7.2			9		wsw.	0.10	2.5	d. clouds	
Poona, Yarrowda	27.88	708.1	29.73	755.2	76.5	24.7	71	w.	17.0	7.6			8		wsw.	0.01	0.3	d. clouds	
Belgaum	27.25	692.2	29.82	757.4	69.3	20.7	89	sw.	7.0	3.1			9	e.	sw.	0.11	2.8	showery	
Lahore	28.86	733.0	29.58	751.2	94.1	34.5	52	e.	2.5	1.1			0			0	0	blue sky	
Roorkee	28.73	729.8	29.61	752.1	88.4	31.3	66	e.	5.4	2.4			7			0.01	0.3		
Agra	29.02	737.2	29.57	751.2	90.2	32.3	62	se.	9.0	4.0			4			0	0		
Nagpur	28.65	727.7	29.68	753.9	83.7	28.7	74	sw.	7.2	3.2			4	sw.		0.33	8.4	d. clouds	
Jubbulpore	28.33	719.5	29.67	753.6	81.6	27.6	81	calm	7.1	3.2			0			0.10	2.5	blue sky	
Lucknow	29.27	743.5	29.04	752.9	86.1	30.1	74	sse.	3.8	1.7			0			0	0	blue sky	
Allahabad	29.31	744.5	29.62	752.3	86.7	30.4	83	calm	1.8	0.8			0			0	0	blue sky	
Patna	29.47	748.5	29.65	753.0	89.0	31.7	71	sw.	4.4	2.0			5	sw.	sw.	0	0	d. clouds	
Hazaribagh	27.69	703.2	29.68	753.8	80.6	27.0	82	sw.	6.4	2.9			4			0.05	1.3	thnd'rstorm	
Cuttack	29.63	752.6	29.71	754.7	83.5	28.6	85	wnw.	0.8	0.4			7			0	0	d. clouds	
Calcutta, Alipore	29.67	753.5	29.69	754.1	81.6	27.6	87	ssw.	4.0	1.8			9	sw.	sw.	0.45	11.4	d. clouds	
Dhubri	29.54	750.2	29.66	753.3	82.6	28.1	88	calm	1.8	0.8			3			0	0	d. clouds	
Chittagong	29.67	753.6	29.76	755.9	78.5	25.8	98	ssw.	3.9	1.7			8			0.01	0.3	d. clouds	
Sibsagar	29.34	745.2	29.67	753.6	84.2	29.0	87	ssw.	2.0	0.9			10	w.	w.	1.02	25.9	overcast	
Jeypore	28.14	714.8	29.58	751.2	79.7	26.5	87	ese.	13.0	5.8			9		ese.	0.41	10.4	d. clouds	
Zanzibar, Africa			29.97	761.2	79.7	26.5	72	wnw.	3	1.3			6			0	0	threatening.	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine					71.4	21.9	51	calm	0	0			4			0	0		Prof. Giovanni Clodig.
Milan	29.67	753.7	30.18	766.6	72.0	22.2	60	se.	3.1	1.4			6	sw.		0	0		Prof. Schiaparelli.
Padua	30.06	763.5	30.17	766.2	71.2	21.8	50	ne.					1	wsw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.28	743.6	30.17	766.2	70.2	21.2	68	sse.	2.5	1.1			6	ne.		0	0		Prof. P. F. Denza.
Genoa	30.01	762.2	30.20	767.0	70.3	21.3	67	s.	2.5	1.1			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.28	718.4	30.16	766.1	64.6	18.1	63	nne.			2		0			0	0		Prof. D. C. Bruno.
Pesaro	30.11	764.9	30.16	766.1	69.8	21.0	63	ne.					0			0	0		Prof. Luigi Guidi.
Florence	29.89	759.1	30.14	765.5	73.8	23.2	43	s.			2		0			0	0		Prof. Costantino Pitter.
Leghorn	30.04	763.1	30.13	765.2	72.0	22.2	71	ne.	1.3	0.6			0			0	0		Prof. P. Monte.
Rome	29.95	760.6	30.11	764.9	78.8	26.0	39	w.					0			0	0		Prof. P. S. Ferrari.
Lecce	29.81	757.1	30.06	763.5	77.0	25.0	46	nw.	21.7	9.7			2			0	0		Prof. C. de Giorgi.
Cosenza	29.24	742.8	30.10	764.6	83.5	28.6	60	nne.	1.8	0.8			0			0	0		Prof. D. Conti.
Cagliari	29.95	760.6	30.13	765.4	77.2	25.1	55	s.			2		0			0	0		Prof. A. Pacinotti.
Palermo	29.89	759.1	30.13	765.3	78.8	26.0	70	ne.	3.8	1.7			0			0	0		Prof. G. Ciacciatore.
Syracuse	30.03	762.8	30.08	763.9	79.3	26.3	69	se.	4.9	2.2			10	e.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.57	751.1	30.07	763.8	78.1	25.6	49	sw.	0	0			0			0	0		Prof. F. Brioschi.
Stelvio	22.35	567.7			45.0	7.2	43	sw.			1	3 cs	0	w.		0	0	clear	Prof. P. F. Denza.
Valdobbia	22.42	569.4			45.1	7.3	66	nne.			2		10 k	sw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.77	756.1	29.79	756.6	72.7	22.6	79	ne.	2.8	1.2		0	0			0	0	clear	K. Sasaki.
Kioto	29.60	751.8	29.77	756.1	71.4	21.9	93	nw.	0.7	0.3		ck	4 ks;s			0.660	16.8	fair	M. Tojima.
Nagasaki, I. M. Obs'y	29.65	753.1	29.84	757.9	73.6	23.1	79	ne.	4.3	1.9		0	0			0	0	clear	S. Takehayashi.
Niigata	29.59	751.6	29.63	752.6	72.6	22.6	93	sw.	7.5	3.3			10 n			0.360	9.1	raining	
Nobiru	29.61	752.1	29.62	752.3	68.8	20.4	82	ne.	10.6	4.7		0	3 s			0.110	2.8	fair	
Supporo	29.62	752.3	29.68	753.9	58.9	14.9	91	nnw.	6.6	2.9			10			0	0		
Tokei Obs'y, Yeddo	29.56	750.8	29.63	752.6	75.0	13.9	86	nsw.	4.4	2.0		0	0			0	0	clear	The Staff.
Wakayama	29.72	758.8	29.77	756.1	74.8	23.8	94	wsw.				2 ck	0			0.185	4.7	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.98	761.5	30.17	766.4	72.2	22.3	63.4	e.	17.5	7.8			9		e.	0.11	2.8	squally	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.68	601.6	29.90	759.6	58.1	14.5	89	calm	0	0		3 s	1 k	e.	e.	0	0	clear	Vicente Fernandez.
Leon	24.37	619.0	30.00	761.8	62.6	17.0	89	n.			1	4 c	1 k	w.		0	0	½ cloudy	Prof. M. Leal.
Mazatlan	29.69	754.0	29.94	760.6	76.0	24.4	98	w.	5.3	2.3			10 n		wsw.	0.433	11.0	thnd'r storm	F. Quijano, C. E.
Mexico, Central Obs'y	23.10	586.7	30.09	764.4	56.7	13.7	87	calm	0	0		1 c	9 pk			0.063	1.6	covered	The Staff.
Morelia	24.04	610.6	30.09	764.2	57.4	14.1	75	se.			2	2	3	e.	s.	0.213	5.4	½ cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.94	608.0	29.84	758.0	63.1	17.3	87	nnw.			1	2 c	2 s	nw.		0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.7	30.14	765.5	55.6	13.1	70	calm	0	0			10		e.	0.611	15.5	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.57	573.5	30.14	765.5	57.2	14.0		w.	0.9	0.4		0	6 ns			0	0	½ cloudy	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.15	765.8	30.15	765.8	62.6	17.0		w.			4					0	0		
Groningen	30.02	762.4	30.07	763.8	62.2	16.8		w.			1					0	0		
Helder	30.07	763.8	30.07	763.8	61.7	16.5		sw.			1					0	0		
Hellevoetsluis	30.12	765.0	30.12	765.0	61.7	16.5	74	w.			3					0.039	1.0		
Utrecht	30.08	763.9	30.12	765.1	66.2	19.0	65	wsw.			1		5			0.039	1.0	cloudy	H. van der Brink

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.78	756.4	29.84	758.0	60.8	16.0	69	ssw.	9.8	4.4			3			0	0		
Christiania	29.61	752.0	29.75	755.6	63.9	17.7	58	nne.	11	5			7			0	0		
Gjæsvær	29.84	757.8	29.85	758.4	39.6	4.2		wnw.			4		10						
Lodingen	29.82	757.4	29.87	758.6	48.9	9.4	73	ne.			4		2			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.85	758.3	30.00	762.1	68.0	20.0	65	nw.	18.6	8.3			4			0.157	4.0		Dr. J. A. Sampaio.
Campo Major	29.12	739.7	30.08	764.1	82.0	27.8	42	ese.	4.3	1.9			3			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.00	762.0	30.09	764.2	76.6	24.8	69	sw.	1.8	0.8			3			0.020	0.5		Capt. D. A. de Cunha.
Lisbon, Observatory	29.78	756.3	30.13	765.2	74.5	23.6	61	ssw.	7.4	3.3			4			0	0		The Staff.
Ponta Delgada, Azores	29.98	761.4	30.05	763.2	69.1	20.6	62	nw.	11.9	5.3			3			0.075	1.9		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.00	736.6	30.08	764.1	50.2	10.1	53	w.	18	8		0	1 k						Capt. Lasarew.
Archangel	29.78	756.3	29.80	759.8	54.3	12.4	79	ene.	4	2			10 k						Capt. Sseliwerstow.
Astrákhan	30.36	771.2	30.28	769.1	70.5	21.4	32	sse.	9	4		0	2 s					light clouds	Capt. Wisganow.
Barnaul ‡	29.22	742.3	29.72	755.0	45.9	7.7	75	wnw.	9	4			9						Meteorological Obs'y.
Dorpat	29.59	751.6	29.82	757.5	64.8	18.2	63	ssw.	7	3		8 ck	0						Observatory.
Ekaterinburg	29.04	737.5	29.98	761.5	60.4	15.8	49	w.	27	12		8 c;ck	0						Meteorological Obs'y.
Kasan	29.83	757.7	30.09	764.2	75.0	23.9	39	sw.	7	3		0	0						Observatory.
Kertch	29.91	759.8	29.93	760.3	71.4	21.9	90	sse.	4	2		2 ck	0			0	0	light clouds	Lagorio & Sastyres.
Kieff	29.35	745.6	29.97	761.2	69.3	20.7	49	nnw.	2	1		ck	4 ks						Observatory.
Lugan	29.84	757.9	30.04	762.9	76.8	24.9	25	ese.	22	10			2						Meteorological Obs'y.
Moscow	29.49	749.1	29.96	761.0	60.8	16.0	69	s.	4	2			10 s						Meteorological Obs'y.
Nikolaiev	29.93	760.3	30.00	762.1	80.6	27.0	47	calm	0	0		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.73	755.2	29.82	757.4	59.0	15.0	84	e.			4	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.74	755.3	29.88	758.9	72.0	22.2	44	nw.	7	3		0	7 n			0	0		Physical Observatory.
St. Petersburg	29.81	757.1	29.82	757.5	67.3	19.6	66	w.	4	2		0	6 ks;k						Central Physical Obs'y.
Tashkend, Laboratory	28.61	726.7	30.14	765.5	72.5	22.5	67	nw.	7.8	3.5		0	0						Teich, A. M.
Tiflis	28.78	731.1	30.17	766.3	70.0	21.1	46	nne.	13	6		0	8 ks						Physical Observatory.
Warsaw	29.57	751.0	29.98	761.6	62.1	16.7	72	wsw.	16	7		ck	10 s						Astronomical Obs'y.
Wilna	29.50	749.4	29.92	760.0	61.5	16.4	71	sw.	4	2			8						Berg, Assistant
Yeniseisk	29.39	746.6	29.69	754.0	39.0	3.9	92	ssw.	7	3			10						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.08	764.0	57.0	13.9	69	w.			1		9 k			0	0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.11	764.8	54	12.2	93	nnw.			3	10	0	n.		0.1	3.	cloudy	J. Youngclause
North Unst, Shetland Isl'ds			29.95	760.7				nw.			3		10						Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	30.06	763.5	30.16	766.1	73.4	23.	68	s.e.	0	0						0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.06	763.4	30.11	764.8	86.5	30.3	38	se.	1.8	0.8		2	0	w.		0	0	almost clear	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.24	692.0			75.2	24.0	35	n.	3.4	1.5			0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.97	710.4	30.10	764.4	82.0	27.8	44	e.	4.5	2.0		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	30.02	762.6	30.17	766.3	81.1	27.3	56	ene.	0.7	0.3		0	3			0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.19	741.4	30.07	763.7	65.5	18.6	80	sw.	4.3	1.9			10			0	0	covered	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.84	757.9	29.90	759.6	76.9	24.9	87	s.	1.3	0.6		2 c;ck	0	ne.		0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.89	759.1	29.94	760.4	82.3	27.9	83	n.	0	0			9 n		n.	0.06	1.5	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.99	761.8	30.09	764.2	82.4	28.0	50	ese.	22.7	10.2		0	2		e.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.89	759.2	29.98	761.5	80.2	26.8	86	se.	6.3	2.8		1 k	2 k	se.	se.	0	0	clear	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.81	757.1	29.94	760.5	77.4	25.2	88	nnw.	2.7	1.2			10 kn			0.02	0.5	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.80	756.8	29.84	757.8	57.6	14.2	67	ne.			2		0			0	0		
Umea	29.79	756.6	29.84	757.9	55.4	13.0	89.	ne.			2		10			0	0		
Hernosand	29.76	755.8	29.81	757.1	53.8	12.1	95	ene.			2		10			0.685	17.4		
Stockholm	29.46	748.3	29.64	752.8	56.8	13.8	87	e.			4		10			0.209	5.3	raining	
Wisby	29.49	749.0	29.55	750.5	57.6	14.2	90	sse.			2		10			0.283	7.2	raining	
Sub-Series.																			
Upsala	29.56	750.8	29.65	753.0	58.1	14.5	79	ne.	10.7	4.8			9		e.	0.004	0.1		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.79	731.3	30.18	766.5	68.7	20.4	56	sse.			1		4			0	0		The Observatory.
Zurich ‡	28.56	725.5	30.15	765.9	68.4	20.2	64	w.			1		4			0.012	0.3	lightly cl'dy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.99	761.7	77.0	25.0	62	ne.	22	10.0			4		ne.	0	0		The Observatory.
Valona			30.20	767.1	78.1	25.6		w.			1		2			0	0	slightly cl'dy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.78	756.5	82.9	28.3	79	nw.			1	0	0			0	0		Prof. C. V. A. van Dyck

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.18	766.6	30.26	768.6	59	15.0	81	ne.	2	0.9		c	sk.			0	0	dense smoke.	
Alpena, Michigan	29.49	749.0	30.16	766.1	49	9.4	86	sw.	2	0.9		8 c	sk.			0	0	fair	
Atlanta, Georgia	28.87	733.3	30.05	763.3	70.0	21.1	90	e.	10	4.5			10 s		calm	0	0	cloudy	
Atlantic City, New Jersey	30.17	766.3	30.18	766.6	63.3	17.4	90	n.	6	2.7		8 c	o		calm	0	0	fair	
Augusta, Georgia	29.90	759.4	30.09	764.3	72.5	22.6	84	ne.	7	3.1			10 s		ne.	0	0	cloudy	
Baltimore, Maryland	30.16	766.1	30.21	767.3	64	17.8	58	ne.	4	1.8		o	hz.			0	0	clear	
Barnegat, New Jersey	30.15	765.8	30.17	766.3	67.8	19.9	73	ne.	11	4.9		4 c	o		calm	0	0	fair	
Bismarck, Dakota	28.20	716.3	30.02	762.5	52.	11.1	69	nw.	16	7.2		1 cs	o		calm	0	0	clear	
Boise City, Idaho	27.50	698.5	30.34	770.6	50.0	10.0	54	nw.	2	0.9		o	o			0	0	clear	
Boston, Massachusetts	30.05	763.3	30.21	767.3	57.8	14.3	82	nw.	6	2.7		1 ck	fg			0.15	3.8	clear	
Bracketville, Texas	28.75	730.2	29.77	756.1	68	20.0	90	n.	4	1.8			10 s		nw.	0.25	6.3	cloudy	
Brownsville, Texas	29.78	756.4	29.82	757.4	72	22.2	97	ne.	4	1.8			10 s			0.22	5.6	cloudy	
Buffalo, New York	29.50	749.3	30.22	767.6	49.2	9.6	79	e.	6	2.7		o	sk.			0	0	clear	
Burlington, Vermont	29.95	760.7	30.24	768.1	58.5	14.7	89	n.	3	1.3			8 s sk		n.	0.10	2.5	light smoke.	
Cairo, Illinois	29.61	752.1	30.01	762.2	67.6	19.8	78	n.	8	3.6		2 ck	6 s	w.	calm	0	0	fair	
Campo, California																			
Camp Thomas, Arizona	27.28	692.9			64	17.8	93	calm			o	o	o			0	0	clear	
Cape Henry, Virginia	30.12	765.0	30.14	765.5	74	23.3	97	ne.	16	7.2		6 c;k	o	se.		0	0	fair	
Cape May, New Jersey	30.13	765.3	30.16	766.1	66	18.9	84	ne.	11	4.9		8 ck	o	se.		0	0	cloudy	
Castroville, Texas	29.09	738.9	29.78	756.4	66	18.9	84	n.	10	4.5			10 s		n.	0.52	13.2	cloudy	
Cedar Keys, Florida	29.94	760.5	29.96	761.0	78	25.5	88	e.	7	3.1		1 cs	3 ks		s.	0.92	23.4	fair	
Champaign, Illinois	29.22	742.2	30.00	762.0	56.7	13.7	74	se.	7	3.1		4 c	o	e.		0	0	fair	
Charleston, S. Carolina	29.97	761.2	30.03	762.7	75	23.9	90	ne.	8	3.6		o	3 s		e.	inap.	inap.	clear	
Charlotte, N. Carolina	29.21	741.9	30.09	764.3	70	21.1	94	e.	6	2.7			10 ks		calm	0	0	cloudy	
Chattanooga, Tennessee	29.22	742.2	30.05	763.3	69.0	20.6	61	e.	3	1.3		7 cs	3 ks	s.	calm	0	0	cloudy	
Cheyenne, Wyoming	24.30	617.2	30.27	768.8	47.3	8.5	54	n.	16	7.2		o	o			0	0	clear	
Chicago, Illinois	29.36	745.7	30.07	763.8	60.7	15.9	53	s.	6	2.7		o	o			0	0	clear	
Chincoteague, Virginia	30.14	765.5	30.16	766.1	69	20.6	100	ne.	6	2.7		2 c	sk.	calm	calm	0	0	fair	
Cincinnati, Ohio	29.43	747.5	30.09	764.3	62.5	16.9	56	n.	4	1.8		9 c	fg.			0	0	cloudy	
Cleveland, Ohio	29.44	747.8	30.18	766.6	51.8	11.0	73	se.	9	4.0		o	fg.			0	0	clear	
Coleman City, Texas																			
Columbus, Ohio	29.27	743.4	30.13	765.3	58	14.4	69	e.	2	0.9		5 cs	fg.	sw.		0	0	fair	
Concho, Texas	28.05	712.5	29.99	761.7	60	15.6	86	n.	14	6.3			10 s		calm	0.25	6.3	cloudy	
Corsicana, Texas	29.50	749.3	29.96	761.0	60	15.6	90	ne.	4	1.8			10 s		e.	1.79	45.5	cloudy	
Davenport, Iowa	29.35	745.5	30.01	762.2	59	15.0	70	e.	4	1.8		1 cs	sk.	calm	calm	0	0	clear	
Dayton, Washington T'y	28.54	724.9	30.34	770.6	50.0	10.0	57	se.	5	2.2		o	o			0	0	clear	
Deadwood, Dakota	25.59	650.0	30.29	769.4	47	8.3	80	n.	4	1.8		4 ck	o	n.		0	0	fair	
Decatur, Texas	28.77	730.7	29.92	760.0	58	14.4	90	ne.	8	3.6			10 s		ne.	2.31	58.7	cloudy	
Delaware Breakwater, Del.	30.12	765.0	30.14	765.5	68	20.0	93	ne.	16	7.2		5 c	hz.	w.		0	0	fair	
Denison, Texas	29.18	741.2	29.99	761.7	60	15.6	90	ne.	4	1.8			10 s		ne.	0.68	17.3	cloudy	
Denver, Colorado	25.05	636.3	30.27	768.8	55.0	12.8	45	n.	5	2.2		o	hz.		calm	0	0	clear	
Des Moines, Iowa	29.05	737.9	29.96	761.0	58	14.4	81	s.	6	2.7		o	o			0	0	clear	
Detroit, Michigan	29.46	748.3	30.18	766.6	55.1	12.8	80	ne.	6	2.7		o	o			0	0	clear	
Dodge City, Kansas	27.41	695.2	30.00	762.0	64	17.8	100	s.	12	5.4			fg.			0	0	dense fog	
Dubuque, Iowa	29.29	744.0	30.01	762.2	57.4	14.1	86	se.	1	0.4		o	hz.		calm	0	0	clear	
Duluth, Minnesota	29.07	738.4	29.78	756.4	61	16.1	87	sw.	7	3.1			10 n		sw.	0.40	10.2	thund'r st'm.	
Eagle Pass, Texas	29.15	740.4	29.98	761.5	70.2	21.2	84	nw.	12	5.4			9 s		nw.	0	0	cloudy	
Eagle Rock, Idaho	25.54	648.7	30.39	771.9	40	4.4	40	n.	8	3.6		o	o			0	0	clear	
Eastport, Maine	30.14	765.5	30.21	767.3	51	10.6	93	nw.	3	1.3			fg.			0	0	dense fog	
El Paso, Texas	25.29	667.8	30.04	763.0	67.3	19.6	90	calm	0	0		o	2 s			0.02	0.5	clear	
Erie, Pennsylvania	29.47	748.5	30.20	767.1	54	12.2	80	se.	9	4.0		hz.	hz.			0	0	dense haze.	
Escanaba, Michigan	29.35	745.5	30.01	762.2	59.5	15.3	87	s.	12	5.4		o	4 s		sw.	0	0	fair	
Florence, Arizona	28.51	724.1	30.11	764.8	70	21.1	76	w.	1	0.4		o	o			0	0	clear	
Fort Apache, Arizona	25.14	638.5	30.05	763.3	46	7.8	86	e.	4	1.8		o	c			0	0	clear	
Fort Assinnaboine, Montana	27.54	699.5	30.35	770.9	45	7.2	86	sw.	7	3.1		o	o			0	0	clear	
Fort Bennett, Dakota	28.42	721.9	29.96	761.0	61	16.1	52	nw.	14	6.3		8 cs	o	w.		0	0	cloudy	
Fort Benton, Montana	27.58	700.5	30.44	773.2	42	5.6	82	calm	0	0		o	o			0.20	5.1	clear	
Fort Buford, Dakota	28.16	715.3	30.17	766.3	50	10.0	100	nw.	20	8.9			8 ks		n.	0	0	cloudy	
Fort Custer, Montana	27.18	690.4	30.42	772.7	48	8.9	68	calm	0	0		o	o			0	0	clear	
Fort Davis, Texas	25.11	637.8	30.07	763.8	54	12.2	86	calm	0	0		o	o			0	0	clear	
Fort Elliott, Texas	27.30	693.4	30.49	774.4	55	12.8	69	se.			1		fg.			0.05	1.3	dense fog	
Fort Gibson, Indian T'y	29.44	747.8	30.00	762.0	52.2	11.2	86	calm	0	0		o	o			inap.	inap.	clear	
Fort Grant, Arizona					57	13.9	77	ne.	4	1.8		o	o			0.20	5.1	clear	
Fort Griffin, Texas	28.73	729.7	29.99	761.7	58.8	14.9	96	sw.	6	2.7			10 s		ne.	1.70	43.2	light rain	
Fort Keogh, Montana	27.79	705.9	30.33	770.4	52	11.1	55	nw.	18	8.0		o	o			0	0	clear	
Fort Macon, North Carolina	30.05	763.3	30.03	763.5	71	21.7	94	e.	12	5.4			10 ks		e.	0.18	4.6	cloudy	
Fort McKavett, Texas	27.64	702.0	29.51	749.5	60	15.6	88	nw.	9	4.0		1 k	9 ks		nw.	0.50	12.7	cloudy	
Fort Missoula, Montana	27 68	687.8	30.60	777.2	42	5.6	68	s.	3	1.3		o	o			0	0	clear	
Fort St. Michaels	29.78	756.4	29.81	757.2	41	5.0	73	sw.	4	1.8		o	5 ks		s.	0	0	fair	
Fort Shaw, Montana	25.77	679.9	30.37	771.4	38	3.3	92	w.	4	1.8		o	o			0.11	2.8	clear	
Fort Sill, Indian Territory	28.80	731.5	30.05	763 3	56.5	13.6	91	n.	5	2.2			10 s		n.	0.63	16.0	cloudy	
Fort Stevenson, Dakota	28.25	717.5	30.12	765.0	54	12.2	64	nw.	18	8.0			10 ks		nw.	0	0	cloudy	
Fort Verde, Arizona					58.2	14.6	53	nw.			1	o	o			0	0	clear	
Fredericksburg, Texas	28.17	715.5	29.70	754.4	62	16.7	90	n.	12	5.4			10 ks		n.	0.50	12.7	cloudy	
Galveston, Texas	29.75	755.6	29.79	756.7	82	27.8	75	s.	12	5.4			10 ks		s.	0	0	threatening.	
Grand Haven, Michigan	29.45	748.0	30.12	765.0	55.0	12.8	80	e.	3	1.3		o	o			0	0	clear	
Hatteras, North Carolina	30.05	763.3	30.07	763.8	75	23.9	82	n.	20	8.9			10 n		n.	0.03	0.8	light rain	
Helena, Montana	26.18	665.0	30.57	776.5	58	14.4	53	s.	2	0.9		o	o			0	0	clear	
Henrietta, Texas	29.01	735.8	29.93	760.2	60	15.6	70	n.	7	3.1			10 s		calm	0	0	cloudy	
Huron, Dakota	28.53	724.6	29.92	760.0	60	15.6	70	nw.	20	8.9		o	10 k		nw.	0	0	cloudy	
Indianapolis, Indiana	29.27	743.4	30.07	763.8	56	13.3	74	ne.	3	1.3		3 c	o		calm	0	0	fair	
Indianola, Texas	29.75	755.6	29.78	756.4	75.2	24.0	90	sw.	26	11.6			10 s;n		s.;sw	0.62	15.7	light rain	
Jacksboro, Texas	28.83	732.3	29.94	760.5	57	13.9	100	ne.	7	3.1			10 ks		e.	1.23	31.2	cloudy	
Jacksonville, Florida	29.94	760.5	29.98	761.5	75	23.9	85	ne.	5	2.2		4 cs	o	nw.		0	0	fair	
Keokuk, Iowa	29.35	745.5	30.01	762.2	59.2	15.1	75	se.	2	0.9		o	o			0	0	clear	
Key West, Florida	29.88	758.9	29.91	759.7	80.0	26.7	81	calm	0	0		o	2 k;ks		se.	0	0	clear	
Kittyhawk, North Carolina	30.10	764.5	30.12	765.0	74	23.3	71	ne.	19	8.5			10 s			0	0	clo dy	
Knoxville, Tennessee	29.04	737.6	30.08	764.0	67	19.4	59	calm	0	0			10 s		calm	0	0	cloudy	
La Crosse, Wisconsin	29.15	740.4	29.92	760.0	61.5	16.4	72	s.	16	7.2		o	3 s			0	0	fair	
La Mesilla, New Mexico	25.18	665.0	30.33	770.4	61.0	16.1	94	calm	0	0		hz.	fg.			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	29.11	739.4	30.01	762.2	60	15.6	75	s.	3	1.3		o	o			0	0	clear	
Lewiston, Idaho	29.50	749.3	30.35	770.9	51	10.6	33	e.	1	0.4		o	o			0	0	clear	
Little Rock, Arkansas	29.64	752.8	29.95	761.0	69	20.6	93	w.	2	0.9			10 s			0	0	cloudy	
Los Angeles, California	29.63	752.6	30.01	762.2	62.1	16.7	72	sw.	5	2.2		o	o			0	0	clear	
Louisville, Kentucky	29.44	747.8	30.01	762.2	63.5	17.5	93	n.	4	1.8			10 s		calm	0	0	cloudy	
Lynchburg, Virginia	29.48	748.8	30.16	766.1	72	22.2	82	calm	0	0		2 c	o	ne.		0	0	clear	
Madison, Wisconsin	29.00	736.6	30.04	763.0	56	13.3	80	s.	8	3.6		o	o			0	0	clear	
Marquette, Michigan	29.19	741.4	29.92	760.0	58	14.4	70	sw.	26	11.6		10 cs	o	sw.		0	0	cloudy	
Mason, Texas	28 32	719 3	30.05	763.3	61	16.1	90	n.	7	3.1			10 s		n.	0.48	12.2	cloudy	
Memphis, Tennessee	29.64	752.8	29.98	761.5	71	21.7	84	ne.	4	1.8			10 s		calm	0	0	cloudy	

STATIONS.	Barometer. Corrected for instrumental error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.30	744.2	30.06	763.5	57	13.9	80	se.	4	1.8		0	fg			0	0	dense fog	
Mobile, Alabama	29.81	757.2	29.88	758.9	76.0	24.4	85	ne.	3	1.3		10 cs	0			0	0	cloudy	
Montgomery, Alabama	29.72	754.9	29.95	760.7	74.2	23.4	81	e.	3	1.3		4 cs	5 ks		e.	0	0	cloudy	
Moorhead, Minnesota	28.80	731.5	29.81	757.2	57	13.9	86	nw.	18	8.0			10 s		nw.	0	0	cloudy	
Morgantown, W. Virginia	29.15	740.4	30.15	765.8	51.8	11.0	83	n.	4	1.8		2 k	fg	n.		0	0	clear	
Mt. Washington, N. H.	24.03	610.4	30.23	767.8	41.0	5.0	86	ne.	3	1.3		3 k	sk	ne.		0.06	1.5	clear	
Nashville, Tennessee	29.44	747.8	29.98	761.5	67.0	19.4	67	e.	1	0.4		10 ck	0	s.		c	0	cloudy	
New Haven, Connecticut	30.10	764.5	30.22	767.6	58	14.4	74	n.	7	3.1		0	sk.			0	0	dense smoke.	
New London, Connecticut	30.18	766.6	30.23	767.8	60	15.6	75	nw.	3	1.3		0	0			0	0	clear	
New Orleans, Louisiana	29.81	757.2	29.87	758.7	77.2	25.1	85	e.	9	4.0			10 n		e.	0.47	11.9	heavy rain	
Newport, Rhode Island	30.15	765.8	30.20	767.1	61.0	16.1	81	nw.	5	2.2		4 c	hz	calm		0	0	dense haze	
New River, N. Carolina					71	21.7	94	calm			0		9 s			0	0	cloudy	
New Shoreham, Rhode I'd.	30.17	766.3	30.20	767.1	61.5	16.4	78	n.	6	2 7		0	hz		calm	0	0	clear	
New York, New York	30.05	763.3	30.23	767.8	62	16.7	78	ne.	9	4.0		4 cs	fg			0	0	fair	
Norfolk, Virginia	30.10	764.5	30.13	765.3	71	21.7	84	e.	4	1.8		6 c	2 s	e.		0	0	fair	
North Platte, Nebraska	27.14	689.3	30.08	764.0	63.7	17.6	49	n.	24	10.7		5 cs	5 s	n.	n.	0	0	cloudy	
Olympia, Washington T'y	30.10	764.5	30.14	765.5	45.5	7.5	88	w.	1	0.4		0	0			0	0	clear	
Omaha, Nebraska	28.76	730.5	29.95	760.7	64	17.8	78	s.	10	4.5		0	5 ks		w.	0	0	fair	
Oswego, New York	29.91	759.7	30.24	768.1	55.6	13.1	82	se.	2	0.9		hz	sk			0	0	dense smoke	
Pensacola, Florida	29.86	758.4	29.89	759.2	76	24.4	85	sw.	2	0.9			10 s		s.	0	0	cloudy	
Philadelphia, Pa	30.16	766.1	30.22	767.6	61	16.1	65	e.	9	4.0		0	hz			0	0	clear	
Phœnix, Arizona	28.82	732.0	30.56	776.2	73	22.8	59	e.	1	0.4		0	0			0	0	clear	
Pike's Peak, Colorado	17.98	456.7	30.19	766.8	24	— 4.4	64	n.	26	11.6		0	0			0	0	clear	
Pioche, Nevada	24.31	617.5	30.33	770.4	64	17.8	16	nw.	10	4.5		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.38	746.2	30.20	767.1	55	12.8	69	ne.	6	2.7		0	0			0	0	clear	
Port Eads, Louisiana	29.85	758.2	29.86	758.4	80.4	26.9	81	se.	10	4.5		4 c; ck	4 k;s	e.	se.	0.06	1.5	fair	
Port Huron, Michigan	29.50	749.3	30.19	766.8	49.6	9.8	86	se.	2	0.9			fg		calm	0	0	dense fog	
Portland, Maine	30.17	766.3	30.22	767.6	57.5	14.2	80	nw.	3	1.3		0	hz			0	0	clear	
Portland, Oregon	30.04	763.0	30.11	764.8	56.2	13.4	82	n.	7	3.1		0	0			0	0	clear	
Portsmouth, N. Carolina					75	23.9	100	ne.	18	8.0			10 n		ne.	0.03	0.8	light rain	
Prescott, Arizona	24.92	633.0	30.11	764.8	52	11.1	74	s.	1	0.4		0	0			0	0	clear	
Punta Rassa, Florida	29.89	759.2	29.90	759.4	78	25.6	89	e.	4	1.8		5 c	1 k	calm	calm	inap.	inap.	fair	
Red Bluff, California	29.68	753.9	30.02	762.5	65.0	18.3	48	calm	0	0		5 ck	0	s.		0	0	fair	
Rio Grande City, Texas	29.66	753.4	29.87	758.7	75	23.9	85	sw.	3	1.3			10 s		sw.	0.22	5.6	cloudy	
Rochester, New York	29.60	751.8	30.24	768.1	48	8.9	93	sw.	6	2.7		5 k	fg	s.		0	0	fair	
Roseburg, Oregon	29.56	750.8	30.14	765.5	49	9.4	93	e.	2	0.9		0	sk			0	0	clear	
Sacramento, California	29.95	760.7	30.03	762.7	63.0	17.2	68	calm	0	0		0	0			0	0	clear	
St. Louis, Missouri	29.42	747.3	30.03	762.7	63.8	17.7	68	calm	0	0		9 c;cs	0			0	0	cloudy	
St. Paul, Minnesota	28.97	735.8	29.85	758.2	61.0	16.1	75	s.	11	4.9			10 s		sw.	0	0	cloudy	
Salt Lake City, Utah	25.83	656.1	30.16	766.1	60	15.6	23	n.	6	2.7		0	0			0	0	clear	
San Antonio, Texas	29.19	741.4	29.89	759.2	64.9	18.3	84	n.	8	3.6			10 s		n.	0.13	3.3	cloudy	
San Diego, California	29.86	758.4	29.93	760.2	65.3	18.5	78	calm	0	0		0	0			0	0	clear	
Sandusky, Ohio	29.47	748.5	30.16	766.1	58	14.4	64	se.	9	4.0		0	sk.			0	0	clear	
Sandy Hook, New Jersey	30.18	766.6	30.21	767.3	64.0	17.8	84	ne.	17	7.6		0	0			0	0	clear	
San Francisco, California	29.99	761.7	30.05	763.3	59	15.0	77	calm	0	0		0	fg		sw.	0	0	clear	
Santa Fé, New Mexico	23.40	594.3	30.20	767.1	50	10.0	56	nw.	4	1.8		0	0			0	0	clear	
Savannah, Georgia	29.93	760.2	30.02	762.5	75.5	24.2	89	ne.	4	1.8		6 cs	4 ks		ne.	0	0	cloudy	
Shreveport, Louisiana	29.68	753 9	29.91	759.7	61	16.1	93	ne.	1	0.4			10 n		calm	0.72	18.3	light rain	
Silver City, New Mexico	24.38	619.2	29.95	760.7	56	13.3	75	nw.	8	3.6		0	0			0.20	5.1	clear	
Sitka, Alaska	30.03	762.7	30.11	764.8	58.6	14.8	91	se.	5	2.2			10 n		calm	0.77	19.6	light rain	
Smithville, North Carolina	30.02	762.5	30.06	763.5	72	22.2	97	ne.	5	2.2		6 k	4 ks	calm	calm	0.69	17.5	cloudy	
Spokane Falls, Wash. Ter.	28.29	718.6	30.31	769.9	43	6.1	83	calm	0	0		0	0			0	0	clear	
Springfield, Illinois	29.35	745 5	30.04	763.0	58.5	14.7	71	se.	4	1.8		0	2 s			0	0	clear	
Springfield, Massachusetts	30.10	764.5	30.23	767.8	60.0	15.6	70	nw.	1	0.4		0	fg			0	0	clear	
Stockton, Texas	27.04	686.8	30.11	764.8	59.0	15.0	100	w.	4	1.8		0	7 s		w.	0.04	1.0	fair	
St. Vincent, Minnesota	28.92	734.6	29.81	757.2	56	13.3	86	nw.	16	7.2			10 s		calm	0	0	cloudy	
Thatcher's Island, Mass	30.17	766.3	30.22	767.6	59.0	15.0	100	ne.	9	4.0			fg			0.17	4.3	dense fog	
Toledo, Ohio	29.43	747.5	30.13	765.3	59	15.0	65	e.	5	2.2		0	0			0	0	clear	
Tucson, Arizona	27.53	699.2	29.89	759.2	70	21.1	90	calm	0	0		0	0			0	0	clear	
Umatilla, Oregon	29.92	760.0	30.33	770.4	52.0	11.1	69	s.	2	0.9		0	0			0	0	clear	
Uvalde, Texas	28.94	735.1	29.73	755.1	70	21.1	79	n.	13	5.8			10 ks		n.	0 07	1.8	cloudy	
Vicksburg, Mississippi	29.65	753.1	29.91	759.7	66	18.9	84	n.	7	3.1			10 s		calm	inap.	inap.	cloudy	
Visalia, California	29.63	752.6	29.99	761.7	61	16.1	67	se.	4	1.8		0	0			0	0	clear	
Washington, D. C.	30.08	764.0	30.19	766.8	63.0	17.2	67	n.	5	2.2		0	0			0	0	clear	
Wickenburg, Arizona					65	18.3	90	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.01	762.2	30.07	763 8	72	22.2	84	ne.	4	1.8		2 c	0	w.		0.04	1.0	fair	
Winnemucca, Nevada	25.87	657.1	30.20	767.1	57	13.9	21	ne.	12	5.4		0	0			0	0	clear	
Wood's Holl, Mass	30.15	765.8	30.19	766.8	63	17.2	90	n.	6	2.7		0	hz			0	0	clear	
Yankton, Dakota	28.56	725.4	29.87	758.7	66	18.9	45	nw.	14	6.3		8 c	2 ks			0	0	cloudy	
Yuma, Arizona	29.78	756.4	29.92	760.0	78.3	25.7	82	calm	0	0		0	0			0	0	clear	
SUB-SERIES.																			
Bridgetown, Barbados, W. I.‡	30.01	762.2	30.03	762.7	85	29.4	79	e.	2	0.9		5 ck	5 ks	e.		0	0		J. A. Racker.
Bogota, U. S. Columbia	22.05	560.1			51.2	10 7	84	calm	0	0		2 k	0	nw.		fair			Joaquin Gomez.
Guadeloupe, W. I.‡	29.92	760.0	29.92	760.0	81	27.2	83	e.				0	5 ks		ese.	0	0		B. Bigar.
Havana, Cuba, W. I.	29.89	759.2	29.94	760.5	81	27.2	79	calm	0	0		2 cs	2 ks	calm	calm	0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.91	759 7	29.92	760.0	72.8	22.7	86	calm	0	0		3 cs	3 s	e.		0.08	2.0		Robert Johnstone.
Navassa, W. I.	29.79	756.7	29.87	758.7	81	27.2	78	e.	11	4.9			10			0.12	3.0	stormy	F. M. Everett.
Paramaribo, S. A.	30.03	762 7	30.03	762.7	80	26.7	82	se.			2	3 c	0	e.		0.100	2.5	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.46	748.3	30.02	762.5	80	26.7	89	calm			0	7 ck	3 k	calm	calm	0	0		Francesco J. Cisneros.
Rivas, Nicaragua					81.5	27.5		sw.			1	9ck, cs	0			0	0		Earl Flint.
Santiago de Cuba, W. I.	29.91	759.7	29.94	760.5	78	25.6	86	calm	0	0		8 cs	ks			0.80	20.3	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.99	761.7	30.00	762.0	81	27.2	82	se.	8	3.6		5 c	3 ks	nw.	se.	0.34	8.6	fair	G. O. Gyllich.
York Factory, B. A.	30.06	763.5	30.11	764.8	35.0	1.7	95	nw.	6	2.7		2 c	1 s	nw.	nw.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H M. S. Alert.																			
Thursday Island, Torres St.	29.98	761.5	77	25.0	89	ese.			2		7							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 37° 31′, W. 0° 53′	30.16	766.1	78	25.6	77	ene.			2		7	ene.				1	ene.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.98	761.5	76	24.4		nne.			2-3		8	nne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, Aden, Arabia	29.69	754.1	87	30.6	88	sw.			2		2							d. clouds	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 18° 20′, W. 64° 56′	30.01	762.2	83	28.3	83	s.			2-3		4					1	s.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.97	761.2	71	21.7	80	var.			1		10	calm						d. clouds	Capt. F. W. Richards.
H. M S. Champion																			Capt. G. E. Hope.
H. M S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M S. Cygnet, N. 38° 14′, E. 21° 44′	29.90	759.4	82	27.8		ssw.			2		2	sse.				2	ssw.	d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 23° 58′, E. 4° 31′	30.16	766.1	62	16.7		sse.			5		10	ese.				3	sse.	d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.00	762.0	78	25.6	82	ssw.			1		6	ssw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.06	763.5	60.5	15.8	97	calm			0		10							raining	Capt. W. R. Kennedy.
H. M. S Dryad, N. 22° 24′, E. 59° 40′	29.53	750.0	87	30.6		se.			1		3	se.				2	se.	d. clouds	Comm. John Hext.
H M. S. Eclipse, N. 13° 04′, E. 80° 14′	29.72	754.9	82	27.8		sw.			1-2		5					3	sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 50° 06′, W. 9° 25′	30.00	762.0	61	16.1		ene.			4		5	e.				4	s.	misty	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Seychelles Islands, Africa	29.86	758.4	82	27.8	74	se.			3-4		5	ese.						d. clouds	Capt. R. D. King.
H M .S. Falcon, N. 36° 48′, E. 10° 19	30.02	762.5	79	26.1		ne.			2		0					2	ne.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 11° 30′, W. 82° 03′	29.94	760.5	86	30.0	83	calm			0		2							d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish, Hakodate, Yezo, Japan.	29.62	752.3	63.5	17.5	88	nnw.			3-5		10					4	nnw.	misty	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 21° 00′, W. 156° 50′	30.02	762.5	75.5	24.2	72	ene.			5		1					1	se.	blue sky	Comm. E. G. Bourke.
H. M. S. Garnet, BuenosAyres, ArgentineRep	30.17	766.3	54	12.2	68	wsw.			5		2							blue sky	Capt. L. F. Jones
H. M. S. Grifton, N. 18° 12′, W. 78° 24′	29.90	759.4	82	27.8	83	calm			0									blue sky	Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 9° 30′, E. 171° 30′	29.90	759.4	78	25.6	86	e.			3		10	e.				3	e.	raining	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 41° 47′ E. 140° 43′	29.64	752.8	67	19.4		nnw.			3-6		5	n.				2	n.	raining	Capt. R. E. Tracey.
H. M. S. Kingfisher, S. 8° 21′, W79° 01′	30.08	764.0	58	14.4		se.			2		4	nw.				2	w.	d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 17° 00′, E. 84° 00′	29.94	760.5	72	22.2		sse.			4		10	sse.				4	se.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 8° 44′, W. 27° 23′	30.09	764.3	82	27.8	70	se.			4		1					2	sse.	blue sky	Capt. S. Grove.
H. M. S. Lily,																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 00′, E. 109° 54′	29.77	756.1	85	29.4	77	wnw.			1		0							misty	Capt. A. Carpenter.
H. M. S Midge,																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch, Sfax, Tunis	30.16	766.1	82	27.8	95	sse.			2		0							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	30.10	764.5	57	13.9	97	nw.			3		6	nnw.						foggy	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 16° 58′, W. 72° 18′	30.07	763.8	60	15.6	100	e.			2		8					3	se.	misty	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready, N. 11° 19′, E. 82° 04′	29.84	757.9	83	28.3		sw.			4		4	ssw.				3	sw.	d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 1° 53′, E. 45° 34′	29.88	758.9	76.3	24.6	90	ssw.			3		2					3	sse.	d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 12° 17′, E. 44° 20′	29.63	752.6	80	26.7	78	calm			0		0					1	sse.	blue sky	Comm. W. Byles.
H. M. S. Serapis, N. 36° 45′, W. 13° 28′	30.10	764.5	70	21.1	?	ssw.			1		6	ssw.				5	wsw.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			Capt. T. L. H. Ward.
H. M. S. Tenedos, N. 48° 50′, W. 64° 29′	30.18	766.6	54	12.2	93	wnw.			1		1							blue sky	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer, N. 36° 56′, W. 1° 40′	30.19	766.8	74	23.3	90	ne.			3		9					3	ne.	d. clouds	Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	30.03	762.7	60	15.6	88	s.			2		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.92	760.0	82	27.8		nne.			1		4							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.59	751.6	81.5	27.5	95	w.			6		9	w.						showery	Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	30.01	762.2	74.8	23.8	75	nw.			3		3					1		d. clouds	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.02	762.4	82.4	28.0	85	ne.			4		5					2	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.79	756.6	84.4	29.1	78	sw.			2		1							blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.01	762.2	81	27.2	83	se.	4	1.8			8		se.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.22	767.6	59	15.0	88	calm	0	0			0			0	0			clear	
Naval Hospital, Yokohama, Japan	29.44	747.8	77	25 0	86	sw.			3		2		w.	1.43	36.3			clear	
Adams, N. 7° 38′, W. 82° 51′	29.72	754.9	81	27.2	83	sse.			1		5		calm			sm'h		fair	
Alaska, Callao, Peru	29.98	761.5	60	15.6	100	sw.			1		10			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.45	748.0	80	26.7	78	ssw.			3		5		ssw.	0	0	sm'h		fair	
Alliance, Hammerfest, Norway	29.92	760.0	45	7.2	84	w.			1		8		n.	0	0	sm'h		fair	
Ashuelot, Kobe, Japan	29.74	755.4	80	26.7	78	ene.			1		2		calm					clear	
Colorado, New York, N. Y	30.18	766.6	62	16.7	83	n.	12	5.4			0			0	0			hazy	
Constitution, N. 41° 20′, W. 71° 12′	30.15	765.8	63	17.2	100	n.	2	0.9			0							hazy	
Franklin, Norfolk, Va	30.07	763.8	71	21 7	?	ene.	1	0.4			5			0	0			fair	
Galena, Leghorn, Italy	30.17	766.3	72	22.2	71	nw.			2		2							hazy	
Independence, N. Yard, Mare I'd, Cal	29.99	761.7	61	16.1	88	wsw.	2.4	1.1			2		wsw.					fair	
Jamestown, Mare Isl'd, Cal *	29.97	761.2	63	17.2	94	ssw.			1		0			0	0			clear	
Kearsarge, Philadelphia, Pa	30.20	767.1	65	18.3	64	ne.			2		2					sm'h		hazy	
Lackawanna, Mare Isl'd, Cal †	30.24	768.1	63	17.2	94	sw.			0-1		2		sw.					fair	
Lancaster, N. 40° 28′, W. 71° 56′	30.15	765.8	66	18.9	100	wsw.	2	0.9			5		calm			sm'h	sw.	misty	
Marion, Maldonado, Uruguay *	29.82	757.4	57	13.9		w.			5		0					mod	w.	hazy	
Michigan, Erie, Pa	30.13	765.3	53	11.7	86	s.			2									hazy	
Minnesota, Newport, R. I	30.22	767.6	63	17.2	78	n.			2		2					sm'h		clear	
Monocacy, Yokohama, Japan	29.63	752.6	79	26.1	86	ssw.			3		5		sw.					fair	
Nipsic, Villafranca, France	30.20	767.1	73	22.8	72	s.			1		5		s.			sm'h		hazy	
Onward, Callao, Peru †	30.02	762.5	59	15.0	100	ssw.			2		10		nw.			long	w.	cloudy	
Palos, Hong Kong, China	29.79	756.7	86	30.0	68	w.			1		2		n;w					fair	
Passaic, Washington, D. C	30.18	766.6	62	16.7	94	e.			1		0							clear	
Pensacola, Panama, Panama	29.96	761.0	83	28.3	75	n.			1		10			mod.	mod.	sm'h		cloudy	
Portsmouth, Off Pollock Rip, Mass	30.19	766.8	55	12.8	100	ssw.			2		2					long	s.	dense fog	
Powhatan, Aspinwall, Panama	29.93	760.2	80	26.7	91	e.			1		8		e.			sm'h		cloudy	
Quinnebaug, Marseilles, France	30.19	766.8	69	20.6	85	w.			2		8					sm'h		fair	
Ranger, Mare Island, Cal *	30.01	762.2	63	17.2	83	ssw.			1		8?		se.			sm'h		clear	
Richmond, N. 14° 40′, W. 102° 00′	29.92	760.0	80	26.7	100	nnw.			1		10		nnw.	0.31	7.9	sm'h		light rain	
Shenandoah, Maldonado, Uruguay *	30.11	764.8	57	13.9	75	w.			4		2					sm'h		fair	
St. Louis, League Island, Pa	29.94	760.5	62	16.7	72	ne.	4	1.8			0			0	0			clear	
Swatara, Chefoo, China †	29.88	758.9	76	24.4	73	s.			3		0							clear	
Tennessee, New York, N. Y	30.21	767.3	68	20.0	95	n.	5	2.2			2			0	0			hazy	
Trenton, N. 30° 48′, W. 13° 30′	30.07	763.8	76	24.4	86	nnw			1-2		5			0	0			fair	
Vandalia, New York, N. Y	30.18	766.6	64	17.8	78	nne.			2		0							clear	
Wabash, Boston, Mass	30.22	767.6	57	13.9	87	nw.	4	1.8			2		nw.	0	0			clear	
Wachusetts, Sitka, Alaska	30.12	765.0	60	15.6	94	ese.			1-2		10		calm	rain	rain	sm'h		rainy	
Wyoming, Port Royal, S. C	30.34	770.6	75	23.9	90	nne.	8	3.6			5		calm	0	0			fair	
Yantic, New York, N. Y *	30.07	763.8	65	18.3	63	n.			3		0							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 55° 53′, W. 4° 18′ *†	30.16	766.1				sw.	2		8		wsw.			sm'h		cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith N. 52° 50′, W. 52° 00′	30.37	771.4	45	7.2	100	ne.	4		10		nne.	0	0	4	ne; sw.	misty	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson Off Cape Race, N. F.	30.00	762.0	57	13.9		e.	3		10		e.			cf'd.	s;e.	foggy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn.	30.18	766.6	65	18.3	94	nnw.	3		2		nnw.					fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 40° 44′, W. 48° 34′ †.	30.35	770.9	73	22.8	85	se.	3		8		s.	light	light	sm'h	sw.	cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Queenstown, Ireland *†.	30.06	763.5	65	18.3	89	calm	0		5		sw.			sm'h		fine	
S. S. Pennsylvania, Capt. G. H. Dodge, Liverpool, Eng †.	30.12	765.0	56	13.3	81	w.	4		8		nw.					cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, Capt. E. J. Moloney, N. 45° 52′, W. 20° 31′ ‡	29.93	760.2	62.8	17.1	72	se.	4—5		5							d. clouds	
S. S. Olpero, Capt. W. N. Lalley, Port of Spain, Trinidad, W. I.	30.00	762.0	82	27.8	91	ese.	1		3							d. clouds	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 36° 46′, W. 39° 40′	30.29	769.4	70.5	21.4	87	ene.	5		9							d. clouds	
Bk. Glaramara, Capt. R. Morton, N. 46° 38′, W. 136° 20′ ‡.	30.22	767.6	49.5	9.7	97	ese.	4		10							overcast	
Bg. Hermine, Capt. S. G. Jones, N. 11° 58′, W. 26° 45′	30.02	762.5	81	27.2	83	n.	4		3							d. clouds	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride, N. 80 54′, W. 55° 35′	30.05	763.3	82.1	27.8		se.	2		5							d. clouds	
S. Lochee, Capt. J. Raeburn, S. 42° 28′, W. 4° 10′ ‡.	30.22	767.6	50.2	10.1	95	n.	6		10							overcast	
Bk. Mertola, Capt. E. W. Turner																	
Naiad, Capt. J. Smith,																	
S. Pielone, Capt. C. H. Renant,																	
S. S. Rosetta, Capt. A. E. Barlow,																	
Queen of Cambria, Capt. M. Parry N. 43° 04′, W. 14° 32′	30.03	762.7	66	18.9	79	sse.	4		10							overcast	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 11° 11′, W. 26° 33′	29.99	761.7	80.2	26.8	87	n.	3–4		3					sm'h		d. clouds	
S. S. Strathleven, Capt. C. W. Pearson Shanghai, China	29.85	758.2	71.5	21.9	90	e.	2		3							d. clouds	R. Ladd, 1st Officer.
S. S. Thames, Capt. Luckhurst																	
CALIFORNIA, AND MEXICAN S. S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers La Paz, Lower California †	29.82	757.4	77	25.0	86	ssw.	2		3?		se.	0	0		nnw.	cloudy ?	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains,																	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
Braunschweig, Capt. C. Pohle N. 43° 45′, W. 46° 57′	30.20	767.1	69.5	20.8	85	ssw.	2		c					mod.		clear	
S. S. Hermann, Capt. H. Baur N. 49° 14′, W. 39° 39′	30.32	770.1	56.1	13.4		wsw.	1		10?		w.	0	0	mod.	wsw.	clear?	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jungst,																	T. Jüngst.
S. S. Leipsic, Cept. F. Pieiffer,																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 49° 31′, W. 9° 38′	30.09	764.3	63.0	17.2	89	e.	3		10		ese.	6 h'rs	6 h'rs	mod.	se.	raining	Englehart and von [Goessel
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Yokohama, Japan	29.72	754.9	78	25.6	82	ssw.	3		2		s.	0	0	sm'h		clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, San Francisco, Cal †*.	30.17	766.3	62	16.7	88	s.	4		3?		sw.					cloudy?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 43° 30′, E. 160° 00′	30.17	766.3	57	13.9	75	nw.	4		10		nnw.	0	0	mod.	ene.	fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles. N. 40° 46′, W. 124° 31′ †.	30.20	767.1	53	11.7	83	nnw.	1		10		n.			light	nnw.	cloudy	
S. S. Oregon, Capt. Pollmann,																	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, San Francisco, Cal †	30.04	763.0	57	13.9	87	calm	0									clear	J. N. Ingalls.
S. S. Dakota, Capt. ——,																	
S. S. Idaho, Capt. T. Huntington, Victoria, B. C †	30.26	768.6	50	10.0	100	nw.	1		0							clear	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 33° 43′, W. 119° 44′ †	30.02	762.5	72	22.2	80	calm	0		0					sm'h	nw.		G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal †	30.08	764.0	57	13.9	94	sw.	1		0							clear	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †	30.10	764.5	57	13.9	87	w.	3		5		sw.					fair	G. Debney.
S. S. Victoria, H. M. Hayward, New Westminster, B. C †..	30.32	770.0	50	10.0	100	calm	0		fg							foggy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J Bulley, Supt. New York.*																	
S. S. Australia, Capt. ——, S. 31° 59′, E. 177° 56′	30.26	768.6	55	12.8	68	e.	4		8		ne.			long	ne.	squally	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W †..	30.24	768.1	63	17.2	83	calm	0		0			0	0			clear	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry																	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 10° 12′, W. 86° 18′ †..	29.97	761.2	82	27.8	96	n.	2		5		n.	0	0	sm'h	w.	fine	
S. S. City of Sydney, Capt. H. C. Dearborn,																	E. L. Saik.
S. S. City of Tokio, Com. J. Maury Hong Kong, China †..	29.89	759.2	85	29.4	76	e.	1		0			0	0			clear	A. L. Ritchie, 2d Offl.
S. S. Colima, R. R. Searle, N. 33° 13′, W. 119° 47′ †.	29.97	761.2	62	16.7	100	n.	4		0			0	0	mod.	wnw.	clear	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 14° 55′, W. 94° 05′ †..	29.88	753.9	78	25.6	100	ese.	4		8		ese.	7 h'r	7 h'r	mod.	se.	fair	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 22° 44′, W. 174° 48′	30.32	770.1	72	22.2	62	ese.	4		5?		ese.			mod	se.	clear?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †..	30.31	769.9	69	20.6	80	sw.	2		4		w.	0	0			fair	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 48° 22′, W. 35° 41′ †.	30.09?	764.3?	61	16.1	100	n.	6		10		n.	0	0	cross	ne.	cloudy	A. Horsfall.
S. S. Britannic, Capt. H. Perry,																	
S. S. Celtic, Capt. B. Gleadell, Queenstown, Ireland †..	30.11	764.8	66	18.9		var.	1		5		w.	0	0	sm'h		fair	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, New York, N. Y †..	30.39	771.9	66	18.9	100	w.	2		2		nw.	shr's	shr's			showery	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 41° 58′, W. 63° 53′ †..	30.15	765.8	67	19.4	100	nnw.	3		0			0	0	mod.	n.	fair	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Off Martha's Vineyard, Mass †..	30.19	766.8	62	16.7	100	ne.	3	5 c	2s			0	0			cloudy	
Golden Fleece																	
Hassler Lt. Com. Nichols, Sitka, Alaska *†..	30.19	766.8	55	12.8		e.	2		10		sw.			mod.	sw.	overcast	
S. Iron Cross, Capt. Randall, S. 5° 02′, W. 18° 00′ *	29.90	759.4	77	25.0	100	ese.	3		2		ese.	sl't	sl't	mod.	s.	misty	W. Randall.
S. Pawahick, Capt. E. Fry,																	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †.	30.17	766.3	79	26.1	66	calm	0		5.		wsw.	0	0			fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

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Chief Signal Officer. U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 15, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES.																			
Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.11	764.9	78.8	26.0	73	nw.			2		2			0	0	fair	Raynard.
Algiers ‡			30.13	765.3	81.0	27.2	80	n.			2		5			0	0	cloudy	Nicolas.
La Calle ‡			30.11	764.9	78.4	25.8	72	ne.			3		2			0	0	fair	Fonfréde.
Tunis ‡			30.12	765.0															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.13	765.4	95.9	35.5	14	w.			2		2			0	0	fair	Dumas.
Tebessa ‡			30.13	765.3	93.6	34.2	9	n.			5		4			inap.	inap.	cloudy	Derché.
Geriville ‡					95.4	35.2	10	se.			3		0			0	0	clear	Lonchamp.
Laghount ‡			30.14	765.6	93.9	34.4	13	sw.			1		0			0	0	clear	Herbin.
Biskra ‡			30.13	765.3	105.8	41.0	15	wnw.			1		1			0	0	very fair	Malan.
AUSTRALIAN SERIES.																			
Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.94	760.5	30.03	762.7	58.2	14.6	75	nne.	6	2.7			0			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES.																			
Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.48	748.7	30.01	762.2	71.6	22.0	57	sw.			2		1			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.19	741.3	29.95	760.8	54.3	12.4	87	wsw.	9.8	4.4			10			0.283	7.2	raining	Dr. Wiersbicki.
Eperies	29.02	737.2	29.88	758.9	65.3	18.5	55	calm			0		10 ks			0	0		Julius Mikolik.
Gratz ‡	28.79	731.2	30.01	762.3	66.0	18.9	74	sw.			1		5			0	0		Andreas Rospini.
Hermannstadt	28.56	725.3	29.93	760.3	71.4	21.9	41	nw.			4		4			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.70	728.9	30.01	762.3	63.0	17.2	70	nw.			2		5			0.091	2.3		The Staff.
Lemberg	28.91	734.2	29.87	758.8	59.9	15.5	74	nw.			1		10			0.209	5.3		Dr. T. Stanecki.
Pola	29.94	760.4	30.05	763.2	71.6	22.0	75	wnw.			3		3			0	0		I. R. Hydrographic Office.
Szathmar	29.44	747.7	29.89	759.1	69.8	21.0	47	sw.			4		8			0	0		Beicht Peter, S. J.
Szegedin	29.72	754.8	29.99	761.7	70.5	21.4	47	sw.			2		3			0	0		Karl Stancel.
Trieste	29.97	761.2	30.07	763.8	68.7	20.4	66	calm			0		0			0	0	clear	Secco.
Vienna	29.31	744.4	30.01	762.2	66.2	19.0	53	w.			4		7			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES.																			
Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r.	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.05	763.3	30.15	765.8	52.4	11.3	66	nw.	9	4.0			9			0	0	overcast	W. Boswell.
Armagh, Observatory	30.00	762.0	30.23	767.8	54.3	12.4	71	nnw.	4	1.8			7					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.16	766.1	57.5	14.3	55	wnw.	12	5.4			1					blue sky	John Hartnup.
Bolton, Sharples	29.61	752.1	30.15	765.8	59.4	15.2	58	w.	4	1.8			7					d clouds	Thomas Mackereth.
Bradford, Yorkshire	29.73	755.1	30.13	765.3	58.2	14.6	66	ne.			3		6			0	0	d. clouds	[A.S. J.McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.10	764.5	60.0	15.6	73	e.			0.1		2					blue sky	John McLaren.
Chatham, School M. E.	30.01	762.2	30.14	765.5	57.0	13.9	88	calm			0		8					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.96	761.0	30.18	766.6	62.0	16.7	53	n.			1		1					d. clouds	The Staff.
Fort Napier, Natal	27.99	710.9	30.21	767.3	60.0	15.6	44	se.			1		5						Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.70	754.4	29.93	760.2	84.0	28.9	79	ne.			1		3					d. clouds	Sgt. C. E. Keane
Galway, Queen's College			30.21	767.3	57	13.9	75	s.			2		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	30.09	764.3	30.15	765.8	72.9	22.7	86	ne.			2		8					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	29.92	760.0	30.13	765.3	57.3	14.1	56	wsw.			2		5					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.95	760.7	30.12	765.0	55.2	12.9	90	ne.			1		10					overcast	The Staff.
Guernsey	29.97	761.2	30.14	765.5	63.5	17.5	80	nne.			2		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.10	764.5	30.14	765.5	60.7	15.9	57	n.	3	1.3			4					misty	The Staff.
Leicester, Museum	29.82	757.4	30.08	764.0	62.3	16.8	55	ne.			1		0					blue sky	J. C. Smith.
Malta, Mediterranean	29.91	759.7	29.98	761.5	82.2	27.9	73	nw.			1		0					blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.85	758.2	29.90	759.4	84.0	28.9	79	se.			1		8					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College																			John Mac Email.
Oxford, Radcliffe Obs'y	29.90	759.4	30.13	765.3	61.2	16.2	69	ne.			1		5					misty	The Staff.
Plymouth	30.07	763.8	30.15	765.8	63.8	17.7	55	nnw.			1		0					blue sky	John Merrifield.
Sandwick Manse, Orkneys			30.12	765.0	51	10.6	81	nw.	10	4.5			10					showery	Rev. C. Clouston, L. L. D
Scutari Cemetery, Turkey	29.75	755.6	29.81	757.2	81.2	27.3	52	ne.			2		3					d. clouds	Serg't W. H. Lyne.
Sheffield	29.90	759.4	30.18	766.6	59.0	15.0	78	sw.			1		6			0	0	d. clouds	W. F. Cooper.
Silloth Rectory	30.11	764.8	30.14	765.5	62.2	16.8	71	w.			1		3			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.17	766.3	57.0	13.9	68	w.	8	3.6			8					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss					65.0	18.3	65	nw.			1		3					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.16	766.1	30.18	766.6	66	18.9	68	n.			6		3					d. clouds	W. Newcombe.
Valencia, Observatory	30.22	767.6	30.25	768.3	58.4	14.7	72	nnw.	9	4.0			9					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.45	773.4	30.49	774.4	54	12.2	91	n.	8	3.6			10 n			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.46	773.7	30.52	775.2	58	14.4	83	n.	3	1.3		2 k	8 ks	n.	n.	0	0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.43	772.9	30.45	773.4	50	10.0	86	nw.	10	4.5		0	0			0	0	clear	J. McWilliams.
Fort Garry, Manitoba*	29.45	748.0	30.32	770.1	30	— 1.1	81	n.	2	0.9		0	0			0.020	0.5	clear	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.32	770.1	30.46	773.7	53	11.7	90	nw.	6	2.7		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.85	758.2	30.17	766.3	65	18.3	73	se.	8	3.6		5 c?	0	se.		0	0	cloudy?	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	30.09	764.3	30.29	769.4	59	15.0	81	se.	10	4.5		0	sk.			0	0	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.34	745.2	30.02	762.5	63	17.2	78	se.	28	12.5		5 k	5 ks	se.	se.	0	0	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.34	745.2	30.00	762.0	69	20.6	85	se.	20	8.9		10 ck	0	se.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.34	745.2	29.95	761.0	72	22.2	57	e.	32	14.3			10 n		se.	0	0	cloudy	M. Payne.
Quebec, Quebec*	30.05	703.3	30.31	769.9	57	13.9	80	ne.			5	0	0			0	0	clear	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.70	754.4	30.16	766.1	55	12.8	90	se.	9	4.0			fg.			0	0	foggy	W. H. McIntyre.
Saugeen, Ontario*	29.24	742.7	29.95	760.7	56	13.3	93	se.	17	7.6			10 ks			0	0	cloudy	K. Stewart.
St. Andrews, N. B.	30.39	771.9	30.44	773.2	54	12.2	95	ne.	1	0.4		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.42	772.7	30.47	773.9	55	12.8	93	ne.	8	3.6			10 n			0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.71	754.6	30.08	764.0	64	17.8	81	e.	6	2.7		5 ck	5 ks	w.	w.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.50	774.7	30.56	776.2	58	14.4	90	e.	5	2.2		0	0			0	0	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.24	768.1	30.50	774.7	47	8.3	92	ne.	3	1.3			10 s			1.05	26.7	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	30.43	772.9	30.46	773.7	61.0	16.1	85	se.	6.9	3.1		0	2 k			0.630	16.0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.46	748.3			67.1	19.5	43	s.			1	4	4			0	0	light clouds	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.89	759.3	29.92	759.9	75.4	24.1	91	e.	6.3	2.8			10 n					sprinkling	M. Marc Dechevrens, S.J

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.81	757.1	29.85	758.3	58.8	14.9	73	nw.	16	7			3						Oversergent Fischer
Fanöe	29.94	760.5	29.96	761.0	59.2	15.1	74	wnw.			4		8						Overloerer Lauridsen
Godthaab, Greenland	30.12	765.0	30.16	766.1	37.0	2.8	80	sw.			2		3						S. Kleinschmidt.
Stykkisholm, Iceland	30.00	761.9	30.04	763.0	47.3	8.5	86	calm			0		10					raining	A. O. Thorlacius.
Thorshavn	30.06	763.5	30.10	764.4	50.4	10.2	96	calm	0	0			10						Overloerer Bergh.
Vestervig	29.84	757.9	29.93	760.2	56.8	13.8	85	wnw.			4		8						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.45	747.9	30.07	763.8	80.2	26.8	56	sse.			1		0			0	0	clear	M. Labroue, Director.
Alençon Normal School	29.56	750.9	30.11	764.9	68.0	20	71	n.			2		k	w.	sw.	0	0		M. Nicot, Director.
Arras, Engineer School					55.2	12.9	92	nw.					c	k;n					M. Klein, Commandant.
Avignon, Normal School	30.04	763.1	30.12	765.1	77.7	25.4	67	nw.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.52	749.9	30.06	763.6	70.7	21.5	56	se.			1	0	5kn		w.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.84	757.8	30.10	764.4	63.9	17.7	76	ne.			1		10		wnw.	0	0	covered	M. Frère Eugène Marie.
Besançon, Normal School	29.21	741.8	30.07	763.8	69.8	21	63	sw.			1		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.87	758.7	30.12	765.1	75.0	23.9	54	sw.			1		0			0.004	0.1	clear	M. Rayet, Director.
Bourges, Normal School	29.53	750.0	30.06	763.4	77.4	25.2	46	w.			1		5		w.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.91	759.6	30.15	765.8	65.8	18.8	75	ne.			2		6		n.	0.079	2.0		M. de Kermaree, Dir.
Caen, Normal School	30.01	762.2	30.08	764.1	68.0	20	76	ne.			1		5		ne.	0	0	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					62.1	16.7	66	s.			2		0			0	0	clear	M. Jadot, Director.
Charleville, Normal School	29.57	751.0	30.08	763.9	59.7	15.4	76	n.			1		10	w.	e.	0	0	covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.72	730.2	30.05	763.2	76.5	24.7	42	w.			1		8			0	0	¾ covered	M. Allnard, Director.
Cluny, Normal School	29.28	743.8	30.12	765.0	70.9	21.6	70	sw.			1		4	sw.		0	0		M. de Villemontée, Dir.
Commercy, Normal School.	29.24	742.8	30.10	764.4	60.4	15.8	85	w.			1		5	w.	w.	0.012	0.3	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.58	700.6	30.04	762.9	72.1	22.3	45	ne.			1	0	5 s		s.	0	0	½ covered	M. Jeangirard, Director.
Grénsque, du. Rhone	29.08	738.6	30.22	767.6	82.2	27.9	34	nw.			2		1		w.	0	0	clear	M. Kina, Director.
Grenoble, Normal School	29.35	745.6	30.09	764.3	75.2	24	60	ene.			1	ck	0			0	0		M. Ablard, Director.
Guéret, Normal School	28.56	725.4	30.08	763.9	73.8	23.2	44	sw.			3	2 c	0			0	0	slightly cl'dy	M. Rivoire, Director.
Lamballe, Normal School	29.85	758.1	30.12	765.0	65.3	18.5	85	nw.			2		mist		nw.	0	0	light mist	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.07	763.7	30.17	766.3	68.0	20.0	81	w.			1		8	nw.	w.	0.012	0.3	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.08	738.6	30.10	764.6	74.8	23.8	47	sw.			1		10 n		sw.	0	0	covered	M. André, Director.
Mans, Normal School	29.78	756.4	30.04	763.0	68.0	20.0	64	e.			1		5		w.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.84	757.8	30.10	764.5	75.7	24.3	67	w.			1.2		0			0	0		M. Stephan, Director.
Montlouis l'Instituteur	25.05	636.3	30.29	769.3	65.3	18.5	49	w.	11.2	5.0			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.97	761.2	30.08	763.9	81.3	27.4	59	ssw.			2		2		ssw.	0	0	slightly cl'dy.	M. Pourle, Director.
Nancy, Normal School	29.35	745.5	30.10	764.6	61.5	16.4	85	sw.			1		8			0	0	very cloudy	M. Hasse.
Nantes, Observatory	29.99	761.8	30.15	765.9	70.5	21.4	67	w.			2-3	0	7 k;kn		wnw.	0	0		M. Larocque, Director.
Nice	30.06	763.4	30.09	764.2	71.6	22.0	74	se.			2		mist	se.	se.	0	0	misty	Capt. Boissière, Director.
Perpignan, Observatory	30.00	762.0	30.10	764.6	75.2	24.0	72	se.	5.6	2.5			0			0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.80	579.0			59.5	15.3							1		w.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					72.7	22.6	09	calm			0		0			0	0	clear	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.34	643 6			56.5	13.6	69	w.			3		8		w.	0	0	¾ covered	M. Allnard, Director
Rochefort, Naval Obs'y	30.11	764.7	30.14	765.5	74.7	23.7	87	w.			1		0			0	0	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.88	758.9	30.09	764.3	68.7	20.4	75	n.			1		2		n.	0	0	slightly cl'dy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.08	764.1	30.17	766.3	61.5	16.4	85	ne.			1		0			0	0	clear	M. Platrier, Director.
Saint Lô, Normal School	29.94	760.5	30.10	764.5	66.2	19	75	n.			4		8	n.	w.	0.016	0.4	very cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.91	759.8	30.08	764.0	68.2	20.1	65	nne.			1		10		w.	0	0		M. Renou, Director.
Toulouse, Observatory	29.44	747.8	30.17	766.3	85.5	29.7	39	ene.			1		1	w.		0	0	clear	M Bailland, Director.
Tours	29.87	758.8	30.07	763.8	73.4	23.0	59	wsw.			2		5		w.	0.008	0.2	½ covered	M. de Tastes.
Versailles, Observatory	29.60	751.8	30.09	764.3	66.2	19.0	70	ne.			1					0	0		Dr. A. Bérigny, Director.
Sun-Series.																			
Paris, Montsouris Obs'y	29.80	756.9	30.09	764.3	66.4	19.1	72	n.			1		10		w.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.23	742.4	30.10	764.4	63.1	17.3	50	wnw.			3	0	7 k		w.	0	0		Prof. Dr. Hoh.
Berlin	29.78	756.4	29.95	760.7	59.4	15.2	64	nw.			2		10			0.075	1.9		Prof. Dr. Arndt.
Breslau	29.41	747.1	29.94	760.5	57.2	14.0	69	w.			4		10			0.003	1.6		Royal University Obs'y.
Carlsruhe	29.66	753.3	30.08	764.0	63.1	17.3	82	sw.			1		9	w.		0.071	1.8		Albert Senz.
Cassel	29.33	745.0	30.05	763.3	60.8	16.0	62	nw.			2		5	nw.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.71	754.7	30.08	763.9	59.5	15.3	79	s.			1		8			0	0		Physical Society.
Friedrichshafen	28.70	729.0	30.10	764.6	66.2	19.0	73	nne.			2		10	w.		0.630	16.0		Wilhelm, Chief Tel.
Hamburg	29.93	760.1	30.02	762 5	58.3	14.6	65	nw.			4		9			0	0		E. Preller.
Kiel	29.95	760.6	29.95	761.0	58.1	14.5	70	w.			5		10			0	0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.61	752.2	30.03	762.8	60.1	15.6	61	wnw.			2		10	w.		0.087	2.2		H. Leppig, Asst.
Magdeburg	29.89	759.1	30.08	763.9	55.6	13.1	76	wnw.			3		10 ks		wnw.	0.008	0.2		Dr. Assmann.
Memel	29.64	752.8	29.69	754.0	55.6	13.1	99	se.			3		10 n					raining	Issermann.
Munich	28.28	718.3	30.15	765.8	65.8	18.8	52	w.			4		8	n.		0	0		Central Station.
Neufahrwusser	29.65	753.0	29.66	753.4	57.9	14.4	85	w.			4		10			0.102	2.6	raining	A. Lothes.
Neustadt, Palatinate	29.56	750.7	30.07	763.7	63.0	17.2	73	w.			1		7	w.		0	0		Dicknether.
Stuttgart	29.13	740.0	30.02	762 4	61.2	16.2	85	n.			1		9	w.		0.354	9.0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.60	726.3	30.08	764.0	60.8	16.0	65	nw.			2		10	w.		0.012	0.3		Fischer.
Wustrow	29.89	759.3	29.92	759.9	55.9	13.3	88	wnw.			5		10			0.146	3.7		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.48	748.8	29.85	758.2	89.6	32.0		s.			1.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.59	751.5	29.64	752.7	82.0	27.8	87	w.	24.0	10.7			10			1.05	26.7	overcast	
Deesa	29.17	740.9	29.64	752.9	80.4	26.9	85	sw.	21.9	9.8			7	sw.	sw.	0.06	1.5	d. clouds	
Bombay	29.73	755.2	29.77	756.2	82.3	27.9	81	s.	21.0	9.4			4		sse.	0.08	2.0	d. clouds	
Poona, Yarrowda.	27.92	709.2	29.77	756.2	79.5	26.4	61	wsw.	15.0	6.7			5		wsw.	0	0	d. clouds	
Belgaum	27.29	693.1	29.84	758.0	72.5	22.5	83	sw.	7.0	3.1			9	e.	sw.	0.06	1.5	showery	
Lahore	28.83	732.2	29.54	750.4	93.6	34.2	52	w.	2.0	0.9			0			0	0	blue sky	
Roorkee	28.69	728.7	29.57	751.0	88.0	31.1	69	w.	2.0	0.9			8			0.01	0.3		
Agra	29.06	738.2	29.62	752.3	86.7	30.4	67	sw.	4.1	1.8			6			0	0		
Nagpur	28.66	728.0	29.69	754.2	85.7	29.8	65	sw.	3.1	1.4			9	w.		0	0	d. clouds	
Jubbulpore	28.35	720.1	29.68	754.0	86.4	30.2	62	nw.	4.2	1.9			3			0	0	d. clouds	
Lucknow	29.25	742.9	29.62	752.2	90.1	32.3	58	wsw.	3.9	1.7			3		ssw.	0	0	blue sky	
Allahabad	29.30	744.1	29.60	751.9	88.8	31.6	68	sw.	3.5	1.6			8			0	0	d. clouds	
Patna	29.43	747.4	29.60	752.0	89.4	31.9	73	nw.	3.5	1.6			10	nw.	nw.	0	0	overcast	
Hazaribagh	27.67	702.9	29.65	753.1	83.8	28.8	72	nw.	6.7	3.0			9			0	0	thunder	
Cuttack	29.66	753.2	29.74	755.3	80.0	26.7	85	nw.	0.3	0.1			8			0.06	1.5	d. clouds	
Calcutta, Alipore	29.64	753.0	29.67	753.5	84.4	29.1	84	ssw.	9.0	4.0			9	s.		0	0	d. clouds	
Dhubri	29.51	749.6	29.63	752.7	78.5	25.8	94	calm	1.8	0.8			9			2.50	63.5	gloomy	
Chittagong	29.67	753.6	29.76	755.9	79.1	26.2	91	s.	3.3	1.5			9			0.07	1.8	d. clouds	
Sibsagar	29.32	744.8	29.66	753.3	81.2	27.3	92	sw.	3.6	1.6			10	w.	w.	4.04	102.6	overcast	
Jeypore	28.21	716.5	29.64	752.7	83.3	28.5	70	sw.	6.2	2.8			8		sw.	0.22	5.6	d. clouds	
Zanzibar, Africa			29.98	761.5	81.5	27.5	56	ene.	3	1.3			4			0	0	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.64	752.9	30.04	763.1	71.4	21.9	63	calm	0	0			1			0	0		Prof. Giovanni Clodig.
Milan	29.57	751.0	30.08	763.9	72.3	22.4	65	w.	4.3	1.9			4	sw.		0	0		Prof. Schiaparelli.
Padua	29.95	760.6	30.05	763.3	72.5	22.5	61	calm	0	0			6	nw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.15	740.5	30.04	763.1	72.0	22.2	62	ese.	1.3	0.6			5	nne.		0	0		Prof. P. F. Denza.
Genoa	29.92	760.0	30.11	764.8	70.2	21.2	68	sw.	1.8	0.8			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.17	715.5	30.05	763.2	71.2	21.8	68	sse.			2		1			0	0		Prof. D. C. Bruno.
Pesaro	30.01	762.3	30.06	763.5	70.9	21.6	65	n.					0			0	0		Prof. Luigi Guidi.
Florence	29.82	757.3	30.07	763.7	72.3	22.4	58	w.			2		0			0	0		Prof. Costantino Pitter.
Leghorn	30.02	762.4	30.10	764.5	71.4	21.9	65	wsw.	0.7	0.3			3			0	0		Prof. P. Monte.
Rome	29.88	758.8	30.04	763.1	78.1	25.6	31	w.					0			0	0		Prof. P. S. Ferrari.
Lecce	29.74	755.3	29.99	761.7	75.2	24.0	54	wnw.	23.7	10.6			3	nw.		0	0		Prof. C. de Giorgi.
Cosenza	29.16	740.6	30.02	762.4	79.9	26.6	60	sse.	2.5	1.1			0			0	0		Prof. D. Conti.
Cagliari	29.90	759.4	30.09	764.2	77.9	25.5	51	se.			2		0			0	0		Prof. A. Pacinotti.
Palermo	29.85	758.1	30.09	764.3	77.5	25.3	53	ne.	13.6	6.1			1			0	0		Prof. G. Ciacciatore.
Syracuse	29.97	761.3	30.02	762.4	77.4	25.2	75	e.	4.9	2.2			2	w.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.50	749.2	30.00	762.1	77.2	25.1	55	sw.	0	0			1			0	0		Prof. F. Brioschi.
Stelvio	22.35	567.7			43.3	6.3	66	sw.			1		10 kn	nw.		0.181	4.6	covered	Prof. P. F. Denza.
Valdobbia	22.39	568.8			49.3	9.6	45	n.			2		10 kn	wnw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.92	759.9	29.93	760.2	71.8	22.1	82	nne.	8.0	3.6		0	0			0	0	gloomy	K. Sasaki.
Kioto	29.82	757.4	29.99	761.7	67.6	19.8	90	nnw.	1.8	0.8		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.79	756.6	29.99	761.7	73.5	23.1	84	wnw.	1.0	0.4		0	0			0	0	clear	S. Takehayashi.
Niigata	29.97	761.2	30.01	762.2	69.1	20.6	88	sse.	2.1	0.9		0	0			0	0	clear	
Nobiru	29.96	761.0	29.98	761.5	65.6	18.7	87	nnw.	6.6	2.9		0	0			0	0	clear	
Supporo	29.70	754.9	29.76	755.9	57.9	14.4	83	w.	3.0	1.3		0	0			0.685	17.4		
Tokei Obs'y, Yeddo	29.93	760.2	29.99	761.7	71.5	21.9	90	sse.	2.0	0.9		0	0			0	0	clear	The Staff.
Wakayama	29.92	759.9	29.97	761.2	73.9	23.3	85	nne.				0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.94	760.5	30.13	765.4	70.3	21.3	72	se.	11.5	5.1			8		ese.	0.09	2.3	cloudy	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.63	600.3	29.85	758.3	59.0	15.0	77	ene.	1.3	0.6		1	2 k	e.	ne.	0.236	6.0	clear	Vicente Fernandez.
Leon	24.37	619.0	29.99	761.6	63.1	17.2	83	w.			1	5 c	2 k	nw.		inap.	inap.	cloudy	Prof. M. Leal.
Mazatlan	29.60	751.8	29.86	758.3	76.5	24.7	93	e.	0.9	0.4		4 cs	0	e.		0.236	6.0	½ cloudy	F. Quijano, U. E.
Mexico, Central Obs'y	23.06	585.7	30.04	763.1	56.8	13.8	85	nw.	0.4	0.2		5 c	5 ks	n.		0.098	2.5	covered	The Staff.
Morelia	24.04	610.5	30.11	764.8	56.1	13.4	77	sse.			6	2	1	s.	s.	0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.91	607.3	29.87	758.8	60.1	15.6	76	n.			3	7 c	2 ks		nw.	0	0	very cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.7	30.10	764.7	57.4	14.1	61	calm	0	0		0	9		sw.	0.778	4.5	very cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.55	572.8	30.18	766.7	48.2	9.0	61	ne.	1.7	0.8		1 c	0			0	0	clear	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.12	765.0	30.12	765.0	63.1	17.3		wnw.			3					0	0		
Groningen	30.02	762.5	30.08	763.9	58.6	14.8		nw.			2					0	0		
Helder	30.09	764.3	30.09	764.3	57.7	14.3		nnw.			2					0	0		
Hellevoetsluis	30.11	764.7	30.11	764.7	62.8	17.1	88	ssw.			1					0	0		
Utrecht	30.06	763.6	30.11	764.8	59.7	15.4	83	w.			1		10			0	0	dull	H. van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.87	758.7	29.93	760.3	54.3	12.4	85	nnw.	8.5	3.8			9			0.008	0.2		
Christiania	29.69	754.1	29.83	757.7	62.4	16.9	68	ssw.	0	0			2			0	0		
Gjæsvær	29.76	755.8	29.78	756.4	35.6	2.0		e.			6		10					snowing	
Lodingen	29.03	752.7	29.68	753.9	47.7	8.7	92	sw.			5		10			0.551	14.0	raining	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.85	758.3	30.00	762.1	65.8	18.8	77	nw.	18.6	8.3			4			0	0		Dr. J. A. Sampaio.
Campo Major	29.06	738.2	30.00	762.1	89.2	31.8	36	ese.	1.3	0.6			7			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.96	760.9	30.04	763.0	75.6	24.2	66	sw.	6.3	2.8			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.71	754.5	30.05	763.2	79.5	26.4	52	ese.	4.9	2.2			2	sw.		0	0		The Staff.
Ponta Delgada, Azores	29.83	757.6	29.90	759.5	69.1	20.6	68	n.	25.5	11.4			4	sw.		0.114	2.9		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.96	735.5	30.01	762.2	64.9	18.3	55	wsw.	9	4		0	0						Capt. Lasarew.
Archangel	29.74	755.5	29.76	756.0	51.6	10.9	79	calm	0	0			10						Capt. Sseliwerstow.
Astrakhan	30.08	764.1	30.00	762.0	75.2	24.0	40	se.	13	6		c	1 s					light clouds	Capt. Wisganow.
Barnaul ‡	29.41	746.9	29.90	759.5	47.7	8.7	76	sw.	9	4			10						Meteorological Obs'y.
Dorpat	29.55	750.5	29.78	756.4	65.1	18.4	56	se.	2	1			9 k						Observatory.
Ekaterinburg	28.94	735.0	29.87	758.6	68.4	20.2	39	w.	18	8		6 cs	0					light clouds	Meteorological Obs'y.
Kasan	29.62	752.4	29.88	759.0	70.3	21.3	42	sw.	2	1			10						Observatory.
Kertch	29.85	758.3	29.87	758.8	75.7	24.3	47	n.	2	1		2 ck	0			0	0		Lagorio & Sastyrez.
Kieff	29.22	742.1	29.84	757.8	63.0	17.2	65	ssw.	7	3		c	9 ks;n						Observatory.
Lugan	29.59	751.6	29.78	756.5	73.8	23.2	57	ssw.	13	6			9						Meteorological Obs'y.
Moscow	29.28	743.7	29.74	755.3	63.9	17.7	69	w.	4	2		0	8 ks						Meteorological Obs'y.
Nikolaiev	29.85	758.1	29.92	759.9	76.5	24.7	47	n.	4	2		ck	3 ks						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.39	746.5	29.48	748.7	56.8	13.8	93	calm			0		10 n			0.701	17.8	thnd'r str'm	Lieut. Iwanow.
Pekin, China	29.89	759.3	30.04	762.9	62.2	16.8	64	calm	0	0		0	8 n			0	0		Physical Observatory.
St. Petersburg	29.76	755.8	29.77	756.2	66.6	19.2	61	nw.	7	3		0	3 ks;n						Central Physical Obs'y.
Tashkend, Laboratory	28.38	720.9	29.90	759.4	70.7	21.5	53	calm	0	0			0						Teich, A. M.
Tiflis	28.54	724.8	29.89	759.1	77.2	25.1	35	e.	2	1		0	0						Physical Observatory.
Warsaw	29.37	746.1	29.80	756.8	55.6	13.1	88	wsw.	16	7			10 n					raining	Astronomical Obs'y.
Wilna	29.36	745.7	29.78	756.3	58.8	14.9	69	s.	4	2			6					heavy cld's	Berg, Assistant.
Yeniseisk	29.54	750.4	29.84	757.9	34.9	1.6	86	wsw.	9	4			6					snowing	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.15	765.8	58.0	14.4	64	w.			2	0	0			0	0	fine	Andrew Gibb.
Monach Lt. House, Hebrides			30.19	766.8	56	13.3	94	n.			4	5	5	n.		0	0	d. clouds	J. Youngclause
North Unst, Shetland Isl'ds			30.01	762.2				nw.			3	2	7	w.		blank	blank		Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.99	761.7	30.09	764.3	77.0	25	68	sw.	0	0						0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.09	764.3	30.15	765.7	77.4	25.2	67	nw.	4.3	1.9		0	0			0	0	clear	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.24	691.9			80.6	27.0	30	w.	3.4	1.5			0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.94	709.6	30.04	763.1	86.0	30.0	37	e.	3.6	1.6		0	7			0	0	cloudy	The Staff.
Murcia, Met. Obs'y ‡	29.99	761.7	30.13	765.3	84.4	29.1	59	ne.	2.2	1.0		4	4	ene.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.14	740.2	30.00	762.0	79.0	26.1	61	n.	0	0			2			0	0	almost clear	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.81	757.1	29.87	758.8	77.0	25.0	86	sse.	4.0	1.8		0	0			0	0	clear	Benito Vines, S. J.
Manilla, Philippine Islands	29.89	759.5	29.95	760.8	84.1	28.9	78	ssw.	15.7	7.0		0	7 km?		n.	0	0	covered?	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.93	760.2	30.02	762.6	86.7	30.4	46	ese.	20.4	9.1			10		se.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I.	29.91	759.6	30.00	761.9	79.9	26.6	88	s.	0	0		2 k	2 k			0	0		E. Caden, Chief Engn'r.
Tuguegarao, Philippine Ids	29.81	757.1	29.94	760.5	81.9	27.7	85	nnw.	2.6	1.2		0	1 s			0	0	fair	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.73	755.2	29.77	756.2	52.9	11.6	86	se.			2		10			0	0		
Umea	29.70	754.4	29.75	755.7	57.9	14.4	83	sw.			2		8			0	0		
Hernosand	29.72	755.0	29.78	756.3	60.6	15.9	82	sse.			2		5			0.004	0.1		
Stockholm	29.63	752.6	29.80	757.0	59.4	15.2	70	ne.			2		7			0.035	0.9		
Wisby	29.64	752.9	29.70	754.4	59.0	15.0	76	ene.			4		7			0.094	2.4		
Sub-Series.																			
Upsala	29.73	755.1	29.82	757.3	58.1	14.5	79	nnw.	4.9	2.2			8	ne.	ne.	0.004	0.1		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.74	729.9	30.12	765.0	70.0	21.1	59	n.			1		10			0	0	covered	The Observatory.
Zurich ‡	28.53	724.6	30.13	765.4	63.3	17.4	83	se.			1		9			0.472	12.0	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.89	759.2	75.6	24.2	59	nne.	22	10.0			5		ne.	0	0		The Observatory.
Valona			30.09	764.3	76.1	24.5		w.			1		2			0	0	slightly cld,y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.78	756.3	86.0	30.0	59	n.			1	0	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.25	768.3	30.33	770.4	60	15.6	81	se.	2	0.9		3 c	sk.			0	0	dense smoke.	
Alpena, Michigan	29.29	744.0	29.96	761.0	61	16.1	93	w.	7	3.1			10 n			0.10	2.5	light rain	
Atlanta, Georgia	28.66	728.0	29.84	757.9	70.8	21.6	90	e.	18	8.0			10 s		calm	0	0	cloudy	
Atlantic City, New Jersey	30.20	767.1	30.21	767.3	70.4	21.3	84	ne.	18	8.0		2 ck	8 k	calm	e.	0	0	cloudy	
Augusta, Georgia	29.72	734.9	29.91	759.7	71.3	21.8	84	e.	6	2.7			10 s		e.	0	0	cloudy	
Baltimore, Maryland	30.11	764.8	30.16	766.1	68	20.0	90	e.	5	2.2			10 s		e.	0	0	cloudy	
Barnegat, New Jersey	30.18	766.6	30.20	767.1	69.0	20.6	84	e.	26	11.6		2 ck	5 k	calm	e.	0	0	fair	
Bismarck, Dakota	28.46	722.9	30.29	769.4	32	0.0	81	nw.	2	0.9		0	0			inap.	inap.	clear	
Boise City, Idaho	27.34	694.4	30.08	764.0	47.0	8.3	52	ne.	1	0.4		0	0			0	0	clear	
Boston, Massachusetts	30.24	768.1	30.40	772.1	59.0	15.0	81	ne.	12	5.4		9 k	0	e.		0	0	cloudy	
Brackettville, Texas	28.90	734.0	29.94	760.5	63	17.2	90	n.	6	2.7		0	0			0	0	clear	
Brownsville, Texas	29.87	758.7	29.91	759.7	67	19.4	78	nw.	9	4.0		hz.	0			0.21	5.3	dense haze.	
Buffalo, New York	29.36	745.7	30.08	764.0	66.8	19.3	57	se.	8	3.6		4 ck	sk.	sw.		0	0	fair	
Burlington, Vermont	30.03	762.7	30.32	770.1	60.2	15.7	74	se.	3	1.3		6 cs	0	w.		0	0	fair	
Cairo, Illinois	29.36	745.7	29.76	755.9	63.1	17.3	91	n.	6	2.7			10 n		n.	0.32	8.1	light rain	
Campo, California																			
Camp Thomas, Arizona	27.30	693.4			62	16.7	78	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.06	763.5	30.08	764.0	75	23.9	90	e.	21	9.4			10 s		e.	0	0	cloudy	
Cape May, New Jersey	30.14	765.5	30.16	766.1	72	22.2	82	ne.	24	10.7			10 ks		ne.	0	0	cloudy	
Castroville, Texas	29.20	741.7	29.90	759.4	66	18.9	73	nw.	12	5.4		0	0			0	0	clear	
Cedar Keys, Florida	29.82	757.4	29.84	757.9	81	27.2	82	se.	21	9.4		0	5 ks		se.	0	0	fair	
Champaign, Illinois	28.92	734.6	29.68	753.9	63.8	17.7	93	se.	6	2.7			10 s		se.	0	0	cloudy	
Charleston, S. Carolina	29.87	758.7	29.93	760.2	73	22.8	97	e.	5	2.2			10 s		se.	0	0	threatening.	
Charlotte, N. Carolina	29.00	736.6	29.88	758.9	66	18.9	90	e.	8	3.6			10 ks		calm	0	0	threatening.	
Chattanooga, Tennessee	28.94	735.1	29.77	756.1	72.0	22.2	82	se.	13	5.8			10 n		se.	0.96	24.4	light rain	
Cheyenne, Wyoming	24.30	617.2	30.27	768.8	31.5	— 0.3	61	nw.	4	1.8		0	0			0	0	clear	
Chicago, Illinois	29.05	737.9	29.76	755.9	64.0	17.8	78	s.	8	3.6			10 s			0	0	cloudy	
Chincoteague, Virginia	30.09	764.3	30.11	764.8	72	22.2	84	e.	28	12.5		5 k	sk.	e	calm	0	0	fair	
Cincinnati, Ohio	29.18	741.2	29.84	757.9	66	18.9	87	e.	3	1.3			10 n		e.	0.43	10.9	light rain	
Cleveland, Ohio	29.24	742.7	29.98	761.5	68	20.0	49	se.	16	7.2		10 cs	sk.	sw.		0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.03	737.3	29.89	759.2	68	20.0	55	se.	11	4.9			10 s			0.01	0.3	threatening.	
Concho, Texas	28.17	715.5	30.11	764.8	58	14.4	83	n.	4	1.8		0	0			0	0	clear	
Corsicana, Texas	29.52	749.8	29.98	761.5	61	16.1	78	n.	12	5.4		0	0			0	0	clear	
Davenport, Iowa	29.11	739.4	29.77	756.1	59	15.0	87	nw.	6	2.7			10 s		nw.	0.05	1.3	cloudy	
Dayton, Washington T'y	28.38	720.8	30.19	766.8	51.0	10.6	55	n.	4	1.8		3 k	0	sw.		0	0	clear	
Deadwood, Dakota	25.66	651.8	30.36	771.1	46	7.8	58	ne.	4	1.8		0	0			0	0	clear	
Decatur, Texas	28.83	732.3	30.00	762.0	55	12.8	74	n.	8	3.6		0	0			0.01	0.3	clear	
Delaware Breakwater, Del.	30.10	764.5	30.12	765.0	71	21.7	84	e.	31	13.9			10 ks		e.	0	0	cloudy	
Denison, Texas	29.16	740.7	29.96	761.0	59	15.0	75	ne.	7	3.1		0	0			0	0	clear	
Denver, Colorado	25.04	636.0	30.26	768.6	39.0	3.9	59	s.	6	2.7		0	0			0	0	clear	
Des Moines, Iowa	29.00	736.6	29.91	759.7	51	10.6	80	w.	10	4.5			10 s		n.	0.32	8.1	cloudy	
Detroit, Michigan	29.22	742.2	29.94	760.5	65.8	18.8	84	w.	4	1.8			10 s		calm	0.06	1.5	threatening.	
Dodge City, Kansas	27.60	701.0	30.18	766.6	45	7.2	89	nw.	14	6.3		0	0			0	0	clear	
Dubuque, Iowa	29.05	737.9	29.77	756.1	57.2	14.0	86	nw.	2	0.9			10 s		calm	0.24	6.1	cloudy	
Duluth, Minnesota	29.20	741.7	29.91	759.7	44	6.7	83	nw.	20	8.9			10 n		nw.	0.74	18.8	light rain	
Eagle Pass, Texas	29.31	744.5	30.14	765.5	65.0	18.3	84	nw.	7	3.1		0	0			0	0	clear	
Eagle Rock, Idaho	25.49	647.4	30.34	770.6	35	1.7	61	nw.	9	4.0		0	0			0	0	clear	
Eastport, Maine	30.38	771.6	30.45	773.4	54	12.2	86	ne.	6	2.7		hz.	0			0	0	clear	
El Paso, Texas	26.41	670.8	30.16	766.1	55.4	13.0	80	se.	2	0.9		0	0			0	0	clear	
Erie, Pennsylvania	29.30	744.2	30.03	762.7	66	18.9	68	se.	20	8.9		8 cs	0			0	0	cloudy	
Escanaba, Michigan	29.13	739.9	29.79	756.7	62	16.7	84	se.	6	2.7		8 k	0	se.		0	0	fair	
Florence, Arizona	28.46	722.9	30.05	763.5	69.1	20.6	66	e.	4	1.8		0	0			0	0	clear	
Fort Apache, Arizona	25.16	639.1	30.06	763.5	45	7.2	80	e.	4	1.8		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.43	696.7	30.24	768.1	42	5.6	76	calm	0	0		0	0			0	0	clear	
Fort Bennett, Dakota	28.68	728.5	30.22	767.6	38	3.3	72	calm	0	0		0	0			0.04	1.0	clear	
Fort Benton, Montana	27.45	697.2	30.31	769.9	39	3.9	100	calm	0	0		0	0			0.11	2.8	clear	
Fort Buford, Dakota	28.32	719.3	30.33	770.4	41	5.0	69	se.	2	0.9		2 ck	0	n.		0	0	clear	
Fort Custer, Montana	27.13	689.1	30.37	771.4	40	4.4	67	se.	6	2.7		0	0			0	0	clear	
Fort Davis, Texas	25.11	637.8	30.07	703.8	55	12.8	83	n.	9	4.0			10 s		n.	0	0	cloudy	
Fort Elliott, Texas	27.41	695.2	30.60	777.2	48	8.9	66	n.	16	7.2		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.39	746.5	29.94	760.5	55.0	12.8	86	n.	8	3.6		0	0			0	0	clear	
Fort Grant, Arizona					61	16.1	65	ne.	6	2.7		0	0			0	0	clear	
Fort Griffin, Texas	28.80	731.5	30.06	763.5	58.5	14.7	83	sw.	6	2.7		0	0			0.03	0.8	clear	
Fort Keogh, Montana	27.80	705.1	30.34	770.0	38	3.3	72	calm	0	0		0	0			0	0	clear	
Fort Macon, North Carolina	30.00	762.0	30.01	762.2	75	23.9	97	se.	18	8.0			10 n		se.	3.99	101.3	light rain	
Fort McKavett, Texas	27.86	707.6	29.77	756.1	58.8	14.9	78	nw.	5	2.2		0	0			0	0	clear	
Fort Missoula, Montana	26.98	685.3	30.50	774.7	39	3.9	82	calm	0	0		0	0			0	0	clear	
Fort St. Michaels	30.01	762.2	30.04	763.0	36.5	2.5	85	sw.	3	1.3		0	5 s			0	0	fair	
Fort Shaw, Montana	26.65	675.9	30.25	768.3	39	3.9	92	w.	3	1.3		0	0			0	0	clear	
Fort Sill, Indian Territory	28.84	732.5	30.09	764.3	56	13.3	74	nw.	11	4.9		0	0			0	0	clear	
Fort Stevenson, Dakota	28.44	722.4	30.31	769.9	29	— 1.7	88	nw.	1	0.4		0	0			0	0	clear	
Fort Verde, Arizona					54	12.2	61	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.28	718.3	29.82	757.4	61	16.1	78	n.	10	4.5		0	0			0	0	clear	
Galveston, Texas	29.79	756.7	29.83	757.7	67	19.4	89	n.	11	4.9		0	2 ks		n.	2.18	55.4	clear	
Grand Haven, Michigan	29.15	740.4	29.82	757.4	65.0	18.3	73	e.	5	2.2			10 s		s.	0	0	cloudy	
Hatteras, North Carolina	30.02	762.5	30.04	763.0	76	24.4	90	s.	10	4.5			10 n			1.43	36.3	light rain	
Helena, Montana	25.05	661.7	30.44	773.2	57	13.9	57	calm	0	0		0	0			0	0	clear	
Henrietta, Texas	29.08	738.6	30.00	762.0	58	14.4	70	n.	12	5.4		0	0			0	0	clear	
Huron, Dakota	28.80	731.5	30.19	766.8	34	1.1	89	nw.	12	5.4		0	0			0.22	5.6	clear	
Indianapolis, Indiana	28.98	736.1	29.78	756.4	63	17.2	90	e.	4	1.8			10 n		e.	0.28	7.1	light rain	
Indianola, Texas	29.87	758.7	29.90	759.4	68.1	20.1	84	nw.	24	10.7		0	1 s		calm	1.40	35.6	clear	
Jacksboro, Texas	28.88	733.5	29.98	761.5	59	15.0	75	nw.	7	3.1		0	0			0	0	clear	
Jacksonville, Florida	29.83	757.7	29.87	758.7	78	25.6	88	se.	10	4.5		4 cs	0	sw.		0.14	3.6	fair	
Keokuk, Iowa	29.15	740.4	29.81	757.2	58.6	14.8	87	nw.	8	3.6			10 s		nw.	0.02	0.5	cloudy	
Key West, Florida	29.84	757.9	29.87	758.7	81.6	27.6	76	se.	4	1.8		0	4 k		se.	0.01	0.3	fair	
Kittyhawk, North Carolina	30.04	763.0	30.06	763.5	75	23.9	97	e.	14	6.3			10 s			0.30	7.6	cloudy	
Knoxville, Tennessee	28.82	732.0	29.86	758.4	67.8	19.9	78	e.	4	1.8			10 s		s.	inap.	inap.	cloudy	
La Crosse, Wisconsin	29.02	737.1	29.79	756.7	51	10.6	80	nw.	16	7.2			10 s		nw.	1.05	26.7	cloudy	
La Mesilla, New Mexico	26.26	667.0	30.41	772.4	57.5	14.2	81	se.	3	1.3		0	0			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	29.07	738.4	29.97	761.2	52	11.1	86	nw.	9	4.0		1 k	0	nw.		0.13	3.3	clear	
Lewiston, Idaho	29.35	745.5	30.20	767.1	51	10.6	66	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.45	748.0	29.77	756.1	64	17.8	78	nw.	8	3.6		0	8 ks		ne.	0	0	cloudy	
Los Angeles, California	29.60	751.8	29.98	761.5	60.0	15.6	70	s.	2	0.9		0	0			0	0	clear	
Louisville, Kentucky	29.14	740.1	29.71	754.6	63.0	17.2	93	e.	8	3.6			10 n		calm	1.23	31.2	heavy rain.	
Lynchburg, Virginia	29.34	745.2	30.03	762.7	68.5	20.3	80	ne.	2	0.9			10 n			inap.	inap.	light rain	
Madison, Wisconsin	28.73	729.7	29.76	755.9	59	15.0	93	nw.	8	3.6			10 s		calm	0.10	2.5	cloudy	
Marquette, Michigan	29.06	738.1	29.79	756.7	59	15.0	75	se.	5	2.2		5 ck	0	se.		0	0	fair	
Mason, Texas	28.42	721.9	30.16	766.1	61.3	16.3	78	n.	10	4.5		0	0			0	0	clear	
Memphis, Tennessee	29.39	746.5	29.73	755.1	63	17.2	93	nw.	12	5.4			10 n		calm	2.64	67.1	light rain	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	28.98	736.1	29.74	755.4	61	16.1	84	s.	4	1.8			10 s			0	0	cloudy	
Mobile, Alabama	29.56	750.8	29.63	752.6	77.0	25.0	85	s.	11	4.9			10 ks		s.	3.73	94.7	cloudy	
Montgomery, Alabama	29.49	749.0	29.72	754.9	73	22.8	94	se.	5	2.2			10 n			2.05	52.1	light rain	
Moorhead, Minnesota	29.17	740.9	30.18	766.6	32.1	0.1	88	n.	10	4.5		0	0			0	0	clear	
Morgantown, W. Virginia	29.02	737.1	29.98	761.5	66.0	18.9	63	se.	10	4.5		6 cs	1 s	sw.	se.	0	0	cloudy	
Mt. Washington, N. H.	24.16	613.7	30.36	771.1	41.2	5.1	96	s.	30	13.4			fg		s.	0.03	0.8	dense fog	
Nashville, Tennessee	29.13	739.9	29.67	753.6	67.0	19.4	95	se.	6	2.7			10 n		se.	1.56	39.6	light rain	
New Haven, Connecticut	30.21	767.3	30.33	770.4	57	13.9	86	ne.	12	5.4		0	fg			0	0	dense fog	
New London, Connecticut	30.32	770.1	30.37	771.4	62	16.7	73	ne.	7	3.1		0	0			0	0	clear	
New Orleans, Louisiana	29.56	750.8	29.62	752.3	76.8	24.9	71	w.	10	4.5			10 s		w.	1.98	50.3	cloudy	
Newport, Rhode Island	30.32	770.1	30.37	771.4	59.0	15.0	87	ne.	6	2.7		2 c	hz	calm		0	0	dense haze.	
New River, N. Carolina					76	24.4	85	s.			2		10 s		s.	2.17	55.1	threatening.	
New Shoreham, Rhode I'd.	30.31	769.9	30.34	770.6	60.0	15.6	87	ne.	23	10.3		0	4 s		ne.	0	0	fair	
New York, New York	30.11	764.8	30.29	769.4	61	16.1	87	ne.	20	8.9		4 cs	fg	w.		0	0	fair	
Norfolk, Virginia	30.03	762.7	30.06	763.5	72.5	22.5	90	se.	6	2.7		1 ck	8 ks		se.	0.09	2.3	cloudy	
North Platte, Nebraska	27.32	693.9	30.26	768.6	40.4	4.7	82	nw.	15	6.7		0	0			0	0	clear	
Olympia, Washington T'y	30.20	767.1	30.24	768.1	54.0	12.2	93	sw.	1	0.4			10 s		s.	0	0	cloudy	
Omaha, Nebraska	28.87	733.3	30.06	763.5	44	6.7	76	nw.	15	6.7		0	2 s		n.	inap.	inap.	clear	
Oswego, New York	29.87	758.7	30.20	767.1	60.5	15.8	76	se.	12	5.4		4 c	hz			0	0	fair	
Pensacola, Florida	29.66	753.4	29.69	754.1	75	23.9	97	s.	17	7.6			10 n		calm	4.97	126.2	light rain	
Philadelphia, Pa.	30.17	766.3	30.23	767.8	64.5	18.1	93	e.	12	5.4			10 s		n.	0	0	cloudy	
Phœnix, Arizona	28.80	731.5	30.56	776.2	68	20.0	61	e.	2	0.9		0	0			0	0	clear	
Pike's Peak, Colorado	17.93	455.4	30.14	765.5	20	— 6.7	70	n.	32	14.3		0	0			0	0	clear	
Pioche, Nevada	24 29	617.0	30.31	769.9	56	13.3	26	nw.	5	2.2		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.25	742.9	30.07	763.8	65	18.3	58	se.	4	1.8		4 c	0	sw.		0	0	fair	
Port Eads, Louisiana	29.66	753.4	29.67	753.6	78.1	25.6	86	s.	25	11.2		0	9 s		s.	0.27	6.9	threatening.	
Port Huron, Michigan	29.24	742.7	29.94	760.5	67.8	19.9	71	se.	9	4.0			10 s		calm	0.04	1.0	cloudy	
Portland, Maine	30.38	771.6	30.43	772.9	56	13.3	86	se.	4	1.8			10 s; fg		calm	0	0	cloudy	
Portland, Oregon	30.17	766.3	30.24	768.1	55.8	13.2	81	w.	1	0.4		0	0			0	0	clear	
Portsmouth, N. Carolina					73	22.8	100	e.	22	9.8			10 n		se.	1.37	34.8	heavy rain	
Prescott, Arizona	24.89	632.2	30.08	764.0	49	9.4	61	s.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	29.83	757.7	29.84	757.9	80	26.7	82	se.	17	7.6		1 c	3 ks	calm	se.	0	0	fair	
Red Bluff, California	29.63	752.6	29.97	761.2	72.0	22.2	42	n.	1	0.4		0	0			0	0	clear	
Rio Grande City, Texas	29.86	758.4	30.06	763.5	67	19.4	84	n.	7	3.1		0	0			0	0	clear	
Rochester, New York	29.50	749.3	30.14	765.5	63	17.2	78	se.	11	4.9		3 cs	6 s	n.	calm	0	0	cloudy	
Roseburg, Oregon	29.67	753.6	30.25	768.3	48.7	9.3	87	calm	0	0		0	0			0	0	clear	
Sacramento, California	29.91	759.7	29.99	761.7	66.4	19.1	68	calm	0	0		0	0			0	0	clear	
St. Louis, Missouri	29.18	741.2	29.79	756.7	59.2	15.1	87	nw.	14	6.3			10 s		n.	inap.	inap.	cloudy	
St. Paul, Minnesota	29.03	737.3	29.91	759.7	45.7	7.6	81	nw.	14	6.3			10 s			0.07	1.8	cloudy	
Salt Lake City, Utah	25.83	656.1	30.16	766.1	55	12.8	31	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.29	744.0	29.99	761.7	66.7	19.3	70	n.	16	7.2		0	0			0	0	clear	
San Diego, California	29.80	756.9	29.87	758.7	65.0	18.3	78	ne.	2	0.9		0	0			0	0	clear	
Sandusky, Ohio	29.23	742 4	29.92	760.0	68.4	20.2	61	se.	11	4.9			10 s		sw.	0.03	0.8	threatening.	
Sandy Hook, New Jersey	30.24	768.1	30.27	768.8	66.0	18.9	90	se.	23	10.3		5 k	0	se.		0	0	fair	
San Francisco, California	29.97	761.2	30.03	762.7	63	17.2	75	sw.	2	0.9		0	0			0	0	clear	
Santa Fé, New Mexico	23.47	595.1	30.27	768.8	47	8.3	65	calm	0	0		0	0			0	0	clear	
Savannah, Georgia	29.80	756.9	29.89	759.2	76.5	24.7	89	s.	3	1.3			10 ks		s.	0.13	3.3	cloudy	
Shreveport, Louisiana	29.54	750.3	29.77	756.1	59	15.0	100	w.	6	2.7		0	0			3.46	87.9	clear	
Silver City, New Mexico	24.42	620.3	29.99	761.7	52	11.1	73	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.76	755.9	29.83	757.7	55.1	12.8	93	nw.	3	1.3		fg	fg	calm	calm	0.35	8.9	dense fog	
Smithville, North Carolina	29.92	760.0	29.96	761.0	76	24.4	85	s.	18	8.0		2 c	4 ks	calm	calm	0.09	2.3	fair	
Spokane Falls, Wash. Ter.	28.15	715.0	30.17	766.3	45	7.2	76	e.	1	0.4		0	0			0	0	clear	
Springfield, Illinois	29.09	738.9	29.78	756.4	61.0	16.1	87	nw.	8	3.6			10 s		nw.	0.01	0.3	cloudy	
Springfield, Massachusetts	30.24	768.1	30.37	771.4	60.2	15.7	81	ne.	4	1.8		0	9 s; fg		e.	0	0	cloudy	
Stockton, Texas	27.17	690.1	30.24	768.1	59.0	15.0	87	calm	0	0		0	0			0	0	clear	
St. Vincent, Minnesota	29.40	746.7	30.28	769.1	25	— 3.9	100	nw.	4	1.8		0	0			0	0	clear	
Thatcher's Island, Mass.	30.36	771.1	30.41	772.4	59.5	15.3	93	e.	12	5.4			10 s		e.	0	0	cloudy	
Toledo, Ohio	29.20	741.7	29.90	759.4	66	18.9	84	se.	5	2.2			10 s		s.	0.08	2.0	threatening.	
Tucson, Arizona	27.50	698.5	29.86	758.4	66	18.9	76	sw.	3	1.3		0	0			0	0	clear	
Umatilla, Oregon	29.78	756.4	30.18	766.6	55.0	12.8	51	se.	4	1.8		0	9 s		w.	0	0	cloudy	
Uvalde, Texas	29.07	738.4	29.87	758.7	63	17.2	84	nw.	6	2.7		0	0			0	0	clear	
Vicksburg, Mississippi	29.39	746.5	29.65	753.1	64	17.8	100	n.	14	6.3			10 n		n.	3.85	97.8	light rain	
Visalia, California	29.58	751.3	29.94	760.5	65	18.3	69	se.	3	1.3		0	0			0	0	clear	
Washington, D. C.	30.01	762.2	30.12	765.0	69.1	20.6	90	ne.	6	2.7			10 ks		se.	0	0	cloudy	
Wickenburg, Arizona					60	15.6	67	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	29.90	759.4	29.96	761.0	76	24.4	88	s.	8	3.6		8 k	0	s.		0.47	11.9	fair	
Winnemucca, Nevada	25.79	655.0	30.12	765.0	56	13.3	20	ne.	8	3.6		0	0			0	0	clear	
Wood's Holl, Mass.	30.31	769.9	30.35	770.9	58	14.4	93	e.	12	5.4		2 k	0	e.		0	0	clear	
Yankton, Dakota	28.86	733.0	30.17	766.3	38	3.3	82	nw.	13	5.8		0	0			0.05	1.3	clear	
Yuma, Arizona	29.68	753.9	29.82	757.4	75.9	24.4	64	se.	1	0.4		0	0			0	0	clear	
Sub-series.																			
Bridgetown, Barbados, W. I.‡	29.98	761.5	30.00	762.0	84	28.9	83	e.	2	0.9		2 k	5 ks	e.		0	0	fair	J. A. Racker.
Bogota, U. S. Columbia	22.13	562.1			52.0	11.1	79	ne.	1	0.4		8 k	2 n; s	w.		0.05	1.3	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.92	760.0	29.92	760.0	80	26.7	90	e.				10 k	0			0.3	8.	hazy	B. Bigar.
Havana, Cuba, W. I.	29.87	758.7	29.92	760.0	80	26.7	82	calm	0	0		0	0			0	0	clear	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.95	760.7	29.96	761.0	82.7	28.2	72	se.	4	1.8		9 cs	1 ks			0.02	0.5	cloudy	Robert Johnstone.
Navassa, W. I.	29.86	758.4	29.94	760.5	83	28.3	75	e.	9	4.0		8 k; cs	2 kn	e.	se.	0.31	7.9	fair	F. M. Everett.
Paramaribo, S. A.	30.01	762.2	30.01	762.2	80	26.7	78	e.			2	0	4 k		e.	0.110	2.8	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.45	748.0	30.00	762.0	83	28.3	85	s.				5 ck	2 s	calm	s.	0.07	1.8	fair	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24		nw			1	7 ck	0	nw.		0	0		Earl Flint.
Santiago de Cuba, W. I.	29.94	760.5	29.97	761.2	77	25.0	90	nw.	1.2	0.5		4 ck	8 ks		se.	0.80	20.3	cloudy	Robert Mason.
St. Thomas, W. I.‡	30.03	762.7	30.04	763.0	81	27.2	79	e.	6	2.7		1 c	1 ks	ne.	e.	0	0	clear	G. O. Gyllich.
York Factory, B. A.	30.07	763.8	30.12	765.0	34.0	1.1	95	n.	10	4.5		0	0			0	0	clear	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatros																			
H. M. S. Alert, Thursday Island, Torres St.	29.99	761.7	77	25.0	88	e.			2		7							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Cartagena, Murcia, Spain.	30.17	766.3	77.8	25.4	78	ese.			1		5	nnw.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.89	759.2	80	26.7		ne.			2		6	ne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, Aden	29.69	754.1	86	30.0	79	s.			3		2							d. clouds	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche, N. 18° 20′, W. 64° 56′	30.01	762.2	83	28.3	83	e.			2		4							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.97	761.2	72	22.2	75	calm			0		10	calm						d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A. T. Bruce.
H. M. S. Crocodile																			Capt. F. A. Wetherall.
H. M. S. Cruiser																			
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.84	757.9	82	27.8		s.			1		1	sse.				1	ssw.	blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido, S. 23° 00′, E. 2° 56′	30.12	765.0	62	16.7		ene.			1		10	nne.				3	sse.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.02	762.5	79.5	26.4	80	n.			1–2		4	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.37	771.4	51.5	10.8	96	n.			2–4		5	n.						squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 22° 24′, E. 59° 40′	29.55	750.6	88	31.1		se.			1		3	se.				2	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 13° 04′, E. 80° 14′	29.76	755.9	88.5	31.4		calm			0		4					2	sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria, N. 50° 07′, W. 6° 14′						nne.			3		2	nne.				2	sw.	misty	Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Seychelles Islands	29.90	759.4	82	27.8	74	se.			3–4		7	se.						d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19′	30.03	762.7	78	25.6		nne.			2		2					2	nne.	d. clouds	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 10° 57′, W. 83° 43′	29.93	760.2	80	26.7	91	sw.			1									overcast	Comm. R. N. Custance.
H. M. S. Flying Fish, Matsumæ, Yezo, Japan.	29.94	760.5	69	20.6	84	w.			4–6		8					4	w.	misty	Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 20° 03′, W. 155° 45′	30.01	762.2	75	23.9	68	calm			0		1							blue sky	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argt. Rep.	30.10	764.5	61	16.1	77	nnw.			4		2							blue sky	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 28′, W. 78° 14′	29.93	760.2	83	28.3	79	e.			1									blue sky	Comm. J. Ingles.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 8° 30′, E. 170° 40′	29.90	759.4	82	27.8	67	e.			1–2		3	e.				3	e.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 41° 19′, E. 141° 36′	29.87	758.7	72	22.2		wsw.			2–4		4	sw.				5	s.	d. clouds	Capt. R. E. Tracey.
H. M. S. Kestrel																			
H. M. S. Kingfisher, S. 8° 14′, W. 78° 57′	30.00	762.0	60	15.6		calm			0		3	n.				3	w.	d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 18° 00, E. 80° 20′	29.93	760.2	71	21.7		se.			5		10	se.				4	se.	showery	Comm. F. H. Haygorth.
H. M. S. Lark, S. 11° 08′, W. 28° 52′	30.11	764.8	80	26.7	74	se.			4		3					1	sse.	d. clouds	Capt. S. Grove.
H. M. S. Magpie, N. 20° 00′, E. 109° 54′	29.78	756.4	85.5	29.7	72	nnw.			1		3							misty	Capt. A. Carpenter.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.18	766.6	83	28.3	87	ene			2		3	e.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	30.37	771.4	55	12.8	87	nnw.			2		5	nnw.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican, S. 17° 01′, W. 72° 25′	30.01	762.2	58.5	14.7	97	se.			1		10					4	s.	overcast	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready, N. 8° 57′, E. 81° 26′	29.85	758.2	83	28.3		s.			2		4	s.						showery	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 3° 53′, E. 48° 18′	29.85	758.2	78.3	25.7	82	sw.			3-4		2					3	sw.	d. clouds	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 12° 13′, E. 44° 09′	29.63	752.6	80	26.7	74	sse.			2-4		0							blue sky	Comm. W. Byles.
H. M. S. Serapis, N. 33° 10′, W. 15° 55′	30.04	763.0	76	24.4	90	wnw.			3		5	wnw.				3	wsw.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon,																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 47° 50′, W. 60° 32′	30.17	766.3	66	18.9	84	ese.			1		5	one.				2	ese.	misty	Capt. T. H. Royse.
H. M. S. Tenedos, N. 48° 50′, W. 64° 29′	30.51	774.9	54	12.2	93	nne.			1		1							blue sky	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	29.97	761.2	59	15.0	94	s.			1-2		10	calm						drizzling	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.97	761.2	82	27.8		e.			2		5							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.65	753.1	80.5	26.9	91	w.			2		9	w.						heavy rain	Capt. T. P. Nesham.
H. M. S. Wrangler																			

GERMAN NAVAL SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

PORTUGUESE NAVAL SERIES.

Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.

Bengo																			Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Id's	29.93	760.2	79.3	26.3	88	ne.			3		5	se.				2	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.84	757.9	84.7	29.3	85	ssw.			2		1							blue sky	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.

H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M Frigate Vanadis																			Com. Th. Ulner.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	29.77	756.1	79	26.1	82	s.	18	8.0			10		se.	1.83	46.5			cloudy	
N. Yard, Portsmouth, N. H.	29.96	761.0	59	15.0	82	n.	5	2.2		10 c	0	ne.		0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.79	756.7	74.5	23.6	88	calm			0		0			0	0			clear.	
[illegible]ms, N. 7° 25′, W. 79° 59′	29.68	753.9	80	26.7	91	n.			2		5		w.			sm'h		fair	
Alaska, Callao, Peru	29.93	760.2	59	15.0	100	s.			1		10			0	0	sm'h		cloudy	
Alert, Yokohama, Japan *	29.79	756.7	77	25.0	86	calm			0		2		calm	0	0	sm'h		hazy	
Alliance, Hammerfest, Norway	29.72	754.9	44	6.7	84	e.			2		10			light	light	sm'h		cloudy	
Ashnelot, Kobe, Japan	29.97	761.2	79	26.1	74	wnw.			1		2		calm					clear	
Colorado, New York, N. Y.	30.24	768.1	62	16.7	88	ne.	2	0.9			5			0	0				
Constitution, Clarks Point, Mass	30.28	769.1	63	17.2	89	ene.	10	4.5			2								
Franklin, Norfolk, Va	30.02	762.5	73	22.8	100	e.	8.4	3.8			10		e.	1.34	34.0			cloudy	
Galena, Leghorn, Italy	30.10	764.5	72	22.2	80	nw.			1		0							hazy	
Independence, N. Yard, Mare I'd, Cal	29.78	756.4	67	19.4	69	calm	0	0			0							clear	
Jamestown, Mare Isl'd, Cal *	29.95	760.7	70	21.1	95	sw.			1		0			0	0			clear	
Kearsarge, Philadelphia, Pa	30.22	767.6	68	20.0	90	ene.			3		10					sm'h		hazy	
Lackawanna, Mare Isl'd, Cal †	30.21	767.3	70	21.1	90	sw.			0-1		0							clear	
Lancaster, N. 40° 27′, W. 73° 39′	30.20	767.1	68	20.0	84	ene.	12	5.4		2 cs	0			0	0	mod.	ene.	d. clouds	
Marion, Maldonado, Uruguay *	29.88	758.9	60	15.6		nw.			4		5					sm'h		fair	
Michigan, Erie, Pa	29.98	761.5	66	18.9	68	s.			6		8		s.					fair	
Minnesota, Newport, R. I.	30.37	771.4	59	15.0	94	ne.			3		5		ne.			sm'h		fair	
Monocacy, Yokohama, Japan	29.99	761.7	80	26.7	82	calm			0		2		calm					clear	
Nipsic, Villafranca, France	30.09	764.3	74	23.3	72	ese.			2		8					sm'h		hazy	
Onward, Callao, Peru †	29.99	761.7	59	15.0	100	s.			2		10					long	w.	misty	
Palos, Hong Kong, China	29.83	757.7	84	28.9	71	w.			1		8		calm					fair	
Passaic, Washington, D. C.	30.16	766.1	69	20.6	95	e.			1		5		e.					fair	
Pensacola, Panama, Panama	29.91	759.7	78	25.6	91	ene.			1		5			0	0	sm'h		fair	
Portsmouth, Vineyard Haven, Mass.	30.35	770.9	62	16.7	88	ene.			3		2		e.					clear	
Powhatan, Aspinwall, Panama	29.91	759.7	78	25.6	91	sse.			2		2		e.			sm'h		clear	
Quinnebaug, Marseilles, France	30.11	764.8	70	21.1	85	var.			1		2					sm'h		clear	
Ranger, Mare Island, Cal. *	29.96	761.0	70	21.1	66	calm			0		0					sm'h		clear	
Richmond, N. 14° 17′, W. 101° 42′	29.85	758.2	83	28.3	96	wsw.			2		10		wsw.	0.01	0.3	sm'h		drizzling	
Shenandoah, Maldonado, Uruguay *	30.16	766.1	59	15.0	65	nw.			3		5					sm'h		fair	
St. Louis, League Island, Pa	29.94	760.5	64	17.8	94	ne.	8	3.6			8		ne.	0	0			cloudy	
Swatara, Chefoo, China †	29.99	761.7	74	23.3	81	sse.			2		10		s.					cloudy	
Tennessee, New York, N. Y.	30.29	769.4	67	19.4	95	e.	15	6.7			2			0	0			fair	
Trenton, Funchal, Maderia *	29.98	761.5	76	24.4	82	wnw.			3		10			1 h'r	mod.			cloudy	
Vandalia, New York, N. Y.	30.26	768.6	65	18.3	73	e.			3		5		calm					fair	
Wabash, Boston, Mass.	30.37	771.4	64	17.8	78	ne.	7	3.1			8		e.	0	0			cloudy	
Wachusetts, Sitka, Alaska	29.84	757.9	58	14.4	94	calm			0		10		calm	0	0	sm'h		foggy	
Wyoming, Port Royal, S. C.	30.22	767.6	75	23.9	90	nne.	2	0.9			10		nne.	0.02	0.5			cloudy	
Yantic, New York, N. Y. *	30.22	767.6	65	18.3	84	e.			2-4		2							hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland †*	30.22	767.8	.....	.....	.....	wsw.	2	.....	5	.....	sw.	.....	.....	sm'h	.....	fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith. N. 53° 30′ W. 44° 00′	30.60	777.2	48	8.9	70	ne.	4	.....	6	.....	nnw.	0	0	4	n.	d. clouds	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 48° 26′, W. 48° 41′	30.29	769.4	49	9.4	.....	n.	4	.....	10	.....	nne.	.....	.....	cfd	s; ne	cloudy	
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn.	30.20	767.1	67	19.4	89	e.	4	.....	2?	.....	e.	.....	.....	.....	.....	overcast?	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 40° 21′, W. 54° 56′ †	30.40	772.1	76	24.4	86	w.	2	.....	2?	.....	w.	0	0	sm'h	w.	cloudy?	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Liverpool, Eng. *†	30.24	768.1	68	20.0	90	calm	0	.....	.....	.....	.....	.....	.....	.....	.....	fine	
S. S. Pennsylvania, Capt. G. H. Dodge, Off Old Head Kinsale, Ireland †	30.24	768.1	57	13.9	100	calm	0	.....	8	.....	.....	.....	.....	.....	.....	cloudy	C. Rodman, 3d Off.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDougall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. British Merchant, E. J. Moloney, N. 46° 09′, W. 20° 24′ ‡	30.15	765.8	62.5	16.9	83	ene.	3	.....	1	.....	.....	.....	.....	.....	.....	blue sky	
S. S. Cipero, Capt. W. N. Lailey, N. 10° 43′ W. 60° 33′	30.00	762.0	84	28.9	91	se.	4	.....	5	.....	.....	.....	.....	2	se.	d. clouds	
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Coppename, Capt. A. Buchan, N. 38° 22′, W. 39° 42′	30.31	769.9	68.5	20.3	67	ne.	3	.....	4	.....	.....	.....	.....	.....	.....	blue sky	
Bk. Glaramara, Capt. R. Morton, N. 47° 30′, W. 133° 45′ ‡	30.02	762.5	50	10.0	100	s.	5	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
Bg. Hermine, Capt. S. G. Jones, N. 10° 18′, W. 26° 37′	29.98	761.5	82	27.8	79	nnw.	3	.....	5	.....	.....	.....	.....	.....	.....	d. clouds	
Bkt. Hope, Capt. J. Campbell	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Island Belle, Capt. A. McBride, N. 7° 30′, W. 57° 03′	30.01	762.2	81.6	27.6	.....	se.	3-5	.....	2	.....	.....	.....	.....	.....	.....	blue sky	
S. Lochee, Capt. J. Raeburn, S. 43° 57′, E. 0° 19′ ‡	30.40	772.1	47.6	8.7	95	nne.	5	.....	9	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Mertola, Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Pleione, Capt. C. H. Renant,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Queen of Cambria, Capt. M. Parry, N. 41° 07′, W. 15° 45′	29.89	759.2	68	20.0	95	ese.	6	.....	10	.....	.....	.....	.....	.....	.....	drizzling	
S. S. Rosetta, Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Shun Lee, Capt. J. N. Gray, N. 11° 43′, W. 27° 50′ ‡	29.94	760.5	80.5	26.9	83	n.	3	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, Shanghai, China	29.78	756.4	69.5	20.8	95	sw.	3	.....	5	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers N. 27° 16′, W. 110° 47′ †	29.67	753.6	85	29.4	83	nnw.	2	.....	9	.....	se.	0	0	light	nnw.	cloudy	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Galia, Capt. W. H. P. Hains	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 46° 01′, W. 40° 39′	30.27	768.8	69.0	20.6	85	n.	1	.....	2	.....	sw.	.....	.....	sm'h	se.	cloudy	
S. S. Hermann, Capt. H. Baur, N. 48° 13′, W. 46° 04′	30.23	767.8	64.4	18.0	.....	wsw.	2	.....	2	.....	w.	.....	.....	mod.	ne.	foggy	E. Schmidt, 3d Officr.
S. S. Koln, Capt. T. Jüngst, N. 52° 44′, E. 3° 44′	30.12	765.0	64.5	18.1	78	n.	2	.....	7	.....	n.	2 h'rs	light	sm'h	n.	hazy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 50° 14′, W. 3° 21′	30.16	766.1	64.5	18.1	70	ne.	3	.....	2	.....	e.	0	0	sm'h	w.	fair	Englehart & von [Goesset.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 34° 10′, E. 137° 45′ †	30.09	764.3	78	25.6	82	sw.	2	.....	2	.....	sw.	0	0	light	sw.	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, San Francisco, Cal. *†	29.98	761.5	63	17.2	94	ssw.	1	.....	1?	.....	s.	.....	.....	.....	.....	cloudy?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 45° 17′, E. 166° 00′	29.99	761.7	53	11.7	86	wnw.	4	.....	10	.....	nw.	0	0	mod.	ne.	cloudy	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles N. 46° 04′, W. 124° 10′ †	30.34	770.6	56	13.3	87	nne.	1	.....	2	.....	nne.	.....	.....	light	n.	hazy	C. W. Pohl, 2d Officer.
S. S. Oregon, Capt. Pollmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, San Francisco, Cal.....†	30.02	762.5	61	16.1	82	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. N. Ingalls.
S. S. Dakota, Capt. ——	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Idaho, Capt. T. Huntington, Port Townsend, Washington Ter.....	30.28	769.1	58	14.4	53	nw.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 34° 35′, W. 120° 42′.....†	29.94	760.5	62	16.7	77	nw.	4	.....	0	.....	.....	.....	.....	mod.	nnw.	.....	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal..... .....†	30.02	762.5	58	14.4	94	calm	0	.....	10	.....	.....	.....	.....	.....	.....	hazy.....	T. Wallace.
S. S. State of California, Capt. Debney, Po tland, Oregon.....†	30.08	764.0	54	12.2	80	nw.	3	.....	5	.....	sw.	.....	.....	.....	.....	fair.....	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, New Westminster, B. C.....†	30.28	769.2	54	12.2	100	calm	0	.....	.....	.....	.....	.....	.....	.....	.....	hazy.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. —— S. 27° 26′, W. 179° 38′.....	30.23	767.8	59	15.0	76	ene.	4	.....	8	.....	ne.	.....	.....	long	ne.	squally.....	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†	30.17	766.3	63	17.2	83	calm	0	.....	0	.....	.....	0	0	.....	.....	clear.....	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 13° 05′, W. 88° 54′.....†	29.95	760.7	82	27.8	91	n.	2	.....	5	.....	.....	0	0	sm'h	w.	fine.....	.....
S. S. City of Sidney, Capt. H. C. Dearborn,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. L. Salk.
S. S. City of Tokio, Com. J. Maury Hong Kong, China.....†	29.97	761.2	85	29.4	79	w.	1	.....	0	.....	.....	0	0	.....	.....	clear.....	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, N. 36° 16′, W. 122° 06′.....†	29.98	761 5	60	15.6	94	nw.	4	.....	0	.....	.....	0	0	mod.	nw.	clear.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly San Jose, Gualemala.....†	29.84	757.9	80	26.7	87	e.	2	.....	5	.....	e.	3 h'r	3 h'r	mod.	se.	fair.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 27° 16′, W. 177° 14′—.....	30.30	769.6	63	17.2	67	ese.	5	.....	8?	.....	ese.	.....	.....	mod.	se.	clear?.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Fedderson, 2d Off
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium.....†	30.28	769.1	64	17.8	83	wsw.	2	.....	10	.....	wsw.	0.05	1.3	.....	.....	rainy.....	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 50° 07′, W. 28° 23′..... .....†	30.09	764.3	59	15.0	100	ene.	2	.....	10	.....	ne.	sh's	sh's	mod.	ne.	cloudy.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 51° 17′, W. 15° 27′.....†	30.25	768.3	64	17.8	94	ese.	2	.....	2	.....	ese.	0	0	sm'h	.....	fair.....	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, New York, N. Y.....†	30.36	771.1	71	21.7	95	e.	5	.....	5	.....	se.	0	0	.....	.....	d. clouds.....	.....
S. S. Republic, Capt. P. J. Irving N. 40° 31′, W. 71° 09′.....†	30.26	768.6	63	17.2	94	nne.	3	.....	0	.....	.....	0	0	sli't	ne.	fair.....	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Off Martha's Vineyard,.....†	30.29	769.4	60	15.6	100	ene.	5	0	2 s	.....	.....	0	0	.....	.....	clear.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler, Lt. Com. Nichols, Sitka, Alaska.....†*	29.91	759.7	54	12.2	.....	calm.	0	.....	10	.....	.....	.....	.....	mod.	sw.	foggy.....	.....
S. Iron Cross, Capt. Randall, S. 3° 30′, W. 19° 30′.....*	30.03	762.7	78	25.6	98	se.	2-3	.....	4	.....	ese.	0	0	mod.	s.	misty.....	W. Randall.
S. Pawashick, Capt. E. Fry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal.....†	30.12	765.0	78	25.6	65	e.	5	.....	0	.....	.....	0	0	.....	.....	clear.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR

W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 16, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.03	762.7	81.0	27.2	64	n.			3		0			0	0	clear	Raynard.
Algiers ‡			30.09	764.2	83.8	28.8	68	w.			2		0			0	0	clear	Nicolas.
La Calle ‡			30.06	763.5	83.1	28.4	72	n.			1		2			0	0	fair	Fonfréde.
Tunis ‡			30.04	763.1															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.08	764.0	97.2	36.2	13	n.			1		0			0	0	clear	Dumas.
Tebessa ‡			30.08	763.9	90.0	32.2	9	n.			4		4			0	0	cloudy	Derché.
Geriville ‡					94.3	34.6	10	sw.			2		2			inap.	inap.	fair	Lonchamp.
Laghouat ‡			30.10	764.4	95.4	35.2	11	sw			3		2			0	0	fair	Herbin.
Biskra ‡			30.08	764.0	105.8	41.0	12	wnw.			4		9			0	0	covered	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.80	756.9	29.90	759.4	67.0	19.4	57	nne.	17	7.6			1			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.44	747.7	29.98	761.4	63.0	17.2	68	ne.			2		10			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.18	741.1	29.94	760.5	55.4	13.0	85	wnw.	13.0	5.8			10			0.083	2.1		Dr. Wiersbicki.
Eperies	29.00	736.5	29.85	758.3	62.2	16.8	59	nw.			4	c	6 ks		se.	0	0		Julius Mikolik.
Gratz ‡	28.78	731.1	30.02	762.4	59.9	15.5	86	sw.			2		10			0.071	1.8		Andreas Rosplnt.
Hermannstadt	28.48	723.4	29.88	759.0	60.4	15.8	56	wnw.			4		10			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.72	729.6	30.05	763.3	59.0	15.0	81	w.			1		10			0.031	0.8	gloomy	The Staff.
Lemberg	28.79	731.3	29.76	756.0	55.0	12.8	90	nw.			2		10			0.185	4.7		Dr. T. Stanecki.
Pola	29.82	757.3	29.93	760.1	67.8	19.9	74	ne.			1		10			0	0		I. R. Hydrographic Office.
Szathmar	29.43	747.6	29.89	759.1	65.1	18.4	49	w.			2		5			0	0		Beicht Petér, S. J.
Szegedin	29.05	753.0	29.92	759.9	67.1	19.5	53	sw.			3		5			0.110	2.8		Karl Stancel.
Trieste	29.87	758.6	29.97	761.2	67.5	19.7	68	calm			0		10			0.071	1.8	raining	Secco.
Vienna	29.32	744.8	30.03	762.7	63.0	17.2	57	wnw.			3		2			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 18, 1882.

STATIONS.	Barometer: Corrected for instrum'tal error and temperature.		Barometer: Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.04	763.0	30.14	765.5	58.0	14.4	76	nw.	3	1.3			9			0	0	overcast	W. Boswell.
Armagh, Observatory	30.00	762.0	30.22	767.6	59.5	15.3	65	ssw.	5	2.2			3					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.21	767.3	57.8	14.3	62	nw.	9	4.0			1					blue sky	John Hartnup.
Bolton, Sharples	29.66	753.4	30.19	766.8	56.8	13.8	60	ne.	12	5.4			3					d. clouds	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.77	756.1	30.17	766.3	59.4	15.2	80	nw.			1		1			0	0	blue sky	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.17	766.3	62.6	17.0	69	w.			0.2		5					foggy	John McLaren.
Chatham, School M. E.	30.09	764.3	30.22	767.6	64.8	18.2	73	calm			0		0					blue sky	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.98	761.5	30.21	767.3	58.8	14.9	67	se.			1		2					d. clouds	The Staff.
Fort Napier, Natal	27.81	706.4	30.03	762.7	66.4	19.1	54	ne.			1		2					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.75	755.6	29.98	761.5	83.0	28.3	83	s.			4		3					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.14	765.5	61	16.1	66	n.			2		2					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	30.04	763.0	30.09	764.3	74.6	23.7	89	ne.			2		9					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	29.98	761.5	30.18	766.6	55.7	13.2	92	sw.			2		9					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.03	762.7	30.20	767.1	58.3	14.6	79	nw.			1		4					foggy	The Staff.
Guernsey	29.94	760.5	30.15	765.8	61.5	16.4	70	ne.			2		0					blue sky	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.18	766.6	30.21	767.3	60.5	15.8	57	n.	3	1.3			0					misty	The Staff.
Leicester, Museum	30.12	765.0	30.37	771.4	59.5	15.3	56	n.			1		8					d. clouds	J. C. Smith.
Malta, Mediterranean	29.85	758.2	29.92	760.0	82.6	28.1	55	nw.			1		0			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.88	758.9	29.92	760.0	80.5	26.9	100	se.			1		7			blank	blank	d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.68	753.9	30.20	767.1	59.9	15.5	70	nnw.			3		6					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.98	761.5	30.20	767.1	61.6	16.4	61	nnw.			1		0					misty	The Staff.
Plymouth	30.12	765.0	30.20	767.1	61.5	16.4	70	sse.			1		0					blue sky	John Merrifield.
Sandwick Manse, Orkneys			30.09	764.3	54	12.2	92	w.	12	5.4			10					drizzling	Rev. C. Clouston, L. L. D
Scutari Cemetery, Turkey	29.75	755.6	29.82	757.4	83.0	28.3	46	ne.			2		2					d. clouds	Serg't W. H. Lyne.
Sheffield	29.92	760.0	30.19	766.8	58.9	14.9	71	ne.			2		2			0	0	d. clouds	W. F. Cooper.
Silloth Rectory	30.16	766.1	30.19	766.8	61.9	16.6	65	wnw.			1		2			0	0	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.21	767.3	59.1	15.1	53	n.	5	2.2			6					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss					63.5	17.5	59	w.			1		0					blue sky	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	30.17	766.3	30.19	766.8	69	20.6	56	se.			4		4					d. clouds	W. Newcombe.
Valencia, Observatory	30.19	766.8	30.21	767.3	60.7	15.9	67	sse.	15	6.7			6					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.			30.59	777.0	55	12.8	99	se.	3	1.3			10 n			0	0	threatening	Hon. J. Ferguson.
Charlottetown, P. E. Island	30.54	775.7	30.60	777.2	53	11.7	93	e.	2	0.9			10 s		e.	0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.53	775.4																	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.45	773.4	30.47	773.9	58	14.4	78	sw.	15	6.7	10 cs	0	calm			0	0	cloudy	J. McWilliams.
Fort Garry, Manitoba*	29.36	745.7	30.22	767.6	32	0.0	85	n.	6	2.7	0	hz.		n.		0	0	hazy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.42	772.7	30.56	776.2	54	12.2	83	ne.	4	1.8		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.84	757.9	30.16	766.1	69	20.6	66	se.	11	4.9			10 s		se.	inap.	inap.	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	30.11	764.8	30.31	769.9	60	15.6	63	se.	9	4.0		10 c	0	nw.		0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.26	743.2	29.93	760.2	65	18.3	84	se.	36	16.1		5 k	5 n	sw.	sw.	0.12	3.0	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.21	741.9	29.87	758.7	72	22.2	90	se.	10	4.5		5 k	5 n	se.		inap.	inap.	cloudy	H. Morgan.
Port Stanley, Ontario	29.16	740.7	29.77	756.1	71	21.7	73	e.	36	16.1			10 n		s.	0.01	0.3	cloudy	M. Payne.
Quebec, Quebec*	30.10	764.5	30.42	772.7	58	14.4	93	e.			1	0	2 s		sw.	0	0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.67	753.6	30.12	765.0	61	16.1	70	e.	15	6.7			hz.			0	0	hazy	W. H. McIntyre.
Saugeen, Ontario*	29.11	739.4	29.79	756.7	70	21.1	76	se.	24	10.7			10 ks			0.07	1.8	cloudy	K. Stewart.
St. Andrews, N. B.	30.51	774.9	30.56	776.2	56	13.3	92	calm	0	0			10 n			0	0	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.52	775.2	30.57	776.5	56	13.3	100	ne.	6	2.7		0	2 k		ne.	0	0	clear	T. C. Hill, C. E.
Toronto, Ontario*	29.62	752.3	30.00	762.0	66	18.9	87	e.	22	9.8		2 ck	5 ks	s.	s.	0.19	4.8		Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.45	773.4	30.52	775.2	59	15.0	90	calm	0	0		10 k	0	e.		0	0		Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.46	773.7	30.72	780.3	47	8.3	92	n.	2	0.9			10 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.19	766.8	30.22	767.6	61.0	16.1	100	se.	20.7	9.3			9 s			0	0	cloudy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.26	743.2			72.8	22.7	43	se.			1	2	3			0	0	light clouds	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.86	758.4	29.89	759.1	73.4	23.0	95	nw.	5.8	2.6			10 n			1.071	27.2	raining	M. Marc Dechevrens, S.J

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.89	759.1	29.93	760.3	55.6	13.1	75	nw.	13	6			10						Oversergent Fischer
Fanöe	29.96	760.9	29.98	761.4	55.8	13.2	76	wnw.			6		9						Overloerer Lauridsen
Godthaab, Greenland	29.85	758.1	29.89	759.2	36.5	2.5	93	s.			6–7		10						S. Kleinschmidt.
Stykkisholm, Iceland	29.88	758.9	29.92	760.0	47.5	8.6	81	ne.			4		8						A. O. Thorlacius.
Thorshavn	29.95	760.6	29.98	761.5	48.2	9.0	93	se.	13	6			10						Overloerer Bergh.
Vestervig	29.80	757.0	29.89	759.3	55.4	13.0	80	wnw.			6		9					raining	Loeurer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.41	747.0	30.03	762.8	78.6	25.9	48	nw.			1		0			0	0	clear	M. Labroue, Director.
Alençon Normal School	29.69	754.2	30.24	768.2	60.8	16	79	se.			2		k	w.	n.	0	0		M. Nicot, Director.
Arras, Engineer School					60.3	15.7	73	w.					n						M. Klein, Commandant.
Avignon, Normal School	29.93	760.1	30.00	762.1	73.4	23	53	nw.			3		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.67	753.7	30.23	767.8	59.9	15.5	74	ne.			1	0	5 kn		ne.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.98	761.4	30.24	768.1	59.5	15.3	84	ne.			1		8			0	0	very cloudy.	M. Frère Eugène Marie.
Besançon, Normal School	29.29	743.9	30.17	766.4	60.4	15.8	77	ne.			1		2			0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.85	758.2	30.11	764.7	74.8	23.8	54	ne.			1		0			0.004	0.1	clear	M. Rayet, Director.
Bourges, Normal School	29.61	752.2	30.16	766.1	67.6	19.8	54	ne.			2		2		ne.	0	0	slightly cl'dy	M. Postel, Director.
Brest, Naval Observatory	29.92	760.0	30.17	766.2	71.6	22.0	75	ene.			1		4		e.	0	0		M. de Kermaree, Dir.
Caen, Normal School	30.11	764.7	30.18	766.6	67.6	19.8	72	sse.			1		2		sse.	0	0	slightly cl'dy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					64.4	18.0	63	calm			0		2		ne.	0	0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School.	29.69	754.1	30.20	767.1	61.3	16.3	67	w.			1		8	e.	w.	0.04	1.	¾ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.80	731.4	30.12	765.0	67.3	19.6	56	nne.			1		0			0	0	clear	M. Alluard, Director.
Cluny, Normal School	29.34	745.3	30.17	766.4	67.6	19.8	63	n.			1		2		n.	0	0		M. de Villemontée, Dir.
Commercy, Normal School.	29.34	745.2	30.19	766.9	60.4	15.8	69	n.			1		2	n	n.	0.098	2.5	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.43	696.6	29.85	758.1	76.3	24.6	32	s.			2					0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.87	733.3	30.01	762.3	73.4	23	44	nw.			3		5		nw.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.30	744.1	30.04	763.1	67.3	19.6	58	n.			3	ck	0			0	0		M. Ablard, Director.
Guéret, Normal School	28.58	726.0	30.12	765.1	65.8	18.8	33	se.			1		0			0	0	clear	M. Rivoire, Director.
Lamballe, Normal School	29.91	759.8	30.18	766.6	68.0	20	76	e.			1				e.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.11	764.7	30.21	767.3	68.0	20.0	81	s.			2		10		s.	0	0	covered.	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.09	738.8	30.13	765.3	64.2	17.9	49	n.			2		2			0	0	slightly cl'dy	M. André, Director.
Mans, Normal School	29.92	760.0	30.23	767.8	62.6	17	63	e.			1		2		e.	0	0	slightly cl'dy	M. Piboen, Director.
Marseille, Observatory	29.67	753.5	29.93	760.2	75.7	24.3	57	wnw.			3		6		nw.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.99	634.8	30.23	767.8	68.7	20.4	62	sw.	9.4	4.2			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.89	759.1	29.99	761.8	81.0	27.2	43	nne.			1		2		sse.	0	0	slightly cl'dy	M. Pourie, Director.
Nancy, Normal School	29.46	748.3	30.22	767.5	61.5	16.4	77	ne.			1	5 ck	0	nw.		0.346	8.8	cloudy	M. Hasse.
Nantes, Observatory	30.07	763.7	30.23	767.8	69.8	21	59	ne.			0–1		0			0	0	hazy	M. Larocque, Director.
Nice	29.87	758.8	29.91	759.6	71.2	21.8	74	e.			4		mist	e.	e.	0	0	misty	Capt. Boissière, Director.
Perpignan, Observatory	29.88	758.9	29.98	761.5	83.7	28.7	36	n.	11.2	5.0			6	nw.		0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.78	578.5			58.8	14.9							1		w.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					68.7	20.4	62	n.			4		5	n.	n.	0	0	cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.31	642.8			47.8	8.8	70	ne.			1		2			0.012	0.3	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.11	764.7	30.14	765.5	73.4	23.0	88	e.			1		0			0	0	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.97	761.1	30.17	766.4	69.6	20.9	63	n.			1		0			0	0	clear	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.13	765.4	30.22	767.6	56.3	13.5	83	ne.			1		10			0	0	covered	M. Platrier, Director.
Saint Lô, Normal School	30.04	763.1	30.20	767.1	64.9	18.3	91	n.			3		2		sw.	0	0	slightly cl'dy	M. Delaplanche, Dir.
Saint Maur, Observatory	30.07	763.7	30.23	767.9	62.2	16.8	66	nne.			1		1		e.	0	0		M. Renou, Director.
Toulouse, Observatory	29.42	747.2	30.14	765.6	81.3	27.4	41	nnw.			1		1	w.		0	0	clear	M Bailland, Director.
Tours	30.01	762.3	30.21	767.3	62.2	16.8	72	ne.			1		1		e.	0	0	almost clear	M. de Tastes.
Versailles, Observatory	29.73	755.2	30.22	767.7	62.6	17.0	68	ne.			1					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.96	760.9	30.25	768.3	62.2	16.8	72	calm			0		2		nne.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.28	743.7	30.15	765.7	56.7	13.7	60	ne.			3	0	8 s			0	0	hazy	Prof. Dr. Hoh.
Berlin	29.86	758.4	30.03	762.8	59.4	15.2	63	nw.			2		10			0.008	0.2		Prof. Dr. Arndt.
Breslau	29.49	749.1	30.02	762.6	56.5	13.6	83	wnw.			3		9			0.024	0.6		Royal University Obs'y.
Carlsruhe	29.76	756.0	30.19	766.8	59.4	15.2	67	n.			1		10	n.		0	0		Albert Senz.
Cassel	29.39	746.6	30.11	764.8	53.2	11.8	83	calm			0		9			0	0		Dr. H. Mohl.
Frankfort on the Main	29.81	757.2	30.17	766.4	60.1	15.6	54	nw.			1		9			0.031	0.8		Physical Society.
Friedrichshafen	28.72	729.4	30.14	765.5	60.8	16.0	80	sw.			1		8	wsw.		0	0		Wilhelm, Chief Tel.
Hamburg	29.97	761.3	30.07	763.7	56.5	13.6	73	wnw.			4		6	w.		0.039	1.0		E. Preller.
Kiel	29.98	761.5	30.00	761.9	56.7	13.7	77	nw.			2		10			0.008	0.2		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.69	754.2	30.11	764.9	54.7	12.6	76	wnw.			2		10	wnw.		0	0		H. Leppig, Asst.
Magdeburg	29.89	759.1	30.08	763.9	55.6	13.1	76	wnw.			3		10 s		wnw.	0.008	0.2		Dr. Assmann.
Memel	29.80	756.8	29.84	758.0	57.0	13.9	75	nnw.			3–4	3 c	0						Issermann.
Munich	28.32	719.4	30.20	767.0	57.2	14.0	70	nw.			2		10	sw.		0.204	0.7		Central Station.
Neufahrwasser	29.90	759.5	29.92	759.9	58.3	14.6	77	nnw.			4		10			0.114	2.9	raining	A. Lothes.
Neustadt, Palatinate	29.65	753.1	30.18	766.6	58.8	14.9	68	nnw.			3		10			0	0		Dicknether.
Stuttgart	29.21	742.0	30.11	764.7	58.1	14.5	76	n.			2		10			0	0	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.65	727.8	30.15	765.9	59.4	15.2	58	nw.			2		10	nw.		0	0		Fischer.
Wustrow	29.98	761.5	30.00	762.1	59.0	15.0	82	wnw.			3		10 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.47	748.6	29.84	758.0	85.5	29.7		ne.			1.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.63	752.6	29.68	753.8	83.8	28.8	70	wsw.	14.0	6.3			1	sw.		0	0	blue sky	
Deesa	29.23	742.4	29.70	754.4	80.1	26.7	81	wsw.	15.6	7.0			7	sw.	sw.	0.03	0.8	d. clouds	
Bombay	29.77	756.2	29.81	757.1	83.1	28.4	80	wsw.	10.0	4.5			6		wsw.	0.16	4.1	d. clouds	
Poona, Yarrowda	27.95	709.9	29.80	757.0	78.2	25.7	58	wsw.	14.0	6.3			6		w.	0	0	d. clouds	
Belgaum	27.30	693.5	29.85	758.2	74.0	23.3	82	sw.	6.0	2.7			8	e.	sw.	0	0	d. clouds	
Lahore	28.82	732.0	29.53	750.2	95.2	35.1	54	calm	0.6	0.3			2			0	0	blue sky	
Roorkee	28.69	728.8	29.57	751.1	86.4	30.2	74	ne.	0.8	0.4			7			0.33	8.4		
Agra	29.06	738.2	29.61	752.2	88.7	31.5	65	s.	5.4	2.4			7			0	0		
Nagpur	28.69	728.8	29.72	755.0	84.2	29.0	71	calm	2.2	1.0			9	sw.		0	0	d. clouds	
Jubbulpore	28.39	721.0	29.73	755.0	84.8	29.3	67	w.	3.0	1.3			9			0	0	overcast	
Lucknow	29.24	742.6	29.61	752.0	88.1	31.2	64	wsw.	7.9	3.5			5	ssw.		0	0	blue sky	
Allahabad	29.34	745.2	29.65	753.0	85.0	29.4	79	s.	4.6	2.1			7	w.		0	0	d. clouds	
Patna	29.49	749.0	29.67	753.6	85.6	29.8	76	sw.	4.5	2.0			10	sw.	sw.	0	0	overcast	
Hazaribagh	27.72	704.2	29.72	755.0	78.6	25.9	89	s.	7.6	3.4			10	n.	s.	0.07	1.8	thund'r st'm	
Cuttack	29.68	753.8	29.76	755.8	84.5	29.2	78	calm	0.5	0.2			7			0	0	d. clouds	
Calcutta, Alipore	29.74	755.3	29.76	755.9	74.5	23.6	95	ssw.	11.0	4.9			10			0.86	21.8	drizzling	
Dhubri	29.60	751.7	29.72	754.8	77.3	25.2	91	s.	2.0	0.9			10			1.49	37.8	overcast	
Chittagong	29.71	754.6	29.80	756.9	79.2	26.2	92	wnw.	6.0	2.7			10			0.21	5.3	overcast	
Sibsagar	29.40	746.7	29.74	755.3	77.1	25.1	98	sw.	3.7	1.6			10	w.	w.	1.18	30.0	overcast	
Jeypore	28.24	717.2	29.66	753.5	81.7	27.6	75	wsw.	5.9	2.6			8		w.	0.05	1.3	d. clouds	
Zanzibar, Africa			30.01	762.2	85.0	29.4	69	sse.	4	1.8			1			0	0	blue sky	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.56	750.8	29.96	761.0	66.9	19.4	73	n.	2.5	1.1			8			0.016	0.4		Prof. Giovanni Clodig.
Milan	29.45	747.9	29.95	760.8	73.0	22.8	54	ese.	4.3	1.9			2			0	0		Prof. Schiaparelli.
Padua	29.85	758.2	29.96	760.9	63.3	17.4	69	nne.	13.0	5.8			10			0.154	3.9		Prof. Dott. Lorenzoni.
Moncalieri	29.02	737.1	29.91	759.7	71.6	22.0	62	wnw.	1.8	0.8			3	ne.		0	0		Prof. P. F. Denza.
Genoa	29.73	755.2	29.92	760.0	73.0	22.8	60	sw.	3.1	1.4			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.10	713.6	29.97	761.3	66.0	18.9	57	w.			4		1	nnw.		0	0		Prof. D. O. Bruno.
Pesaro	29.84	758.0	29.89	759.2	66.6	19.2	85	n.					10			0	0		Prof. Luigi Guidi.
Florence	29.66	753.4	29.91	759.8	65.5	18.6	60	ne.			2		10			0.012	0.3		Prof. Costantino Pitter.
Leghorn	29.83	757.6	29.91	759.7	71.8	22.1	68	sw.	0.7	0.3			4			0.079	2.0		Prof. P. Monte.
Rome	29.72	754.9	29.89	759.2	76.6	24.8	58	w.	13.0	5.8			3			0	0		Prof. P. S. Ferrari.
Lecce	29.63	752.5	29.88	758.9	77.7	25.4	53	nne.	11.2	5.0			0			0	0		Prof. C. de Giorgi.
Cosenza	29.05	737.9	29.91	759.7	77.7	25.4	58	sse.	3.1	1.4			2	se.		0	0		Prof. D. Conti.
Cagliari	29.76	756.0	29.95	760.8	84.4	29.1	34	nw.			4		0			0	0		Prof. A. Pacinotti.
Palermo	29.73	755.2	29.98	761.4	81.3	27.4	27	nne.	6.3	2.8			0			0	0		Prof. G. Ciacciatore.
Syracuse	29.89	759.2	29.93	760.3	72.7	22.6	56	s.	5.8	2.6			0			0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.39	746.5	29.89	759.3	75.0	23.9	70	se.	1.3	0.6			3	nw.		0	0		Prof. F. Brioschi.
Stelvio	22.28	565.8			40.1	4.5	60	ne.			4		8 kn	n.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.30	566.3			46.6	8.1	44	n.			2		0			0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y	29.95	760.7	29.96	761.0	72.8	22.7	81	nne.	3.9	1.7			0	0			0	clear	K. Sasaki.
Kioto	29.85	758.2	30.02	762.5	73.6	23.1	87	ssw.	1.7	0.8			ck	2 s			0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.81	757.2	30.01	762.2	78.7	25.9	81	s.	2.3	1.0			0	7 s		0.020	0.5	cloudy	S. Takehayashi.
Niigata	29.99	761.7	30.03	762.7	74.5	23.6	71	ne.	3.0	1.3			4 ck	0			0	fair	
Nobiru	30.04	763.0	30.05	763.3	71.8	22.1	81	ssw.	5.9	2.6				10 s			0	cloudy	
Supporo	29.94	760.5	30.00	762.0	55.1	12.8	90	ssw.	3.6	1.6				10		0.005	0.1		
Tokei Obs'y, Yeddo	29.98	761.5	30.04	763.0	75.5	24.2	93	se.	1.8	0.8			0	7 s		s	0	cloudy	The Staff.
Wakayama	29.98	761.5	30.03	762.7	73.6	23.1	88						0	0			0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.99	761.7	30.11	764.8	71.0	21.7	75	n.	4.5	2.0			8		ese; var.	0	0	gloomy	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.7	29.91	759.7	50.0	10.0	68	nne.	8.9	4.0		0	1 k		e.	inap.	inap.	clear	Vicente Fernandez.
Leon	24.45	621.0	30.19	766.7	55.6	13.1	73	e.			3	5 c	2 k	w.		0	0	cloudy	Prof. M. Leal.
Mazatlan	29.60	751.8	29.85	758.2	81.5	27.5	89	sse.	5.3	2.3		0	6 n		se.	0	0	½ cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.14	587.7	30.21	767.3	49.6	9.8	79	calm	0	0			10 k			0.028	0.7	overcast	The Staff.
Morelia	24.06	611.0	30.12	765.0	55.8	13.2	75	sse.			2	2	3	s.	e.	0	0	½ cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	24.00	609.5	30.01	762.3	53.1	11.7	73	n.			1	0	0			0	0	fine	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.39	594.1	30.20	767.3	49.1	9.5	55	n.	1.4	0.6		0	9			0.032	0.8	very cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.60	574.2	30.29	769.5	44.8	7.1	63	ene.	1.7	0.8		0	0			0	0	fine	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.23	767.9	30.23	767.9	62.8	17.1		w.			2					0	0		
Groningen	30.10	764.4	30.15	765.8	55.9	13.3		nw.			4					0.098	2.5		
Helder	30.17	766.3	30.17	766.3	56.8	13.8		wnw.			3					0	0		
Helievoetsluis	30.21	767.3	30.21	767.3	61.3	16.3	74	nw.			1					0	0		
Utrecht	30.16	766.1	30.21	767.3	60.3	15.7	68	wnw.			1		8			0	0	very cloudy	H van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.87	758.6	29.93	760.2	52.5	11.4	73	n.	18.3	8.2			8			0	0		
Christiania	29.67	753.5	29.81	757.2	55.4	13.0	72	e.	4	2			10			0	0		
Gjæsvær	29.79	756.7	29.82	757.3	41.5	5.3		e.			4		10						
Lodingen	29.58	751.2	29.62	752.4	42.8	6.0	85	sw.			2		10			0.204	6.7	raining	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.84	757.8	29.98	761.6	67.1	19.5	79	n.	14.3	6.4			5			0	0		Dr. J. A. Sampaio.
Campo Major	29.24	742.6	30.18	766.5	93.2	34.0	31	ese.	1.8	0.8			10			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.97	761.2	30.05	763.3	76.8	24.9	62	sw.	3.8	1.7			7			0.020	0.5		Capt. D. A. de Cunha.
Lisbon, Observatory	29.74	755.3	30.08	764.1	77.9	25.5	58	ene.	8.1	3.6			8	sw.		0	0		The Staff.
Ponta Delgada, Azores	29.88	759.0	29.95	760.8	71.6	22.0	64	nnw.	20.6	9.2			3			0.126	3.2		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.80	731.6	29.84	758.0	66.7	19.3	51	sw.	7	3		1 c	0					light clouds	Capt. Lasarew.
Archangel	29.67	753.5	29.69	754.0	37.9	3.3	95	ene.	13	6			10						Capt. Sselliwerstow.
Astrakhan	29.93	760.1	29.84	758.0	76.1	24.5	37	ssw.	9	4		0s	4 s					light clouds	Capt. Wisganow.
Barnaul ‡	29.43	747.4	29.92	760.0	50.9	10.5	95	calm	0	0			9						Meteorological Obs'y.
Dorpat	29.53	750.1	29.77	756.1	62.6	17.0	65	wsw.	4	2			10 kn						Observatory.
Ekaterinburg	28.81	731.7	29.74	755.3	64.8	18.2	38	wsw.	13	6		8 c	0					solar halo	Meteorological Obs'y.
Kasan	29.44	747.8	29.71	754.6	55.9	13.3	87	se.	4	2			10 n					light rain	Observatory.
Kertch	29.78	756.3	29.80	756.8	73.2	22.9	72	calm	0	0		0	5 n			0	0		Lagorio & Sastyres.
Kieff	29.07	738.4	29.70	754.3	59.9	15.5	68	sw.	4	2		0	9 ks;n						Observatory.
Lugan	29.51	749.6	29.71	754.6	75.2	24.0	32	w.	4	2			8			blank	blank		Meteorological Obs'y.
Moscow	29.17	741.0	29.63	752.6	62.8	17.1	66	sw.	4	2		0	5 ks						Meteorological Obs'y.
Nikolaiev	29.72	754.9	29.79	756.7	69.4	20.8	62	sse.	9	4			9 kn						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	29.83	757.7	29.92	759.9	41.2	5.1	85	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.73	755.2	29.87	758.8	64.9	18.3	85	calm	0	0		0	2 k			0	0		Physical Observatory.
St. Petersburg	29.69	754.0	29.70	754.4	61.5	16.4	78	nw.	9	4		0	7 k						Central Physical Obs'y.
Tashkend, Laboratory	28.33	719.6	29.85	758.2	70.2	21.2	66	calm	0	0			0						Teich, A. M.
Tiflis	28.47	723.0	29.80	756.9	81.9	27.7	36	se.	4	2		0	0						Physical Observatory.
Warsaw	29.41	747.0	29.82	757.5	61.0	16.1	68	nw.	11	5			9 ks						Astronomical Obs'y.
Wilna	29.37	745.9	29.78	756.3	62.2	16.8	67	w.	2	1			9					h'vy clouds.	Berg, Assistant.
Yeniseisk	29.83	757.6	30.13	765.2	33.6	0.9	80	w.	4	2			10						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.18	766.6	62.0	16.7	66	w.			2	0	5 k			0	0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.12	765.0	57	13.9	94	ssw.			4		10			0	0	overcast	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.92	760.0	30.02	762.6	76.3	24.6	67	s.	3.1	1.4		0	1			0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.04	762.9	30.09	764.3	83.5	28.6	64	e.	1.1	0.5		0	0			0	0	clear	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.23	691.7			83.3	28.5	31	w.	3.6	1.6			1			0	0	almost clear	Domingo Martin.
Madrid, Royal Obs'y	27.93	709.4	30.02	762.5	89.8	32.1	32	w.	4.0	1.8		8	0	w.		0	0	light clouds	The Staff.
Murcia, Met. Obs'y ‡	29.89	759.3	30.04	762.9	89.6	32.0	68	e.	2.2	1.0		0	0			inap.	inap.		Olayo Diaz, Director.
Santiago, Met. Obs'y	29.14	740.2	30.00	761.9	80.1	26.7	63	s.	4.9	2.2			7			0	0	cloudy	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.84	757.9	29.90	759.6	78.0	25.6	85	e.	5.4	2.4		2c	3 k	w.	sw.	inap.	inap.	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.92	759.9	29.97	761.2	83.2	28.4	98	sse.	0.7	0.3			10 n		ne.	2.42	61.3	drizzling	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.99	761.6	30.09	764.1	77.0	25.0	76	w.	12.9	5.8			10		w.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.90	759.5	29.99	761.8	83.1	28.4	83.	se.	9.4	4.2		2 k	3 k	se.	se.	0	0		E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.85	758.1	29.98	761.5	77.9	25.5	87	se.	0	0		0	6 ks		wnw.	0.02	0.5	partly cl'dy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.60	751.9	29.64	752.9	48.2	9.0	71	nw.			4		10			0	0		
Umea	29.67	753.5	29.72	754.8	54.7	12.6	65	nw.			2		9			0	0		
Hernosand	29.72	754.9	29.77	756.2	56.7	13.7	51	w.			4		8			0	0		
Stockholm	29.63	752.7	29.81	757.2	58.6	14.8	66	n.			2		10			0	0		
Wisby	29.70	755.9	29.82	757.4	57.6	14.2	92	w.			4		5			0.024	0.6		
Sub-Series.																			
Upsala	29.72	754.9	29.81	757.1	54.5	12.5	69	nnw.	5.8	2.6			10		w.	0.165	4.2		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.71	729.2	30.11	764.7	63.7	17.6	51	n.			3		0			0	0	clear	The Observatory.
Zurich ‡	28.54	725.0	30.16	766.0	60.8	16.0	73	w.			1		4			0	0	lightly cl'dy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.89	759.1	75.6	24.2	55	n.	14	6.5			3		ne.	0	0		The Observatory.
Valona			29.98	761.5	77.4	25.2		w.			1		2			0	0	slightly cl'dy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.76	755.8	86.9	30.5	48	n.			1	0	0			0	0		Prof. C. V. A. van Dyck

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Albany, New York	30.30	769.6	30.38	771.6	64	17.8	63	s.	8	3.6		5 cs	0	n.		0	0	fair	
Alpena, Michigan	29.12	739.6	29.78	756.4	66	18.9	90	se.	23	10.3			10 s		s.	0.39	9.9	cloudy	
Atlanta, Georgia	28.72	729.5	29.90	759.4	62.2	16.8	96	nw.	5	2.2			10 s		calm	1.80	45.7	cloudy	
Atlantic City, New Jersey	30.20	767.1	30.21	767.3	71.8	22.1	84	e.	24	10.7			10 s		calm	0	0	cloudy	
Augusta, Georgia	29.71	754.6	29.90	759.4	75.0	23.9	97	se.	5	2.2			10 s			0.61	15.5	cloudy	
Baltimore, Maryland	30.09	764.3	30.14	765.5	74	23.3	90	se.	8	3.6			10s;fg		se;e	0.06	1.5	threatening.	
Barnegat, New Jersey	30.21	767.3	30.23	767.8	70.0	21.1	90	e.	31	13.9		0	8 s		e.	0.11	2.8	fair	
Bismarck, Dakota	28.33	719.6	30.16	766.1	30	— 1.1	80	nw.	12	5.4		0	0			0	0	clear	
Boise City, Idaho	27.18	690.4	30.02	762.5	49.0	9.4	52	nw.	3	1.3		0	0			0	0	clear	
Boston, Massachusetts	30.31	769.9	30.47	773.9	59.0	15.0	87	e.	12	5.4			10 s		e.	0	0	cloudy	
Brackettville, Texas	28.90	734.0	29.96	761.0	53	11.7	93	n.	4	1.8		0	0			0	0	clear	
Brownsville, Texas	29.98	761.5	30.02	762.5	63	17.2	84	nw.	4	1.8		hz.	0			0	0	dense haze.	
Buffalo, New York	29.25	742.9	29.97	761.2	73	22.8	66	e.	12	5.4			10 s			0.13	3.3	cloudy	
Burlington, Vermont	30.07	763.8	30.36	771.1	58.5	14.7	64	se.	8	3.6		4 c	0	w.		0	0	fair	
Cairo, Illinois	29.50	749.3	29.90	759.4	51.2	10.7	78	w.	10	4.5		0	0			0.33	8.4	clear	
Campo, California	27.34	694.4	29.91	759.7	50	10.0	54	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.20	690.9			57	13.9	86	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.09	764.3	30.11	764.8	77	25.0	90	e.	20	8.9		0	hz.			0.10	2.5	clear	
Cape May, New Jersey	30.14	765.5	30.17	766.3	73	22.8	84	e.	23	10.3			10 s		e.	0	0	cloudy	
Castroville, Texas	29.27	743.4	29.98	761.5	55	12.8	74	nw.	3	1.3		0	0			0	0	clear	
Cedar Keys, Florida	29.90	759.4	29.92	760.0	74	23.3	94	w.	20	8.9			10 n		w.	2.55	64.8	heavy rain.	
Champaign, Illinois	28.93	734.8	29.72	754.9	49.2	9.6	93	sw.	9	4.0			10 s		sw.	1.23	31.2	cloudy	
Charleston, S. Carolina	29.87	758.7	29.93	760.2	81	27.2	82	se.	20	8.9			10 s		se.	0.97	24.6	threatening.	
Charlotte, N. Carolina	29.04	737.6	29.92	760.0	73	22.8	97	se.	13	5.8			10 n		s.	0.54	13.7	light rain	
Chattanooga, Tennessee	29.09	738.9	29.92	760.0	61.0	16.1	87	w.	2	0.9		7 ck	fg.	sw.	calm	0.80	20.3	fair	
Cheyenne, Wyoming	24.14	613.1	30.10	764.5	36.2	2.3	61	nw.	8	3.6		0	0			0	0	clear	
Chicago, Illinois	28.99	736.3	29.70	754.4	54.3	12.4	71	s.	11	4.9			10 s		s.	1.10	27.9	cloudy	
Chincoteague, Virginia	30.12	765.0	30.14	765.5	75	23.9	90	se.	24	10.7		0	sk.		calm	0	0	clear	
Cincinnati, Ohio	29.19	741.4	29.85	758.2	63	17.2	78	sw.	5	2.2		2 c	6 ks		sw.	0.84	21.3	clearing	
Cleveland, Ohio	29.06	738.1	29.80	756.9	75.7	24.3	56	s.	12	5.4			10 s		s.	0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	28.96	735.6	29.82	757.4	64	17.8	90	sw.	5	2.2			10 n		sw.	0.57	14.5	light rain	
Concho, Texas	28.15	715.0	30.09	764.3	55	12.8	83	calm	0	0		0	3 s			0	0	fair	
Corsicana, Texas	29.62	752.3	30.09	764.3	51	10.6	80	nw.	4	1.8		0	0			0	0	clear	
Davenport, Iowa	28.98	736.1	29.64	752.8	49	9.4	86	sw.	12	5.4			10 s		sw.	0.43	10.9	cloudy	
Dayton, Washington T'y	28.30	718.8	30.11	764.8	49.3	9.6	58	n.	4	1.8		0	0			0	0	clear	
Deadwood, Dakota	25.45	646.4	30.15	765.8	46	7.8	47	ne.	4	1.8		0	0			0	0	clear	
Decatur, Texas	28.86	733.0	30.03	762.7	54	12.2	48	n.	4	1.8		0	0			0	0	clear	
Delaware Breakwater, Del.	30.14	765.5	30.16	766.1	72	22.2	97	e.	28	12.5			10 s		se.	0	0	cloudy	
Denison, Texas	29.23	742.4	30.04	763.0	49	9.4	50	nw.	4	1.8		0	0			0	0	clear	
Denver, Colorado	24.87	631.7	30.09	764.3	39.8	4.3	62	s.	8	3.6		0	0			0	0	clear	
Des Moines, Iowa	28.71	729.2	29.62	752.3	42	5.6	92	nw.	6	2.7			10 n		nw.	0.22	5.6	light rain	
Detroit, Michigan	29.05	737.9	29.77	756.1	70.5	21.4	82	s.	16	7.2			10 n		s.	0.72	18.3	light rain	
Dodge City, Kansas	27.42	696.5	30.01	762.2	42	5.6	65	nw.	12	5.4		0	3 k		nw.	0	0	fair	
Dubuque, Iowa	28.87	733.3	29.59	751.6	44.4	6.9	93	s.	9	4.0			10 s		calm	0.73	18.5	cloudy	
Duluth, Minnesota	28.92	734.6	29.63	752.6	46	7.8	93	n.	13	5.8			10 n		n.	1.16	29.5	heavy rain.	
Eagle Pass, Texas	29.30	744.2	30.13	765.3	59.0	15.0	81	calm	0	0		0	0			0	0	clear	
Eagle Rock, Idaho	25.37	644.4	30.22	767.6	38	3.3	66	n.	6	2.7		0	0			0	0	clear	
Eastport, Maine	30.47	773.9	30.54	775.7	53.5	11.9	88	ne.	5	2.2			10 s		ne.	0	0	cloudy	
El Paso, Texas	26.23	666.2	29.98	761.5	65.3	18.5	70	calm	0	0		0	c			0	0	clear	
Erie, Pennsylvania	29.10	739.1	29.82	757.4	75	23.9	69	se.	34	15.2		6 cs	0			0	0	fair	
Escanaba, Michigan	28.95	735.3	29.61	752.1	61	16.1	96	se.	15	6.7			10 s		s.	1.86	47.2	cloudy	
Florence, Arizona	28.34	719.8	29.98	761.5	67	19.4	66	e.	3	1.3		0	0			0	0	clear	
Fort Apache, Arizona	25.05	636.3	29.96	761.0	45	7.2	71	e.	2	0.9		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.23	691.6	30.04	763.0	44	6.7	68	calm	0	0		0	0			0	0	clear	
Fort Bennett, Dakota	28.44	722.4	29.98	761.5	38	3.3	64	nw.	19	8.5		0	0			0	0	clear	
Fort Benton, Montana	27.24	691.9	30.10	764.5	45	7.2	63	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	28.24	717.3	30.24	768.1	35	1.7	100	e.	2	0.9		0	0			0	0	clear	
Fort Custer, Montana	26.95	684.5	30.19	766.8	42	5.6	64	sw.	4	1.8		0	0			0	0	clear	
Fort Davis, Texas	24.98	634.5	29.94	760.5	55	12.8	77	w.	3	1.3		0	0			0	0	clear	
Fort Elliott, Texas	27.30	693.4	30.49	774.4	42	5.6	76	nw.			1	0	0			0	0	clear	
Fort Gibson, Indian T'y	29.39	746.5	29.94	760.5	35.9	2.2	69	calm	0	0		0	0			0	0	clear	
Fort Grant, Arizona					58	14.4	72	ne.	3	1.3		0	0			0	0	clear	
Fort Griffin, Texas	28.79	731.3	30.06	763.5	56.0	13.3	80	calm	0	0			10 s			0	0	cloudy	
Fort Keogh, Montana	27.64	702.0	30.18	766.6	43	6.1	76	e.	4	1.8		0	0			0	0	clear	
Fort Macon, North Carolina	30.04	763.0	30.05	763.3	78	25.6	91	se.	20	8.9		hz.	hz;3 ks	calm	c;se	0.10	2.5	light haze	
Fort McKavett, Texas	27.82	706.6	29.75	755.6	51.8	11.0	73	calm	0	0		2 ck	0			0	0	clear	
Fort Missoula, Montana	26.81	681.0	30.33	770.4	43	6.1	76	s.	4	1.8		0	0			0	0	clear	
Fort St. Michaels	30.02	762.5	30.05	763.3	43	6.1	75	se.	11	4.9		0	0			0	0	clear	
Fort Shaw, Montana	26.44	671.6	30.04	763.0	41	5.0	82	w.	8	3.6		0	0			0	0	clear	
Fort Sill, Indian Territory	28.81	731.8	30.06	763.5	46	7.8	77	calm	0	0		0	0			0	0	clear	
Fort Stevenson, Dakota	28.32	719.3	30.20	767.1	30	— 1.1	80	n.	3	1.3		0	0			0	0	clear	
Fort Verde, Arizona					54.7	12.6	49	n.			2	0	0			0	0	clear	
Fredericksburg, Texas	28.33	719.6	29.95	760.7	53	11.7	86	nw.	2	0.9		4 ck	0			0	0	fair	
Galveston, Texas	30.00	762.0	30.04	763.0	67	19.4	55	n.	17	7.6		0	0			0	0	clear	
Grand Haven, Michigan	29.01	736.8	29.68	753.9	61.0	16.1	84	s.	15	6.7			10 s		se.	2.70	68.6	cloudy	
Hatteras, North Carolina	30.06	763.5	30.08	764.0	78	25.6	88	se.	15	6.7		3 k	0	s.		0.42	10.7	fair	
Helena, Montana	25.89	657.6	30.28	769.1	58	14.4	53	sw.	3	1.3		0	0			0	0	clear	
Henrietta, Texas	28.99	736.3	29.90	759.4	64	17.8	73	s.	12	5.4		0	0			0	0	clear	
Huron, Dakota	28.44	722.4	29.83	757.7	39	3.9	73	n.	30	13.4			9 ks		n.	0	0	cloudy	
Indianapolis, Indiana	29.00	736.6	29.80	756.9	55.5	13.1	78	sw.	6	2.7			10 s		sw.	1.93	49.0	cloudy	
Indianola, Texas	30.04	763.0	30.07	763.8	67.8	19.9	47	n.	16	7.2		hz.	0			0	0	clear	
Jacksboro, Texas	28.90	734.0	30.02	762.5	50	10.0	86	nw.	2	0.9		0	0			0	0	clear	
Jacksonville, Florida	29.86	758.4	29.90	759.4	80	26.7	82	s.	12	5.4		3 cs	0	w.		inap.	inap.	fair	
Keokuk, Iowa	28.98	736.1	29.64	752.8	48.2	9.0	93	sw.	12	5.4			10 n		w.	0.10	2.5	light rain	
Key West, Florida	29.87	758.7	29.90	759.4	82.4	28.0	78	s.	5	2.2		2 c	5 k		s.	0.04	1.0	fair	
Kittyhawk, North Carolina	30.09	764.3	30.11	764.8	76	24.4	90	se.	16	7.2		1 ck	2 ks		se.	0.02	0.5	fair	
Knoxville, Tennessee	28.88	733.5	29.92	760.0	61	16.1	98	sw.	4	1.8			10 n		calm	0.69	17.5	light rain	
La Crosse, Wisconsin	28.69	728.7	29.46	748.3	52	11.1	80	s.	16	7.2			fg.			0.85	21.6	dense fog	
La Mesilla, New Mexico	26.12	663.4	30.27	768.8	55.5	13.1	81	calm	0	0		0	0			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	28.86	733.0	29.76	755.9	45	7.2	83	nw.	5	2.2			10 s		nw.	0.04	1.0	cloudy	
Lewiston, Idaho	29.23	742.4	30.08	764.0	52	11.1	47	sw.	1	0.4		0	0			0	0	clear	
Little Rock, Arkansas	29.60	751.8	29.92	760.0	48	8.9	71	w.	6	2.7		0	hz.			0	0	clear	
Los Angeles, California	29.54	750.3	29.92	760.0	60.0	15.6	65	w.	2	0.9		0	0			0	0	clear	
Louisville, Kentucky	29.26	743.2	29.82	757.4	59.5	15.3	93	sw.	4	1.8		0	7 ks			1.01	25.6	cloudy	
Lynchburg, Virginia	29.34	745.2	30.03	762.7	75	23.9	85	e.	6	2.7			10 ks		se.	0.46	11.7	cloudy	
Madison, Wisconsin	28.56	725.4	29.59	751.6	48	8.9	93	s.	16	7.2			10 s		calm	0.84	21.3	cloudy	
Marquette, Michigan	28.87	733.3	29.60	751.8	55	12.8	100	ne.	8	3.6			fg;10n		ne.	1.69	42.9	light rain	
Mason, Texas	28.53	724.6	30.31	769.9	53	11.7	80	nw.	1	0.4		7 ck	0	nw.		0	0	fair	
Memphis, Tennessee	29.59	751.6	29.93	760.2	56	13.3	80	calm	0	0		0	0			0.22	5.6	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
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Milwaukee, Wisconsin	28.90	734.0	29.66	753.4	53	11.7	86	s.	18	8.0			10 s			0.71	18.0	cloudy	
Mobile, Alabama	29.86	758.4	29.93	760.2	63.0	17.2	90	nw.	5	2.2		0	0			0.57	14.5	clear	
Montgomery, Alabama	29.70	754.4	29.93	760.2	61.9	16.6	88	calm	0	0		3 c	0	nw.		0.70	17.8	clear	
Moorhead, Minnesota	28.89	733.8	29.90	759.4	37.1	2.8	89	n.	20	8.9			10 s		n.	0	0	cloudy	
Morgantown, W. Virginia	28.89	733.8	29.82	757.4	76.8	24.9	60	se.	10	4.5		0	7 s		s.	inap.	inap.	cloudy	
Mt. Washington, N. H.	24.22	615.2	30.42	772.7	41.0	5.0	44	s.	32	14.3		6 c	5 s	calm	s.	0	0	fair	
Nashville, Tennessee	29.34	745.2	29.88	758.9	58.0	14.4	85	sw.	1	0.4		0	1 ks			2.94	74.7	clear	
New Haven, Connecticut	30.26	768.6	30.38	771.6	63	17.2	84	ne.	8	3.6			10 s		ne.	0	0	cloudy	
New London, Connecticut	30.38	771.6	30.43	772.9	64	17.8	84	e.	10	4.5		3 k	0	e.		0	0	fair	
New Orleans, Louisiana	29.86	758.4	29.92	760.0	68.4	20.2	70	n.	6	2.7		hz	hz			0	0	clear	
Newport, Rhode Island	30.38	771.6	30.42	772.7	61.0	16.1	87	ne.	6	2.7		6 k	3 s	se.	ne.	0	0	cloudy	
New River, N. Carolina					80	26.7	79	se.			2	0	0			0	0	clear	
New Shoreham, Rhode I'd.	30.37	771.4	30.40	772.1	62.5	16.9	84	e.	19	8.5		0	0			0	0	clear	
New York, New York	30.13	765.3	30.31	769.9	63	17.2	93	ne.	23	10.3			10 s		ne.	0.15	3.8	cloudy	
Norfolk, Virginia	30.07	763.8	30.10	764.5	76	24.4	97	se.	8	3.6		0	3 k			1.71	43.4	clear	
North Platte, Nebraska	27.07	687.6	30.01	762.2	35.4	1.9	75	nw.	16	7.2		0	0			0	0	clear	
Olympia, Washington T'y	30.00	762.0	30.04	763.0	44.0	6.7	93	ne.	1	0.4			fg		calm	0	0	dense fog	
Omaha, Nebraska	28.54	724.9	29.74	755.4	39	3.9	86	nw.	18	8.0			10 n		nw.	0.15	3.8	light rain	
Oswego, New York	29.82	757.4	30.16	766.1	64.0	17.8	73	se.	14	6.3		2 k	7 s		s.	inap.	inap	cloudy	
Pensacola, Florida	29.88	758.9	29.92	760.0	63	17.2	93	n.	5	2.2		0	0			0.65	16.5	clear	
Philadelphia, Pa	30.17	766.3	30.23	767.8	71	21.7	90	se.	15	6.7			10 s		e.	inap.	inap.	cloudy	
Phœnix, Arizona	28.70	729.0	30.44	773.2	69.2	20.7	66	e.	4	1.8		0	0			0	0	clear	
Pike's Peak, Colorado	17.83	452.9	30.04	763.0	21	— 6.1	73	ne.	38	17.0		0	0			0	0	clear	
Pioche, Nevada	24.20	614.7	30.20	767.1	59	15.0	22	w.	8	3.6		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.09	738.9	29.91	759.7	77	25.0	60	e.	10	4.5		9 k	0	se.		inap.	inap.	cloudy	
Port Eads, Louisiana	30.00	762.0	30.01	762.2	72.1	22.3	73	s.	18	8.0		0	1 ks		s.	0.77	19.6	clear	
Port Huron, Michigan	29.09	738.9	29.78	756.4	68.0	20.0	94	se.	20	8.9			10 n		calm	0.24	6.1	light rain	
Portland, Maine	30.47	773.9	30.52	775.2	58.5	14.7	86	se.	5	2.2			10 s		se.	inap.	inap.	cloudy	
Portland, Oregon	29.98	761.5	30.05	763.3	50.1	10.1	93	calm	0	0			fg			0	0	dense fog	
Portsmouth, N. Carolina					79	26.1	82	sw.	16	7.2		6 k	0	se.		0.48	12.2	fair	
Prescott, Arizona	24.79	629.7	29.98	761.5	51	10.6	57	s.	4	1.8		0	0			0	0	clear	
Punta Rassa, Florida	29.85	758.2	29.86	758.4	83	28.3	73	s.	12	5.4		0	3 k		s.	0.01	0.3	fair	
Red Bluff, California	29.50	749.3	29.84	757.9	67.5	19.7	41	n.	2	0.9		0	0			0	0	clear	
Rio Grande City, Texas	29.89	759.2	30.11	764.8	62	16.7	73	calm	0	0		0	0			0	0	clear	
Rochester, New York	29.44	747.8	30.08	764.0	69	20.6	76	s.	24	10.7			10 ks		s.	0.02	0.5	cloudy	
Roseburg, Oregon	29.52	749.8	30.10	764.5	46	7.8	83	ne.	1	0.4		0	0			0	0	clear	
Sacramento, California	29.78	756.4	29.86	758.4	61.0	16.1	65	se.	6	2.7		0	0			0	0	clear	
St. Louis, Missouri	29.18	741.2	29.78	756.4	49.7	9.8	59	sw.	8	3.6			10 s		sw.	inap.	inap.	cloudy	
St. Paul, Minnesota	28.55	725.2	29.43	747.5	43.0	6.1	93	nw.	14	6.3			10 n		nw.	0.86	21.8	light rain	
Salt Lake City, Utah	25.69	652.5	30.02	762.5	53	11.7	28	se.	1	0.4		0	0			0	0	clear	
San Antonio, Texas	29.37	746.0	30.07	763.8	54.9	12.7	86	calm	0	0		0	0			0	0	clear	
San Diego, California	29.70	754.4	29.78	756.4	61.6	16.4	84	e.	3	1.3		0	sk			0	0	clear	
Sandusky, Ohio	29.10	739.1	29.79	756.7	67	19.4	90	sw.	16	7.2			10 n		sw.	0.76	19.3	light rain	
Sandy Hook, New Jersey	30.26	768.6	30.29	769.4	67.0	19.4	100	se.	33	14.8			10 s		se.	0.17	4.3	cloudy	
San Francisco, California	29.83	757.7	29.89	759.2	56	13.3	83	sw.	8	3.6		0	0			0	0	clear	
Santa Fé, New Mexico	23.30	591.8	30.10	764.5	39	3.9	65	calm	0	0		0	0			0	0	clear	
Savannah, Georgia	29.82	757.4	29.91	759.7	77.5	25.3	90	s.	12	5.4			10 s			0.79	20.1	threatening.	
Shreveport, Louisiana	29.79	756.7	30.02	762.5	51	10.6	66	w.	4	1.8		0	0			0	0	clear	
Silver City, New Mexico	24.33	618.0	29.90	759.4	50	10.0	79	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.82	757.4	29.89	759.2	52	11.1	86	se.	2	0.9			10 ks		calm	0.22	5.6	cloudy	
Smithville, North Carolina	29.95	760.7	29.99	761.7	80	26.7	82	se.	20	8.9		hz	hz			0	0	hazy	
Spokane Falls, Wash. Ter.	28.03	711.9	30.05	763.3	44	6.7	86	n.	1	0.4		0	0			0	0	clear	
Springfield, Illinois	29.06	738.1	29.75	755.6	49.0	9.4	93	sw.	10	4.5			10 s		sw.	0.45	11.4	cloudy	
Springfield, Massachusetts	30.31	769.9	30.44	773.2	59.4	15.2	87	e.	4	1.8			10 s			0	0	cloudy	
Stockton, Texas	27.01	686.0	30.08	764.0	56.7	13.7	83	se.	4	1.8		0	0			0	0	clear	
St. Vincent, Minnesota	29.25	742.9	30.14	765.5	31	— 0.6	88	n.	16	7.2		0	1 s		calm	0	0	clear	
Thatcher's Island, Mass	30.43	772.9	30.48	774.2	60.8	16.0	84	e.	8	3.6			10 s		e.	0	0	cloudy	
Toledo, Ohio	29.07	738.4	29.77	756.1	65	18.3	84	s.	8	3.6			10 n		s.	0.43	10.9	light rain	
Tucson, Arizona	27.42	696.5	29.78	756.4	63	17.2	68	se.	4	1.8		0	0			0	0	clear	
Umatilla, Oregon	29.68	753.9	30.09	764.3	52.3	11.3	56	e.	6	2.7		0	0			0	0	clear	
Uvalde, Texas	29.11	739.4	29.93	760.2	57	13.9	51	calm	0	0		0	0			0	0	clear	
Vicksburg, Mississippi	29.70	754.4	29.96	761.0	56	13.3	86	ne	1	0.4		0	fg		calm	inap.	inap.	clear	
Visalia, California	29.44	747.8	29.80	756.9	61	16.1	65	se.	5	2.2		0	0			0	0	clear	
Washington, D. C.	30.00	762.0	30.11	764.8	75.0	23.9	90	e.	9	4.0			9 ks		se'	0.15	3.8	cloudy	
Wickenburg, Arizona					57	13.9	69	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	29.94	760.5	30.00	762.0	79	26.1	82	s.	7	3.1			10 ks		s.	inap.	inap.	cloudy	
Winnemucca, Nevada	25.66	651.8	29.99	761.7	48	8.9	37	ne.	4	1.8		0	0			0	0	clear	
Wood's Holl, Mass	30.38	771.6	30.42	772.7	63	17.2	84	e.	20	8.9		0	3 s		e.	0	0	fair	
Yankton, Dakota	28.44	722.4	29.75	755.6	39	3.9	89	nw.	21	9.4			10 n		nw.	0.35	8.9	light rain	
Yuma, Arizona	29.60	751.8	29.74	755.4	74.4	23.6	61	calm	0	0		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	29.98	761.5	30.00	762.0	84	28.9	87	e.	2	0.9		2 k	10 ks			0.30	7.6		J. A. Racker.
Bogota, U. S. Columbia	22.12	561.8			51.0	10.6	78	e.	1	0.4		0	0			0.11	2.8	clear	Joaquin Gomez.
Guadeloupe, W. I.‡	29.89	759.2	29.89	759.2	79	26.1	87	e.				10 c	0			0	0		B. Bigar.
Havana, Cuba, W. I.	29.89	759.2	29.94	760.5	80	26.7	82	se.	1.2	0.5		5 cs	2 ks	calm	sw.	inap.	inap.	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.95	760.7	29.96	761.0	75.5	24.2	87	calm	0	0		7 cs	3 s			0.37	9.4	light rain	Robert Johnstone.
Navassa, W. I.	29.84	757.9	29.92	760.0	83	28.3	79	e.	7	3.1		8 cs; k	2 kn	e.	se.	0	0	cloudy	F. M. Everett.
Paramaribo, S. A.	30.02	762.5	30.02	762.5	80	26.7	78	se.			1	4 ck	0	e.		0.040	1.0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.38	746.2	29.93	760.2	81	27.2	80	calm			0	2 c	2 k	calm	calm	0	0	fair	Francesco J. Cisneros.
Rivas, Nicaragua					75.9	24.4		se.			1	0	2 ks		se.	0.28	7.		Earl Flint.
Santiago de Cuba, W. I.	29.95	760.7	29.97	761.2	79	26.1	78	calm	0	0		8 cs	4 ks	ne.		0.15	3.8	cloudy	Robert Mason.
St. Thomas, W. I.‡	30.00	762.0	30.01	762.2	81	27.2	79	e.	5	2.2		2 c	5 ks	n.	e.	0.05	1.3	clear	G. O. Gyllich.
York Factory, B. A.	29.97	761.2	30.02	762.5	35.0	1.7	95	nw.	16	7.2		1 c	1 s	nw.	nw.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Thursday Island, Torres St	29.96	761.0	77	25.0	92	ese.			3-4		4							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Cartagena, Murcia, Spain	30.17	766.3	77	25.0	86	sw.			2		10	sw.				1	sw.	misty	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.86	758.4	75	23.9		ne.			1-2		1							blue sky	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 18° 20′, W. 64° 56′	30.02	762.5	81	27.2	91	e.			1-2		6							d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.99	761.7	75	23.9	72	nnw.			1		4	nne.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, S. 10° 20′, W. 80° 00′	29.93	760.2	63	17.2	83	s.			2		10					3	s.	d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A. T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.85	758.2	82	27.8		sw.			2		1	wsw.				1	wsw.	blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 22° 33′, E. 2° 37′	30.13	765.3	60	15.6		wsw.			1		0					4	ese.	blue sky	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.06	763.5	80	26.7	80	wnw.			1-2		3	wnw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.36	771.1	48.5	9.2	92	n.			2-3		10							squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 22° 24′, E. 59° 40′	29.57	751.1	92	33.3		s.			2		2	se.				2	s.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 13° 04′. E. 80° 14′	29.80	756.9	85	29.4		sw.			1-2		3					2	sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Seychelles Islands, Africa	29.92	760.0	81	27.2	82	ese.			2-3		9	ese.						d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 35° 48′, E. 10° 19′	29.94	760.5	76	24.4		ene.			2		1					1	e.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 11° 42′, W. 83° 34′	29.91	759.7	83	28.3	91	ne.			1-2		3	ne.				2	e.	showery	Comm. R. N. Custance.
H. M. S. Flying Fish, Yessashi Yezo, Japan	30.02	762.5	65	18.3	78	e.			1		4					1	nnw.	misty	Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 20° 03′, W. 155° 45′	30.00	762.0	77	25.0	65	var.			1		4					1	sw.	blue sky	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argt. Rep.	30.09	764.3	65	18.3	83	calm			0		4	sw.						d. clouds	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 29′, W. 78° 16′	29.95	760.7	82	27.8	83	calm			0		2							d. clouds	Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 8° 00′, E. 170° 00′	29.88	758.9	83	28.3	70	ene.			2		3	ene.				2	ene.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 38° 49′, E. 141° 54′	30.07	763.8	60	15.6		ssw.			3-4		3	sw.				4	sw.	d. clouds	Capt. R. E. Tracey.
H. M. S. Kestrel, Canton, China *†	29.94	760.5	83	28.3							4	calm						showery	Capt. W. M. Lang.
H. M. S. Kingfisher, S. 7° 15′, W. 79° 45′	29.99	761.7	58	14.4		sse.			1		7	calm				3	w.	d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 19° 00′, E. 77° 00′	29.95	760.7	72	22.2		ese.			4		4	ese.				4	ese.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 13° 47′, W. 30° 05′	30.14	765.5	78	25.6	73	ese.			5		2					2	sse.	d. clouds	Lt. C. F. Oldham.
H. M. S. Lily																			
H. M. S. London																			
H. M. S. Magpie N. 20° 22′. E. 109° 55′	29.82	757.4	83.1	28.4	83	e.			1		4							misty	Lt. A. Carpenter.
H. M. S. Midge																			
H. M. S. Malabar																			
H. M. S. Minotaur																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.05	763.3	81	27.2	87	sse.			1		1	ese.						blue sky	Capt. C. G. Tryon
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	30.45	773.4	55	12.8	87	calm			0		0							blue sky	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 17° 01′, W. 72° 25′	30.02	762.5	58	14.4	100	nne.			1		10					3	s.	misty	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready, N. 8° 33′, E. 81° 15′	29.90	759.4	78	25.6		n.			4									raining	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 6° 57′, E. 50° 14′	29.76	755.9	78.3	25.7	82	sw.			4		0					3	sw.	blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 12° 14′, E. 44° 10′	29.64	752.8	76	24.4	90	ese.			2-3		6	ssw.						raining	Comm. W. Byles.
H. M. S. Serapis, N. 29° 12′, W. 18° 14′	39.09	764.3	75	23.9	100	nne.			3		6	nne.				2	nne.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 44° 35′, W. 9° 13′	30.06	763.5	68.5	20.3	90	ese.			3		4	ese.				3	ese.	misty	Capt. T. H. Boyse.
H. M. S. Tenedos, N. 49° 55′, W. 64° 40′	30.50	774.7	56	13.3	100	ese.			2		10							misty	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S Thunderer																			Capt. P. H. Colomb.
H. M. S Triumph, Callao Bay, Peru	29.96	761.0	59	15.0	87	s.			2		5	calm						d. clouds	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott
H. M. S. Tweed																			
H. M. S. Tyne,																			Capt. J. E. Stokes.
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.95	760.7	80	26.7		n.			1		3							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S, Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.66	753.4	84.5	29.2	75	w.			2		2	w.						d. clouds	Capt. T. P. Nesham.
H M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, S. 11° 18′, E. 13° 45′	30.01	762.3	69.1	20.6	85	w.			2		10					1	sw.	overcast	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	29.89	759.2	83.8	28.8	66	ene.			1		9			5 h'r	5 h'r	1	ene.	showery	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamegu, Macao, China	29.91	759.6	83.3	28.5	81	ssw.			2					1 h'r	1h'r			blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	29.96	761.0	64	17.8	89	nw.	4	1.8			2		nw.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.46	773.7	60	15.6	88	e.	10	4.5		10 c	0	e.		0	0			misty	
Naval Hospital, Yokohama, Japan	29.87	758.7	76	24.4	91	calm			0		10		n.	0	0			cloudy	
Adams, Panama, Panama	29.76	755.9	79	26.1	91	wsw.			2		2		calm					fair	
Alaska, Callao, Peru	29.91	759.7	59	15.0	100	s.			1		8		s.			sm'h		cloudy	
Alert, Yokohama, Japan *	29.86	758.4	80	26.7	87	wsw.			1		10		calm	0	0	sm'h		foggy	
Alliance, Hammerfest, Norway	29.80	756.9	40	4.4	91	ene.			4		10		ene.	0	0	sm'h	ene.	cloudy	
Ashuelot, Kobe, Japan	30.02	762.5	78	25.6	78	w.			1		2		calm					clear	
Colorado, New York, N. Y.	30.29	769.4	64	17.8	94	e.	13	5.8			10		e.	0.12	3.0			rainy	
Constitution, New Bedford, Mass.	30.34	770.6	62	16.7	100	e.	15	6.7			5		e.					fair	
Franklin, Norfolk, Va.	30.02	762.5	76	24.4	100	se.	9.6	4.3			2		se.	0.9	23.			fair	
Galena, Leghorn, Italy	29.90	759.4	73	22.8	76	nw.			1		8		nw.			sm'h		fair	
Independence, N. Yard, Mare I'd, Cal.	29.76	755.9	60	15.6	76	sw.	8.4	3.8			0							clear	
Jamestown, Mare Isl'd, Cal *	29.54	750.3	60	15.6	88	sw.			3		0			0	0			clear	
Kearsarge, Philadelphia, Pa.	30.22	767.6	72	22.2	85	e.			4		10		ne.					cloudy	
Lackawanna, Mare Isl'd, Cal. †	30.07	763.8	60	15.6	82	sw.			1		0							clear	
Lancaster, New York, N. Y.	30.26	768.6	71	21.7	100	ene.	10	4.5			10		ene.					overcast	
Marion, Maldonado, Uruguay *	29.88	758.9	58	14.4		ene.			1		8		calm			long	s.	fair	
Michigan, Erie, Pa.	29.76	755.9	74	23.3	90	se.			7		10		se.					cloudy	
Minnesota, Newport, R. I.	30.41	772.4	61	16.1	94	ene.			2		8		e.	0	0	sm'h		cloudy	
Monocacy, Yokohama, Japan	30.07	763.8	79	26.1	91	calm			0		8		calm					fair	
Nipsic, Villafranca, France	29.91	759.7	73	22.8	76	se.			1		0					sm'h		blue sky	
Onward, Callao, Peru †	29.99	761.7	59	15.0	94	sse.			2		5		n.			long	w.	fair	
Palos, Hong Kong, China	29.89	759.2	83	28.3	79	ssw.			1		2		calm					fair	
Passaic, Washington, D. C.	30.12	765.0	75	23.9	95	ese.			3		8							cloudy	
Pensacola, Panama, Panama	29.90	759.4	78	25.6	91	nw.			2		5			0	0	sm'h		fair	
Portsmouth, New Bedford, Mass.	30.42	772.7	62	16.7	94	ene.			4		8		e.			sm'h		clear	
Powhatan, Aspinwall, Panama	29.87	758.7	84	28.9	87	s.			0-1		2		s.					fair	
Quinnebaug, Marseilles, France	29.94	760.5	74	23.3	52	nnw.			5		2		nnw.			sm'h		clear	
Ranger, Mare Island, Cal. *	29.84	757.9	60	15.6	82	ssw.			2		0					sm'h		clear	
Richmond, N. 13° 55′, W. 90° 40′	29.85	758.2	83	28.3	91	ese.			2		2		ese.	0.18	4.6	sm'h		fair	
Saratoga, Wickford, R. I.	30.39	771.9	60	15.6	?	ene.			2		8		ne.	0	0	sm'h		cloudy	
Shenandoah, Maldonado, Uruguay *	30.15	765.8	58	14.4	76	ene.			2		8					sm'h		fair	
St. Louis, League Island, Pa.	29.92	760.0	74	23.3	86	ese.	14	6.3			10		ese.	0.09	2.3			cloudy	
Swatara, Chefoo, China †	29.89	759.2	75	23.9	77	sse.			2		10		calm					cloudy	
Tennessee, New York, N. Y.	30.32	770.1	66	18.9	?	e.	18	8.0			10			0.15	3.8			drizzling	
Trenton, N. 32° 10′, W. 17° 20′ *	30.05	763.5	75	23.9	77	w.			2		5			0	0	sm'h		fair	
Vandalia, New York, N. Y.	30.28	769.1	65	18.3	89	e			3		10		se.					drizzling	
Wabash, Boston, Mass.	30.47	773.9	62	16.7	83	e.	7	3.1			10		e.	0	0			cloudy	
Wyoming, Port Royal, S. C.	29.88	758.9	80	26.7	87	se.	18	8.0			8		se.	0.11	2.8			cloudy	
Yantic, New York, N. Y. *	30.26	768.6	65	18.3	94	e.			5		10							drizzling	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland *†..	30.18	766.6	.....	.....	.....	wsw.	3	.....	5	.....	ssw.	.....	.....	.....	.....	fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith N. 54° 50′, W. 36° 00′	30.60	777.2	50	10.0	72	nw.	5	.....	8	.....	ne; w.	1 h'r	1 h'r	6	nw.	d. clouds	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 49° 46′, W. 42° 07′	30.56	776.2	58	14.4	.....	ne.	4	.....	2	.....	ne.	.....	.....	mod.	ne.	clear	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn *†..	30.33	770.4	77	25.0	95	e.	3	.....	8	.....	.....	.....	.....	.....	.....	cloudy	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Liverpool, Eng *†..	30.00	762.0	63	17.2	89	ne.	2	.....	2	.....	ne.	.....	.....	.....	.....	fine	.....
S. S. Pennsylvania, Capt G. H. Dodge, N. 50° 36′ W. 16° 15′ ..†..	30.12	765.0	62	16.7	83	ssw.	4	.....	8	.....	w.	.....	.....	sm'h	sw.	cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall N. 11° 40′, W. 25° 27′	29.91	759.7	79	26.1	95	var.	1	.....	9	.....	.....	.....	.....	.....	.....	squally	.....
S. British Merchant, Capt. E. J. Moloney, N. 48° 10′, W. 20° 23′ ‡.	30.08	764.0	60.2	15.7	94	e.	0-1	.....	10	.....	.....	.....	.....	.....	.....	drizzling	.....
S. S. Cipero, Capt. W. N. Lailey, N. 8° 05′, W. 58° 59′	29.99	761.7	79.8	26.6	79	e.	2	.....	5	.....	.....	.....	.....	1	e;se	d. clouds	.....
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan, N. 39° 28′, W. 39° 38′	30.33	770.4	69.2	20.7	70	e.	4	.....	10	.....	.....	.....	.....	.....	.....	overcast	.....
Bk. Glaramara, Capt. R. Morton, N. 47° 11′, W. 129° 12′ ‡..	30.02	762.5	49	9.4	94	wsw.	5	.....	8	.....	.....	.....	.....	.....	.....	showery	.....
Bg. Hermine, Capt. S. G. Jones, N. 9° 36′, W. 26° 03	29.97	761.2	79.2	26.2	89	sw.	4	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bkt. Hope, Capt. Jas. Campbelle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Island Belle, Capt. A. McBride, N. 6° 58′, W. 58° 05′	30.02	762.5	76.5	24.7	.....	ene.	3	.....	8	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. Lochee, Capt. J. Raeburn, N. 43° 56′, E. 4° 40′ ‡.	30.35	770.9	46.6	8.1	84	n.	2-3	.....	9	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bk. Mertola, Capt. E. W. Turner	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pleione, Capt. C. H. Renant, S. 42° 26′, E. 6° 33′	30.51	774.9	49	9.4	77	ne.	3	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Rosetta, Capt. A. E. Barlow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Queen of Cambria, Capt. M. Parry N. 41° 11′, W. 16° 14′	29.89	759.2	69	20.6	85	se.	4	.....	6	.....	.....	.....	.....	.....	.....	d. clouds	.....
Sierra Estrella, Capt. P. Murdoch,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. N. Gray, N. 12° 48′, W. 29° 27′ ‡..	29.96	761.0	80.5	26.9	85	nne.	3-4	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Strathleven, Capt. C. W. Pearson, Shanghai, China	29.82	757.4	71.5	21.9	95	sw.	4	.....	10	.....	.....	.....	.....	.....	.....	raining	.....
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, Guaymas, Mexico †..	29.56	750.8	85	29.4	79	calm	0	.....	3	.....	.....	.....	.....	.....	.....	clear	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 47° 34′, W. 34° 26′	30.24	768.1	58.0	14.4	76	ne.	6	.....	8	.....	ene.	.....	.....	r'gh	ne.	cloudy	.....
S. S. Herman, Capt. H. Baur N. 46° 41′, W. 52° 46′	30.52	775.2	50.0	10.0	.....	e.	6	.....	10	.....	e.	4 h'r	4 h'r	mod.	ne.	foggy	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N. 50° 23′, W. 2° 01′	30.24	768.1	66.5	19.2	81	nne.	1-2	.....	5	.....	nne.	24h'rs	haze	sm'h	nne.	hazy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reichler.
S. S. Strassburg, Capt. Helmbruche N. 51° 50′, E. 2° 25′	30.24	768.1	78.0	25.6	91	calm	0	.....	2	.....	n.	0	0	sm'h	.....	hazy	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 32° 34′, E. 133° 30′ †..	30.20	767.1	81	27.2	80	calm	0	.....	2	.....	sw.	0	0	light	s.	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, San Francisco, Cal *†..	30.02	762.5	63	17.2	83	ssw.	3	.....	1?	.....	ssw.	.....	.....	.....	.....	cloudy ?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 46° 44′, E. 172° 19′	29.27	743.4	50	10.0	79	ese.	3	.....	10	.....	se.	.....	.....	mod.	nw.	cloudy	.....
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon, Capt. Pollmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 35° 20′, W. 121° 02′ †	29.85	758.2	56	13.3	87	nw.	3		0					mod.	wnw.	clear	J. N. Ingalls.
S. S. Dakota, Capt. ——,																	
S. S. Idaho, Capt. T. Huntington, Tacoma, Washington Ter †	30.08	764.0	56	10.0	100	calm	0		0							clear	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 36° 20′, W. 121° 55′ †	29.90	759.4	56	13.3	94	nw.	7		fg		nnw.	0	0	chop	nw. to sw.	foggy	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal †	29.90	759.4	58	14.4	88	sw.	1		0							clear	T. Wallace.
S. S. State of California, Capt. Debney, N. 43° 15′, W. 124° 30′ †	30.03	762.7	57	13.9	87	n.	3		5		nw.			sm'h	nw.	fair	G. Debney.
S. S. Victoria, H. M. Hayward, Nanaimo, Vancouver's Isl'd †	30.12	765.0	52	11.1	100	calm	0		0							clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J Bulloy, Supt. New York.*																	
S. S. Australia, Capt. ——, S. 22° 38′, W. 178° 30′	30.07	763.8	70	21.1	80	ene.	4		8		ne.			r'gh	ne.	squally	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W †	30.13	765.3	65	18.3	73	e.	2		0			0	0			clear	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 46° 40′, W. 174° 04′ *†	29.57	751.1	54	12.2	74	ssw.	7		8		sw.	0	0	r'gh	ssw.	cloudy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, N. 14° 16′, W. 92° 17′ †	29.97	761.2	84	28.9	83	nw.	2		5		n.	0	0	sm'h	s.	fine	
S. S. City of Sydney, Capt. H. C. Dearborn,																	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 22° 10′, E. 114° 10′ †	30.03	762.7	85	29.4	68	sw.	2		0			0	0			clear	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle																	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, La Libertad, San Salvador †	29.82	757.4	76	24.4	86	calm	0		2		calm	0	0	light	sse.	clear	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 31° 28′, E. 179° 44′	30.35	770.9	62	16.7	72	e.	4		5?		e.			mod	e.	cloudy?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †	30.39	771.9	64	17.8	83	nw.	1		8		nw.	0.1	3.			cloudy	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 51° 04′, W. 19° 52′ †	29.50?	749.3?	57	13.9	100	se.	1		10		se.	driz.	driz.	sm'h		misty	A. Horsfall.
S. S. Britannic, Capt. H. Perry,																	
S. S. Celtic, Capt. B. Gleadell, N. 51° 04′, W. 24° 10′ †	30.03	762.7	57	13.9		nw.	4		10		n.	2 h'r	2 h'r	sm'h		drizzling	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy,																	W. A. Ward.
S. S. Republic, Capt. P. J. Irving																	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass †	30.38	771.6	63	17.2	100	ese.	6	2c	2s			0	0			fair	
Golden Fleece																	
Hassler, Lt. Com. Nichols, Sitka, Alaska *†	29.92	760.0	55	12.8		nne.	1		10					mod.	s.	overcast	
S. Iron Cross, Capt. Randall, S. 2° 32′, W. 20° 16′ *	30.00	762.0	76.2	24.6	98	se.	4		5		sse.	0	0	mod.	sse.	misty	W. Randall.
S. Pawashick, Capt. E. Fry, N. 42° 00′, W. 50° 24′ †*	30.03	762.7	68	20.0	100	ne.	5		10		ne.			mod.	ene.	drizzling	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	30.07	763.8	80	26.7	91	ene.	2		5		w.	0	0			fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer. U. S. A.

Heliotype Printing Co Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 17, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.97	761.3	78.1	25.6	71	n.			2		2			0	0	fair	Raynard.
Algiers ‡			30.03	762.8	79.5	26.4	73	ne.			2		5			0	0	cloudy	Nicolas.
La Calle ‡			30.04	762.9	76.6	24.8	77	wnw.			2		3			0	0	pretty fair	Fonfréde.
Tunis ‡			30.02	762.6															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.07	763.7	96.8	36.0	14	nw.			1		1			0	0	very fair	Dumas.
Tebessa ‡			30.06	763.4	90.3	32.4	8	nw.			4		0			0	0	clear	Derché.
Geriville ‡					92.8	33.8	10	se.			6		0			0	0	clear	Lonchamp.
Laghouat ‡			30.07	763.8	94.3	34.6	11	ne.			2		2			0	0	fair	Herbin.
Biskra ‡			30.06	763.5	102.6	39.2	15	nw.			5		2			0	0	fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.59	751.6	29.68	753.9	58.9	14.9	54	nw.	29	13.0			5			0	0	squally	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.60	751.8	30.14	765.6	63.1	17.3	71						6			0.008	0.2		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.36	745.8	30.13	765.3	55.2	12.9	78	w.	8.1	3.6			10			0	0		Dr. Wiersbicki.
Eperies	29.17	740.9	30.04	762.9	60.8	16.0	69	calm			0		10 ks			0	0		Julius Mikolik.
Gratz ‡	28.85	732.9	30.10	764.4	60.4	15.8	77	sse.			2		8			0.094	2.4		Andreas Rospinf.
Hermannstadt	28.62	727.0	30.02	762.5	67.3	19.6	49	nw.			2		4			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.82	732.0	30.16	766.0	56.7	13.7	77	w.			1		6			0	0	cloudy	The Staff.
Lemberg	29.03	737.3	30.00	762.1	57.6	14.2	78	nw.			2		9			0	0		Dr. T. Stanecki.
Pola	29.98	761.4	30.09	764.2	70.2	21.2	44	ne.			2		1			0	0		I. R. Hydrographic Office.
Szathmar	29.58	751.3	30.04	762.9	65.1	18.4	54	w.			2		7			0	0		Beicht Petér, S. J.
Szegedin	29.76	756.0	30.04	763.0	64.8	18.2	66	n.			1		6			0	0		Karl Stancel.
Trieste	30.02	762.4	30.12	765.0	70.7	21.5	47	e.			3		0			0	0	clear	Secco.
Vienna	29.47	748.5	30.19	766.7	58.3	14.6	59	nw.			2		8			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.76	755.9	29.85	758.2	54.3	12.4	85	s.	10	4.5			10			0.020	0.5	misty	W. Boswell.
Armagh, Observatory	29.60	751.8	29.82	757.4	54.9	12.7	80	s.	7	3.1			10					overcast	S. Call.
Bidston, Liverpool Obs'y			29.90	759.4	56.9	13.8	77	sse.	20	8.9			10					overcast	John Hartnup.
Bolton, Sharples	29.38	746.2	29.91	759.7	54.0	12.2	86	ssw.	12	5.4			10					overcast	Thomas Mackereth.
Bradford, Yorkshire	29.69	754.1	30.08	764.0	52.1	11.2	70	e.			1		2			0.28	7.1	blue sky	[A.S. J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.96	761.0	66.0	18.9	68	se.			0.4		5					foggy	John McLaren.
Chatham, School M. E.	29.92	760.0	30.05	763.3	66.0	18.9	73	sw.			2		5					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.66	753.4	29.88	758.9	60.7	15.9	80	ese.			3		10					overcast	The Staff.
Fort Napier, Natal	27.71	703.8	29.93	760.2	70.0	21.1	52	calm			0		5						Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.76	755.9	29.99	761.7	83.0	28.3	83	w.			5		5					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.76	755.9	59	15.0	64	sw.			2		10					raining	J. O'Donaghue.
Gibraltar, Mediterranean	29.95	760.7	30.00	762.0	74.5	23.6	89	e.			2		7					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	29.62	752.3	29.83	757.7	56.3	13.5	77	sse.			4		10					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.84	757.9	30.01	762.2	66.0	18.9	62	s.			1		4					d. clouds	The Staff.
Guernsey	29.71	754.6	29.92	760.0	62.5	16.9	77	se.			3		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.98	761.5	30.02	762.5	64.9	18.3	62	sse.	15	6.7			7					d. clouds	The Staff.
Leicester, Museum	29.70	754.4	29.96	761.0	61.0	16.1	81	s.			1		10					overcast	J. O. Smith.
Malta, Mediterranean	29.78	756.4	29.85	758.2	80.8	27.1	58	nw.			2		1			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.87	758.7	29.92	760.0	81.2	27.3	82	e.			1		5			blank	blank	d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.44	747.8	29.95	760.7	59.9	15.5	82	sse.			3		9					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.74	755.4	29.97	761.2	62.9	17.2	75	sse.			2		6					d. clouds	The Staff.
Plymouth	29.84	757.9	29.92	760.0	64.2	17.9	76	sse.			3		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			29.76	755.9	56.2	13.4	80	ssw.	15	6.7			10					misty	Rev. C. Clouston, L. L. D
Scutari Cemetery, Turkey	29.87	758.7	29.93	760.2	81.4	27.4	46	nne.			3		2					d. clouds	Serg't W. H. Lyne.
Sheffield	29.69	754.1	29.97	761.2	58.8	14.9	86	sw.			2		9			0.11	2.8	overcast	W. F. Cooper.
Silloth Rectory	29.83	757.7	29.87	758.7	64.0	17.8	67	sw.			1		6			0.435	11.0	misty	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.93	760.2	56.3	13.5	80	s.	14	6.3			10					misty	Rev. S. J. Perry.
Straifield Turgiss	29.79	756.7	30.00	762.0	64.4	18.0	75	sw.			3		4					d. clouds	Rev. C. H. Griffiths, F. M. S
Truro, Royal Institution	29.82	757.4	29.84	757.9	65	18.3	83	se.			6		10					raining	W. Newcombe.
Valencia, Observatory	29.74	755.4	29.76	755.9	55.0	12.8	90	nne.	6	2.7			10					d. clouds	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.36	771.1	30.40	772.1	55	12.8	99	w.	3	1.3			8s; 1g			0	0	light fog	H. J. Cundall, C. E.
Chatham, N. B.*	30.37	771.4	30.43	772.9	51	10.6	93	sw.	1	0.4		0	0			0	0	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.39	771.9	30.41	772.4	51	10.6	93	e.	1	0.4		5 c	5 s	n.	calm	0	0	fair	J. McWilliams.
Fort Garry, Manitoba*	28.95	735.3	29.78	756.4	45	7.2	96	se.	5	2.2			10 n			0.720	18.3	light rain	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.25	768.3	30.38	771.6	53	11.7	86	nw.	8	3.6		2 c	0			0	0	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.97	761.2	30.29	769.4	67	19.4	70	s.	7	3.1		8 k	2 ks	se.	se.	0	0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	30.15	765.8	30.35	770.9	60	15.6	75	se.	9	4.0		0	0			0	0	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.49	749.0	30.17	766.3	63	17.2	93	calm	0	0			10 n			0.02	0.5	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.51	749.5	30.19	766.8	61	16.1	100	calm	0	0			10 n		sw.	0.02	0.5	threatening	H. Morgan.
Port Stanley, Ontario	29.55	750.6	30.18	766.6	59	15.0	100	ne.	2	0.9			10 n		ne.	0.53	13.5	light rain	M. Payne.
Quebec, Quebec*	30.09	764.3	30.41	772.4	55	12.8	86	calm			0	0	2 s		sw.	0	0	clear	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.79	756.7	30.23	767.8	68	20.0	55	ss.	7	3.1		5 cs	sk.	s.		0	0	light smoke.	W. H. McIntyre.
Saugeen, Ontario*	29.47	748.5	30.17	766.3	59	15.0	100	s.	5	2.2			10 n		s.	1.37	34.8	light rain	K. Stewart.
St. Andrews, N. B.	30.36	771.1	30.42	772.7	50	10.0	92	n.	1	0.4		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.34	770.6	30.39	771.9	47	8.3	100	calm	0	0		2 c	2 s	n.	ne.	0	0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.81	757.2	30.18	766.6	67	19.4	90	se.	8	3.6			10 1/s			0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.33	770.4	30.39	771.9	56	13.3	93	ne.	1	0.4		5 c	0	e.		0	0	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.15	765.8	30.40	772.1	54	12.2	93	sw.	1	0.4			10 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	29.76	755.9	29.79	756.7	63.5	17.5	97	ne.	24.1	10.8			10 s			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.01	736.8			62.6	17.0	56	nw.			6	4	4			0	0	dull	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.93	760.1	29.95	760.8	70.9	21.6	94	wnw.	3.1	1.4			7			1.850	47.0	very cloudy	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Amount and kind. Lo'er 0—10	Direction. Upper. From.	Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.95	760.6	29.99	761.8	59.0	15.0	68	nw.	16	7			8						Oversergent Fischer
Fanöe	30.02	762.5	30.04	763.0	57.0	13.9	80	wnw.			4		4						Overloerer Lauridsen
Godthaab, Greenland	29.80	757.0	29.85	758.1	31.3	—0.4	90	calm			0		1						S. Kleinschmidt.
Stykkisholm, Iceland	29.50	749.3	29.54	750.4	44.2	6.8	82	ne.			4		5						A. O. Thorlacius.
Thorshavn	29.60	751.8	29.63	752.7	52.5	11.4	81	sw.	20	9			7						Overloerer Bergh.
Vestervig	29.93	760.2	30.02	762.5	56.1	13.4	75	wnw.			2		3						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.30	744.3	29.92	759.9	84.2	29	33	sse.			2		0			0	0	clear	M. Labroue, Director.
Alençon Normal School	29.53	750.0	30.08	764.0	60.1	15.6	89	s.			2	0	0	w.	n.	0	0	foggy	M. Nicot, Director.
Arras, Engineer School					60.4	15.8	80	sw.											M. Klein, Commandant.
Avignon, Normal School	30.01	762.3	30.09	764.3	74.8	23.8	56	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.53	750.1	30.08	763.9	66.9	19.4	61	sse.			1	2 c	0			0	0	slightly cl'dy	M. Saillard, Director.
Beauvais, Normal School	29.85	758.2	30.11	764.9	62.4	16.9	79	se.			1		0			0	0	clear	M. Frère Eugène Marie.
Besançon, Normal School	29.18	741.2	30.06	763.4	64.4	18	67	ssw.			1		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.71	754.5	29.96	760.9	79.0	26.1	33	se.			2		8			0	0	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.48	748.9	30.02	762.6	79.2	26.2	47	e.			2		0			0	0	clear	M. Postel, Director.
Brest, Naval Observatory	29.69	754.0	29.93	760.2	67.3	19.6	76	sse.			2		9		s.	0	0		M. de Kermaree, Dir.
Caen, Normal School	29.93	760.1	30.00	762.0	69.1	20.6	69	se.			1		5		se.	0	0	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					68.0	20.0	75	ne.			2		2		ne.	0	0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.59	751.6	30.09	764.3	64.8	18.2	48	s.			3		0			0	0	clear	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.70	729.0	30.00	761.9	76.6	24.8	25	calm			0	1 c	0			0	0	clear	M. Alluard, Director.
Cluny, Normal School	29.28	743.6	30.10	764.4	72.3	22.4	55	e.			1		1		s.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.27	743.5	30.13	765.2	59.4	15.2	75	e.			1	1	1	e.	e.	0	0	clear	Dr. Coulet, Director.
Gap, Normal School	27.60	701.0	30.05	763.2	72.7	22.6	57	s.			1		k	w.	w.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	29.04	737.5	30.18	766.5	79.5	26.4	36	s.			3		2		sw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.33	744.9	30.07	763.8	71.8	22.1	58	e.			1	2 c	0			0	0	slightly cl'dy	M. Ablard, Director.
Guéret, Normal School	28.47	723.1	29.98	761.6	75.4	24.1	28	se.			1		0			0	0	clear	M. Rivoire, Director.
Lamballe, Normal School	29.75	755.6	30.02	762.4	69.8	21	58	se.			2		fg		se.	0	0	light fog	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.83	757.6	29.93	760.2	73.4	23.0	59	se.			2		5		calm	0	0	½ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.07	738.4	30.11	764.9	66.7	19.3	53	se.			1		0			0	0	clear	M. André, Director.
Mans, Normal School	29.76	755.8	30.06	763.5	66.2	19	57	sse.			1		5		se.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.80	757.0	30.07	763.7	78.6	25.9	50	ssw.			2		0			0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.97	634.3	30.21	767.3	65.5	18.6	41	w.	5.6	2.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.95	760.6	30.05	763.3	70.5	21.4	53	e.			1		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.39	746.5	30.15	765.7	60.1	15.6	71	e.			1		0			0	0	clear	M. Hasse.
Nantes, Observatory	29.85	758.1	30.01	762.2	75.0	23.9	48	ese.			1-2	ck	4 k		wsw.	0	0	hazy	M. Larocque, Director.
Nice	30.04	763.1	30.08	763.9	73.4	23.0	66	s.			2		mist	s.	s.	0	0	misty	Capt. Boissière, Director.
Perpignan, Observatory	29.97	761.1	30.07	763.7	72.3	22.4	49	se.	5.6	2.5			0			0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.77	578.4			64.2	17.9							10		ssw.	0.028	0.7	rainy	Gen'l de Nansouty Dir.
Privas, Normal School					71.1	21.7	52	calm			0		0			0	0	clear	M. Talhieu.
Puy de Dôme Obs'y, Summit	25.29	642.4			61.7	16.5	28	wsw.			2		0			0	0	clear	M. Alluard, Director.
Rochefort, Naval Obs'y	29.99	761.8	30.02	762.6	74.8	23.8	83	ese.			1		0			0	0	clear	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.77	756.1	29.98	761.4	74.8	23.8	50	n.			1		0			0	0	clear	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.91	759.6	29.99	761.8	64.4	18	84	sw.			1		0			0	0	clear	M. Platrier, Director.
Saint Lô, Normal School	29.82	757.3	29.97	761.3	67.1	19.5	65	s.			1		8		nw.	0	0	very cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.93	760.3	30.10	764.5	65.7	18.7	53	e.			1		0	w.		0	0		M. Renou, Director.
Toulouse, Observatory	29.34	745.2	30.06	763.6	85.8	29.9	30	se.			3		5	w.		0	0	cloudy	M. Baillaud, Director.
Tours	29.82	757.5	30.02	762.5	69.1	20.6	54	e.			1		0			0	0	clear	M. de Tastes.
Versailles, Observatory	29.61	752.0	30.10	764.5	65.5	18.6	49	se.			3					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.82	757.4	30.11	764.8	64.2	17.9	56	ese.			1		2	w.		0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.33	745.0	30.20	767.0	61.7	16.5	48	calm			0	0	6 s			0	0		Prof. Dr. Hoh.
Berlin	29.94	760.4	30.11	764.8	58.3	14.6	59	nw.			2		10			0	0		Prof. Dr. Arndt.
Breslau	29.62	752.4	30.15	765.9	55.2	12.9	67	w.			3		10			0	0		Royal University Obs'y.
Carlsruhe	29.72	755.0	30.15	765.8	61.2	16.2	60	ne.			1		0			0	0		Albert Senz.
Cassel	29.42	747.2	30.13	765.4	58.6	14.8	71	calm			0		10			0	0		Dr. H. Möhl.
Frankfort on the Main	29.82	757.4	30.18	766.6	61.2	16.2	52	s.			1		7			0	0		Physical Society.
Friedrichshafen	28.71	729.2	30.13	765.4	59.4	15.2	79	sw.			2		3	sw.		0	0		Wilhelm, Chief Tel.
Hamburg	30.04	763.1	30.14	765.6	55.6	13.1	86	wnw.			4		10			0.020	0.5	rainy	E. Preller.
Kiel	30.06	763.5	30.08	763.9	57.4	14.1	71	w.			4		10			0	0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.74	755.5	30.17	766.2	58.3	14.6	64	wsw.			3		9	w.		0.004	0.1		H. Leppig, Asst.
Magdeburg	29.96	760.9	30.15	765.7	56.8	13.8	66	w.			4		10 s		w.	0	0		Dr. Assmann.
Memel	29.87	758.0	29.91	759.8	57.9	14.4	90	nw.			5		10 k						Isermann.
Munich	28.35	720.0	30.22	767.6	56.7	13.7	60	ne.			2		3	n.		0.016	0.4		Central Station.
Neufahrwasser	29.95	760.6	29.96	761.0	57.0	14.2	78	w.			4		10			0.020	0.5		A. Lothes.
Neustadt, Palatinate	29.01	752.0	30.14	765.5	62.1	16.7	56	sw.			1		8	sse.		0	0		Dicknether.
Stuttgart	29.18	741.2	30.07	763.7	61.7	16.5	57	n.			1		3	w.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.67	728.2	30.17	766.4	57.9	14.4	60	n.			2		4	nw.		0	0		Fischer.
Wustrow	30.00	763.4	30.08	764.0	56.3	13.5	75	wnw.			5		10 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.52	749.8	29.89	759.3	84.2	29.0		e.			2.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.66	753.4	29.71	754.6	83.8	28.8	75	sw.	49.0	21.9			3			0	0	d. clouds	
Deesa	29.23	742.3	29.70	754.3	82.3	27.9	82	ssw.	11.7	5.2			6		wsw.	0.16	4.1	d. clouds	
Bombay	29.80	756.8	29.84	757.8	82.7	28.2	79	wsw.	13.0	5.8			10		w.	0.09	2.3	overcast	
Poona, Yarrowda.	27.98	710.7	29.84	758.0	76.5	24.7	71	w.	16.0	7.2			9		w.	0.01	0.3	d. clouds	
Belgaum	27.32	693.9	29.88	758.8	72.8	22.7	82	wsw.	5.0	2.2			10		sw.	0.03	0.8	showery	
Lahore	28.79	731.3	29.51	749.4	95.7	35.4	56	calm	1.7	0.8			0			0	0	blue sky	
Roorkee	28.67	728.2	29.55	750.6	85.2	29.6	84	calm	1.5	0.7			8			3.54	89.9		
Agra	29.06	738.0	29.61	752.2	84.2	29.0	76	sw.	5.5	2.5			9			0	0		
Nagpur	28.68	728.5	29.71	754.6	85.7	29.8	71	nw.	3.9	1.7			9		sw.	0	0	d. clouds	
Jubbulpore	28.42	722.0	29.77	756.1	83.2	28.4	70	w.	1.7	0.8			4	s.		0	0	d. clouds	
Lucknow	29.24	742.7	29.61	752.2	84.2	29.0	74	wsw.	7.3	3.3			7	ssw.		0	0	d. clouds	
Allahabad	29.32	744.7	29.63	752.5	86.7	30.4	70	sw.	3.4	1.5			8	nw.		0	0	d. clouds	
Patna	29.47	748.6	29.65	753.2	80.0	26.7	91	nw.	3.0	1.3			8	nw.	nw.	0.88	22.4	d. clouds	
Hazaribagh	27.68	703.0	29.67	753.6	80.8	27.1	81	calm	8.7	3.9			10		e.	0.32	8.1	thnd'r storm	
Cuttack	29.64	752.9	29.73	755.0	82.2	27.9	85	nnw.	0.2	0.1			9			1.10	27.9	d. clouds	
Calcutta, Alipore	29.68	753.8	29.70	754.3	79.6	26.4	87	ssw.	5.0	2.2			10	sw.	sw.	1.54	39.1	drizzling	
Dhubri	29.55	750.6	29.67	753.6	79.0	26.1	91	s.	2.6	1.2			9			0.98	24.9	showery	
Chittagong	29.66	753.5	29.76	755.8	79.9	26.6	91	s.	3.0	1.3			9			0	0	d. clouds	
Sibsagar	29.35	745.5	29.68	754.0	81.2	27.3	90	sw.	2.5	1.1			10	w.	w.	0.10	2.5	d. clouds	
Jeypore	28.23	717.1	29.66	753.4	81.7	27.6	68	w.	7.1	3.2			10		w.	0.01	0.3	overcast	
Zanzibar, Africa			29.99	761.7	85.7	29.8	42	sse.	5	2.2			1			0	0	blue sky	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.71	754.5	30.11	764.7	68.2	20.1	49	s.	1.3	0.6			0			0	0		Prof. Giovanni Clodig.
Milan	29.61	752.1	30.12	765.0	71.6	22.0	53	ne.	3.1	1.4			7	n.		0	0		Prof. Schiaparelli.
Padua	30.02	762.5	30.13	765.2	69.3	20.7	47	ese.	4.3	1.9			0			0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.20	741.7	30.09	764.3	68.7	20.4	66	se.	1.8	0.8			5	n.		0	0		Prof. P. F. Denza.
Genoa	29.89	759.2	30.08	764.0	76.1	24.5	42	n.	0.7	0.3			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.22	716.9	30.10	764.6	64.6	18.1	60	wnw.			4		2			0	0		Prof. D. C. Bruno.
Pesaro	30.05	763.2	30.10	764.4	69.3	20.7	57	ne.					0			0.740	18.8		Prof. Luigi Guidi.
Florence	29.80	757.0	30.06	763.4	74.5	23.6	38	ne.			2		2	ne.		0	0		Prof. Costantino Pitter.
Leghorn	29.93	760.1	30.01	762.2	72.7	22.6	64	ne.	6.9	3.1			3			0.228	5.8		Prof. P. Monte.
Rome	29.80	757.0	29.97	761.3	79.7	26.5	31	nnw.	6.9	3.1			1			0	0		Prof. P. S. Ferrari.
Lecce	29.67	753.7	29.93	760.1	72.3	22.4	63	nnw.	7.4	3.3			7	nw.		0.110	2.8		Prof. C. de Giorgi.
Cosenza	29.05	737.8	29.91	759.6	75.2	24.0	57	sse.	2.5	1.1			9	se.		0.346	8.8		Prof. D. Conti.
Cagliari	29.81	757.2	30.00	762.0	77.2	25.1	56	s.			2		0			0	0		Prof. A. Pacinotti.
Palermo	29.69	754.2	29.94	760.4	75.7	24.3	54	nnw.	13.6	6.1			6	nnw.		0	0		Prof. G. Ciacciatore.
Syracuse	29.80	757.0	29.85	758.1	75.4	24.1	78	nne.	6.3	2.8			3	sw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.42	747.3	29.93	760.1	73.8	23.2	63	ne.	4.3	1.9			1	ne.		1.551	39.4		Prof. F. Brioschi.
Stelvio	22.33	567.1			47.7	8.7	26	ne.			1	1 c8	0	n.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.39	568.6			48.6	9.2	60	ne.			2	0	2 kn	n.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.90	759.4	29.92	759.9	78.6	25.9	81	sw.	6.5	2.9		ck	2 s			0	0	clear	K. Sasaki.
Kioto	29.84	757.9	30.01	762.2	72.3	22.4	92	nw.	1.1	0.5		ck	1 s			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.74	755.4	29.94	760.5	80.1	26.7	74	s.	11.1	5.0		0	4 s?			1.670	42.4	clear?	S. Takehayashi.
Niigata	29.96	761.0	30.00	762.0	70.5	21.4	92	ene.	1.2	0.5		0	0			0	0	clear	
Nobiru	29.99	761.7	30.01	762.2	72.6	22.6	94	ssw.	9.3	4.2			10 s			0.005	0.2	cloudy	
Supporo	29.90	759.4	29.96	761.0	64.0	17.8	82	wsw.	1.8	0.8			10			0	0		
Tokei Obs'y, Yeddo	29.94	760.5	30.00	762.0	73.7	23.2	79	s.	4.4	2.0		0	0			0	0	clear	The Staff.
Wakayama	29.96	761.0	30.01	762.2	77.3	25.2	78	w.				0	0			0.042	1.1		Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.94	760.5	30.13	765.2	72.6	22.6	71	nw.	5.0	2.2			8		s.	0.02	0.5	cloudy	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.70	602.0	29.92	760.0	54.5	12.5	67	nw.	2.2	1.0		1 c	4 k	ne.	e.	0	0	½ cloudy	Vicente Fernandez.
Leon	24.43	620.6	30.11	764.8	59.6	15.3	83	n.			1	8 c	0	sw.		0	0		Prof. M. Leal.
Mazatlan	29.61	752.2	29.87	758.7	77.0	25.0	88	n.	1.6	0.8		0	1 k		ese.	0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.13	587.6	30.21	767.5	47.5	8.6	82	nw.	0.4	0.2		2 c	1 k			0	0	clear	The Staff.
Morelia	24.08	611.6	30.20	767.1	50.7	10.4	73	se.			2	1	2	s.	s.	0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.97	608.9	30.01	762.3	52.7	11.5	74	n.			2	0	0			0	0	fine	M. V. de Leon, M. D.
Puebla, Catholic Institute	23.39	594.1	30.23	767.8	47.8	8.8	45	calm	0	0		0	5		e.			½ cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.57	573.4	30.24	768.1	45.5	7.5	79	ne.	1.7	0.8		0	1 s			0	0	clear	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.13	765.2	30.13	765.2	64.8	18.2		sse.			2					0	0		
Groningen	30.08	764.0	30.13	765.4	59.2	15.1		wsw.			1					0.024	0.6		
Helder	30.10	764.6	30.10	764.6	59.9	15.5		ssw.			1					0	0		
Hellevoetsluis	30.11	764.7	30.11	764.7	66.6	19.2	74	s.			2					0	0		
Utrecht	30.08	764.1	30.13	765.3	62.8	17.1	63	sse.			1		0			0	0	clear	H. van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.87	758.8	29.94	760.4	54.7	12.6	68	sse.	6.0	2.7			7			0.276	7.0		
Christiania	29.80	756.8	29.94	760.5	57.2	14.0	56	sw.	4	2			2			0.008	0.2		
Gjesvær	29.94	760.4	29.95	761.0	36.5	2.5		ene.			4		6						
Lodingen	29.75	756.0	29.81	757.2	45.5	7.5	62	e.			2		2			0.031	0.8		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.01	762.2	30.16	766.0	67.5	19.7	67	n.	4.3	1.9			3			0	0		Dr. J. A. Sampaio.
Campo Major	28.87	733.3	29.80	756.9	92.8	33.8	22	ssw.	23.7	10.6			10			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.97	761.2	30.05	763.4	73.6	23.1	65	se.	6.9	3.1			1			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.59	751.6	29.94	760.4	76.8	24.9	56	wnw.	11.2	5.0			6	sw.		0.004	0.1		The Staff.
Ponta Delgada, Azores	30.08	764.0	30.15	765.8	70.5	21.4	61	nne.	13.0	5.8			4			0.142	3.6		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Aksnolinski	28.77	730.7	29.80	757.0	68.4	20.2	58	ssw.	9	4		3 ck	0						Capt. Lasarew.
Archangel	29.61	752.2	29.63	752.7	38.3	3.5	88	ne.	9	4			10						Capt. Sseliwerstow.
Astrakhan	29.89	759.2	29.81	757.1	75.7	24.3	66	sse.	7	3		0	8 ks						Capt. Wisganow.
Barnaul ‡	29.35	745.6	29.80	756.8	64.4	18.0	57	calm	0	0			9						Meteorological Obs'y.
Dorpat	29.54	750.4	29.78	756.5	55.0	12.8	73	w.	7	3			10 k						Observatory.
Ekaterinburg	28.68	728.5	29.62	752.3	58.8	14.9	73	sw.	4	2		8 ck	0					light clouds	Meteorological Obs'y.
Kasan	29.35	745.6	29.61	752.2	66.6	19.2	63	calm	0	0		0	2 k						Observatory.
Kertch	29.91	759.8	29.93	760.3	70.0	21.1	58	nw.	7	3		3 ck	0			0	0		Lagorio & Sastyrea.
Kieff	29.21	741.9	29.82	757.4	64.8	18.2	56	wnw.	9	4		0	7 ks						Observatory.
Lugan	29.61	752.1	29.81	757.2	68.9	20.5	42	wsw.	18	8			6						Meteorological Obs'y.
Moscow	29.15	740.3	29.61	752.0	59.5	15.3	87	nw.	4	2		0	7 ks						Meteorological Obs'y.
Nikolaiev	29.89	759.1	29.96	760.9	67.5	19.7	53	wnw.	4	2			9 kn						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.80	756.9	29.89	759.1	54.1	12.3	82	e.			3	0	2 k			0	0		Lieut. Iwanow.
Pekin, China	29.80	756.8	29.94	760.4	66.6	19.2	42	sw.	4	2		0	1 k			0	0		Physical Observatory.
St. Petersburg	29.67	753.7	29.69	754.1	57.0	13.9	66	nw.	11	5		cs	6 ks					light clouds	Central Physical Obs'y.
Tashkend, Laboratory	28.39	721.2	29.91	759.7	72.5	22.5	70	calm	0	0			0						Teich, A. M.
Tiflis	28.45	722.7	29.78	756.3	87.3	30.7	35	s.	2	1		0	0						Physical Observatory.
Warsaw	29.60	751.8	30.02	762.4	58.3	14.6	70	w.	13	6			9 ks						Astronomical Obs'y.
Wilna	29.47	748.5	29.88	759.0	58.3	14.6	69	w.	7	3			10						Berg, Assistant.
Yeniseisk	29.60	751.7	29.89	759.1	39.4	4.7	84	se.	7	3			10					raining	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.86	758.4	60.0	15.6	71	se.			1		10 k		w.	0.29	7.4	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			29.69	754.1	56	13.3	94	ssw.			6		10			0.2	5.	raining	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.95	760.7	30.05	763.3	74.8	23.8	71	ese.	3.1	1.4		0				0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.80	756.9	29.85	758.3	90.5	32.5	48	s.	2.7	1.2		5	0	w.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.04	686.7			84.6	29.2	34	sw.	4.9	2.2			1			0	0	almost clear	Domingo Martin.
Madrid, Royal Obs'y	27.76	705.2	29.83	757.6	93.2	34.0	24	e.	15.9	7.1		7	0	w.		0	0	light clouds	The Staff.
Murcia, Met. Obs'y ‡	29.88	759.0	30.02	762.6	86.2	30.1	61	ene.	6.5	2.9		0	0			0	0	clear	Olayo Dias, Director.
Santiago, Met. Obs'y	28.87	733.3	29.73	755.1	74.1	23.4	68	se.	8.7	3.9			8			0.181	4.6	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.86	758.5	29.93	760.1	78.7	25.9	85	se.	4.7	2.1		4 c,cs	k;s	w.	se.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.89	759.2	29.94	760.5	81.0	27.2	93	nne.	0	0			10 n		s.	0.60	15.2	drizzling	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.86	758.4	29.95	760.8	83.8	28.8	49	s.	14.5	6.5		0	7		sw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.93	760.2	30.02	762.5	75.2	24.0	95	se.	9.6	4.3		6 k	7 kn	se.	se.	0.480	12.2	raining	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.85	758.3	29.99	761.7	74.1	23.4	88	sw.	7.4	3.3			10 n		sw.	0.14	3.5	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.73	755.1	29.77	756.1	42.4	5.8	73	n.			4		10			0	0		
Umea	29.76	756.0	29.82	757.3	50.7	10.4	70	n.			4		7			0	0		
Hernosand	29.81	757.2	29.86	758.5	54.9	12.7	43	nnw.			4		5			0	0		
Stockholm	29.74	755.3	29.91	759.8	53.6	12.0	54	nnw.			2		4			0.323	8.2		
Wisby	29.84	757.8	30.01	762.3	54.0	12.2	72	n.			4		5			0.071	1.8		
Sub-Series.																			
Upsala	29.80	756.9	29.89	759.1	52.7	11.5	55	nw.	8.3	3.7			10	nnw.	nnw.	0.004	0.1		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.73	729.8	30.14	765.5	59.9	15.5	69	nnw.			2		1			0	0	clear	The Observatory.
Zurich ‡	28.53	724.7	30.15	765.7	61.5	16.4	72	w.			2		4			0	0	lightly cl'dy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.99	761.8	74.7	23.7	50	ne.	22	10.0			4		ne.	0	0		The Observatory.
Valona			30.04	762.9	76.6	24.8		w.			1		2			0	0	slightly cl'dy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.84	757.9	84.7	29.3	63	nw.			1	0	0			0	0		Prof. C. V. A. van Dyck

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.35	770.9	30.43	772.9	62	16.7	68	s.	4	1.8		0	0			0	0	clear	
Alpena, Michigan	29.50	749.3	30.17	766.3	58	14.4	90	sw.	9	4.0		0	0			0.25	6.3	clear	
Atlanta, Georgia	28.92	734.6	30.10	764.5	60.0	15.6	84	nw.	8	3.6		4 k	6 s	calm	calm	0	0	cloudy	
Atlantic City, New Jersey	30.32	770.1	30.33	770.4	69.8	21.0	78	ne.	12	5.4		4 k	0	e.		0	0	fair	
Augusta, Georgia	29.87	758.7	30.06	763.5	73.2	22.9	100	nw.	1	0.4			10 n			1.68	42.7	thund'r st'm.	
Baltimore, Maryland	30.25	768.6	30.31	769.9	71	21.7	90	e.	6	2.7			10 s		e.	0.38	9.7	threatening.	
Barnegat, New Jersey	30.31	769.9	30.33	770.4	68.0	20.0	87	e.	16	7.2		3 k	2 s	ne.	e.	0	0	fair	
Bismarck, Dakota	27.98	710.7	29.81	757.2	39	3.9	92	nw.	8	3.6			10 n		calm	0.25	6.3	light rain	
Boise City, Idaho	26.98	685.3	29.82	757.4	50.0	10.0	74	w.	8	3.6			10 s		w.	0.02	0.5	cloudy	
Boston, Massachusetts	30.28	769.1	30.44	773.2	61.0	16.1	78	n.	6	2.7		0	2 ks		n.	0	0	fair	
Brackettville, Texas	28.84	732.5	29.88	758.9	61	16.1	78	e.	8	3.6		0	0			0	0	clear	
Brownsville, Texas	29.99	761.7	30.03	762.7	72	22.2	82	calm	0	0		hz.	0			0	0	dense haze.	
Buffalo, New York	29.49	749.0	30.21	767.3	68.3	20.2	83	sw.	3	1.3			10 s			0	0	cloudy	
Burlington, Vermont	30.09	764.3	30.38	771.6	60.2	15.7	72	s.	7	3.1		0	0			0	0	clear	
Cairo, Illinois	29.78	756.4	30.18	766.6	53.6	12.0	75	s.	6	2.7		0	0			0	0	clear	
Campo, California	27.31	693.7	29.88	758.9	47.5	8.6	58	s.	2	0.9		0	0			0	0	clear	
Camp Thomas, Arizona	27.15	689.6			54.5	12.5	82	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.21	767.3	30.23	767.8	77	25.0	88	e.	16	7.2		0	0			0	0	clear	
Cape May, New Jersey	30.28	769.1	30.31	769.9	71	21.7	84	e.	16	7.2			10 ks		e.	0.05	1.3	cloudy	
Castroville, Texas	29.27	743.4	29.97	761.2	58	14.4	81	w.	2	0.9		0	0			0	0	clear	
Cedar Keys, Florida	29.97	761.2	29.99	761.7	74	23.3	90	ne.	5	2.2		7 ck	0	n.		2.29	58.2	fair	
Champaign, Illinois	29.25	742.9	30.05	763.3	51.2	10.7	66	sw.	12	5.4		0	0			0	0	clear	
Charleston, S. Carolina	29.99	761.7	30.05	763.3	81	27.2	82	se.	14	6.3		0	8 s		se.	0.70	17.8	cloudy	
Charlotte, N. Carolina	29.22	742.2	30.10	764.5	73	22.8	97	se.	9	4.0			10 n		se.	1.77	45.0	light rain	
Chattanooga, Tennessee	29.33	745.0	30.16	766.1	55.0	12.8	86	nw.	4	1.8		3 cs	0	nw.		0	0	fair	
Cheyenne, Wyoming	23.94	608.1	29.91	759.7	37.6	3.1	58	calm	0	0		0	0			0	0	clear	
Chicago, Illinois	29.33	745.0	30.04	763.0	53.1	11.7	61	s.	9	4.0		0	0			inap.	inap.	clear	
Chincoteague, Virginia	30.24	768.1	30.26	768.6	74	23.3	84	se.	15	6.7		0	sk.			0	0	clear	
Cincinnati, Ohio	29.53	750.0	30.19	766.8	60	15.6	87	nw.	2	0.9		5 k;c	5 s	e.		0	0	cloudy	
Cleveland, Ohio	29.48	748.8	30.22	767.6	59.8	15.4	88	s.	2	0.9			10 n		s.	1.04	26.4	light rain	
Coleman City, Texas																			
Columbus, Ohio	29.33	745.0	30.19	766.8	60	15.6	87	se.	1	0.4		8 k	fg.			0.34	8.6	cloudy	
Concho, Texas	28.04	712.2	29.98	761.5	61	16.1	78	s.	10	4.5		0	0			0	0	clear	
Corsicana, Texas	29.65	753.1	30.12	765.0	56	13.3	74	s.	2	0.9		0	0			0	0	clear	
Davenport, Iowa	29.33	745.0	29.99	761.7	49	9.4	71	calm	0	0		0	3 s		sw.	0.01	0.3	fair	
Dayton, Washington T'y	28.04	712.2	29.85	758.2	51.5	10.8	79	sw.	7	3.1			10 n		sw.	0.16	4.1	light rain	
Deadwood, Dakota	25.20	640.1	29.90	759.4	34	1.1	61	s.	4	1.8		0	0			0	0	clear	
Decatur, Texas	28.84	732.5	30.01	762.2	56	13.3	47	sw.	4	1.8		0	0			0	0	clear	
Delaware Breakwater, Del.	30.27	768.8	30.29	769.4	71	21.7	90	e.	22	9.8		5 k	0	e.		inap.	inap.	fair	
Denison, Texas	29.25	742.9	30.06	763.5	61	16.1	44	s.	12	5.4		0	0			0	0	clear	
Denver, Colorado	24.68	626.9	29.90	759.4	41.5	5.3	61	s.	6	2.7		0	0			0	0	clear	
Des Moines, Iowa	29.02	737.1	29.93	760.2	46	7.8	93	sw.	8	3.6			10 s		sw.	0.12	3.0	cloudy	
Detroit, Michigan	29.48	748.8	30.20	767.1	60.9	16.1	84	s.	3	1.3		3 ck	0	w.		0.68	17.3	clear	
Dodge City, Kansas	27.35	694.7	29.94	760.5	39.7	4.3	74	nw.	5	2.2		0	0			0	0	clear	
Dubuque, Iowa	29.26	743.2	29.98	761.5	44.6	7.0	83	s.	7	3.1			10 s		s.	0.20	5.1	cloudy	
Duluth, Minnesota	29.08	738.6	29.79	756.7	51	10.6	86	ne.	16	7.2			10 n		ne.	1.03	26.2	light rain	
Eagle Pass, Texas	29.25	742.9	30.08	764.0	61.0	16.1	78	se.	3	1.3		0	0			0	0	clear	
Eagle Rock, Idaho	25.06	636.5	29.91	759.7	51	10.6	43	n.	5	2.2		4 k	0	sw.		0	0	fair	
Eastport, Maine	30.36	771.1	30.42	772.7	52	11.1	90	nw.	2	0.9		0	fg.			0	0	clear	
El Paso, Texas	26.17	664.7	29.92	760.0	64.3	17.9	65	calm	0	0		0	0			0	0	clear	
Erie, Pennsylvania	29.49	749.0	30.22	767.6	62	16.7	93	calm	0	0			10 s		w.	0 26	6.6	cloudy	
Escanaba, Michigan	29.31	744.5	29.97	761.2	58	14.4	69	se.	25	11.2		5 k	5 s	s.	s.	0.05	1.3	cloudy	
Florence, Arizona	28.36	720.3	29.96	761.0	66	18.9	66	w.	4	1.8		5 ck	0	w.		0	0	fair	
Fort Apache, Arizona	24.99	634.7	29.90	759.4	47	8.3	93	e.	4	1.8		0	0			0	0	clear	
Fort Assinnaboine, Montana	26.92	683.8	29.73	755.1	42	5.6	59	ne.	9	4.0		0	0			0	0	clear	
Fort Bennett, Dakota	28.22	716.8	29.76	755.9	42	5.6	92	nw.	3	1.3			10 s			0.10	2.5	cloudy	
Fort Benton, Montana	26.92	683.8	29.78	756.4	51	10.6	61	se.	16	7.2		0	0			0	0	clear	
Fort Buford, Dakota	27.87	707.9	29.88	758.9	29	— 1.7	88	nw.	6	2.7		0	0			0	0	clear	
Fort Custer, Montana	26.63	676.4	29.87	758.7	42	5.6	52	se.	8	3.6		0	0			0	0	clear	
Fort Davis, Texas	24.97	634.2	29.93	760.2	59	15.0	78	sw.	4	1.8		0	0			0	0	clear	
Fort Elliott, Texas	27.19	690.6	30.38	771.6	50	10.0	86	calm	0	0		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.45	748.0	30.00	762.0	57.0	13.9	46	s.	4	1.8		4 k	0	w.		0	0	fair	
Fort Grant, Arizona					57	13.9	67	n.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.71	729.2	29.96	761.0	57.8	14.3	77	e.	2	0.9		0	0			0	0	clear	
Fort Keogh, Montana	27.34	694.4	29.88	758.9	32	0.0	81	ne.	2	0.9		0	0			0	0	clear	
Fort Macon, North Carolina	30.14	765.5	30.15	765.8	79	26.1	85	se.	10	4.5		4 k	4 ks	se.	se.	0	0	cloudy	
Fort McKavett, Texas	27.75	704.8	29.64	752.8	61.3	16.3	66	s.	3	1.3		0	0			0	0	clear	
Fort Missoula, Montana	26.34	669.0	29.86	758.4	45	7.2	76	ne.	1	0.4		0	0			0	0	clear	
Fort St. Michaels	29.83	757.7	29.86	758.4	47	8.3	92	e.	7	3.1		0	5 s		se.	0	0	fair	
Fort Shaw, Montana	26.11	663.2	29.71	754.6	43	6.1	83	w.	6	2.7		4 cs	0	calm		0	0	fair	
Fort Sill, Indian Territory	28.75	730.2	30.00	762.0	57.2	14.0	69	calm	0	0		3 k	0			0	0	fair	
Fort Stevenson, Dakota	27.96	710.2	29.83	757.7	43	6.1	83	n.	4	1.8			10 n		e.	0.22	5.6	light rain	
Fort Verde, Arizona					56.4	13.6	51	n.			1	1 k	0	w.		0	0	clear	
Fredericksburg, Texas	28.31	719.1	29.86	758.4	60	15.6	78	calm	0	0		0	0			0	0	clear	
Galveston, Texas	30.06	763.5	30.10	764.5	71	21.7	49	ne.	6	2.7		hz.	0			0	0	dense haze	
Grand Haven, Michigan	29.42	747.3	30.09	764.3	56.0	13.3	69	se.	7	3.1		0	6 s		se.	0	0	fair	
Hatteras, North Carolina	30.16	766.1	30.18	766.6	78	25.5	88	e.	18	8.0		3 k	0	e.		0.62	15.7	fair	
Helena, Montana	25.49	647.4	29.88	758.9	62	16.7	60	calm	0	0		0	8 s		calm	0	0	clo dy	
Henrietta, Texas	28.99	736.3	29.89	759.2	66	18.9	68	s.	12	5.4		0	0			0	0	clear	
Huron, Dakota	28.42	721.9	29.81	757.2	43	6.1	100	sw.	5	2.2			10n;fog			0.44	11.2	light rain	
Indianapolis, Indiana	29.36	745.7	30.16	766.1	54	12.2	74	se.	4	1.8		2 c	3 s	s.	s.	0	0	fair	
Indianola, Texas	30.05	763.3	30.08	764.0	70.3	21.3	66	se.	5	2.2		0	hz.			0	0	clear	
Jacksboro, Texas	28.84	732.5	29.95	760.7	59	15.0	65	s.	14	6.3		0	0			0	0	clear	
Jacksonville, Florida	29.94	760.5	29.98	761.5	74	23.3	90	e.	4	1.8			10 n		e.	0.55	14.0	light rain	
Keokuk, Iowa	29.32	744.7	29.98	761.5	47.0	8.3	83	s.	4	1.8		1 k	0	sw.		0.12	3.0	clear	
Key West, Florida	29.92	760.0	29.95	760.7	80.5	26.9	80	calm	0	0		1 cs	2 ks			0	0	fair	
Kittyhawk, North Carolina	30.20	767.1	30.22	767.6	76	24.4	90	e.	9	4.0		0	1 ks			0	0	clear	
Knoxville, Tennessee	29.15	740.4	30.19	766.8	58.8	14.9	88	ne.	2	0.9		7 cs	2 s	s.	calm	0.03	0.8	cloudy	
La Crosse, Wisconsin	29.13	739.9	29.90	759.4	48.5	9.2	71	s.	16	7.2			10 s			0.10	2.5	cloudy	
La Mesilla, New Mexico	26.10	662.9	30.25	768.3	56.5	13.6	81	calm	0	0		4 ck	0	se.		0	0	fair	
Laredo, Texas																			
Leavenworth, Kansas	29.10	739.1	30.00	762.0	44	6.7	83	sw.	2	0.9		2 cs	0	w.		0.38	9.7	clear	
Lewiston, Idaho	28.89	733.8	29.74	755.4	58	14.4	100	sw.	4	1.8			10 n		sw.	0.02	0.5	light rain	
Little Rock, Arkansas	29.79	756.7	30.11	764.8	52	11.1	66	sw.	1	0.4		0	sk.			0	0	clear	
Los Angeles, California	29.49	749.0	29.87	758.7	62.6	17.0	78	s.	3	1.3		0	0			0	0	clear	
Louisville, Kentucky	29.59	751.6	30.16	766.1	57.0	13.9	80	calm	0	0		4 cs	sk.	s.	calm	0	0	fair	
Lynchburg, Virginia	29.59	749.3	30.20	767.1	75.5	24.2	81	e.	1	0.4		4 k	0	se.		0.10	2.5	fair	
Madison, Wisconsin	28.94	735.1	29.98	761.5	48	8.9	93	s.	13	5.8			10 s		s.	0.03	0.8	cloudy	
Marquette, Michigan	29.22	742.2	29.95	760.7	50	10.0	93	se.	8	3.6			10 s		se.	0.05	1.3	cloudy	
Mason, Texas	28.39	721.1	30.11	764.8	63.1	17.3	63	s.	4	1.8		0	0			0	0	clear	
Memphis, Tennessee	29.83	757.7	30.17	766.3	55	12.8	69	calm	0	0		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.26	743.2	30.02	762.5	52	11.1	72	s.	6	2.7	.....	3 ck	0	.....	.....	inap.	inap.	fair	
Mobile, Alabama	30.04	763.0	30.11	764.8	59.5	15.3	83	n.	9	4.0	.....	0	0	.....	.....	0	0	clear	
Montgomery, Alabama	29.88	758.9	30.11	764.8	58.2	14.6	62	n.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Moorhead, Minnesota	28.75	730.2	29.76	755.9	43	6.1	100	ne.	3	1.3	.....	.....	fg	.....	.....	0.82	20.8	dense fog	
Morgantown, W. Virginia	29.18	741.2	30.15	765.8	67.0	19.4	93	nw.	3	1.3	.....	.....	10 n	.....	s.	inap.	inap.	light rain	
Mt. Washington, N. H.	24.25	615.9	30.45	773.4	52.2	11.2	73	ne.	15	6.7	.....	0	5 s	.....	nw.	0	0	clear	
Nashville, Tennessee	29.64	752.8	30.18	766.6	52.0	11.1	92	calm	0	0	.....	.....	fg	.....	.....	0	0	dense fog	
New Haven, Connecticut	30.33	770.4	30.44	773.2	58	14.4	80	ne.	7	3.1	.....	0	0	.....	.....	0	0	clear	
New London, Connecticut	30.38	771.6	30.43	772.9	58	14.4	81	n.	4	1.8	.....	0	0	.....	.....	0	0	clear	
New Orleans, Louisiana	30.04	763.0	30.10	764.5	66.2	19.0	45	n.	6	2.7	.....	3 c	0	.....	.....	0	0	clear	
Newport, Rhode Island	30.38	771.6	30.42	772.7	58.7	14.8	85	ne.	3	1.3	.....	1 k	0	calm	.....	0	0	clear	
New River, N. Carolina	.....	.....	.....	.....	79	26.1	82	e.	2	0.9	.....	0	0	.....	.....	0.23	5.8	clear	
New Shoreham, Rhode I'd.	30.38	771.6	30.41	772.4	60.0	15.6	81	ne.	18	8.0	.....	0	3 s	.....	ne.	0	0	fair	
New York, New York	30.22	767.6	30.40	772.1	62	16.7	84	ne.	9	4.0	.....	2 cs	0	ne.	.....	0.01	0.3	clear	
Norfolk, Virginia	30.19	766.8	30.22	767.6	76	24.4	85	se.	8	3.6	.....	0	0	.....	.....	0.03	0.8	clear	
North Platte, Nebraska	26.98	685.3	29.92	760.0	31.8	— 0.1	80	w.	6	2.7	.....	0	0	.....	.....	0	0	clear	
Olympia, Washington T'y	29.79	756.7	29.83	757.7	53.0	11.7	86	s.	2	0.9	.....	.....	10 s	.....	calm	inap.	inap.	cloudy	
Omaha, Nebraska	28.70	730.5	29.95	760.7	44	6.7	93	w.	6	2.7	.....	.....	10 s	.....	w.	0.73	18.5	cloudy	
Oswego, New York	29.94	760.5	30.27	768.8	64.0	17.8	78	se.	16	7.2	.....	1 c	0	.....	.....	0	0	clear	
Pensacola, Florida	30.05	763.3	30.08	764.0	65	18.3	58	n.	9	4.0	.....	0	0	.....	.....	0	0	clear	
Philadelphia, Pa	30.31	769.9	30.37	771.4	65	18.3	93	e.	16	7.2	.....	.....	10 s	.....	ne.	0.06	1.5	cloudy	
Phœnix, Arizona	28.66	728.0	30.49	774.4	69	20.6	61	e.	3	1.3	.....	3 ck	0	s.	.....	0	0	fair	
Pike's Peak, Colorado	17.81	452.4	30.02	762.5	25	— 3.9	56	n.	14	6.3	.....	0	0	.....	.....	0	0	clear	
Pioche, Nevada	23.96	608.6	29.98	761.5	60	15.6	23	s.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Pittsburg, Pennsylvania	29.39	746.5	30.21	767.3	63.1	17.3	87	nw.	5	2.2	.....	.....	10 s	.....	nw.	0.03	0.8	cloudy	
Port Eads, Louisiana	30.04	763.0	30.05	763.3	74.1	23.4	70	ne.	24	10.7	.....	0	1 k;hz	.....	c; ne.	0	0	clear	
Port Huron, Michigan	29.50	749.3	30.19	766.8	59.1	15.1	93	se.	4	1.8	.....	6ok;os	0	sw.	.....	1.04	26.4	fair	
Portland, Maine	30.39	771.9	30.44	773.2	55	12.8	80	e.	2	0.9	.....	0	fg	.....	.....	0	0	clear	
Portland, Oregon	29.83	757.7	29.90	759.4	54.4	12.4	82	sw.	7	3.1	.....	0	8 s	.....	w.	0.04	1.0	cloudy	
Portsmouth, N. Carolina	.....	.....	.....	.....	79	26.1	82	s.	17	7.6	.....	3 k	0	sw.	.....	0	0	clear	
Prescott, Arizona	24.72	627.9	29.91	759.7	57	13.9	51	s.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Punta Rassa, Florida	29.91	759.7	29.92	760.0	78	25.6	88	e.	3	1.3	.....	3 ck	1 k	calm	calm	2.00	50.8	fair	
Red Bluff, California	29.50	749.3	29.84	757.9	61.0	16.1	45	n.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Rio Grande City, Texas	29.83	757.7	30.04	763.0	65	18.3	73	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Rochester, New York	29.60	751.8	30.24	768.1	70	21.1	76	s.	7	3.1	.....	0	6 s	.....	s.	0	0	fair	
Roseburg, Oregon	29.44	747.8	30.02	762.5	52.6	11.4	81	sw.	3	1.3	.....	.....	10 ks	.....	nw.	inap.	inap.	cloudy	
Sacramento, California	29.78	756.4	29.86	758.4	57.3	14.1	64	w.	4	1.8	.....	0	0	.....	.....	0	0	clear	
St. Louis, Missouri	29.44	747.8	30.05	763.3	50.9	10.5	59	s.	11	4.9	.....	0	0	.....	.....	0	0	clear	
St. Paul, Minnesota	28.94	735.1	29.82	757.4	44.1	6.7	93	s.	12	5.4	.....	.....	10 s	.....	s.	0.17	4.3	cloudy	
Salt Lake City, Utah	25.37	644.4	29.70	754.4	56	13.3	23	se.	4	1.8	.....	4 k	0	sw.	.....	c	0	fair	
San Antonio, Texas	29.38	746.2	30.08	764.0	57.6	14.2	81	calm	0	0	.....	0	0	.....	.....	0	0	clear	
San Diego, California	29.68	753.9	29.75	755.6	68.2	20.1	78	s.	6	2.7	.....	.....	10 s	.....	.....	0	0	cloudy	
Sandusky, Ohio	29.50	749.3	30.19	766.8	62	16.7	84	sw.	7	3.1	.....	5 ck	0	s.	.....	0.95	24.1	fair	
Sandy Hook, New Jersey	30.37	771.4	30.40	772.1	64.0	17.8	93	e.	19	8.5	.....	9 k	0	e.	.....	0.02	0.5	cloudy	
San Francisco, California	29.82	757.4	29.88	758.9	56	13.3	77	w.	7	3.1	.....	0	0	.....	.....	0	0	clear	
Santa Fé, New Mexico	23.27	591.0	30.07	763.8	48	8.9	68	e.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Savannah, Georgia	29.92	760.0	30.01	762.2	79.5	26.4	90	se.	4	1.8	.....	.....	10 ks	.....	se.	1.89	48.0	threatening	
Shreveport, Louisiana	29.90	759.4	30.13	765.3	53	11.7	80	s.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Silver City, New Mexico	24.26	616.2	29.83	757.7	54	12.2	55	nw.	2	0.9	.....	2 c	0	calm	.....	0	0	clear	
Sitka, Alaska	29.92	760.0	29.99	761.7	48.1	8.9	93	calm	0	0	.....	0	fg	.....	calm	0.07	1.8	clear	
Smithville, North Carolina	30.08	764.0	30.12	765.0	80	26.7	91	se.	12	5.4	.....	0	6 ks	.....	e.	0.10	2.5	fair	
Spokane Falls, Wash. Ter.	27.71	703.8	29.73	755.1	55	12.8	93	se.	4	1.8	.....	.....	10 n	.....	.....	0.25	6.3	heavy rain	
Springfield, Illinois	29.37	746.0	30.06	763.5	48.0	8.9	77	s.	5	2.2	.....	0	8 k	.....	.....	0	0	clear	
Springfield, Massachusetts	30.31	769.9	30.44	773.2	61.1	16.2	78	ne.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Stockton, Texas	26.93	684.0	30.00	762.0	58.0	14.4	84	calm	0	0	.....	0	0	.....	.....	0	0	clear	
St. Vincent, Minnesota	28.90	734.0	29.78	756.4	44	6.7	100	e.	1	0.4	.....	.....	10 s	.....	calm	0.57	14.5	cloudy	
Thatcher's Island, Mass.	30.40	772.1	30.45	773.4	56.0	13.3	100	e.	8	3.6	.....	.....	fg	.....	.....	0	0	dense fog	
Toledo, Ohio	29.47	748.5	30.17	766.3	59	15.0	87	s.	2	0.9	.....	4 ck	2 s	s.	.....	0.33	8.4	fair	
Tucson, Arizona	27.39	695.7	29.75	755.6	63	17.2	68	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Umatilla, Oregon	29.43	747.5	29.84	757.9	58.6	14.8	47	sw.	28	12.5	.....	.....	10 s	.....	sw.	0	0	cloudy	
Uvalde, Texas	29.08	738.6	29.90	759.4	59	15.0	81	e.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Vicksburg, Mississippi	29.89	759.2	30.15	765.8	52	11.1	72	e.	1	0.4	.....	0	fg	.....	calm	0	0	clear	
Visalia, California	29.36	745.7	29.72	754.9	65	18.3	40	nw.	6	2.7	.....	0	0	.....	.....	0	0	clear	
Washington, D. C.	30.16	766.1	30.28	769.1	71.0	21.7	94	ne.	7	3.1	.....	.....	10 n	.....	e.	0.29	7.4	light rain	
Wickenburg, Arizona	.....	.....	.....	.....	60	15.6	78	w.	.....	.....	1	0	0	.....	.....	0	0	clear	
Wilmington, N. Carolina	30.06	763.5	30.12	765.0	79	26.1	82	se.	1	0.4	.....	.....	10 ks	.....	se.	0.15	3.8	cloudy	
Winnemucca, Nevada	25.39	644.9	29.72	754.9	56	13.3	45	sw.	12	5.4	.....	0	0	.....	.....	0	0	clear	
Wood's Holl, Mass.	30.38	771.6	30.42	772.7	58	14.4	86	e.	8	3.6	.....	9 k	0	e.	.....	0	0	cloudy	
Yankton, Dakota	28.58	725.9	29.89	759.2	41	5.0	92	calm	0	0	.....	.....	10 s	.....	.....	1.18	30.0	cloudy	
Yuma, Arizona	29.53	750.0	29.67	753.6	80.2	26.8	77	se.	12	5.4	.....	0	0	.....	.....	0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I. ‡	30.00	762.0	30.02	762.5	82	27.8	91	se.	4	1.8	.....	5 k	5 n	.....	.....	0.80	20.3	cloudy	J. A. Racken.
Bogota, U. S. Columbia	22.13	562.1	.....	.....	51.5	10.8	78	sw.	2	0.9	.....	5 k	2 s	nw.	n.	0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.94	760.5	29.94	760.5	78	25.6	95	e.	.....	.....	.....	10 k	0	.....	.....	0.8	20.	cloudy	B. Bigar.
Havana, Cuba, W. I.	29.92	760.0	29.97	761.2	80	26.7	82	calm	0	0	.....	8 cs	2 ks	calm	calm	inap.	inap.	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.94	760.5	29.95	760.7	81.0	27.2	74	calm	0	0	.....	10cs;ck	0	e.	.....	0.02	0.5	cloudy	Robert Johnstone
Navassa, W. I.	29.84	757.9	29.92	760.0	85	29.4	72	ne.	3	1.3	.....	5 cs	5 ks	ne.	e.	0.02	0.5	fair	F. M. Everett.
Paramaribo, S. A.	30.00	762.0	30.00	762.0	81	27.2	78	e.	.....	.....	2	4 k	0	e.	.....	0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.43	747.5	29.99	761.7	76*	24.4	94	ne.	.....	.....	0	1 ck	2 k	ne.	.....	0.12	3.	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	75.2	24	.....	calm	.....	.....	.....	.....	10 ks	.....	ne.	2.47	62.7	.....	Earl Flint.
Santiago de Cuba, W. I.	29.93	760.2	29.96	761.0	80	26.7	82	calm	0	0	.....	8 c	0	n.	.....	0	0	hazy	Robert Mason.
St. Thomas, W. I. ‡	30.03	762.7	30.04	763.0	81	27.2	74	se.	7	3.1	.....	3 c	4 s	sw.	se.	0.22	5.6	fair	G. O. Gyllich.
York Factory, B. A.	29.86	758.4	29.91	759.7	34.0	1.1	95	nw.	18	8.0	.....	3 k	3 s	w.	nw.	0	0	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Thursday Island, Torres St.	29.90	759.4	76	24.4	86	ese.			4		3							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 37° 30′, W. 1° 02′	30.17	766.3	76	24.4	90	ene.			3		1					1	ene.	misty	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.03	762.7	71	21.7		nne.			2		1							blue sky	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 20° 15′, W. 65° 26′	30.05	763.3	83	28.3	83	ese.			3-4		5					2	ese.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.98	761.5	72	22.2	83	wsw.			1-2		10							overcast	Capt. F. W. Richards.
H. M. S. Champion, S. 7° 50′, W. 83° 50′	29.96	761.0	64	17.8	89	var.			1		2	sw.						blue sky	Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.80	756.9	82	27.8		calm			0		0					1	wsw.	blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 21° 40′, E. 1° 23′	30.21	767.3	64	17.8		sse.			3		3	ssc.				4	ese.	d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.05	763.3	77.5	25.3	67	w.			2-3		4	w.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.28	769.1	55	12.8	82	sw.			1-2		10	w.						overcast	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 22° 24′, E. 59° 40′	29.59	751.6	90	32.2		s.			2		4	se.				2	s.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 13° 04′, E. 80° 14′	29.75	755.6	83	28.3		sse.			2		5							d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 4° 32′, E. 56° 00′	29.89	759.2	80	26.7	82	ese.			3-4		8	ese.				3	ese.	showery	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19	29.94	760.5	77	25.0		n.			3-4		3					4	nne.	squally	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 12° 21′, W. 82° 06′	29.92	760.0	85	29.4	83	nne.			2									blue sky	Comm. R. N. Custance.
H. M. S. Flying Fish, Okosiri, Yezo, Japan	29.95	760.7	68	20.0	84	ese.			1		9	se.						showery	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 20° 03′, W. 155° 45′	30.01	762.2	77	25.0	65	nw.			2-6		4							squally	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argentine Rep	30.11	764.8	63	17.2	83	n.			2		2							blue sky	Capt. L. F. Jones
H. M. S. Grifloff, N. 18° 29′, W. 77° 54′	29.94	760.5	81	27.2	72	calm			0		3							d. clouds	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, S. 7° 00′, E. 169° 30′	29.83	757.7	83	28.3	70	ne.			3		2	ne.				1	ne.	showery	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 39° 27′ E. 141° 59′	29.99	761.7	70	21.1		calm			0		9							d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel, Canton, China *†	29.90	759.4	81	27.2							5	calm						raining	Capt. R. E. Tracey.
H. M. S. Kingfisher, S. 6° 56′, W. 79° 52′	30.01	762.2	59	15.0		sse.			1		7	calm				3	sw.	d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 20° 30′, E. 74° 00′	30.13	765.3	71	21.7		ene.			4		2					2	ene.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 16° 51′, W. 30° 40′	30.16	766.1	79	26.1	69	ese.			3		3					1		d. clouds	Capt. S. Grove.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 22′, E. 109° 55′	29.79	756.7	81.9	27.7	80	ssw.			1		10					2	s.	raining	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.00	762.0	81	27.2	82	nne.			3		0							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	30.35	770.9	54	12.2	86	nnw.			2		1	nnw.						blue sky	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 17° 01′, W. 72° 25′	30.02	762.5	59	15.0	100	e.			1		10					3	s.	dense mist.	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C. Littleton.
H. M. S. Ready, N. 8° 33′, E. 81° 15′	29.90	759.4	79	26.1		nne.			3		6							raining	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 10° 05′, E. 51° 13′	29.74	755.4	78.3	25.7	54	ssw.			5–6		0					5	sw.	blue sky	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 12° 17′, E. 44° 20′	29.62	752.3	82	27.8	74	s.			2							6	sse.	blue sky	Comm. W. Byles.
H. M. S. Serapis, N. 25° 08′, W. 20° 40′	30.09	764.3	77	25.0	90	nne.			4		7	nne.				2	nne.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 41° 22′, W. 11° 08′	29.80	756.9	73	22.8	85	ssw.			3		2	ssw.				2	ssw.	d. clouds	Capt. T. H. Royse.
H. M. S. Tenedos, N. 50° 17′, W. 64° 01′	30.42	772.7	60.5	15.8	91	ne.			2		1							blue sky	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	29.98	761.5	60	15.6	82	s.			1–2		10	calm						d. clouds	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.95	760.7	79	26.1		nne.			1		5							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C
H. M. S. Woodlark, Kurachee, Bombay, India	29.66	753.4	83.5	28.6	79	w.			3–4		4	w.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			

GERMAN NAVAL SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

PORTUGUESE NAVAL SERIES.

Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.

Bengo, S. 12° 47′, E. 12° 56′	29.98	761.6	68.4	20.2	85	w.			5		1					2	sw.	blue sky	Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Id's	29.93	760.3	82.4	28.0	81	ne.			2		3			3 h'r	3 h'r	1		showery	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sndo																			G. A. de Brito Capello.
Tamega, Macao, China	29.88	758.9	81.5	27.5	88	se.			1					1 h'r	1 h'r			blue sky	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.

H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.14	765.5	67	19.4	60	ne.	6	2.7			0			0	0			clear	
N. Yard, Portsmouth, N. H.	30.44	773.2	54	12.2	93	ne.	2	0.9			0			0	0			foggy	
Naval Hospital, Yokohama, Japan	29.84	757.9	75.5	24.2	75	ssw.			3		0			0	0			clear	
Adams, Panama, Panama	29.63	752.6	80	26.7	96	nnw.			1		5		sw.			sm'h		cloudy?	
Alaska, S. 12° 34′, W. 78° 45′	29.94	760.5	60	15.6	100	s.			1		8		s.			sm'h		cloudy	
Alert, Yokohama, Japan *	29.86	758.4	78	25.6	73	s.			3		2		calm	0	0	sm'h		clear.	
Alliance, N. 72° 07′, E. 20° 30′	30.01	762.2	37	2.8	100	ne.			3		8		e.	0	0	sm'h		fair	
Ashuelot, Kobe, Japan	30.01	762.2	79	26.1	82	wsw.			1		2		calm					clear	
Colorado, New York, N. Y.	30.38	771.6	63	17.2	89	ene.	4	1.8			2			0	0			misty	
Constitution, New Bedford, Mass	30.37	771.4	58	14.4	?	ne.	6	2.7			2		ene.					clear	
Franklin, Norfolk, Va	30.15	765.8	76	24.4	95	se.	4	1.8			0			0	0			clear	
Galena, Leghorn, Italy	30.08	764.0	76	24.4	60	ne.			1		0					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal	29.80	756.9	60	15.6	76	w.	9.6	4.3			0							clear	
Jamestown, Mare Isl'd, Cal *	29.82	757.4	58	14.4	94	nw.			1		6			0	0			clear	
Kearsarge, Philadelphia, Pa	30.35	770.9	67	19.4	89	ene.			4		10		ne.			sm'h		cloudy	
Lackawanna, Mare Isl'd, Cal †	30.04	763.0	60	15.6	88	sw.			2		0							clear	
Lancaster, New York, N. Y.	30.34	770.6	64	17.8	89	nne.	2	0.9			5		ne.					misty	
Marion, Maldonado, Uruguay *	29.91	759.7	59	15.0		n.			2		2		calm			long sm'h	s.	fair	
Michigan, Erie, Pa	30.17	766.3	61	16.1	94	w.			3		10		n.					cloudy	
Minnesota, Newport, R. I.	30.45	773.4	60	15.6	82	ene'			3		2			0	0			clear	
Monocacy, Yokohama, Japan	30.02	762.5	78	25.6	82	s.			2		0							clear	
Nipsic, N. 44° 06′, E. 8° 32′	30.07	763.8	74	23.3	68	ese.			1		2					sm'h		hazy	
Onward, Callao, Peru †	29.99	761.7	59	15.0	94	sse.			2		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.88	758.9	84	28.9	71	se.			1		10		calm					overcast	
Passaic, Washington, D. C.	30.25	768.3	73	22.8	95	ne.			2		10							overcast	
Pensacola, Panama, Panama	29.96	761.0	78	25.6	91	nnw			1		5			0	0	sm'h		fair	
Portsmouth, New London, Conn	30.40	772.1	58	14.4	88	nne.			3		2					sm'h		clear	
Powhatan, Aspinwall, Panama	29.88	758.9				s.			1		8		n.					cloudy	
Quinnebaug, Marseilles, France	30.05	763.3	70	21.1	75	wsw.			1		0					sm'h		hazy	
Ranger, Mare Island, Cal *	29.81	757.2	57	13.9	81	sw.			2		0			0	0	sm'h		clear	
Richmond, N. 13° 25′, W. 98° —	29.84	757.9	84	28.9	91	ne.			4		5?		ne	0	0	mod	ne.	cloudy?	
Saratoga, Wickford, R. I.	30.38	771.6	60	15.6	100	ne.			2-3		2		ne.	0	0	sm'h		fair	
Shenandoah, Maldonado, Uruguay *	30.20	767.1	59	15.0	76	nne.			2		8					sm'h		fair	
St. Louis, League Island, Pa	30.04	763.0	70	21.1	80	ne.	4	1.8			5?		calm	0	0			cloudy?	
Swatara, Chefoo, China †	29.90	759.4	74	23.3	72	n.			3		10		calm					cloudy	
Tennessee, New York, N. Y.	30.41	772.4	65	18.3	100	nne.	6	2.7			2		ene.	0	0			fair	
Trenton, N. 29° 10′, W. 20° 15′ *	30.10	764.5	83	28.3	61	n.			2		2			0	0	long		fair	
Vandalia, New York, N. Y.	30.37	771.4	62	16.7	88	ne.			2		2		ne.					fair	
Wabash, Boston, Mass.	30.46	773.7	64	17.8	73	n.	6	2.7			5		se.	0	0			hazy	
Wyoming, Port Royal, S. C.	29.98	761.5	79	26.1	86	se.	10	4.5			8		sse.	0.40	10.2			cloudy	
Yantic, New York, N. Y. *	30.36	771.1	62	16.7	88	nne.			1		2							clear	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland †*	29.94	760.5	.....	.....	.....	ese.	3	.....	10	.....	se.	.....	.....	.....	.....	gloomy	N. McLean.
S. S. Circassian, Capt. W. H. Smith N. 55° 15′, W. 26° 30′	30.11	764.8	52	11.1	93	w.	4	.....	10	.....	ne.	2 h'r	2 h'r	4	w.	overcast	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, N. 50° 57′ W. 35° 06′	30.17	766.3	59	15.0	.....	wsw.	4	.....	10	.....	sw.	.....	.....	long	wnw.	dull	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn	30.41	772.4	70	21.1	95	sse.	3	.....	10	.....	.....	.....	.....	.....	.....	overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Liverpool, England *†..	29.98	761.5	62	16.7	88	sw.	1	.....	0	.....	.....	.....	.....	.....	.....	fine	.....
S. S. Pennsylvania, Capt. G. H. Dodge, N. 49° 32′, W. 23° 43′ *†..	30.04	763.0	60	15.6	71	wnw.	5	.....	8	.....	w.	.....	.....	mod.	w.	cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, N. 11° 10′, W. 25° 28′	29.96	761.0	79	26.1	86	var.	1	.....	6	.....	.....	.....	.....	.....	s.	raining	.....
S. British Merchant, Capt. E. J. Moloney, ‡ N. 49° 34′, W. 16° 42′	29.79	756.7	57.8	14.3	87	n.	5-6	.....	9	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Cipero, Capt. W. N. Lailey, Demerara, Brit. Guiana	30.01	762.2	81.2	27.3	78	se.	2	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bk. Commeywyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan, N. 40° 22′, W. 39° 27′	30.34	770.6	70.5	21.4	76	e.	1	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bk. Glaramara, Capt. R. Morton, N. 46° 26′, W. 126° 58′ ‡..	29.84	757.9	49	9.4	100	wsw.	5	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bg. Hermine, Capt. S. G. Jones, N. 8° 11′, W. 24° 50′	30.02	762.5	79	26.1	86	s.	5	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bkt. Hope, Capt. Jas. Campbelle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, S. 44° 00′, E. 9° 00′	30.25	768.3	46	7.8	77	n.	4	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bk. Mertola, Capt. E. W. Turner	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pielone, Capt. C. H. Renant, S. 43° 13′, E. 7° 57′	30.59	777.0	50	10.0	65	n.	4	.....	4	.....	.....	.....	.....	.....	.....	blue sky	.....
S. S. Rosetta, Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Queen of Cambria, Capt. M. Parry N. 40° 15′, W. 16° 26′	29.75	755.6	68	20.0	82	w.	4	.....	4	.....	.....	.....	.....	.....	.....	showery	.....
Sierra Estralla, Capt. P. Murdoch,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 13° 48′, W. 30° 55′	29.97	761.2	80.5	26.9	82	n.	2-3	.....	2	.....	.....	.....	.....	.....	.....	blue sky	.....
S. S. Strathleven, Capt. C. W. Pearson Woo Sung Bar, China	29.86	758.4	74.5	23.6	95	e.	3	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA, AND MEXICAN S.S. CO.																	
J. Birmingham, agent San Francisco.																	
S. S. Newbern. Capt. E. Rogers N. 24° 48′, W. 110° 25′ †.	29.68	753.9	80	26.7	82	s.	3	.....	0	.....	.....	.....	.....	light	s.	clear	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., agents, New York.																	
S. S. Gallia, Capt. W. H. P. Hains,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD.																	
A. Schumacher & Co., agents, Baltimore, and Oelrich & Co., agents, New York.																	
Braunschweig, Capt. C. Pohle N. 48° 39′, W. 27° 53′	30.05	763.3	57.5	14.2	84	n.	5	.....	8	.....	nne.	.....	.....	mod.	n.	cloudy	.....
S. S. Hermann, Capt. H. Baur N. 43° 40′, W. 58° 41′	30.28	769.1	56.3	13.5	.....	ne.	6	.....	10	.....	ne.	3 h'rs	3 h'rs	light	e.	foggy	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jungst, N. 49° 49′, W. 8° 48′	29.75	755.6	65.0	18.3	89	ssw.	3	.....	5	.....	ssw.	hz	hz	sm'h	ssw.	light fog	T. Jüngst.
S. S. Leipsic, Capt. F. Pleiffer. N. 37° 58′, W. 71° 27′	30.29	769.4	72.5	22.5	71	ene.	4	.....	2	.....	ene.	0	0	mod.	ene.	fair	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 53° 52′, E. 7° 55′	30.14	765.5	76.0	24.4	95	nw.	2	.....	8	.....	nw.	2 h'rs	2 h'rs	mod.	nw.	cloudy	Englehart and von [Goessel
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, N. 31° 02′, E. 130° 14 †..	30.11	764.8	83	28.3	79	ssw.	4	.....	5	.....	sw.	0	0	light	sw.	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, San Francisco, Cal †*..	30.12	765.0	64	17.8	73	ssw.	2	.....	1	.....	w.	.....	.....	.....	.....	cloudy?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 47° 28′, W. 178° 38′	29.21	741.9	51	10.6	86	wnw.	4	.....	3	.....	nw.	.....	.....	sli't	nnw.	fine	.....
OREGON RAILWAY & NAVIGAT'N CO.																	
R. Van Oterendorp, agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann Astoria, Oregon *†...	29.85	758.2	60	15.6	76	ssw.	4	.....	10	.....	sw.	.....	.....	.....	.....	rainy	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon, Capt. Pollmann,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO.																	
Goodall, Perkins & Co., Agents, San Francisco.																	
S. S. Ancon, Capt. J. N. Ingalls, N. 33° 49′, W. 118° 32′ †..	29.77	756.1	64	17.8	94	ene.	2		10		e.			mod.	w.	foggy	J. N. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, Tacoma, Washington Ter. †..	29.86	758.4	57	13.9	94	se.	2		7		se.					showery	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson,																	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal. †	29.92	760.0	54	12.2	80	sw.	1		0							clear	T. Wallace.
S. S. State of California, Capt. Debney, N. 39° 00′, W. 124° 00′ †..	29.91	759.7	54	12.2	93	nw.	5		2		nw.			short	nw.	clear	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, Nanaimo, Vancouver I'd †..	29.87	758.8	50	10.0	93	calm	0		0							clear	J. C. Hunter.
PACIFIC MAIL S. S. CO.																	
Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.																	
S. S. Australia, Capt. —— S. 18° 16′, W. 176° 14′	29.92	760.0	76	24.4	91	ene.	6		8		ne.			r'gh	ne.	squally	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W. †	29.90	759.4	68	20.0	84	e.	2		0			0	0			clear	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 46° 18′, W. 177° 44′ †*	29.26	743.2	52	11.1	66	wnw.	5		10		w.			mod.	w.	overcast	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 13° 20′, W. 96° 09′ †..	29.95	760.7	84	28.9	83	nnw.	4		5		nnw.	0	0	sm'h	s.	fine	
S. S. City of Sidney, Capt. H. C. Dearborn,																	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 24° 26′, E. 118° 49′ †..	30.01	762.2	83	28.3	75	s.	2		10		n.	0	0	sm'h		cloudy	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle,																	R. R. Searle.
S. S. Grenada. Capt. M. Connolly N. 12° 20′, W. 88° 00′ †..	29.86	758.4	84	28.9	83	e.	3		5?		ne.	1 hr	1 hr	small	sse.	clear?	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 35° 38′, E. 176° 01′—	30.33	770.4	63	17.2	73	ene.	1		1		ene.			sm'h	e.	clear	H. Webber.
RED STAR LINE.																	
Peter Wright & Sons, Agents, New York and Philadelphia.																	
S. S. Nederland, Capt. Ueberweg,																	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Schelde River, Netherlands †	30.23	767.8	65	18.3	84	sw.	1		3		sw.	0	0			fair	C. H. Grant, 2d Off.
WHITE STAR LINE.																	
R. J. Cortis, Agent, New York.																	
S. S. Adriatic, Capt. J. W. Jennings N. 51° 31′, W. 11° 42′ †..	29.85	758.2	59	15.0	82	se.	1		10		se.	driz	driz	sm'h		misty	R. Horsfall.
S. S. Britannic, Capt. H. Perry																	
S. S. Celtic, Capt. B. Gleadell, N. 49° 57′, W. 32° 45′ †..	30.17	766.3	58	14.4		wnw.	5		8		wsw.	0	0	mod.	nw.	fair	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy,																	
S. S. Republic. Capt. P. J. Irving																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass. †	30.39	771.9	60	15.6	94	ne.	3	2 c	5 k			0	0			cloudy	
Golden Fleece																	
Hassler, Lt. Com. Nichols, N. 55° 58′, W 135° —′ *†..	30.02	762.5	53	11.7		wnw.	3		10					mod.	nw.	misty	
S. Iron Cross, Capt. Randall, S. 1° 18′, W. 21° 45′ *..	30.00	762.0	77.8	25.4	99	se.	3-4		3		sse.	0	0	mod.	sse.	d. clouds	W. Randall.
S. Pawashick. Capt. E. Fry. N. 42° 35′, W. 49° 22′ *†..	30.06	763.5	65	18.3	94	sse.	4		8		s.			cross	e.	foggy	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †..	29.92	760.0	80	26.7	62	wsw.	6		5		w.	0	0			fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer U. S. A.

Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 18, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.01	762.3	79.9	26.6	72	nw.			3		4			0	0	cloudy	Raynard.
Algiers ‡			30.03	762.8	84.9	29.4	56	ene.			2		0			0	0	clear	Nicolas.
La Calle ‡			30.09	764.3	75.9	24.4	85	e.			6		3			0	0	pretty fair	Fonfrède.
Tunis ‡			30.10	764.6															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.07	763.7	98.6	37.0	18	wsw.			1		2			0	0	fair	Dumas.
Tebessa ‡			30.09	764.3	88.9	31.6	10	n.			1		0			0	0	clear	Derché.
Geriville ‡					93.6	34.2	9	sse.			8		0			0	0	clear	Lonchamp.
Laghouat ‡			30.11	764.8	93.9	34.4	12	nw.			1		1			0	0	very fair	Herbin.
Biskra ‡			30.10	764.5	91.8	33.2	37	nw.			1		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.82	757.4	29.91	759.7	54.4	12.4	65	wnw.	10	4.5			2			0.01	0.3	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.61	752.2	30.16	766.0	65.1	18.4	53						0			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.40	746.7	30.16	766.0	62.1	16.7	58	ese.	2.5	1.1			1			0	0		Dr. Wiersbicki.
Eperies	29.28	743.6	30.15	765.9	57.2	14.0	75	n.			3	cs	4 s			0	0		Julius Mikolik.
Gratz ‡	28.89	733.7	30.12	765.1	62.8	17.1	76	s.			2		0			0	0		Andreas Rospini.
Hermannstadt	28.73	729.7	30.12	765.1	69.4	20.8	47	nw.			1		2			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.71	729.1	30.03	762.8	59.5	15.3	83	ne.			1		4			0	0		The Staff.
Lemberg	29.17	740.8	30.15	765.8	57.6	14.2	71	nw.			2		10			0	0		Dr. T. Stanecki.
Pola	30.02	762.6	30.13	765.4	69.6	20.9	67	wnw.			3		0			0	0		I. R. Hydrographic Office.
Szathmar	29.69	754.2	30.15	765.8	66.2	19.0	48	w.			1		8			0	0		Beicht Peter, S. J.
Szegedin	29.86	758.5	30.14	765.5	66.9	19.4	61	calm			0		3			0	0		Karl Stancel.
Trieste	30.06	763.4	30.16	766.0	70.5	21.4	62	w.			1		0			0	0	clear	Secco.
Vienna	29.42	747.2	30.13	765.2	62.2	16.8	66	se.			3		0			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.56	750.8	29.65	753.1	53.1	11.7	87	n.	6	2.7			10			0.070	1.8	drizzling	W. Boswell.
Armagh, Observatory	29.46	748.3	29.68	753.9	56.0	13.3	80	nw.	2	0.9									S. Call.
Bidston, Liverpool Obs'y			29.63	752.6	60.0	15.6	94	w.	11	4.9			6					d. clouds	John Hartnup.
Bolton, Sharples	29.10	739.1	29.62	752.3	64.3	17.9	81	wsw.	6	2.7			9					overcast	Thomas Mackereth.
Bradford, Yorkshire																0.26	6.6		A.S. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.62	752.3	70.0	21.1	65	sw.			0.2		1					blue sky	John McLaren.
Chatham, School M. E.	29.57	751.1	29.70	754.4	67.0	19.4	81	calm			0		5					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.46	748.3	29.69	754.1	64.0	17.8	89	s.			1		10					overcast	The Staff.
Fort Napier, Natal	27.52	699.0	29.74	755.4	85.0	29.4	82	ne.			6		1					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.70	754.4	29.93	760.2	84.0	28.9	83	e.			3		4					d. clouds	Sgt. C. E. Keane
Galway, Queen's College					59	15.0	70	s.			2		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.98	761.5	30.03	762.7	76.3	24.6	85	sw.			4		5					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	29.35	745.5	29.55	750.6	58.0	14.4	76	ene.			5		10					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.49	749.0	29.66	753.4	71.0	21.7	60	w.			1		3					foggy	The Staff.
Guernsey	29.46	748.3	29.68	753.9	68.5	20.3	70	sw.			2		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.63	752.6	29.67	753.6	66.0	18.9	68	sse.	4	1.8			4					d. clouds	The Staff.
Leicester, Museum	29.38	746.2	29.62	752.3	70.0	21.1	65	sw.			2		5						J. C. Smith.
Malta, Mediterranean	29.97	761.2	30.04	763.0	77.4	25.2	60	ne.			2		1			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.83	757.7	29.87	758.7	79.0	26.1	95	n.			1		6					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.13	739.9	29.63	752.6	71.9	22.2	73	sw.			2		5					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.43	747.5	29.66	753.4	70.7	21.5	61	ssw.			2		2					blue sky	The Staff.
Plymouth	29.59	751.6	29.67	753.6	66.0	18.9	84	s.			1		2					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.68	753.9	52.2	11.2	86	wnw.	5	2.2			1					blue sky	Rev. C. Clouston, L. L. D
Scutari Cemetery, Turkey	30.01	762.2	30.07	763.8	79.2	26.2	36	ne.			2		2					d. clouds	Serg't W. H. Lyne.
Sheffield	29.38	746.2	29.65	753.1	69.1	20.6	77	ssw.			1		7			0.02	0.5	d. clouds	W. F. Cooper.
Silloth Rectory	29.56	750.8	29.59	751.6	58.6	14.8	91	sw.			3		10			0.050	1.3	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.54	752.8	60.5	15.8	91	w.	9	4.0			10					overcast	Rev. S. J. Perry.
Straitfield Turgiss	29.45	748.0	29.66	753.4	71.2	21.8	58	s.			2		0					blue sky	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.66	753.4	29.67	753.6	70	21.1	71	sw.			4		6					d. clouds	W. Newcombe.
Valencia, Observatory	29.70	754.4	29.73	755.1	58.4	14.7	69	nw.	14	6.3			6					d. clouds	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.32	770.1	30.37	771.4	58	14.4	88	ene.	4	1.8			10 s		s.	0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.32	770.1	30.38	771.6	57	13.9	90	ne	2	0.9		2 k	8 ks	ne.	ne.	0	0	cloudy.	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.29	769.4	30.31	769.9	52	11.1	96	calm	0	0			10 n		calm	0	0	threatening	J. McWilliams.
Fort Garry, Manitoba*	29.05	737.9	29.88	758.9	45	7.2	86	sw.	5	2.2		5 k	5 ks	w.	sw.	0.030	0.8	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.22	767.6	30.35	770.9	57	13.9	90	e.	5	2.2		0	8 k		e.	0	0	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.91	759.7	30.23	767.8	68	20.0	81	s.	2	0.9		hz.	0			0	0	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	30.05	763.3	30.25	768.3	59	15.0	93	s.	8	3.6		0	0			0	0	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.56	750.8	30.24	768.1	60	15.6	93	calm	0	0		2 k	5 ks	sw.	sw.	0.26	6.6	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.57	751.1	30.25	768.3	63	17.2	100	nw.	3	1.3			10 n			0.09	2.3	threatening	H. Morgan.
Port Stanley, Ontario	29.61	752.1	30.25	768.3	60	15.6	96	nw.	1	0.4			10 ks		w.	0.55	14.0	cloudy	M. Payne.
Quebec, Quebec*	29.97	761.2	30.29	769.4	59	15.0	93	ne.			3	2 k	2 s	e.	e.	0	0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.77	756.1	30.22	767.6	64	17.8	93	calm	0	0		0	0			0	0	hazy	W. H. McIntyre.
Saugeen, Ontario*	29.55	750.6	30.26	768.6	57	13.9	93	se.	8	3.6		2 cs	0			0.02	0.5	clear	K. Stewart.
St. Andrews, N. B.	30.29	769.4	30.34	770.6	55	12.8	96	e.	3	1.3			10 n			0	0	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.35	770.9	30.40	772.1	55	12.8	93	se.	2	0.9			10 n			0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.87	758.7	30.25	768.3	66	18.9	97	e.	1	0.4			10 n			0.11	2.8	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.23	767.8	30.30	769.6	57	13.9	90	e.	5	2.2		0	0			0	0	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.21	767.3	30.46	773.7	44	6.7	92	w.				5 k	5 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	29.95	760.7	29.98	761.5	63.4	17.5	95	w.	10.8	4.8		0	2 s			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.12	739.6			64.8	18.2	59	wnw.			2	2	4			0	0	cloudy	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.99	761.7	30.01	762.3	70.5	21.4	89	ene.	3.1	1.4			10			0.102	2.6	covered	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.94	760.5	29.99	761.7	55.6	13.1	81	s.	16	7			10					raining	Oversergent Fischer
Fanöe	29.82	757.5	29.84	758.0	57.7	14.3	83	sse.			2		8						Overloerer Lauridsen
Godthaab, Greenland	29.54	750.2	29.58	751.3	33.3	0.7	78	nne.			4		0						S. Kleinschmidt.
Stykkisholm, Iceland	29.34	745.4	29.39	746.5	44.6	7.0	85	e.			8		10					raining	A. O. Thorlacius.
Thorshavn	29.57	751.1	29.61	752.0	54.0	12.2	73	w.	13	6			4						Overloerer Bergh.
Vestervig	29.75	755.6	29.84	757.9	55.9	13.3	89	sse.			4		9						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.23	742.5	29.85	758.2	78.4	25.8	53	se.			2		8			0	0	very cloudy	M. Labroue, Director.
Alençon Normal School	29.21	741.9	29.76	755.9	68.0	20	74	s.			4		fg	w.	n.	0	0	foggy	M. Nicot, Director.
Arras, Engineer School					55.2	12.9	100	s.											M. Klein, Commandant.
Avignon, Normal School	30.02	762.4	30.10	764.4	79.9	26.6	54	s.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.28	743.8	29.82	757.4	72.1	22.3	63	s.			1	0	8 kn		sw.	0	0	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.47	748.4	29.72	754.9	68.7	20.4	71	se.			1		8		sw.	0.059	1.5	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.01	736.9	29.87	758.6	71.2	21.8	66	se.			1		10		sw.	0	0	covered	M. Gobin, Director.
Bordeaux, Observatory	29.61	752.2	29.87	758.6	77.2	25.1	57	wsw.			1		8		sw.	0.012	0.3	very cloudy.	M. Rayet, Director.
Bourges, Normal School	29.28	743.6	29.81	757.1	80.6	27	47	ne.			2		5		ne.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.50	749.4	29.75	755.6	72.7	22.6	74	wnw.			1		9		w.	0.020	0.5		M. de Kermaree, Dir.
Caen, Normal School	29.56	750.9	29.03	752.7	78.1	25.6	62	ssw.			1		0			0	0	clear	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					69.8	21.0	76	calm			0		5			0	0	cloudy	M. Jadot, Director.
Charleville, Normal School	29.26	743.3	29.76	755.9	66.7	19.3	54	s.			3		8	se.	se.	0	0	¾ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.50	723.8	29.77	756.2	82.0	27.8	27	sse.			3		8			0	0	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.06	738.2	29.88	758.9	72.0	22.2	49	s.			4		3		sw.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.02	737.0	29.85	758.2	69.8	21	67	e.			1		5	e.	e.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.61	701.3	30.10	764.4	64.4	18	79	n.			1	0	0			0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	29.06	738.2	30.21	767.2	78.8	26	31	s.			2		5		s.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.24	742.6	29.97	761.2	77.2	25.1	94	nnw.			1	0	0			0	0		M. Ablard, Director.
Guéret, Normal School	28.31	719.0	29.81	757.2	75.6	24.2	36	sw.			3		n		ne.	0	0		M. Rivoire, Director.
Lamballe, Normal School	29.44	747.7	29.71	754.5	74.3	23.5	55	sse.			4				sse.	0.728	18.5		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.62	752.4	29.72	755.0	71.6	22.0	74	w.			2		8	sw.	w.	0	0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.89	733.8	29.91	759.7	74.5	23.6	30	sse.			4		5			0	0	cloudy	M. André, Director.
Mans, Normal School	29.43	747.5	29.72	755.0	73.8	23.2	56	sw.			3		2		sw.	0.067	1.7	slightly cl'dy.	M. Piboen, Director.
Marseille, Observatory	29.81	757.2	30.08	763.9	78.4	25.8	48	e.			1		4		w.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.95	633.8	30.19	766.8	72.5	22.5	36	sw.	15.0	6.7			4		w.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.98	761.4	30.08	764.1	75.9	24.4	59	se.			4		2		nw.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.09	738.8	29.82	757.3	73.4	23	58	se.			1	5 c	0	w.		0	0	cloudy	M. Hasse.
Nantes, Observatory	29.59	751.6	29.75	755.7	77.0	25	56	ssw.			2-3		0			0	0	hazy	M. Larocque, Director.
Nice	30.09	764.3	30.12	765.1	73.4	23.0	65	se.			2	1	1	se.	se.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	29.85	758.2	29.95	760.8	75.6	24.2	67	se.	5.6	2.5			1c	wnw.	sw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.64	575.1			55.9	13.3							1		ssw.	0.075	1.9	clear	Gen'l de Nansouty Dir.
Privas, Normal School					74.5	23.6	56	calm			0		0			0	0	clear	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.17	639.4			69.1	20.6	33	ssw.			3		10			0	0	covered	M. Alluard, Director.
Rochefort, Naval Obs'y	29.81	757.2	29.84	758.0	75.2	24.0	100	wsw.			3		0			0	0	clear	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.55	750.6	29.76	755.8	73.4	23	84	w.			4		5		sw.	0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School					60.8	16	79	sw.			1		5			0	0	cloudy	M. Platrier, Director.
Saint Lô, Normal School																			M. Delaplanche, Dir.
Saint Maur, Observatory	29.59	751.5	29.75	755.7	71.2	21.8	58	sse.			1		10		sw.	0.012	0.3		M. Renou, Director.
Toulouse, Observatory	29.20	741.6	29.92	759.9	76.6	24.8	59	sse.			6		8			0	0	very cloudy	M Bailland, Director.
Tours	29.57	751.0	29.76	756.0	79.5	26.4	48	sw.			3		5	calm	w.	0.016	0.4	½ covered	M. de Tastes.
Versailles, Observatory	29.25	743.0	29.74	755.5	70.5	21.4	59	sw.			2					0.008	0.2		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.47	748.6	29.76	756.0	69.4	20.8	71	sse.			2		1c		wsw.	inap.	inap.		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.17	740.8	30.03	762.7	68.7	20.4	55	s.			2	0	1 s			0	0		Prof. Dr. Hoh.
Berlin	29.82	757.3	29.98	761.6	64.4	18.0	55	se.			2		3			0	0		Prof. Dr. Arndt.
Breslau	29.62	752.3	30.15	765.8	61.9	16.6	54	sse.			2		1			0	0		Royal University Obs'y.
Carlsruhe	29.50	749.3	29.92	759.9	68.0	20.0	69	ne.			1		2	sw.		0	0		Albert Senz.
Cassel	29.21	741.9	29.93	760.1	72.3	22.4	56	s.			3		5	s.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.59	751.6	29.95	760.6	66.6	19.2	61	ssw.			1		3			0	0		Physical Society.
Friedrichshafen	28.58	725.9	30.00	762.1	57.9	14.4	92	sw.			3		2	sw.		0	0		Wilhelm, Chief Tel.
Hamburg	29.82	757.5	29.92	759.9	59.9	15.5	69	se.			4		10			0	0		E. Preller.
Kiel	29.91	759.8	29.93	760.2	59.4	15.2	69	se.			1		9			0.004	0.1		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.60	751.7	30.01	762.2	64.0	17.8	49	se.			3		5			0	0		H. Leppig, Asst.
Magdeburg	29.76	755.9	29.95	760.6	64.2	17.9	56	s.			5	3 cs	0			0	0	squally	Dr. Assmann.
Memel	30.09	764.2	30.13	765.4	56.3	13.5	78	sw.			3	0	5 ks						Issermann.
Munich	28.21	716.6	30.08	764.0	68.5	20.3	55	ne.			2		2	w.		0	0		Central Station.
Neufahrwasser	30.11	764.8	30.13	765.2	61.2	16.2	67	wsw.			1		8			0.020	0.5		A. Lothes.
Neustadt, Palatinate	29.42	747.2	29.95	760.6	64.6	18.1	68	w.			1		1	n.		0	0		Dicknether.
Stuttgart	28.98	736.1	29.84	758.0	70.7	21.5	67	s.			1		0			0.091	2.3		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.52	724.5	30.00	761.9	64.4	18.0	60	calm			0		1			0	0		Fischer.
Wustrow	29.98	761.4	30.00	762.0	61.5	16.4	74	sse.			3	0	5 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.65	753.1	30.02	762.6	81.5	27.5		ne.			3.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.59	751.6	29.64	752.8	82.8	28.2	75	sw.	32.0	14.3			8	wsw.		0	0	d. clouds	
Deesa	29.18	741.0	29.65	753.0	81.7	27.6	82	wsw.	14.6	6.5			8	sw.	sw.	0.04	1.0	d. clouds	
Bombay	29.78	756.4	29.82	757.3	82.3	27.9	83	w.	16.0	7.2			10		w.	0	0	overcast	
Poona, Yarrowda	27.96	710.2	29.83	757.6	74.8	23.8	73	w.	20.0	8.9			6	w.	w.	0	0	d. clouds	
Belgaum	27.31	693.6	29.87	758.6	71.8	22.1	81	wsw.	10.0	4.5			8	e.	sw.	0.03	0.8	showery	
Lahore	28.73	729.8	29.45	748.0	93.1	33.9	50	calm	2.7	1.2			3			0	0	blue sky	
Roorkee	28.58	725.8	29.45	748.0	88.8	31.6	68	sw.	2.1	0.9			2			0	0		
Agra	28.99	736.3	29.54	750.3	86.2	30.1	63	sw.	6.0	2.7			4			0	0		
Nagpur	28.64	727.3	29.66	753.5	84.5	29.2	70	sw.	6.7	3.0			7	w.		0.31	7.9	d. clouds	
Jubbulpore	28.33	719.5	29.67	753.7	80.3	26.8	79	w.	5.8	2.6			5	n.		0	0	d. clouds	
Lucknow	29.20	741.8	29.57	751.1	86.1	30.1	82	wnw.	6.7	3.0			10			0.65	16.5	overcast	
Allahabad	29.23	742.5	29.54	750.3	86.7	30.4	69	sw.	4.7	2.1			9		w.	0	0	d. clouds	
Patna	29.37	746.1	29.55	750.7	81.6	27.6	89	wsw.	3.6	1.6			10	wsw.	wsw.	0.62	15.7	overcast	
Hazaribagh	27.60	701.0	29.58	751.3	81.3	27.4	71	w.	7.7	3.4			6	w.	e.	0	0		
Cuttack	29.56	750.9	29.64	752.9	82.5	28.1	85	calm	0.3	0.1			4			0.08	2.0	d. clouds	
Calcutta, Alipore	29.58	751.2	29.60	751.8	83.6	28.7	87	sw.	7.0	3.1			10			0.14	3.6	overcast	
Dhubri	29.44	747.8	29.56	750.8	78.4	25.8	92	s.	1.8	0.8			3			0.53	13.5	d. clouds	
Chittagong	29.58	751.4	29.67	753.7	80.2	26.8	90	s.	3.5	1.6			8			0	0	d. clouds	
Sibsagar	29.25	742.9	29.58	751.3	83.2	28.4	84	sw.	2.4	1.1			10	w.	w.	1.12	28.4	d. clouds	
Jeypore	28.16	715.3	29.58	751.4	83.9	28.8	63	w.	8.3	3.7			9		w.	0	0	d. clouds	
Zanzibar, Africa			30.04	763.0	80.3	26.8	64	wsw.	5	2.2			5		se.	0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.76	755.8	30.16	766.0	67.6	19.8	61	e.	0.7	0.3			0			0	0		Prof. Giovanni Clodig.
Milan	29.64	752.9	30.15	765.8	72.7	22.6	51	nnw.	3.1	1.4			4	nne.		0	0		Prof. Schiaparelli.
Padua	30.04	762.9	30.14	765.6	70.5	21.4	56	ssw.	1.3	0.6			2	sw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.23	742.4	30.12	765.0	70.5	21.4	61	e.	2.5	1.1			8	n.		0	0		Prof. P. F. Denza.
Genoa	29.97	761.1	30.15	765.9	73.0	22.8	59	sw.	3.8	1.7			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.25	717.5	30.13	765.2	68.4	20.2	62	n.			2		9			0	0		Prof. D. C. Bruno.
Pesaro	30.10	764.6	30.15	765.8	69.1	20.6	64	ne.					0			0	0		Prof. Luigi Guidi.
Florence	29.87	758.6	30.12	765.0	72.9	22.7	44	nw.			2		0			0	0		Prof. Costantino Pitter.
Leghorn	30.00	762.0	30.08	764.1	72.3	22.4	51	w.	4.3	1.9			0			0	0		Prof. P. Monte.
Rome	29.97	761.1	30.13	765.4	75.2	24.0	34	nnw.	1.3	0.6			0			0	0		Prof. P. S. Ferrari.
Lecce	29.85	758.2	30.10	764.6	73.2	22.9	54	nne.	14.3	6.4			0			0	0		Prof. C. de Giorgi.
Cosenza	29.20	741.6	30.06	763.4	72.7	22.6	56	wsw.	4.3	1.9			4	sw.		0.087	2.2		Prof. D. Conti.
Cagliari	29.91	759.7	30.10	764.5	77.0	25.0	54	se.			2		0			0	0		Prof. A. Pacinotti.
Palermo	29.86	758.5	30.11	764.7	75.9	24.4	44	nne.	9.8	4.4			2	nne.		0	0		Prof. G. Ciacciatore.
Syracuse	29.93	760.1	29.97	761.2	73.8	23.2	61	ne.	5.6	2.5			4	w.		0.039	1.0		Prof. Vincenzo Guiliano
Sub-series.																			
Naples, S. R	29.56	750.9	30.08	763.9	73.4	23.0	52	ne.	0	0			0			0	0		Prof. F. Brioschi.
Stelvio	22.38	568.3			52.5	11.4	46	sw.			2	1 cs	0	w.		0	0	misty.	Prof. P. F. Denza.
Valdobbia	22.44	570.1			56.8	13.8	45	n.			2	4 cs	0	wnw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.90	759.4	29.92	759.9	76.6	24.8	83	ssw.	6.3	2.9		10 cs;ck	0			inap.	inap.	overcast	K. Sasaki.
Kioto	29.81	757.2	29.97	761.2	77.7	25.4	81	sw.	3.7	1.6		ck	10 s			0.020	0.5	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.81	757.2	30.01	762.2	71.5	21.9	88	ssw.	0.8	0.4			9 s			0.040	1.0	cloudy	S. Takehayashi.
Niigata	29.81	757.2	29.84	757.9	79.2	26.2	83	sse.	7.6	3.4		ck	10 n			0.300	7.6	raining	
Nobiru	29.83	757.7	29.85	758.2	72.4	22.4	92	sw.	1.7	0.8			10 s			0.035	0.9	cloudy	
Supporo	29.51	749.5	29.57	751.1	69.0	20.6	95	se.	1.8	0.8			10			0	0		
Tokei Obs'y, Yeddo	29.85	758.2	29.92	759.9	76.9	24.9	79	ssw.	14.6	6.5		0	0			0	0	clear	The Staff.
Wakayama	29.94	760.5	29.99	761.7	79.1	26.2	80	sw.				0	4s			0.015	0.4	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.00	762.0	30.19	766.9	71.2	21.8	49	se.	24.0	10.7		1	1			0	0	squally	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.72	602.6	29.94	760.6	53.6	12.0	46	calm	0	0		3 c	0			0	0	clear	Vicente Fernandez.
Leon	24.49	622.0	30.22	767.6	57.0	13.9	79	w.			2	4 c	0			0	0		Prof. M. Leal.
Mazatlan	29.68	754.0	29.94	760.5	77.0	25.0	91	se.	0.9	0.4			10 n		se.	0.866	22.0	cloudy	F. Quijano, U. E.
Mexico, Central Obs'y	23.16	588.3	30.25	768.5	47.5	8.6	66	calm	0	0		3 c	0			0	0	clear	The Staff.
Morelia	24.11	612.3	30.29	769.5	46.9	8.3	72	n.			2	1	3	e.	se.	0	0		M. Tena, M. D.
Pabellon, Aguascalientes	23.99	609.3	29.97	761.2	54.3	12.4	50	n.			2	0	0			0	0	fine	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	595.0	30.27	768.9	48.2	9.0	72	calm	0	0		0	0			0	0	very fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.63	574.7	30.24	768.2	50.0	10.0	60	ene.	1.7	0.8		1 c	1 s			0	0	clear	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.70	754.3	29.70	754.3	64.4	18.0		ese.			4					0	0		
Groningen	29.75	755.7	29.81	757.1	60.3	15.7		s.			2					0	0		
Helder	29.72	754.8	29.72	754.8	57.7	14.3					3					0.028	0.7		
Helleyoetsluis	29.74	755.4	29.74	755.4	60.8	16.0	84	e.			2					0	0		
Utrecht	29.73	755.2	29.78	756.4	60.3	15.7	78	se.			2		8			0.004	0.1	very cloudy	H. van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.63	752.5	29.69	754.1	53.6	12.0	96	sse.	15.0	6.7			10			0.492	12.5	raining	
Christiania	29.68	753.9	29.83	757.6	53.8	12.1	94	s.	7	3			10			0.150	3.8	raining	
Gjæsvær	30.08	763.9	30.10	764.5	36.9	2.7		ese.			2		10					snowing	
Lodingen	29.79	756.6	29.84	757.8	46.8	8.2	55	sse.			4		5			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.95	760.8	30.10	764.6	64.0	17.8	76	ne.	7.4	3.3			2			0	0		Dr. J. A. Sampaio.
Campo Major	29.07	738.4	30.04	763.1	73.4	23.0	52	wsw.	3.8	1.7			9			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.03	762.7	30.11	764.9	75.4	24.1	61	ese.	0.7	0.3			1			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.73	755.2	30.08	764.1	69.3	20.7	65	sw.	15.4	6.9			9	wsw.		0.004	0.1		The Staff.
Ponta Delgada, Azores	30.08	764.1	30.15	765.9	73.4	23.0	52	calm	0	0			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.71	729.2	29.74	755.4	70.5	21.4	43	sw.	11	5		1 c	0						Capt. Lasarew.
Archangel	29.79	756.6	29.81	757.1	40.1	4.5	63	n.	13	6		0	8 ks						Capt. Sseliwerstow.
Astrakhan	30.00	762.0	29.92	759.9	74.7	23.7	34	wnw.	13	6		0	1 k						Capt. Wisganow.
Barnaul ‡	29.30	744.2	29.78	756.4	65.8	18.8	56	calm	0	0			9						Meteorological Obs'y.
Dorpat	29.79	756.6	30.03	762.8	53.8	12.1	52	wnw.	7	3		0	6 k						Observatory.
Ekaterinburg	28.36	720.3	29.29	743.9	55.6	13.1	93	se.	13	6			10					raining	Meteorological Obs'y.
Kasan	29.20	741.7	29.46	748.3	63.0	17.2	69	wnw.	11	5		0	8 n						Observatory.
Kertch	30.06	763.6	30.08	764.1	69.1	20.6	54	nw.	11	5		2 c	0			0	0		Lagorio & Sastyres.
Kieff	29.40	746.8	30.03	762.7	57.9	14.4	65	wnw.	7	3		c;cs	10 ks						Observatory.
Lugan	29.72	754.8	29.92	759.9	67.1	19.5	49	wsw.	18	8			7			blank	blank		Meteorological Obs'y.
Moscow	29.24	742.7	29.71	754.7	51.4	10.8	81	n.	13	6		0	8 ks						Meteorological Obs'y.
Nikolaiev	30.08	764.1	30.15	765.9	67.1	19.5	52	wnw.	18	8			9 kn						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.63	752.7	29.72	754.9	47.8	8.8	95	calm			0	0	1 k			0	0		Lieut. Iwanow.
Pekin, China	29.94	760.4	30.08	764.0	64.0	17.8	42	nw.	4	2		0	0			0	0		Physical Observatory.
St. Petersburg	29.93	760.1	29.94	760.5	46.2	7.9	73	nnw.	13	6		cs	6 n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.38	720.9	29.90	759.4	72.7	22.6	60	calm	0	0			0						Teich, A. M.
Tiflis	28.54	724.8	29.87	758.6	86.5	30.3	35	calm	0	0		0	2 k						Physical Observatory.
Warsaw	29.74	755.5	30.17	766.3	57.0	13.9	73	calm	0	0			10 ks						Astronomical Obs'y.
Wilna	29.70	754.4	30.12	765.0	57.2	14.0	52	nnw.	4	2			7						Berg, Assistant.
Yeniseisk	29.41	747.1	29.69	754.2	55.4	13.0	86	e.	2	1			3						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.64	752.8	52.9	11.6	100	ne.			2		10 n			0.29	7.4	raining	Andrew Gibb.
Monach Lt. House, Hebrides			29.70	754.4	55	12.8	93	nw.			3	3	0	n.		0	0	clear	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.91	759.7	30.01	762.3	75.9	24.4	83	e.	2.7	1.2			0			0	0	hazy	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.85	758.3	29.91	759.7	84.2	29.0	65	nw.	2.5	1.1		3	2	sw.		0.154	3.9	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.08	687.8			67.8	19.9	49	sw.	9.8	4.4			3			0	0	light clouds	Domingo Martin.
Madrid, Royal Obs'y	27.85	707.3	29.99	761.7	75.9	24.4	43	sw.	19.9	8.9		4	0	sw.		0	0	light clouds	The Staff.
Murcia, Met. Obs'y ‡	29.87	758.6	30.01	762.2	87.8	31.0	52	nne.	4.0	1.8		4	3	e.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.01	736.8	29.88	759.0	65.8	18.8	77	ssw.	19.2	8.6			4			0.965	24.5	cloudy	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.86	758.4	29.92	760.1	76.1	24.5	90	s.	2.7	1.2		4 c;ck	1 k;s	n.	w.	0.280	7.1	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.85	758.2	29.90	759.5	82.8	28.2	82	e.	2 2	1.0		0	1 k			0	0	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.02	762.6	30.12	765.0	75.9	24.4	66	w.	10.3	4.6		2	6	wnw.	wnw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I.	29.90	759.4	29.99	761.7	79.9	26.6	89	s.	4.5	2.0		6 k	5 kn	se.	se.	0.315	8.0	cloudy	E. Caden, Chief Engn'r.
Tuguegarao, Philippine Ids	29.78	756.4	29.91	759.8	80.2	26.8	85	nnw.	0.6	0.3		0	1 s		nw.	0.01	0.3	fair	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.02	762.4	30.06	763.4	41.7	5.4	57	e.			2		8			0	0		
Umea	29.96	760.9	30.01	762.2	46.0	7.8	81	nne.			4		10			0.181	4.6		
Hernosand	29.80	758.4	29.91	759.7	49.1	9.5	88	s.			4		10			0	0		
Stockholm	29.80	757.0	29.98	761.5	56.5	13.6	69	ssw.			2		10			0	0		
Wisby	29.94	760.4	30.00	761.9	55.4	13.0	85	sw.			4		10			0	0		
Sub-Series.																			
Upsala	29.85	758.2	29.94	760.4	54.7	12.6	77	ssw.	11.0	4.9			10	w.	sw.	0.028	0.7		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.61	726.7	30.00	762.0	65.8	18.8	72	n.			1		6			0	0	foggy	The Observatory.
Zurich ‡	28.38	720.9	29.98	761.6	64.4	18.0	79	w.			1		0			0	0	clear	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.13	765.3	73.4	23.0	44	ene.	22	10.0			4		ne.	0	0		The Observatory.
Valona			30.17	766.2	75.4	24.1		w.			1		5			0.08	2.	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.91	759.7	83.8	28.8	61	nw.			1	0	1 k		se.	0	0		Prof. C. V. A. van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Velocity.		Force	Clouds. Amount and kind.		Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		

UNITED STATES SERIES.
By authority of the Secretary of War.
Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

Albany, New York	30.25	768.3	30.33	770.4	60	15.6	75	s.	2	0.9		0	0			0	0	clear	
Alpena, Michigan	29.57	751.1	30.24	768.1	58	14.4	65	sw.	8	3.6		1 c	0	sw.		0	0	clear	
Atlanta, Georgia	28.97	735.8	30.15	765.8	69.0	20.6	100	e.	4	1.8			10 s		calm	0.22	5.6	cloudy	
Atlantic City, New Jersey	30.25	768.3	30.26	768.6	59.2	15.1	93	n.	8	3.6		0	0			0	0	clear	
Augusta, Georgia	29.95	760.7	30.14	765.5	73.4	23.0	97	ne.	6	2.7		6 k	hz.	e.		4.44	112.8	fair	
Baltimore, Maryland	30.26	768.6	30.31	769.9	60	15.6	81	e.	6	2.7		0	4 ks		e.	0	0	fair	
Barnegat, New Jersey	30.23	767.8	30.25	768.3	64.0	17.8	78	ne.	15	6.7		2 ck	0	n.		0	0	clear	
Bismarck, Dakota	28.07	713.0	29.90	759.4	36	2.2	82	ne.	3	1.3		1 cs	0	calm		0.03	0.8	clear	
Boise City, Idaho	27.17	690.1	30.01	762.2	44.0	6.7	76	calm	0	0		0	0			0	0	clear	
Boston, Massachusetts	30.15	765.8	30.31	769.9	51.6	10.9	95	n.	4	1.8			fg.			0	0	dense fog	
Brackettville, Texas	28.93	734.8	29.98	761.5	64	17.8	90	e.	6	2.7		0	0			0	0	clear	
Brownsville, Texas	30.02	762.5	30.06	763.5	67	19.4	93	calm	0	0			hz.			0	0	dense haze.	
Buffalo, New York	29.53	750.0	30.25	768.3	68.5	20.3	77	s.	1	0.4			10 s			0	0	cloudy	
Burlington, Vermont	30.00	762.0	30.29	769.4	63.0	17.2	68	s.	9	4.0		0	0			0	0	clear	
Cairo, Illinois	29.88	758.9	30.28	769.1	57.1	13.9	69	se.	4	1.8		0	0			0	0	clear	
Campo, California	27.36	694.9	29.93	760.2	40.4	4.7	67	se.	4	1.8		0	0			0	0	clear	
Camp Thomas, Arizona	27.21	691.1			61.5	16.4	71	se.			1	3 cs	5 k			0	0	cloudy	
Cape Henry, Virginia	30.22	767.6	30.24	768.1	67	19.4	73	n.	11	4.9		2 k	0	ne.		0	0	clear	
Cape May, New Jersey	30.22	767.6	30.25	768.3	59	15.0	87	n.	12	5.4		0	0			0	0	clear	
Castroville, Texas																			
Cedar Keys, Florida	29.95	760.7	29.97	761.2	77	25.0	85	ne.	13	5.8		4 cs	0			0	0	fair	
Champaign, Illinois	29.43	747.5	30.22	767.6	61.0	16.1	65	s.	8	3.6		0	0			0	0	clear	
Charleston, S. Carolina	30.04	763.0	30.10	764.5	75	23.9	97	ne.	9	4.0		0	8 ks;n		se.	0.40	10.2	heavy rain	
Charlotte, N. Carolina	29.32	744.7	30.19	766.8	69	20.6	90	se.	9	4.0			10 ks			0.06	1.5	threatening.	
Chattanooga, Tennessee	29.35	745.5	30.18	766.6	65.0	18.3	93	ne.	4	1.8			10 n			0.01	0.3	light rain	
Cheyenne, Wyoming	24.01	609.8	29.98	761.5	48.1	8.9	42	nw.	3	1.3		0	0			0	0	clear	
Chicago, Illinois	29.50	749.3	30.21	767.3	56.9	13.8	60	s.	4	1.8		0	0			0	0	clear	
Chincoteague, Virginia	30.22	767.6	30.24	768.1	61	16.1	93	n.	15	6.7		0	0			0	0	clear	
Cincinnati, Ohio	29.62	752.3	30.28	769.1	61	16.1	84	calm	0	0		4 cs	fg.	w.		0	0	fair	
Cleveland, Ohio	29.54	750.3	30.28	769.1	62	16.7	87	calm	0	0		3 ck	6 ks	sw.	n.	0.16	4.1	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.41	747.0	30.27	768.8	60	15.6	93	n.	4	1.8		2 ck	8 s	sw.	sw.	0.04	1.0	cloudy	
Concho, Texas	28.15	715.0	30.09	764.3	61	16.1	90	s.	12	5.4		0	0			0	0	clear	
Corsicana, Texas	29.71	754.6	30.18	766.6	64	17.8	63	s.	2	0.9		0	0			0	0	clear	
Davenport, Iowa	29.47	748.5	30.13	765.3	54	12.2	74	e.	1	0.4		4 cs	0	calm		0	0	fair	
Dayton, Washington T'y	28.21	716.5	30.02	762.5	48.0	8.9	80	calm	0	0		0	4 s		sw.	0.20	5.1	fair	
Deadwood, Dakota	25.37	644.4	30.07	763.8	47	8.3	54	sw.	4	1.8		0	0			0	0	clear	
Decatur, Texas	28.94	735.1	30.09	764.3	65	18.3	54	s.	12	5.4		0	0			0	0	clear	
Delaware Breakwater, Del.	30.16	766.1	30.18	766.6	64	17.8	90	n.	23	10.3		1 k	0	w.		0	0	clear	
Denison, Texas	29.32	744.7	30.13	765.3	63	17.2	84	s.	8	3.6		0	0			0	0	clear	
Denver, Colorado	24.70	627.4	29.92	760.0	58.2	14.6	38	s.	10	4.5		0	1 s		calm	0	0	clear	
Des Moines, Iowa	29.13	739.9	30.04	763.0	55	12.8	80	se.	2	0.9		0	3 s			0.01	0.3	clear	
Detroit, Michigan	29.57	751.1	30.29	769.4	59.7	15.4	87	s.	1	0.4		1 cs	0	w.		0	0	clear	
Dodge City, Kansas	27.29	693.2	29.88	758.9	59.8	15.4	79	s.	3	1.3		0	0			0	0	clear	
Dubuque, Iowa	29.41	747.0	30.13	765.3	48.2	9.0	86	s.	2	0.9		4 c	0	s.		0	0	fair	
Duluth, Minnesota	29.35	745.5	30.06	763.5	45	7.2	83	sw.	4	1.8		0	2 s		calm	0.24	6.1	clear	
Eagle Pass, Texas	29.33	745.0	30.16	766.1	65.0	18.3	84	calm	0	0		0	0			0	0	clear	
Eagle Rock, Idaho	25.22	640.6	30.07	763.8	35	1.7	61	calm	0	0		0	6 s		sw.	0	0	fair	
Eastport, Maine	30.28	769.1	30.35	770.9	53.5	11.9	93	ne.	6	2.7			10 s			0	0	cloudy	
El Paso, Texas	26.31	668.3	30.06	763.5	65.3	18.5	54	calm	0	0		0	2 s			0	0	clear	
Erie, Pennsylvania	29.53	750.0	30.25	768.6	66	18.9	93	calm	0	0			10 n			0.43	10.9	light rain	
Escanaba, Michigan	29.52	749.8	30.18	766.6	49	9.4	77	sw.	3	1.3		0	0			0	0	clear	
Florence, Arizona	28.42	721.9	30.02	762.5	70	21.1	59	e.	2	0.9		0	0			0	0	clear	
Fort Apache, Arizona	25.08	637.0	29.99	761.7	50	10.0	61	e.	2	0.9		0	2 s		calm	0	0	fair	
Fort Assinnaboine, Montana	27.02	686.3	29.82	757.4	42	5.6	76	calm	0	0		0	0			0	0	clear	
Fort Bennett, Dakota	28.16	715.3	29.70	754.4	46	7.8	86	nw.	5	2.2		3 cs	0	nw.		0	0	fair	
Fort Benton, Montana	27.13	689.1	29.99	761.7	45	7.2	71	nw.	6	2.7		1 c	0	calm		0	0	clear	
Fort Buford, Dakota	27.99	710.9	30.00	762.0	34	1.1	88	nw.	4	1.8		0	0			0	0	clear	
Fort Custer, Montana	26.74	679.2	29.98	761.5	44	6.7	41	se.	5	2.2		0	0			0	0	clear	
Fort Davis, Texas	25.01	635.2	29.97	761.2	60	15.6	78	s.	4	1.8		0	0			0	0	clear	
Fort Elliott, Texas	27.24	691.9	30.43	772.9	64	17.8	54	s.	16	7.2		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.55	750.6	30.10	764.5	67.5	19.7	39	se.	7	3.1		0	0			0	0	clear	
Fort Grant, Arizona					62	16.7	60	sw.	6	2.7		1 k	0	sw.		0	0	clear	
Fort Griffin, Texas	28.78	731.0	30.02	762.5	67.2	19.6	66	se.	6	2.7		0	0			0	0	clear	
Fort Keogh, Montana	27.42	695.5	29.96	761.0	46	7.8	63	ne.	4	1.8		4 ck	0	sw.		0	0	fair	
Fort Macon, North Carolina	30.14	765.5	30.15	765.8	72	22.2	90	n.	19	8.5		hz.	3 k	calm	n.	0	0	fair	
Fort McKavett, Texas	27.86	707.6	29.76	755.9	62	16.7	77	s.	9	4.0		0	0			0	0	clear	
Fort Missoula, Montana	25.71	678.4	30.23	767.8	45	7.2	76	nw.	2	0.9			10 n			0.03	0.8	light rain	
Fort St. Michaels	29.88	758.9	29.91	759.7	47	8.3	85	e.	7	3.1			10 ks		e.	0	0	cloudy	
Fort Shaw, Montana	26.31	668.3	29.91	759.7	47	8.3	66	w.	2	0.9		0	0			inap.	inap.	clear	
Fort Sill, Indian Territory	28.81	731.8	30.06	763.5	65.5	18.6	57	s.	14	6.3		0	0			0	0	clear	
Fort Stevenson, Dakota	28.08	713.2	29.95	760.7	38	3.3	34	calm	0	0			10 s		calm	0.03	0.8	cloudy	
Fort Verde, Arizona					54.9	12.7	45	nw.			1	3 k	0	w.		0	0	fair	
Fredericksburg, Texas	28.38	720.8	29.92	760.0	64	17.8	90	sw.	1	0.4		3 k	0	sw.		0	0	fair	
Galveston, Texas	30.08	764.0	30.12	765.0	70.4	21.3	48	ne.	18	8.0		hz.	0			0	0	dense haze	
Grand Haven, Michigan	29.57	751.1	30.24	768.1	53.0	11.7	80	calm	0	0		0	0			0	0	clear	
Hatteras, North Carolina	30.14	765.5	30.16	766.1	72	22.2	46	ne.	17	7.6		4 k	0	ne.		inap.	inap.	fair	
Helena, Montana	25.75	654.3	30.15	765.8	55	12.8	69	s.	3	1.3		2 k	0	calm		0	0	fair	
Henrietta, Texas	29.04	737.6	29.92	760.0	71	21.7	53	se.	12	5.4		2 c	0	calm		0	0	clear	
Huron, Dakota	28.34	719.8	29.74	755.4	50.1	10.1	86	se.	9	4.0			10 s			0.03	0.8	cloudy	
Indianapolis, Indiana	29.46	748.3	30.26	768.6	51	10.6	86	se.	1	0.4		0	fg.		calm	0	0	clear	
Indianola, Texas	30.10	764.5	30.13	765.3	72.4	22.4	84	ne.	8	3.6		hz.	0			0	0	dense haze.	
Jacksboro, Texas	28.90	734.0	30.01	762.2	64	17.8	78	s.	8	3.6		0	0			0	0	clear	
Jacksonville, Florida	29.95	761.0	30.00	762.0	80	26.7	79	ne.	6	2.7		3 cs:k	0	ne.		0.78	19.8	clear	
Keokuk, Iowa	29.46	748.3	30.12	765.0	61.2	16.2	60	s.	3	1.3		0	0			0	0	clear	
Key West, Florida	29.88	758.9	29.91	759.7	82.0	27.8	74	nw.	2	0.9		1 c	4 k		nw.	0	0	fair	
Kittyhawk, North Carolina	30.18	766.6	30.20	767.1	70	21.1	71	ne.	23	10.3		0	4 k		ne.	0	0	fair	
Knoxville, Tennessee	29.18	741.2	30.22	767.6	64.8	18.2	94	n.	2	0.9			10 n		calm	0.19	4.8	light rain	
La Crosse, Wisconsin	29.30	744.2	30.06	763.5	49.2	9.6	77	s.	4	1.8		0	0			0	0	clear	
La Mesilla, New Mexico	26.16	664.5	30.31	769.9	54.0	12.2	62	calm	0	0		0	4 s			0	0	fair	
Laredo, Texas																			
Leavenworth, Kansas	29.12	739.6	30.02	762.5	63	17.2	52	s.	12	5.4		0	0			0	0	clear	
Lewiston, Idaho	29.13	739.9	29.98	761.5	52	11.1	100	e.	1	0.4			10 n		calm	0.15	3.8	heavy rain	
Little Rock, Arkansas	29.88	758.9	30.20	767.1	55	12.8	86	calm	0	0		hz.	sk.			0	0	dense smoke.	
Los Angeles, California	29.50	749.3	29.88	758.9	58.0	14.4	80	sw.	4	1.8			10 s		calm	0	0	cloudy	
Louisville, Kentucky	29.67	753.6	30.24	768.1	55.0	12.8	86	n.	5	2.2		0	0			0	0	clear	
Lynchburg, Virginia	29.56	750.8	30.25	768.3	70.5	21.4	75	ne.	2	0.9		5 k	5 ks	ne.	ne.	0.12	3.0	cloudy	
Madison, Wisconsin	29.15	740.4	30.18	766.6	50	10.0	86	se.	7	3.1		3 ck	0	w.		0	0	fair	
Marquette, Michigan	29.43	747.5	30.16	766.1	49	9.4	77	sw.	3	1.3			10 s		w.	0	0	cloudy	
Mason, Texas	28.49	723.6	30.24	768.1	61.7	16.5	84	w.	1	0.4		0	0			0	0	clear	
Memphis, Tennessee	29.89	759.2	30.23	767.8	59	15.0	75	calm	0	0		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.45	748.0	30.21	767.3	51	10.6	93	s.	1	0.4		1 c	fg			0	0	fair	
Mobile, Alabama	30.00	762.0	30.07	763.8	63.0	17.2	63	n.	11	4.9		0	0			0	0	clear	
Montgomery, Alabama	29.87	758.7	30.10	764.5	66	18.9	90	n.	1	0.4			10 s			0	0	cloudy	
Moorhead, Minnesota	28.91	734.3	29.92	760.0	40	4.4	89	ne.	2	0.9		0	5 s		ne.	0.12	3.0	fair	
Morgantown, W. Virginia	29.25	742.9	30.21	767.3	69.5	20.8	86	n.	3	1.3		2 k	4 s		e.	0.41	10.4	fair	
Mt. Washington, N. H.	24.21	614.9	30.41	772.4	55.8	13.2	10	ne.	5	2.2		0	2 s		calm	0	0	clear	
Nashville, Tennessee	29.67	753.6	30.21	767.3	53.0	11.7	89	nw.	6	2.7		0	fg			0	0	clear	
New Haven, Connecticut	30.19	766.8	30.31	769.9	51	10.6	93	ne.	5	2.2		0	fg			0	0	dense fog	
New London, Connecticut	30.23	767.8	30.28	769.1	54	12.2	80	ne.	4	1.8		0	0			0	0	clear	
New Orleans, Louisiana	30.02	762.5	30.08	764.0	65.0	18.3	54	n.	8	3.6		0	0			0	0	clear	
Newport, Rhode Island	30.23	767.8	30.28	769.1	56.3	13.5	85	n.	5	2.2		1 k	0	ne.		0	0	clear	
New River, N. Carolina					72	22.2	82	ne.			2	5 cs	0	ne.		0	0	fair	
New Shoreham, Rhode I'd.	30.23	767.8	30.26	768.6	59.0	15.0	81	ne.	22	9.8		0	0			0	0	clear	
New York, New York	30.11	764.8	30.29	769.4	58	14.4	86	ne.	5	2.2		0	fg			0	0	clear	
Norfolk, Virginia	30.20	767.1	30.23	767.8	67	19.4	68	ne.	6	2.7		5 k	0	e.		0	0	fair	
North Platte, Nebraska	26.91	683.5	29.85	758.2	53	11.7	88	sw.	5	2.2		6 c	fg			0	0	fair	
Olympia, Washington T'y	29.82	757.4	29.86	758.4	52.0	11.1	96	s.	1	0.4		0	9 ks		s.	0.89	22.6	cloudy	
Omaha, Nebraska	28.77	730.7	29.96	761.0	58	14.4	75	s.	12	5.4		0	0			0	0	clear	
Oswego, New York	29.93	760.2	30.26	768.6	65.0	18.3	75	se.	5	2.2		2 c	sk.			0	0	clear	
Pensacola, Florida	30.01	762.2	30.04	763.0	66	18.9	73	n.	6	2.7		0	0			0	0	clear	
Philadelphia, Pa.	30.25	768.3	30.31	769.9	56	13.3	86	ne.	5	2.2		0	hz			0	0	clear	
Phœnix, Arizona	28.72	729.5	30.46	773.7	71	21.7	46	e.	3	1.3		0	0			0	0	clear	
Pike's Peak, Colorado	17.93	455.4	30.14	765.5	30	— 1.1	47	sw.	12	5.4		0	0			0	0	clear	
Pioche, Nevada	23.98	609.1	30.00	762.0	59	15.0	30	s.	10	4.5		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.43	747.5	30.25	768.3	68	20.0	90	calm	0	0			10 s		ne.	inap.	inap.	cloudy	
Port Eads, Louisiana	30.03	762.7	30.04	763.0	74.1	23.4	71	ne.	17	7.6		0	hz		calm	0	0	clear	
Port Huron, Michigan	29.58	751.3	30.27	768.8	55.8	13.2	100	sw.	3	1.3			fg		calm	0	0	dense fog	
Portland, Maine	30.26	768.6	30.32	770.1	57	13.9	80	n.	7	3.1		0	0			0	0	clear	
Portland, Oregon	29.84	757.9	29.90	759.4	53.6	12.0	94	s.	12	5.4			10 n			0.74	18.8	light rain	
Portsmouth, N. Carolina					74	23.3	71	ne.	20	8.9		0	0			0.03	0.8	clear	
Prescott, Arizona	24.76	628.9	29.95	760.7	55	12.8	60	s.	0	0		0	0			0	0	clear	
Punta Rassa, Florida	29.86	758.4	29.87	758.7	78.5	25.8	85	ne.	8	3.6		5 ck	1 k	ne.	calm	0.01	0.3	fair	
Red Bluff, California	29.53	750.0	29.87	758.7	57.5	14.2	46	nw.	9	4.0		0	0			0	0	clear	
Rio Grande City, Texas	29.93	760.2	30.15	765.8	68	20.0	78	calm	0	0		0	0			0	0	clear	
Rochester, New York	29.63	752.6	30.27	768.8	66	18.9	84	sw.	5	2.2		0	2 s		sw.	0	0	clear	
Roseburg, Oregon	29.47	748.5	30.05	763.3	50.3	10.2	88	calm	0	0		2 k	4 ks	sw.		0.18	4.6	fair	
Sacramento, California	29.81	757.2	29.89	759.2	53.2	11.8	80	ne.	4	1.8		0	0			0	0	clear	
St. Louis, Missouri	29.61	752.1	30.22	767.6	56.5	13.6	69	se.	5	2.2		0	0			0	0	clear	
St. Paul, Minnesota	29.08	738.6	29.96	761.0	46.5	8.1	87	e.	14	6.3		1 ck	0	w.		0	0	clear	
Salt Lake City, Utah	25.50	647.7	29.83	757.7	52	11.1	28	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.43	747.5	30.13	765.3	61.6	16.4	93	calm	0	0		0	0			0	0	clear	
San Diego, California	29.81	757.2	29.88	758.9	64.0	17.8	84	s.	5	2.2			10 s			0	0	cloudy	
Sandusky, Ohio	29.57	751.1	30.26	768.6	63	17.2	90	sw.	6	2.7		0	0			0	0	clear	
Sandy Hook, New Jersey	30.25	768.3	30.28	769.1	62.1	16.7	67	n.	14	6.3		0	0			0	0	clear	
San Francisco, California	29.85	758.2	29.91	759.7	55	12.8	80	calm	0	0		0	0			0	0	clear	
Santa Fé, New Mexico	23.36	593.3	30.16	766.1	48.5	9.2	65	calm	0	0		0	3 k		calm	0	0	fair	
Savannah, Georgia	29.98	761.5	30.07	763.8	75	23.9	90	ne.	6	2.7		0	4 ks		ne.	0.02	0.5	fair	
Shreveport, Louisiana	29.95	760.7	30.18	766.6	55.5	13.1	86	calm	0	0		0	0			0	0	clear	
Silver City, New Mexico	24.33	618.0	29.90	759.4	54	12.2	61	nw.	1	0.4		3 k	0	calm		0	0	clear	
Sitka, Alaska	29.90	759.4	29.97	761.2	49	9.4	93	calm	0	0			fg		calm	0	0	clear	
Smithville, North Carolina	30.09	764.3	30.13	765.3	73	22.8	97	ne.	9	4.0			10 ks		e.	inap.	inap	cloudy	
Spokane Falls, Wash. Ter.	27.90	708.6	29.92	760.0	49	9.4	80	se.	5	2.2			10 s		sw.	0.94	23.9	cloudy	
Springfield, Illinois	29.52	749.8	30.21	767.3	54.2	12.3	80	s.	8	3.6		0	0			0	0	clear	
Springfield, Massachusetts	30.20	767.1	30.34	770.6	56.1	13.4	86	ne.	1	0.4		0	0			0	0	clear	
Stockton, Texas	27.04	686.8	30.11	764.8	58.5	14.7	77	s.	4	1.8		0	0			0	0	clear	
St. Vincent, Minnesota	29.03	737.3	29.92	760.0	44	6.7	93	sw.	4	1.8			10 s		calm	0	0	cloudy	
Thatcher's Island, Mass.	30.27	768.8	30.32	770.1	60.0	15.6	87	e.	12	5.4		0	2 s		n.	0	0	clear	
Toledo, Ohio	29.56	750.8	30.26	768.6	58	14.4	86	s.	2	0.9		4 c	fg.	se.		0	0	fair	
Tucson, Arizona	27.45	697.2	29.81	757.2	68	20.0	61	se.	2	0.9		2 k	0			0	0	clear	
Umatilla, Oregon	29.61	752.1	30.02	762.5	53.5	11.9	60	calm	0	0			10 s		calm	0	0	cloudy	
Uvalde, Texas																			
Vicksburg, Mississippi	29.91	759.7	30.17	766.3	54	12.2	80	ne.	3	1.3		0	0			0	0	clear	
Visalia, California	29.46	748.3	29.82	757.4	52	11.1	73	nw.	3	1.3		0	0			0	0	clear	
Washington, D. C.	30.19	766.8	30.30	769.6	60.0	15.6	93	n.	4	1.8		1 k	hz.	n.		0.01	0.3	clear	
Wickenburg, Arizona					61	16.1	72	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.08	764.0	30.14	765.5	73	22.8	84	ne.	8	3.6			10 s		ne.	0.05	1.3	cloudy	
Winnemucca, Nevada	25.52	648.2	29.85	758.2	36	2.2	53	se.	6	2.7		0	0			0	0	clear	
Wood's Holl, Mass.	30.23	767.8	30.27	768.8	60	15.6	87	ne.	5	2.2		0	0			0	0	clear	
Yankton, Dakota	28.48	723.4	29.79	756.7	54	12.2	80	e.	8	3.6		10 ck	0	sw.		0	0	cloudy	
Yuma, Arizona	29.62	752.3	29.76	755.9	79.2	26.2	65	se.	3	1.3		0	0			0	0	clear	
Sub-series.																			
Bridgetown, Barbados, W. I. ‡	29.98	761.5	30.00	762.0	83	28.3	87	e.	8	3.6		2 c	5 ks	e.	e.	0.08	2.0	fair	J. A. Racker.
Bogota, U. S. Columbia	22.04	559.8			51.5	10.8	82	calm	0	0		5 k	0	w.		0	0	fair	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.01	736.8	29.01	736.8	80	26.7	87	e.				2 c	5 ks		ese.	0.2	5.		B. Bigar.
Havana, Cuba, W. I.	29.91	759.7	29.96	761.0	79	26.1	82	calm	0	0		8 cs	2 ks	calm	calm	0.40	10.2	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.92	760.0	29.93	760.2	79.8	26.6	81	calm	0	0		6 c	0			0	0	fair	Robert Johnstone
Navassa, W. I.	29.80	756.9	29.88	758.9	81	27.2	78	e.	7	3.1		8ks;k	2 kn	e.	se.	0	0	cloudy	F. M. Everett.
Paramaribo, S. A.	30.01	762.2	30.01	762.2	82	27.8	75	se.			2	0	4 k		e.	0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.40	746.7	29.96	761.0	79	26.1	95	calm			0	4 ck	2 k	ne.	calm	0	0	fair	Francesco J. Cisneros.
Rivas, Nicaragua					74.3	23.5		calm			0	cs	1 ks		se.	0.06	1.5		Earl Flint.
Santiago de Cuba, W. I.	29.89	759.2	29.92	760.0	81	27.2	82	calm	0	0		4 c	0			0	0	fair	Robert Mason.
St. Thomas, W. I. ‡	30.00	762.0	30.01	762.2	82	27.8	79	se.	12	5.4			8 ks		se.	0.72	18.3	cloudy	G. O. Gyllich.
York Factory, B. A.	30.03	7.2 7	30.08	764.0	35.0	1.7	95	n.	14	6.3		2 c	4 s	n.		0	0	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Thursday Island, Torres St	29.92	760.0	75	23.9	77	ese.			3		3							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 36° 23′, W. 2° 53′	30.18	766.6	75	23.9	85	wnw.			1		6	nnw.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.12	765.0	74	23 3		ne.			3-4		3	n						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 22° 52′, W. 65°2 9′	30.07	763.8	83	28.3	87	e.			4		9					2	ese.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.99	761.7	76.5	24.7	74	n.			1		10	calm						overcast	Capt. F. W. Richards.
H. M. S. Champion, S. 7° 50′, W. 83° 55′	29.89	759.2	65	18.3	78	ese.			3		10					3	se.	d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A, T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.89	759.2	80	26.7		ene.			1		2	ne.				1	ne.	d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 20° 19′, W. 0° 23′	30.26	768.6	65	18.3		ese.			4		9	ese.				3	ese.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	29.97	761.2	77.5	25.3	65	wnw.			1-2		2	wnw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.34	770.6	45	7.2	84	wsw.			2		4	sw.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.56	750.8	92	33.3		n.			2		3	se.				2	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 13° 04′, E. 80° 14′	29.78	756.4	83.5	28.6		sse.			1		4							d. clouds	Capt. E. St. J. Garforth.
H M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 3° 33′, E. 57° 29′	29.89	759.2	79	26.1	82	e.			3-4		10					3	se.	overcast	Capt. R. D. King.
H. M. S. Falcon, N. 35° 48′, E. 10° 19′	30.03	762.7	75	23.9		ne.			3		2					3	ene.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 12° 32′, W. 81° 44′	29.91	759.7	86	30.0	75	calm			0										Comm. R. N. Custance.
H M. S. Flying Fish, Okosiri, Yezo, Japan	29.63	752.6	72	22.2	90	w.			5-6		10					4	w.	showery	Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 20° 15′, W. 155° 00′	30.06	763.5	75	23.9	81	e.			3		9							showery	Comm. E. G. Bourke.
H. M. S. Garnet, Buenos Ayres, Argt. Rep.	30.02	762.5	69	20.6	84	n			6		2							blue sky	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 29′, W. 77° 54′	29.94	760.5	80	26.7	78	calm			0		4							d. clouds	Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 6° 00′, E. 169° 00′	29.86	758.4	85	29.4	64	ene.			2		2	ene.				2	ene.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 38° 52′, E. 141° 56′	29.87	758.7	70	21.1		sw.			2							5	sw.	foggy	Capt. R. E. Tracey.
H. M. S. Kestrel, Canton, China *†	29.90	759.4	81	27.2							4	calm						d. clouds	Capt. W. M. Lang.
H. M. S. Kingfisher, S. 6° 42′, W. 80° 46′	30.05	763.3	60	15.6		sse.			1		4	se.				1	w.	d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 20° 30′, E. 72° 00′	30.06	763.5	74	23.3		ene.			2		8	ene.				2	ene.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 19° 13′, W. 30° 17′	30.21	767.3	79	26.1	73	ene.			3		4					2	cf'd	d. clouds	Lt. C. F. Oldham.
H. M. S. Lily																			
H. M. S. London																			
H. M. S. Magpie, N. 20° 22′, E 109° 55′	29.83	757.7	80.1	26.7	84	wsw.			2-3		10					1	ssw.	misty	Lt. A. Carpenter.
H. M. S. Midge																			
H. M. S. Malabar																			
H. M. S. Minotaur																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.11	764.8	77	25.0	82	ne.			2		0							blue sky	Capt. C. G. Tryon.
H. M S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	30.30	769.6	58.5	14.7	90	ese.			1		10	sse.						misty	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 17° 01′, W. 72° 25′	30.02	762.5	59.5	15.3	97	se.			1		9					2	s.	d. clouds	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Rendy, N. 8° 33′, E. 81° 15′	29.84	757.9	85	29.4		sw.			1		5							d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 11° 46′, E. 51° 20′	29.74	755.4	77.3	25.2	86	s.			4		0					1	sw.	blue sky	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 12° 45′, E. 45° 15′	29.66	753.4	79	26.1	82	ese.			3–4		1	ssw.						blue sky	Comm. W. Byles.
H. M. S. Serapis, N. 21° 00′, W. 22° 50′	30.00	762.0	78	25.6	90	nne.			4		8	nne.				2	nne.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon,																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 38° 15′, W. 12° 52′	30.07	763.8	69	20.6	87	wsw.			2–3		1	wsw.				2	w.	blue sky	Capt. T. H. Boyse.
H. M. S. Tenedos, N. 50° 17′, W. 64° 01′	30.27	768.8	55.5	13.1	100	calm			0		10							overcast	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	30.01	762.2	60	15.6	82	ssw.			1		10	calm						d. clouds	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne,																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.92	760.0	79	26.1		nne.			1		2							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.62	752.3	82.5	28.1	74	wnw.			4–6		6	w.						squally	Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo																			Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	29.91	759.7	82.0	27.8	79	ne.			2		2			1 h'r	1h'r	2		showery	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.88	758.9	79.7	26.5	88	sse.			1		3			3 h'r	3 h'r			raining	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

UNITED STATES NAVAL SERIES.

By authority of the SECRETARY OF THE NAVY.

Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.

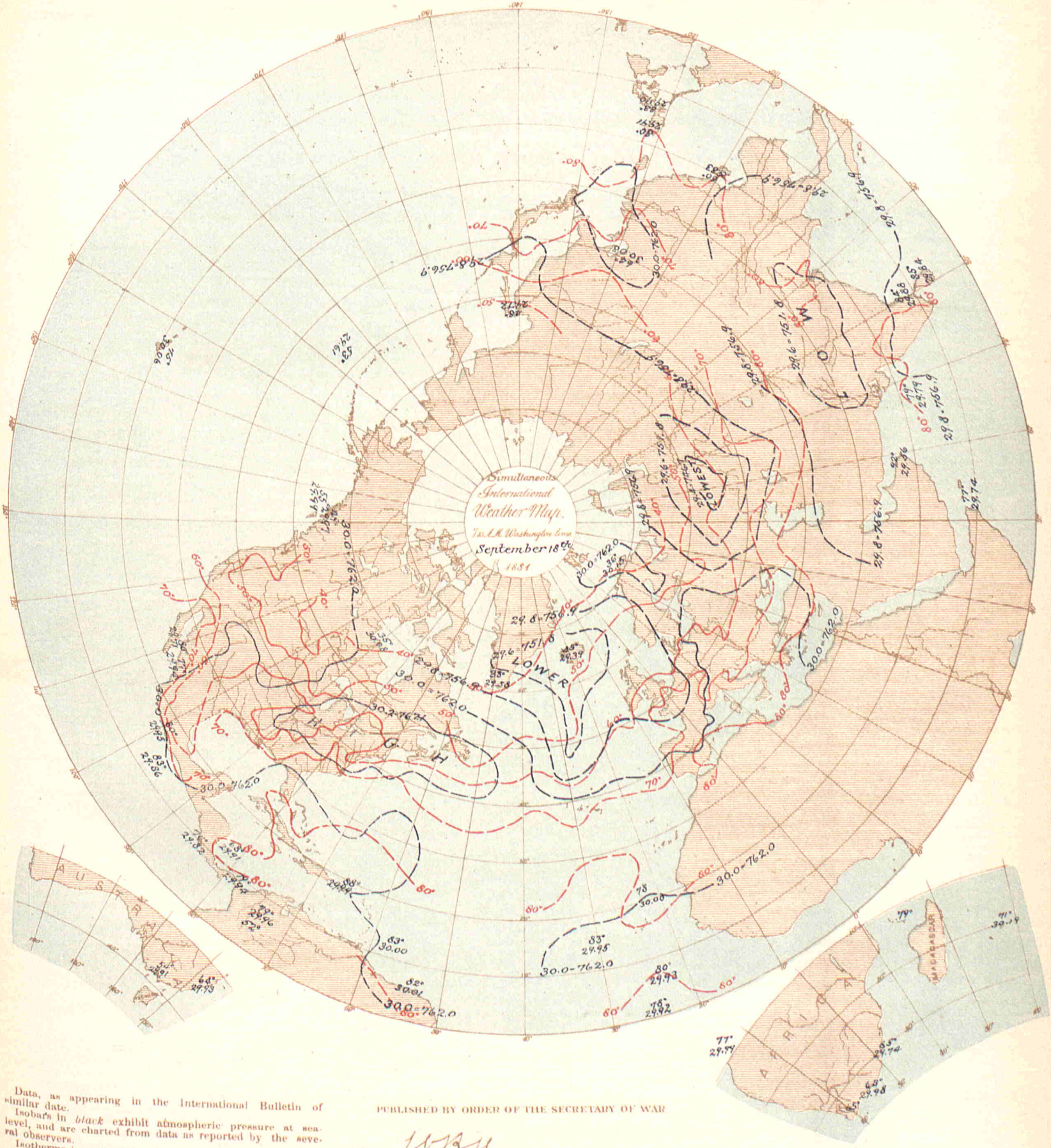
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	—10	0—10	From.	From.	Inch.	Mill.				
N. Yard, Pensacola, Fla	30.14	765.5	68	20.0	70	n.	8	3.6			5		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.30	769.6	59	15.0	88	n.	4	1.8			0			0	0			clear.	
Naval Hospital, Yokohama, Japan	29.80	756.9	77.5	25.3	77	sw.			5		0			0	0			clear	
Adams, Panama, Panama	29.67	753.6	78	25.6	95	nw.			1		8		calm			sm'h		cloudy	
Alaska, S. 11° 35′, W. 79° 02′	29.96	761.0	60	15.6	100	se.			2		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.80	756.9	79	26.1	82	s.			6		2		n.	0	0	sm'h		hazy	
Alliance, N. 73° 23′, E. 16° 50′	30.15	765.8	36	2.2	100	e.			5		8		e.	0	0	sm'h		fair	
Ashuelot, Kobe, Japan	29.98	761.5	80	26.7	91	sw.			3		5?							cloudy?	
Colorado, New York, N. Y.	30.26	768.6	60	15.6	88	n.	1	0.4			0			0	0			clear	
Constitution, New Bedford, Mass	30.23	767.8	55	12.8	?	nne.	14	6.3			5		ne.					hazy	
Franklin, Norfolk, Va	30.16	766.1	68	20.0	95	nne.	6	2.7			5		nne. ene.	0	0			fair	
Galena, Leghorn, Italy	30.14	765.5	74	23.3	63	nw.			1		0					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal	29.73	755.1	57	13.9	69	sw.	3.6	1.6			0							clear	
Jamestown, Mare Isl'd, Cal *	29.80	756.9	58	14.4	88	nw.			2		0			0	0			clear	
Kearsarge, Philadelphia, Pa	30.30	769.6	61	16.1	82	ne.			1		0					sm'h		clear	
Lackawanna, Mare Isl'd, Cal †	30.06	763.5	60	15.6	88	w.			1		0							clear	
Lancaster, New York, N. Y.	30.24	768.1	60	15.6	94	nnw.	5	2.2			0							blue sky	
Marion, Maldonado, Uruguay *	29.82	757.4	66	18.9		calm			0		5					sm'h		fair	
Michigan, Erie, Pa	30.08	764.0	65	18.3	100	n.			1		10		n.					raining	
Minnesota, Newport, R. I.	30.27	768.8	58	14.4	88	nne.			3		5		nne.	0	0			fair	
Monocacy, Yokohama, Japan	29.96	761.0	79	26.1	82	s.			4		2		ssw.					fair	
Nipsic, Genoa, Italy	30.15	765.8	73	22.8	72	wnw.			2		5					sm'h		d. clouds	
Onward, Callao, Peru †	29.99	761.7	60	15.6	94	s.			2		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.88	758.9	84	28.9	75	calm			0		2		calm					fair	
Passaic, Washington, D. C.	30.30	769.6	62	16.7	94	ne.			1		2							fair	
Pensacola, Panama, Panama	29.94	760.5	79	26.1	86	nnw.			1		8			0	0	sm'h		cloudy	
Portsmouth, New London, Conn	30.29	769.4	55	12.8	93	n.			2		0					sm'h		clear	
Powhatan, Aspinwall, Panama	29.90	759.4	78	25.6	95	se.			1		2		ene.			sm'h	n.	fair	
Quinnebaug, Marseilles, France	30.10	764.5	73	22.8	55	s.			2		0					sm'h		hazy	
Ranger, Mare Island, Cal *	29.83	757.7	60	15.6	65	sw.			1		0			0	0	sm'h		clear	
Richmond, N. 12° 30′, W. 96° 21′	29.86	758.4	83	28.3	96	nne.			5		5		nne.	0	0	mod.	ne.	fair	
Saratoga, Wickford, R. I.	30.28	769.1	57	13.9	100	nne.			2		1		nne.	0	0	sm'h		clear	
Shenandoah, Maldonado, Uruguay *	30.11	764.8	60	15.6	76	nw.			1		5					sm'h		fair	
St. Louis, League Island, Pa	30.03	762.7	55	12.8	93	n.	3	1.3			2		n.	0	0			clear	
Swatara, Chefoo, China †	30.06	763.5	72	22.2	71	calm			0		2		calm					fair	
Tennessee, New York, N. Y.	30.31	769.9	59	15.0	100	nw.	9	4.0			0			0	0			hazy	
Trenton, N. 26° 40′, W. 23° 20′ *	30.09	764.3	83	28.3	67	ne.			3		2			0	0	long		fair	
Vandalia, New York, N. Y.	30.28	769.1	59	15.0	88	n.			2		2		e.					fair	
Wabash, Boston, Mass.	30.32	770.1	52	11.1	93	nnw.	4	1.8						0	0			foggy	
Wyoming, Port Royal, S. C.	30.04	763.0	75	23.9	90	ne.	12	5.4			2		se.	0.38	9.7			fair	
Yantic, New York, N. Y. *	30.27	768.8	62	16.7	83	n.			1		0							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland †*	29.90	759.4	.....	.....	.....	w.	2	.....	8	.....	ssw.	.....	.....	.....	.....	raining	N. McLean.
S. S. Circassian, Capt. W. H. Smith. N. 55° 36′ W. 17° 15′	29.92	760.0	56	13.3	87	wsw.	4	.....	6	.....	wsw.	0	0	3	wsw.	d. clouds.....	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 51° 39′, W. 26° 51′	29.51	749.5	49	9.4	.....	nw.	6	.....	10	.....	nw.	.....	.....	cfd	w.	threatening	
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 39° 03′, W. 71° 52′ *†	30.18	766.6	69	20.6	90	ene.	6	.....	2	.....	.....	.....	.....	r'gh	e.	fine	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Liverpool, Eng. *†	30.23	767.8	60	15.6	88	nw.	3	.....	8	.....	nw.	.....	.....	.....	.....	fine.....	
S. S. Pennsylvania, Capt. G. H. Dodge, N. 47° 50′, W. 30° 00′ †	29.60	751.8	53	11.7	80	wnw.	6	.....	10	.....	w.	.....	.....	r'gh	n.	cloudy	C. Rodman, 3d Off.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. British Merchant, E. J. Moloney, N. 49° 39′, W. 12° 13′ ‡	29.77	756.1	58.5	14.7	76	n.	2-3	.....	4	.....	.....	.....	.....	.....	.....	d. clouds.....	
S. S. Cipero, Capt. W. N. Lailey, Demerara, Brit. Guiana	30.02	762.5	80	26.7	87	calm	0	.....	6	.....	.....	.....	.....	.....	.....	d. clouds.....	
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Coppename, Capt. A. Buchan, N. 40° 40′, W. 37° 22′	30.01	762.2	67.5	19.7	76	nnw.	6	.....	8	.....	.....	.....	.....	.....	.....	d. clouds.....	
Bk. Glaramara, Capt. R. Morton, N. 46° 16′, W. 124° 20′ ‡	29.87	758.7	45	7.2	100	nw.	1	.....	6?	.....	.....	.....	.....	.....	.....	overcast? ...	
Bg. Hermine, Capt. S. G. Jones, N. 7° 16′, W. 22° 54′	30.03	762.7	79.7	26.5	85	sse.	5	.....	8	.....	.....	.....	.....	.....	.....	d. clouds.....	
Bkt. Hope, Capt. J. Campbell.. ‡ N. 30° 37′ W. 37° 05′	30.25	768.3	77.5	25.3	78	ne.	1	.....	8	.....	.....	.....	.....	.....	.....	d. clouds.....	
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Lochee, Cant. J. Raeburn, S. 44° 00′, E. 14° 01′	30.19	766.8	49	9.4	85	w.	4	.....	10	.....	.....	.....	.....	.....	.....	overcast.....	
Bk. Mertola, Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Pleione, Capt. C. H. Renant, S. 43° 22′, E. 11° 47	30.19	766.8	48	8.9	85	nw.	5	.....	10	.....	.....	.....	.....	.....	.....	overcast.....	
Queen of Cambria, Capt. M. Parry, N. 37° 00′, W. 17° 03′	30.09	764.3	71	21.7	71	wnw.	1	.....	5	.....	.....	.....	.....	.....	.....	d. clouds.....	
S. S. Rosetta. Capt. A. E. Barlow,. N. 17° 52′, E. 68° 01′	29.88	758.9	79	26.1	78	nne.	2	.....	0	.....	.....	.....	.....	.....	.....	blue sky.....	
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Shun Lee, Capt. J. N. Gray, N. 13° 56′, W. 31° 16′ ‡	29.95	760.7	82.5	28.1	81	se.	1-2	.....	2	.....	.....	.....	.....	.....	.....	d. clouds.....	
S. S. Strathleven, Capt. C. W. Pearson, N. 31° 05′, E. 126° 12′	29.97	761.2	76.0	24.4	95	nne.	3	.....	7	.....	.....	.....	.....	.....	.....	d. clouds.....	
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt, E. Rogers N. 23° 30′, W. 107° 50′ †	29.71	754.6	80	26.7	87	sse.	4	.....	9?	.....	sse.	0	0	mod.	sse.	clear?.....	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Galia, Capt. W. H. P. Hains	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 49° 35′, W. 20° 32′	29.67	753.6	58.0	14.4	91	wsw.	5	.....	10	.....	s.	.....	.....	mod.	wsw.	cloudy.....	
S. S. Hermann, Capt. H. Baur, N. 41° 27′, W. 64° 38′	30.17	766.3	65.3	18.5	.....	e.	6	.....	10	.....	s.	3 h'r	3 h'r	very high	e.	raining	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst, N. 49° 53′, W. 15° 00′	29.84	757.9	61.0	16.1	74	w.	2	.....	7	.....	w.	0	0	mod.	nw.	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer N. 38° 59′, W. 67° 09′	29.97	761.2	73.0	22.8	81	nne.	6	.....	8	.....	nne.	2 h'r	2 h'r	h'vy	ne.	drizzling.....	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Englehart & von [Goesset.
OCCIPENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 28° 59′, E. 126° 27′ †	30.12	765.0	81	27.2	87	e.	1	.....	8	.....	sw.	rain	rain	light	sw.	cloudy.....	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, San Francisco, Cal. *†	29.92	760.0	65	18.3	73	ssw.	3	.....	4	.....	wnw.	.....	.....	.....	.....	foggy.....	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 48° 00′, W. 174° 00′	29.61	752.1	53	11.7	86	sw.	5	.....	0	.....	.....	.....	.....	sli't	ssw.	fine.....	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann.. N. 45° 44′, W. 124° 05′ *†.	29.98	761.5	55	12.8	97	sse.	4	.....	5?	.....	w.	.....	.....	he'vy	wnw.	cloudy?.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	O. W. Poll..., 2d Officer.
S. S. Oregon. Capt. Pollmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 32° 41′, W. 117° 15′ †	29.88	758.9	64	17.8	83	sse.	2	.....	10	.....	se.	.....	.....	mod.	wsw.	cloudy	J. N. Ingalls.
S. S. Dakota, Capt. ——,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Idaho, Capt. T. Huntington, Tacoma, Washington Ter †	29.88	758.9	53	11.7	93	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 39° 10′, W. 123° 57′ †	29.99	761.7	53	11.7	93	nw.	3	.....	0	.....	.....	.....	.....	r'gh	nw.	clear	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal †	29.88	758.9	51	10.6	93	sw.	3	.....	10	.....	w.	.....	.....	.....	.....	foggy	G. Debney.
S. S. Victoria, H. M. Hayward, N. 48° 25′, W, 123° 02′ †	29.92	760.0	54	12.2	87	var.	2	.....	0	.....	.....	.....	.....	light	n.	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J Bulley, Supt. New York.*																	
S. S. Australia, Capt. ——, S. 14° 25′, W. 173° 21′	29.85	758.2	78	25.6	95	ne.	4	.....	10	.....	.....	.....	.....	r'gh	ne.	raining	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W †	29.93	760.2	64	17.8	94	s.	2	.....	0	.....	.....	0	0	.....	.....	clear	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 45° 29′, E. 177° 09′ *†	29.68	753.9	52	11.1	60	w.	5	.....	10	.....	w.	.....	.....	mod	w.	overcast	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Acapulco, Mexico †	29.95	760.7	80	26.7	96	nnw.	4	.....	8	.....	nnw.	0	0	sm'h	s.	fine	.....
S. S. City of Sydney, Capt. H. C. Dearborn,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. L. Salk.
S. S. City of Tokio, Com. J. Maury N. 27° 02′. E. 123° 08 †	30.03	762.7	82	27.8	79	se.	3	.....	3	.....	e.	0	0	sm'h	.....	clear	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 9° 45′, W. 85° 55′ †	29.82	757.4	79	26.1	95	e.	2	.....	10	.....	e.	5 h'r	5 h'r	small	se.	cloudy	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 34° 58′, E. 173° 47′	30.14	765.5	51	10.6	?	ne.	4	.....	5?	.....	ne.	.....	.....	h'vy	ne.	cloudy?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 40° 20′, W. 69° 35′ †	30.35	770.9	67	19.4	.....	n.	5	.....	5	.....	se.	0	0	r'gh	ne.	fine	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Portland, England †	29.78	756.4	69	20.6	85	ssw.	2	.....	2	.....	sw.	0.1	3.	sm'h	.....	clear	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, Eng †	29.60	751.8	59	15.0	88	n.	2	.....	8	.....	n.	0	0	sm'h	.....	fair	A. Horsfall.
S. S. Britannic, Capt. H. Perry,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 48° 16′, W. 40° 25′ †	29.90	759.4	55	12.8	.....	var-	6	.....	10	.....	w.	3 h'r	h'vy	high	nw.	cloudy	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 40° 28′, W. 68° 58′ †	30.22	767.6	63	17.2	94	ne.	6	.....	5	.....	ne.	0	0	mod.	ne.	d. clouds	W. A. Ward.
S. S. Republic, Capt. P. J. Irving	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass †	30.24	768.1	59	15.0	100	ne.	3	0	28	.....	.....	0	0	.....	.....	fine	.....
Golden Fleece	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler, Lt. Com. Nichols, N. 53° 13′, W. 134° 12′ *†	29.99	761.7	55	12.8	.....	nw.	4	.....	10	.....	nw.	.....	.....	mod.	nw.	overcast	.....
S. Iron Cross, Capt. Randall, N. 0° 25′, W. 22° 55′ *	30.02	762.5	78	25.6	98	se.	4	.....	2	.....	sse.	0	0	mod.	sse.	misty	W. Randall.
S. Pawashick, Capt. E. Fry, N. 42° 04′, W. 48° 03′ †*	30.16	766.1	63	17.2	89	ne.	5	.....	8	.....	ne.	.....	.....	mod.	ese.	cloudy	E. Fry.
S. S. Proteus, Capt. Pike	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	30.12	765.0	72	22.2	71	wsw.	5	.....	8	.....	wsw.	0	0	.....	.....	cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

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BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 19, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From	Lower From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.01	762.2	84.2	29.0	75	n.			3		1			0	0	very fair	Raynard.
Algiers ‡			30.04	762.9	84.0	29.2	67	nne.			2		0			0	0	clear	Nicolas.
La Calle ‡			30.05	763.3	76.6	24.8	77	w.			3		2			0	0	fair	Fonfréde.
Tunis ‡			30.05	763.2															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.01	762.2	93.2	34.0	13	wsw.			1		2			inap.	inap.	fair	Dumas.
Tebessa ‡			30.07	763.7	89.6	32.0	12	w.			3		0			0	0	clear	Derché.
Geriville ‡					91.4	33.0	11	sse.			8		0			0	0	clear	Lonchamp.
Laghouat ‡			30.08	764.1	91.0	32.8	10	e.			2		0			0	0	clear	Herbin.
Biskra ‡			30.08	764.1	91.4	33.0	36	nw.			1		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.62	752.3	29.71	754.6	56.5	13.6	63	nnw.	9	4.0			9			0	0	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.47	748.6	30.00	762.1	71.6	22.0	61						0			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.25	742.9	30.00	761.9	68.4	20.2	55	w.	6.3	2.8			0			0.016	0.4		Dr. Wiersbicki.
Eperies	29.12	739.7	29.98	761.4	68.0	20.0	57	se.			2	1 cs	0			0	0		Julius Mikolik.
Gratz ‡	28.78	731.0	30.00	761.9	65.3	18.5	82	s.			1		0			0	0		Andreas Rospini.
Hermannstadt	28.66	727.9	30.04	762.9	73.9	23.3	47	se.			4		0			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.70	728.9	30.00	762.1	65.3	18.5	78	w.			1		6			0	0	cloudy	The Staff.
Lemberg	29.02	737.0	29.98	761.5	65.5	18.6	66	sw.			2		1			0	0		Dr. T. Stanecki.
Pola	30.00	762.0	30.11	764.8	72.3	22.4	67	s.			1		0			0	0		I. R. Hydrographic Office.
Szathmar	29.60	751.7	30.04	763.1	71.6	22.0	52	s.			3		0			0	0		Beicht Peter, S. J.
Szegedin	29.74	755.4	30.01	762.2	74.1	23.4	51	calm			0		0			0	0		Karl Stancel.
Trieste	30.03	762.8	30.13	765.4	72.5	22.5	70	w.			1		10			0	0	cloudy	Secco.
Vienna	29.34	745.3	30.06	763.5	59.0	15.0	83	ese.			1		1			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.66	753.4	29.75	755.6	54.9	12.7	73	nw.	2	0.9			7			0	0	d. clouds	W. Boswell.
Armagh, Observatory	29.52	749.8	29.75	755.6	57.7	14.3	71	s.	9	4.0			7					d. clouds	S. Call.
Bidston, Liverpool Obs'y			29.80	756.9	59.8	15.4	68	w.	4	1.8			5					d. clouds	John Hartnup.
Bolton, Sharples	29.27	743.4	29.80	756.9	61.3	16.3	63	wsw.	6	2.7			5					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29.38	746.2	29.78	756.4	64.0	17.8	67	sw.			1		2			0.01	0.3	blue sky	J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.80	756.9	66.0	18.9	75	sw.			0.2		8					overcast	John McLaren.
Chatham, School M. E.	29.75	755.6	29.88	758.9	60.6	15.9	92	sw.			1		9			blank	blank	gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.67	753.6	29.89	759.2	61.8	16.6	67	sw.			2		8					overcast	The Staff.
Fort Napier, Natal	27.68	703.1	29.90	759.4	60.4	15.8	85	se.			1		7						Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.67	753.6	29.90	759.4	86.0	30.0	83	n.			2		3					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.63	752.6	58	14.4	81	sw.			3		8					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.98	761.5	30.04	763.0	74.5	23.6	89	sw.			4		10					overcast	Cpl. O. Baldwin.
Glasgow, Observatory	29.54	750.3	29.75	755.6	55.6	13.1	84	ene.			1		10					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.67	753.6	29 83	757.7	65.7	18.7	73	sw.			1		8					d. clouds	The Staff.
Guernsey	29.68	753.9	29.89	759.2	62.5	16.9	74	ssw.			3		6					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.82	757.4	29.85	758.2	64.6	18.1	65	sw.	9	4.0			9					threatening	The Staff.
Leicester, Museum	29.55	750.6	29.80	756.9	63.2	17.3	69	sw.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	30.02	762.5	30.09	764.3	79.2	26.2	64	ne.			2		2			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.83	757.7	29.87	758.7	83.0	28.3	78	ne.			1		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.31	744.5	29.82	757.4	60.8	16.0	76	sw.			2		9					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.61	752.1	29.84	757.9	64.1	17.8	66	wsw.			2		8					d. clouds	The Staff.
Plymouth	29.81	757.2	29.88	758.9	64.0	17.8	78	ssw.			1		7					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.75	755.6	53.9	12.2	76	e.	10	4.5			9					d. clouds	Rev. C. Clouston, L. L. D
Scutari Cemetery, Turkey	29.87	758.7	29.94	760.5	78.0	25.6	40	ene.			2		5			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	29.53	750.0	29.80	756.9	64.1	17.8	69	sw.			2		2			0	0	d. clouds	W. F. Cooper.
Silloth Rectory	29.74	755.4	29.77	756.1	60.6	15.9	76	wsw.			3		0			0	0	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.82	757.4	58.8	14.9	67	sw.	9	4.0			10					overcast	Rev. S. J. Perry.
Straitfield Turgiss	29.64	752.8	29.86	758.4	62.8	17.1	74	w.			2		10					overcast	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.88	758.9	29.89	759.2	64	17.8	63	sw.			6		8					gloomy	W. Newcombe.
Valencia, Observatory	29.63	752.6	29.66	753.4	60.5	15.8	85	sse.	38	17.0			10					d. clouds	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.01	762.2	30.05	763.3	60	15.6	92	sse.	6	2.7			10 s		s.	0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B. *	29.96	761.0	30.02	762.5	59	15.0	84	s.	3	1.3		5 ck	2 ks	s.	s.	0	0	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	29.92	760.0	29.94	760.5	58	14.4	80	w.	10	4.5		5 k	5 s	w.	w.	0	0	threatening	J. McWilliams.
Fort Garry, Manitoba *	29.36	745.7	30.19	766.8	46	7.8	93	calm	0	0		5 k	5 ks	sw.	calm	0	0	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.93	760.2	30.05	763.3	60	15.6	100	e.	6	2.7			10 n		se.	0.113	2.9	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.70	754.4	30.02	762.5	66	18.9	78	nw.	3	1.3			sk.			0	0	dense smoke	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.78	756.4	29.97	761.2	63	17.2	93	ne.	4	1.8			10 n			0.09	2.3	light rain	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.38	746.2	30.07	763.8	52	11.1	100	se.	7	3.1		0	0			0	0	clear	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.42	747.3	30.11	764.8	55	12.8	100	nw.	6	2.7			fg.			0.08	2.0	foggy	H. Morgan.
Port Stanley, Ontario	29.40	746.7	30.12	765.0	53	11.7	96	n.	6	2.7		0	0			0	0	clear	M. Payne.
Quebec, Quebec *	29.66	753.4	29.98	761.5	60	15.6	93	se.			1		10 n		s.	Inap.	inap.	light rain	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.61	752.1	30.07	763.8	47	8.3	77	calm	0	0			fg.			0	0	foggy	W. H. McIntyre.
Saugeen, Ontario *	29.36	745.7	30.07	763.8	56	13.3	90	se.	10	4.5		0	0			0	0	clear	K. Stewart.
St. Andrews, N. B.	29.96	761.0	30.01	762.2	55	12.8	97	se.	4	1.8			fg.			0	0	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	30.09	764.3	30.14	765.5	56	13.3	96	s.	8	3.6			10 n			0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario *	29.72	754.9	30.10	764.5	55	12.8	86	se.	6	2.7		0	0			0.03	0.8	clear	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	29.90	759.4	29.96	761.0	62	16.7	100	e.	4	1.8			10 s		se.	0.08	2.0	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.00	762.0	30.25	768.3	57	13.9	87	sw.				0	0			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House ‡	30.15	765.8	30.18	766.6	64.0	17.8	94	s.	13.8	6.2		0	6 n			0.090	2.3	showery	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester * †	29.38	746.2			72.7	22.6	51	sse.			1	4	4			0	0	cloudy	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.03	762.7	30.05	763.3	67.3	19.6	96	ne.	7.6	3.4			10 n			0.354	9.0	sprinkling	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.60	751.7	29.64	752.9	62.4	16.9	81	sw.	13	6			10					foggy	Oversergent Fischer
Fanöe	29.71	754.5	29.72	755.0	60.6	15.9	93	ssw.			4		10						Overloerer Lauridsen
Godthaab, Greenland	29.64	752.8	29.68	753.9	36.1	2.3	70	ne.			4		1						S. Kleinschmidt.
Stykkisholm, Iceland	29.48	748.8	29.52	749.9	48.2	9.0	77	e.			8		10					raining	A. O. Thorlacius.
Thorshavn	29.73	755.2	29.77	756.1	52.3	11.3	88	ese.	9	4			0						Overloerer Bergh.
Vestervig	29.50	749.2	29.59	751.5	57.4	14.1	95	n.			2		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.41	747.0	30.03	762.8	76.3	24.6	59	wnw.			1	2 c	0			0	0	clear	M. Labroue, Director.
Alençon Normal School	29.30	744.2	29.85	758.2	66.6	19.2	98	se.			3		k	w.	w.	0	0		M. Nicot, Director.
Arras, Engineer School								ne.					kn		nne.				M. Klein, Commandant.
Avignon, Normal School	30.00	762.0	30.08	764.0	72.3	22.4	74	sw.			1		10			0	0	covered	M. Giraud, Director.
Bar-sur-Seine	29.45	748.1	29.99	761.7	72.3	22.4	54	sw.			1	0	5 kn		sw.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.67	753.7	29.93	760.2	69.3	20.7	66	sw.			2		8		w.	0	0	very cloudy.	M. Frère Eugène Marie.
Besançon, Normal School	29.17	740.9	30.03	762.8	71.6	22	58	ssw.			1		2		nw.	0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.79	756.6	30.04	763.1	73.8	23.2	53	nnw.			1		5		sw.	0.004	0.1	cloudy	M. Rayet, Director.
Bourges, Normal School	29.45	748.0	29.98	761.5	77.9	25.5	45	w.			4		5		w.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.71	754.6	29.95	760.8	65.5	18.6	75	sw.			2		10		sw	0.295	7.5	raining	M. de Kermaree, Dir.
Caen, Normal School	29.85	758.3	29.93	760.2	64.4	18	81	sw.			1		5		sw.	0.283	7.2	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					68.0	20.0	81	s.			3		2		w.	0.039	1.0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School.	29.43	747.6	29.93	760.2	66.7	19.3	63	sw.			1		8	e.	e.	0	0	¾ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.70	728.9	30.01	762.2	71.2	21.8	61	w.			1		5			0.063	1.6	½ covered	M. Alluard, Director.
Cluny, Normal School	29.21	741.8	30.02	762.6	73.8	23.2	54	nw.			1		5	s.		0	0		M. de Villemontée, Dir.
Commercy, Normal School.	29.14	740.2	29.98	761.5	64.4	18	72	w.			1		2	w.	w.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.57	700.3	30.02	762.4	73.4	23	41	n.			1	0	5 kn		w.	0	0	½ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	29.04	737.6	30.18	766.6	71.2	21.8	54	n.			1		5		s.	0.020	0.5	½ covered	M. Kina, Director.
Grenoble, Normal School	29.29	744.0	30.03	762.8	73.9	23.3	97	ese.			2		kn			0	0		M. Ablard, Director.
Guéret, Normal School	28.48	723.4	30.02	762.5	70.7	21.5	55	sw.			2		k		e.	0.114	2.9		M. Rivoire, Director.
Lamballe, Normal School	29.71	754.6	29.98	761.4	67.1	19.5	62	sw.			4				sw.	0.75	19.		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.91	759.6	30.01	762.2	68.0	20.0	64	sw.			2		5	w.	sw.	0	0	½ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.00	730.7	30.03	762.7	73.8	23.2	58	sse.			1		10		wsw.	0	0	covered.	M. André, Director.
Mans, Normal School	29.69	754.0	29.98	761.6	68.7	20.4	62	w.			1		5		w.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.84	757.0	30.07	763.7	75.2	24.0	69	w.			1		4		sw.	0.055	1.4		M. Stephan, Director.
Montlouis l'instituteur	24.93	633.2	30.17	766.2	63.5	17.5	67	se.	16.8	7.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.93	760.1	30.03	762.8	70.2	21.2	82	se.			4					0	0		M. Pourie, Director.
Nancy, Normal School	29.21	742.0	29.95	760.7	69.4	20.8	63	sw.			1		5 k			0.130	3.3	cloudy	M. Hasse.
Nantes, Observatory	29.86	758.4	30.02	762.5	71.1	21.7	69	wsw.			1-2		7 k;kn	w.	w.	0.008	0.2		M. Larocque, Director.
Nice	30.00	761.9	30.03	762.8	69.1	20.6	82	e.			3		10	e.	e.	0	0	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.89	759.3	30.00	761.9	77.4	25.2	68	se.	5.6	2.5			5		nw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.66	575.5			53.1	11.7							5	sw.	se.	0	0	cloudy	Gen'l de Nansouty Dir.
Privas, Normal School					72.7	22.6	56	sw.			1		2		sw.	0	0	slightly cl'dy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.26	641.5			54.9	12.7	75	sw.			2		8			0	0	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.04	763.1	30.07	763.8	72.9	22.7	100	sw.			2		2		w.	0	0	¼ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.82	757.3	30.03	762.7	70.5	21.4	67	w.			3		8		w.	0.08	2.	very cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.75	755.7	29.84	757.9	64.4	18	80	sw.			1		10			0	0	covered	M. Platrier, Director.
Saint Lô, Normal School	29.87	758.8	30.03	762.8	63.1	17.3	82	w.			4		10	s.	nw.	0.31	8.	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.80	756.8	29.96	761.0	69.1	20.6	66	wsw.			1		10		wsw.	0	0		M. Renou, Director.
Toulouse, Observatory	29.35	745.5	30.08	763.9	82.9	28.3	49	wsw.			1		5	w.		0	0	cloudy	M Bailland, Director.
Tours	29.80	757.0	30.00	762.0	68.0	20.0	81	wsw.			1		5		w.	0	0	½ covered	M. de Tastes.
Versailles, Observatory	29.48	748.7	29.97	761.2	68.7	20.4	59	w.			3					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.67	753.7	29.97	761.1	70.0	21.1	65	sw.			2		8		wsw.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.17	740.8	30.03	762.7	71.6	22.0	48	s.			3	0	3 k		sw.	0.177	4.5		Prof. Dr. Hoh.
Berlin	29.66	753.4	29.83	757.6	70.7	21.5	61	sw.			2		7			0.039	1.0	raining	Prof. Dr. Arndt.
Breslau	29.46	748.2	29.99	761.7	69.4	20.8	56	w.			2		9					sprinkling	Royal University Obs'y.
Carlsruhe	29.56	750.9	29.98	761.4	70.9	21.6	69	sw.			2		1	sw.		0.165	4.2		Albert Senz.
Cassel	29.17	741.0	29.89	759.2	69.4	20.8	57	ssw.			3		7	s.		0.063	1.6		Dr. H. Möhl.
Frankfort on the Main	29.58	751.3	29.93	760.2	72.9	22.7	53	wsw.			2		6			0.012	0.3		Physical Society.
Friedrichshafen	28.62	727.0	30.01	762.3	68.7	20.4	81	ssw.			1		8	sw.		0.311	7.9		Wilhelm, Chief Tel.
Hamburg	29.71	754.6	29.76	750.0	60.4	15.8	93	sw.			5		10			0.020	0.5	raining	E. Preller.
Kiel	29.09	754.2	29.71	754.6	63.3	17.4	82	sw.			3		10			0.008	0.2		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.50	749.4	29.91	759.8	70.3	21.3	59	ssw.			6		8	ssw.		0	0		H. Leppig, Asst.
Magdeburg	29.03	752.5	29.81	757.1	70.2	21.2	55	w.			5	0	8 ks		w.	0.035	0.9		Dr. Assmann.
Memel	29.85	758.1	29.89	759.3	60.4	15.8	89	s.			4		10 n						Issermann.
Munich	28.23	717.1	30.10	764.5	72.1	22.3	54	n.			1		0	sw.		0	0		Central Station.
Neufahrwasser	29.80	757.0	29.82	757.4	61.5	16.4	73	sse.			4		10			0.016	0.4		A. Lothes.
Neustadt, Palatinate	29.41	746.9	29.93	760.2	72.3	22.4	56	ssw.			2		7			0.268	6.8		Dicknether.
Stuttgart	29.05	737.9	29.91	759.7	73.0	22.8	60	sw.			1		5	w.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.54	724.8	29.99	761.8	69.3	20.7	64	w.			2		6	w.		0.346	8.8		Fischer.
Wustrow	29.73	755.1	29.75	755.7	59.9	15.5	96	sw.			4	0	5s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.64	752.8	30.02	762.4	80.2	26.8		ne.			4.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.50	749.4	29.55	750.7	83.8	28.8	78	wsw.	17.0	7.6			7	wsw.		0	0	d. clouds	
Deesa	29.10	739.1	29.56	750.9	83.4	28.6	69	sw.	16.2	7.2			3		w.	0	0	d. clouds	
Bombay	29.72	754.9	29.76	755.8	81.2	27.3	87	w.	20.0	8.9			9		wnw.	0.02	0.5	d. clouds	
Poona, Yarrowda	27.91	708.9	29.77	756.2	74.8	23.8	77	w.	22.0	9.8			9		w.	0.01	0.3	d. clouds	
Belgaum	27.27	692.8	29.83	757.6	71.5	21.9	88	wsw.	11.0	4.9			8	e.	sw.	0.09	2.3	showery	
Lahore	28.69	728.8	29.42	747.2	86.2	30.1	47	n.	2.3	1.0			10			0.18	4.6	thund'r st'm	
Roorkee	28.55	725.2	29.43	747.4	87.0	30.6	74	calm	1.8	0.8			8			0	0		
Agra	28.95	735.4	29.51	749.4	85.2	29.6	63	sw.	7.7	3.4			4			0	0		
Nagpur	28.59	726.3	29.63	752.6	80.5	26.9	75	w.	5.0	2.2			8		w.	0	0	d. clouds	
Jubbulpore	28.29	718.5	29.64	752 7	79.8	26.6	75	w.	5.2	2.3			7			0.03	0.8	overcast	
Lucknow	29.12	739.6	29.49	748.9	87.1	30.6	67	w.	9.4	4.2						0	0	blue sky	
Allahabad	29.19	741.5	29.50	749.3	85.2	29.6	74	sw.	6.1	2.7			8	ne.		0	0	d. clouds	
Patna	29.32	744.6	29.49	749.1	85.4	29.7	79	w.	6.0	2.7			8	w.	w.	1.23	31.2	d. clouds	
Hazaribagh	27.54	699.5	29.52	749.9	79.3	26.3	82	nw.	10.2	4.6			7	sw.	ne.	0.23	5.8	drizzling	
Cuttack	29.50	749.4	29.59	751.5	86.2	30.1	70	nnw.	0.3	0.1			9			0	0	d. clouds	
Calcutta, Alipore	29.52	749.7	29.54	750.3	80.0	26.7	96	w.	4.0	1.8			10			0.16	4.1	showery	
Dhubri	29.43	747.6	29.56	750.7	76.3	24.6	97	nne.	1.5	0.7			10		s.	1.59	40.4	raining	
Chittagong	29.52	749.7	29.61	752.0	81.2	27.3	87	s.	9.6	4.3			9			0	0	d. clouds	
Sibsagar	29.24	742.8	29.58	751.3	79.1	26.2	95	sw.	2.8	1.2			10	w.	w.	0.13	3.3	d. clouds	
Jeypore	28.12	714.2	29.54	750.3	83.7	28.7	54	w.	7.3	3.3			9		w.	0	0	d. clouds	
Zanzibar, Africa			30.03	762.7	84.7	29.3	47	se.	4	1.8			9			0	0	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.72	754.9	30.12	765.1	66.0	18.9	81	e.	0.7	0.3			10			0	0		Prof. Giovanni Clodig.
Milan	29.59	751.5	30.10	764.4	73.2	22.9	61	se.	3.8	1.7			10		sw.	0	0		Prof. Schiaparelli.
Padua	30.02	762.6	30.13	765.3	73.4	23.0	57	ssw.	2.5	1.1			10		sw.	0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.17	740.9	30.06	763.5	69.4	20.8	75	e.	1.8	0.8			8		nne.	0	0		Prof. P. F. Denza.
Genoa	29.94	760.4	30.13	765.2	70.3	21.3	68	se.	6.9	3.1			10		sw.	0	0		Prof. G. M. Garibaldi.
Mondovi	28.19	716.0	30.07	763.7	68.0	20.0	68	ese.			2		7			0	0		Prof. D. C. Bruno.
Pesaro	30.03	762.7	30.08	763.9	69.1	20.6	69	e.					0			0	0		Prof. Luigi Guidi.
Florence	29.87	758.6	30.12	765.0	75.6	24.2	44	w.			2		5	wsw.		0	0		Prof. Costantino Pitter.
Leghorn	29.97	761.2	30.05	763.3	73.8	23.2	74	nw.	0	0			5			0	0		Prof. P. Monte.
Rome	29.96	760.9	30.13	765.2	78.8	26.0	38	wsw.	3.8	1.7			0			0	0		Prof. P. S. Ferrari.
Lecce	29.85	758.2	30.14	765.6	74.7	23 7	65	nne.	13.0	5.8			0			0	0		Prof. C. de Giorgi.
Cosenza	29.24	742.8	30.10	764.6	74.5	23.6	57	sse.	3.1	1.4			0			0	0		Prof. D. Conti.
Cagliari	29.88	759.0	30.07	763.8	76.3	24.6	63	se.			4		0			0	0		Prof. A. Pacinotti.
Palermo	29.89	759.2	30.10	765.4	76.6	24.8	51	e.	8.7	3.9			0			0	0		Prof. G. Ciacciatore.
Syracuse	30.04	762.9	30.08	764.0	76.8	24.9	64	e.	2.5	1.1			10	nw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.58	751.3	30.09	764.2	75.6	24.2	66	sw.	0	0			0			0	0		Prof. F. Brioschi.
Stelvio	22.39	568.7			45.0	7.2	43	sw.			1		10 n	sw.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.38	568.3			51.8	11.0	72	nw.			2		10 n	wnw.		0.157	4.0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.99	761.7	30.00	762.0	66.8	19.3	88	nne.	4.2	1.9		ck	10 s			0.004	0.1	gloomy	K. Sasaki.
Kioto	29.86	758 4	30.03	762.7	70.6	21.4	93	nnw.	2.6	1.2			10 s			0.090	2.3	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.85	758.2	30.04	763.0	69.0	20.6	90	nne.	1.6	0.7			9 s			0.060	1.5	cloudy	S. Takehayashi.
Niigata	30.04	763.0	30.07	763.8	67.7	19.8	93	sw.	2.8	1.2			10 n			0.665	16.9	raining	
Nobiru	30.02	762.5	30.04	763.0	68.1	20.1	91	nw.	4.9	2.2			10 n			0.205	5.9	raining	
Supporo	29.87	758.7	29.93	760.2	59.1	15.1	73	nw.	3.0	1.3			10			0.770	19.6		
Tokei Obs'y, Yeddo	29.89	759.2	29.96	761.0	76.2	24.6	87	s.	3.0	1.3		3 cs	1 s;ks		ne.	0.020	0.5	fair	The Staff.
Wakayama	29.98	761.5	30.03	762.7	73.1	22.8	90	ese.				cs	7 s			0.100	2.5	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.05	763.3	30.24	768.1	70.1	21.2	62	e.	18.5	8.3			8		se.	0	0	squally	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.71	602.4	29.93	760.4	51.4	10.8	72	calm	0	0		0	0			0	0	fine	Vicente Fernandez.
Leon	24.46	621.2	30.19	766.8	56.0	13.3	83	nw.			2	1 c	0	w.		0	0	clear	Prof. M. Leal.
Mazatlan	29.66	753.4	29.92	759.9	78.5	25.8	82	e.	5.3	2.3		1 cs	7 n	calm	se.	0.866	22.0	cloudy	F. Quijano, U. E.
Mexico, Central Obs'y	23.15	588.1	30.25	768.3	46.9	8.3	85	nw.	0.4	0.2		4 c	0			0	0		The Staff.
Morelia	24.18	614.2	30.32	770.3	49.1	9.5	70	ne.			2	0	0			0	0	fine	M. Tena, M. D.
Pabellon, Aguascalientes	24.02	610.1	30.01	762.2	53.8	12.1	69	n.			1	0	0			0	0	fine	M. V. de Leon, M. D.
Puebla, Catholic Institute	23.43	595.1	30.36	771.3	42.8	6.0	56	calm	0	0		0	0			0	0	very fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.60	574.1	30.22	767.6	52.0	11.1	45	ene.	1.7	0.8		0	1 s			0	0	clear	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.87	758.8	29.87	758.8	64.4	18.0		wsw.			3					0.016	0.4		
Groningen	29.72	754.9	29.78	756.3	62.6	17.0		sw.			4					0	0		
Helder	29.78	756.5	29.78	756.5	61.9	16.6		wsw.			4					0.008	0.2		
Hellevoetsluis	29.84	757.9	29.84	757.9	64.4	18.0	84	wsw.			4					0	0		
Utrecht	29.81	757.2	29.86	758.4	63.7	17.6	89	wsw.			2		8			0.150	3.8	very cloudy	H. van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.61	752.2	29.68	753.8	54.7	12.6	93	calm	0	0			10			0.039	1.0	raining	
Christiania	29.56	750.7	29.70	754.4	56.3	13.5	83	e.	4	2			10			0	0		
Gjæsvær	30.10	764.5	30.12	765.1	43.3	6.3		ese.			6		8						
Lodingen	29.74	755.4	29.79	756.6	47.8	8.8	54	e.			5		8			0.008	0.2		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.74	755.3	29.89	759.1	68.4	20.2	87	wnw.	8.7	3.9			4			0.374	9.5		Dr. J. A. Sampaio.
Campo Major	29.12	739.6	30.10	764.5	70.9	21.6	57	w.	0.7	0.3			8			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.04	762.9	30.12	765.1	75.4	24.1	65	se.	1.8	0.8			3			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.80	756.8	30.15	765.8	68.9	20.5	61	sse.	3.8	1.7			3			blank	blank		The Staff.
Ponta Delgada, Azores	29.89	759.3	29.97	761.1	70.2	21.2	86	sw.	19.9	8.9			10			0.079	2.0	light rain	
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.41	721.5	29.43	747.5	67.3	19.6	55	sw.	11	5		9 ck	0						Capt. Lasarew.
Archangel	29.96	760.9	29.98	761.4	37.2	2.9	80	nnw.	13	6			10						Capt. Sseliwerstow.
Astrakhan	30.01	762.3	29.93	760.2	67.3	19.6	39	nw.	22	10			9 k						Capt. Wisganow.
Barnaul ‡	29.15	740.5	29.63	752.6	68.4	20.2	43	s.	4	2			9					light clouds	Meteorological Obs'y.
Dorpat	29.70	754.4	29.95	760.6	52.3	11.3	89	ssw.	9	4			10 n;s					light rain	Observatory.
Ekaterinburg	28.31	719.0	29.24	742.8	50.4	10.2	73	ne.	4	2			10						Meteorological Obs'y.
Kasan	29.27	743.4	29.54	750.3	40.6	4.8	79	nw.	13	6			10 n						Observatory.
Kertch	30.11	764.9	30.13	765.4	64.6	18.1	64	n.	4	2		0	5 n			0	0		Lagorio & Sastyrex.
Kieff	29.43	747.5	30.06	763.4	61.0	16.1	56	w.	7	3		c;ck;cs	9 ks						Observatory.
Lugan	29.83	757.7	30.03	762.8	63.9	17.7	46	wnw.	12	6			6						Meteorological Obs'y.
Moscow	29.48	748.7	29.96	761.0	45.9	7.7	47	nw.	10.1	4.5		0	6 ks						Meteorological Obs'y.
Nikolaiev	30.09	764.2	30.16	766.0	68.5	20.3	46	nw.	4	2		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.51	749.5	29.60	751.7	48.0	8.9	89	calm			0		10 n			0.402	10.2		Lieut. Iwanow.
Pekin, China	29.97	761.3	30.11	764.9	61.0	16.1	72	calm	0	0		0	5 ks			0	0		Physical Observatory.
St. Petersburg	29.98	761.5	30.00	761.9	48.6	9.2	63	se.	7	3			9 n;k						Central Physical Obs'y.
Tashkend, Laboratory	28.30	718.9	29.82	757.3	71.6	22.	68	calm	0	0			0						Teich, A. M.
Tiflis	28.61	726.7	29.97	761.3	76.1	24.5	27	nw.	22	10		0	1 k						Physical Observatory.
Warsaw	29.53	750.0	29.94	760.5	65.8	18.8	62	ssw.	9	4		8 ck	0						Astronomical Obs'y.
Wilna	29.57	751.0	29.98	761.5	60.1	15.6	65	sse.	4	2			9					heavy cl'ds.	Berg, Assistant.
Yeniseisk	29.45	748.0	29.73	755.2	56.5	13.6	84	e.	4	2			10						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.78	756.4	53.1	11.7	97	e.			1		10 s			0.02	0.5	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			29.68	753.9	58	14.4	94	sse.			4		10			0	0	gloomy	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.88	759.0	29.98	761.5	77.5	25.3	76	se.	3.8	1.7			0			0	0	clear	Antonio Rave, Director
Bilbao, Met. Obs'y	30.00	762.1	30.06	763.5	78.1	25.6	70	w.	0.9	0.4		3	0	s.		0	0	almost clear	Prof. Manuel de Nevera
Burgos, Met. Obs'y	27.16	689.9			68.5	20.3	50	sw.	3.1	1.4			3			0	0	light clouds	Domingo Martin.
Madrid, Royal Obs'y	27.89	708.4	30.04	763.1	72.9	22.7	42	sw.	12.3	5.5		0	7			0	0	cloudy	The Staff.
Murcia, Met. Obs'y ‡	29.86	758.5	30.00	762.1	91.4	33.0	38	ene.	2.2	1.0		1	2	e.		0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.12	739.7	30.00	762.0	66.0	18.9	70	s.	13.6	6.1			9			0.413	10.5	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.82	757.4	29.89	759.1	77.0	25.0	87	ssw.	2.9	1.3		3 c	k	wsw.	wsw.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.81	757.2	29.86	758.4	84.6	29.2	76	s.	0	0		0	2 ks			0	c	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.05	763.2	30.14	765.7	71.4	21.9	74	w.	9.6	4.3			10		w.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.91	759.7	30.00	762.0	82.0	27.8	85	s.	0	0		6 cs	2 k			0.886	22.5	d. clouds	E. Cadenas Chief Engn'r.
Tuguegarao, Philippine Ids	29.76	755.9	29.89	759.3	77.9	25.5	89	nw.	4.9	2.2		0	0			0	0	fair	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.04	763.1	30.08	764.1	39.2	4.0	55	e.			4		10			0	0		
Umea	29.87	758.6	29.92	759.9	45.3	7.4	89	e.			4		10			0.307	7.8		
Hernosand	29.74	755.5	29.80	756.8	50.9	10.5	94	ne.			4		10			0.146	3.7		
Stockholm	29.62	752.4	29.80	756.9	57.2	14.0	78	ssw.			2		10			0.079	2.0		
Wisby	29.73	755.2	29.79	756.7	55.8	13.2	91	s.			2		10			0.024	0.6	raining	
Sub-Series.																			
Upsala	29.69	754.2	29.78	756.4	55.0	12.8	91	sse.	4.3	1.9			10		s.	0.020	0.5		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.64	727.5	30.01	762.2	74.5	23.6	45	sw.			1		4			0.035	0.9		The Observatory.
Zurich ‡	28.44	722.3	30.02	762.4	72.0	22.2	62	w.			2		5			0.224	5.7	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.11	764.7	72.9	22.7	50	ene.	27	12.0			6		ne.	0	0		The Observatory.
Valona			30.16	766.1	77.5	25.3		w.			1		0			0	0	clear	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.88	759.0	82.9	28.3	60	w.			1	0	2 k			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	29.93	760.2	30.01	762.2	63	17.2	73	n.	2	0.9			10 s			0	0	cloudy	
Alpena, Michigan	29.36	745.7	30.03	762.7	63	17.2	56	sw.	5	2.2		5 k	0	w.		0	0	fair	
Atlanta, Georgia	28.93	734.8	30.11	764.8	66.5	19.2	95	e.	8	3.6			10 s		calm	0.09	2.3	cloudy	
Atlantic City, New Jersey	29.97	761.2	29.98	761.5	64.8	18.2	63	n.	7	3.1		2 ck	0	calm		0	0	clear	
Augusta, Georgia	29.92	760.0	30.11	764.8	71.0	21.7	82	ne.	1	0.4			10 s		e.	0	0	cloudy	
Baltimore, Maryland	29.98	761.5	30.03	762.7	67	19.4	63	n.	2	0.9		5 ck	fg.	n.	calm	inap.	inap.	fair	
Barnegat, New Jersey	29.92	760.0	29.94	760.5	65.5	18.6	72	n.	16	7.2		0	0			0	0	clear	
Bismarck, Dakota	28.31	719.1	30.14	765.5	36	2.2	92	ne.	6	2.7			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.21	691.1	30.05	763.3	38.0	3.3	73	calm	0	0		0	0			0	0	clear	
Boston, Massachusetts	29.84	757.9	30.00	762.0	54.7	12.6	88	n.	10	4.5			10 s		n.	inap.	inap.	cloudy	
Brackettville, Texas	28.91	734.3	29.95	760.7	64	17.8	84	calm	0	0		0	0			0	0	clear	
Brownsville, Texas	30.00	762.0	30.04	763.0	64	17.8	84	calm	0	0		hz.	0			0	0	dense haze	
Buffalo, New York	29.39	746.5	30.11	764.8	64	17.8	90	nw.	2	0.9		5ck;k	0	nw.		0.08	2.0	fair	
Burlington, Vermont	29.71	754.6	30.00	762.0	64.0	17.8	65	se.	1	0.4		2 ck	8 s	s.	w.	0	0	cloudy	
Cairo, Illinois	29.77	756.1	30.17	766.3	60.6	15.9	83	n.	1	0.4		0	fg.			0	0	clear	
Campo, California	27.38	695.4	29.94	760.5	39.4	4.1	73	se.	4	1.8		0	0			0	0	clear	
Camp Thomas, Arizona	27.28	692.9			60	15.6	84	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	29.99	761.7	30.01	762.2	72	22.2	82	nw.	19	8.5		0	hz.			0	0	clear	
Cape May, New Jersey	29.95	760.7	29.98	761.5	68	20.0	51	n.	13	5.8		0	2 ks		nw.	0	0	clear	
Castroville, Texas	29.29	744.0	30.00	762.0	61	16.1	78	nw.	3	1.3		0	0			0	0	clear	
Cedar Keys, Florida	29.95	760.7	29.97	761.2	75	23.9	90	ne.	7	3.1		7 ck	0	e.		0	0	fair	
Champaign, Illinois	29.28	743.7	30.08	764.0	54.1	12.3	80	se.	10	4.5		0	0			0	0	clear	
Charleston, S. Carolina	29.99	761.7	30.05	763.3	70	21.1	84	n.	6	2.7		5 c	0	sw.		0.03	0.8	fair	
Charlotte, N. Carolina	29.23	742.4	30.11	764.8	64	17.8	93	ne.	4	1.8		7 c;ck	0	calm		0	0	fair	
Chattanooga, Tennessee	29.32	744.7	30.15	765.8	66.0	18.9	93	ne.	3	1.3			10 s		n.	0.91	23.1	cloudy	
Cheyenne, Wyoming	24.12	612.6	30.10	764.5	43.3	6.3	75	w.	1	0.4		0	0			0.07	1.8	clear	
Chicago, Illinois	29.36	745.7	30.07	763.8	60.4	15.8	61	sw.	7	3.1		0	hz.			0	0	clear	
Chincoteague, Virginia	29.99	761.7	30.01	762.2	65	18.3	73	nw.	12	5.4		0	0			0	0	clear	
Cincinnati, Ohio	29.50	749.3	30.16	766.1	62.5	16.9	84	se.	1	0.4			fg.			0	0	dense fog	
Cleveland, Ohio	29.41	747.0	30.15	765.8	57.9	14.4	87	se.	4	1.8		7 k	fg.	nw.		0	0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.29	744.0	30.15	765.8	60	15.6	86	ne.	2	0.9			fg.			0	0	dense fog	
Concho, Texas	28.16	715.3	30.10	764.5	57	13.9	83	calm	0	0		c	0			0	0	clear	
Corsicana, Texas	29.66	753.4	30.13	765.3	64	17.8	68	calm	0	0		0	0			0	0	clear	
Davenport, Iowa	29.34	745.2	30.00	762.0	64	17.8	52	sw.	6	2.7		0	0			0	0	clear	
Dayton, Washington T'y	28.26	717.8	30.08	764.0	46.0	7.8	86	sw.	4	1.8			10 s		w.	0	0	cloudy	
Deadwood, Dakota	25.42	645.7	30.12	765.0	57	13.9	45	s.	8	3.6		9 k	0	s.		0	0	cloudy	
Decatur, Texas	28.89	733.8	30.03	762.7	65	18.3	54	se.	10	4.5		0	0			0	0	clear	
Delaware Breakwater, Del.	29.96	761.0	29.98	761.5	69	20.6	66	n.	24	10.7		3 k	0	nw.		0	0	fair	
Denison, Texas	29.28	743.7	30.09	764.3	64	17.8	68	s.	8	3.6		0	0			0	0	clear	
Denver, Colorado	24.86	631.4	30.08	764.0	54	12.2	59	nw.	3	1.3		0	0			0	0	clear	
Des Moines, Iowa	29.07	738.4	29.98	761.5	56	13.3	93	calm	0	0		0	fg.			0	0	clear	
Detroit, Michigan	29.43	747.5	30.15	765.8	59.0	15.0	75	sw.	4	1.8		0	0			0	0	clear	
Dodge City, Kansas	27.37	695.2	29.95	761.0	68	20.0	44	s.	18	8.0		9 k	0	sw.		0	0	cloudy	
Dubuque, Iowa	29.28	743.7	30.00	762.0	59	15.0	75	s.	1	0.4		0	fg.		calm	0	0	clear	
Duluth, Minnesota	29.43	747.5	30.14	765.5	50	10.0	86	nw.	6	2.7			10 s		calm	0.18	4.6	cloudy	
Eagle Pass, Texas	29.29	744.0	30.12	765.0	66.0	18.9	73	se.	3	1.3		0	c			0	0	clear	
Eagle Rock, Idaho	25.24	641.1	30.09	764.3	41	5.0	48	calm	0	0		0	0			0	0	clear	
Eastport, Maine	29.94	760.5	30.00	762.0	53.4	11.9	96	ne.	11	4.9			10n;fg			0.03	0.8	light rain	
El Paso, Texas	26.29	667.8	30.04	763.0	55.0	12.8	69	ca m	0	0		0	1 s			0	0	clear	
Erie, Pennsylvania	29.38	746.2	30.11	764.8	60	18.9	93	n.	1	0.4		8 k	0	n.		0.05	1.3	cloudy	
Escanaba, Michigan	29.34	745.2	30.00	762.0	57	13.9	80	n.	13	5.8		3 k	3 s	n.	n.	0	0	fair	
Florence, Arizona	28.42	721.9	30.02	762.5	65	18.3	58	n.	3	1.3		0	0			0	0	clear	
Fort Apache, Arizona	25.09	637.3	30.00	762.0	48	8.9	80	calm	0	0		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.12	688.8	29.92	760.0	47	8.3	71	ne.	9	4.0		0	3 s		se.	0	0	fair	
Fort Bennett, Dakota	28.49	723.6	30.03	762.7	45	7.2	93	se.	5	2.2		4 k	0	w.		0	0	fair	
Fort Benton, Montana	27.14	689.3	30.00	762.0	42	5.6	63	sw.	10	4.5		0	0			0	0	clear	
Fort Buford, Dakota	28.08	713.2	30.10	764.5	45	7.2	76	e.	11	4.9		8 cs	0	se.		0	0	cloudy	
Fort Custer, Montana	26.78	680.2	30.02	762.5	52	11.1	51	nw.	1	0.4		1 k	0	sw.		0	0	clear	
Fort Davis, Texas	25.02	635.5	29.96	761.0	58	14.4	58	sw.	3	1.3		0	0			0	0	clear	
Fort Elliott, Texas	27.29	693.2	30.48	774.2	61	16.1	62	s.	12	5.4		5 k	0	s.		0	0	fair	
Fort Gibson, Indian T'y	29.50	749.3	30.05	763.3	62.2	16.8	50	se.	5	2.2		1 c	0			0	0	clear	
Fort Grant, Arizona					61	16.1	72	ne.	4	1.8		3 k	0			0	0	fair	
Fort Griffin, Texas	28.80	731.5	30.05	763.3	61.5	16.4	78	calm	0	0		0	0			0	0	clear	
Fort Keogh, Montana	27.41	695.2	29.95	760.7	53	11.7	61	ne.	12	5.4		8 cs	0	ne.		0	0	cloudy	
Fort Macon, North Carolina	30.01	762.2	30.02	762.5	65	18.3	78	nw.	14	6.3		1 cs	0	calm		0	0	clear	
Fort McKavett, Texas	27.85	707.4	29.74	755.4	61.5	16.4	71	s.	4	1.8		0	0			0	0	clear	
Fort Missoula, Montana	26.73	678.9	30.25	768.3	41	5.0	92	nw.	1	0.4		0	0			0.01	0.3	clear	
Fort St. Michaels	29.96	761.0	30.00	762.0	49	9.4	78	e.	8	3.6			10 s			0	0	cloudy	
Fort Shaw, Montana	26.37	669.8	29.97	761.2	45	7.2	93	ne.	6	2.7		0	8 s		n.	0.06	1.5	cloudy	
Fort Sill, Indian Territory	28.83	732.3	30.08	764.0	60.3	15.7	81	calm	0	0		0	0			0	0	clear	
Fort Stevenson, Dakota	28.29	718.6	30.16	766.1	35	1.7	89	e.	4	1.8		0	0			0	0	clear	
Fort Verde, Arizona					57.1	13.9	69	w.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.36	720.3	29.90	759.4	60	15.6	72	w.	2	0.9		0	0			0	0	clear	
Galveston, Texas	30.04	763.0	30.08	764.0	71	21.7	66	n.	7	3.1		0	hz.			0	0	clear	
Grand Haven, Michigan	29.40	746.7	30.07	763.8	65.0	18.3	70	se.	8	3.6		0	0			0	0	clear	
Hatteras, North Carolina	30.01	762.2	30.03	762 7	70	21.1	70	n.	12	5.4		0	hz.			0	0	clear	
Helena, Montana	25.80	655.3	30.19	766.8	56	13.3	62	sw.	2	0.9		0	2 s		calm	0	0	fair	
Henrietta, Texas	29.08	738.6	29.97	761.2	75	23.9	69	s.	3	1.3		0	0			0	0	clear	
Huron, Dakota	28.74	730.0	30.13	765.3	38.2	3.4	92	n.	5	2.2		1 cs	0	n.		0	0	clear	
Indianapolis, Indiana	29.33	745.0	30.13	765.3	53	11.7	80	e.	1	0.4		0	fg.		calm	0	0	clear	
Indianola, Texas	30.05	763.3	30.08	764.0	68.6	20.3	90	e.	8	3.6		0	hz.			0	0	clear	
Jacksboro, Texas	28.91	734.3	30.02	762.5	63	17.2	73	sw.	6	2.7		0	0			0	0	clear	
Jacksonville, Florida	29.95	760.7	29.99	761.7	77	25.0	82	ne.	5	2.2		5 cs	0	w.		0.03	0.8	fair	
Keokuk, Iowa	29.34	745.2	30.00	762.0	66.6	19.2	51	sw.	4	1.8		0	0			0	0	clear	
Key West, Florida	29.84	757.9	29.87	758.7	82.0	27.8	74	sw.	9	4.0		1 c	2 k		sw.	0.01	0.3	fair	
Kittyhawk, North Carolina	30.01	762.2	30.03	762.7	65	18.3	78	n.	9	4.0		0	0			0	0	clear	
Knoxville, Tennessee	29.13	739.9	30.17	766.3	62.3	16.8	94	calm	0	0			10 s		calm	0.11	2.8	cloudy	
La Crosse, Wisconsin	29.19	741.4	29.96	761.0	58.5	14.7	86	w.	1	0.4		0	0			0	0	clear	
La Mesilla, New Mexico	26.18	665.0	30.33	770.4	52.5	11.4	79	calm	0	0		0	0			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	29.10	739.1	30.00	762.0	65	18.3	68	s.	1	0.4		4 ck	0	sw.		0	0	fair	
Lewiston, Idaho	29.19	741.4	30.04	763.0	48	8.9	71	ne.	1	0.4		0	5 s		calm	0.03	0.8	fair	
Little Rock, Arkansas	29.79	756.7	30.11	764.8	57	13.9	86	calm	0	0		0	0			0	0	clear	
Los Angeles, California	29.59	751.6	29.97	761.2	57.1	13.9	80	se.	3	1.3			8 s		s.	0	0	cloudy	
Louisville, Kentucky	29.55	750.6	30.12	765.0	62.0	16.7	87	ne.	2	0.9		6 cs	0			0	0	fair	
Lynchburg, Virginia	29.38	746.2	30.07	763.8	65.8	18.8	78	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	29.00	736.6	30.03	762.7	60	15.6	70	s.	2	0.9		0	0			0	0	clear	
Marquette, Michigan	29.33	745.0	30.06	763.5	50	10.0	93	nw.	18	8.0			10 s		nw.	0	0	cloudy	
Mason, Texas	28.45	722.6	30.10	764.5	57.8	14.3	78	sw.	1	0.4		0	0			0	0	clear	
Memphis, Tennessee	29.79	756.7	30.13	765.3	61	16.1	72	calm	0	0		0	0			0	0	clear	

UNITED STATES SERIES—CONTINUED.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Milwaukee, Wisconsin	29.27	743.4	30.03	762.7	60	15.6	70	s.	7	3.1		1 ck	0			0	0	clear	
Mobile, Alabama	29.94	760.5	30.01	762.2	69.0	20.6	84	n.	8	3.6		0	2 s			0	0	clear	
Montgomery, Alabama	29.84	757.9	30.07	763.8	67.1	19.5	93	calm	0	0		4 k	4 s	e.	e.	0	0	fair	
Moorhead, Minnesota	29.18	741.2	30.18	766.6	44	6.7	93	n.	6	2.7		0	0			0	0	clear	
Morgantown, W. Virginia	29.11	739.4	30.06	763.5	67.3	19.6	90	n.	2	0.9			10 s			0	0	cloudy	
Mt. Washington, N. H.	23.94	608.1	30.14	765.5	52.0	11.1	52	n.	2	0.9		5 k	0			0	0	fair	
Nashville, Tennessee	29.60	751.8	30.14	765.5	66.3	19.1	92	nw.	2	0.9			10 ks		nw.	0	0	cloudy	
New Haven, Connecticut	29.84	757.9	29.95	760.7	62	16.7	50	ne.	16	7.2		5 c	0			0	0	fair	
New London, Connecticut	29.90	759.4	29.95	760.7	57	13.9	86	ne.	8	3.6			10 n		ne.	0.20	5.1	heavy rain	
New Orleans, Louisiana	29.97	761.2	30.03	762.7	71.0	21.7	66	n.	7	3.1		0	0			0	0	clear	
Newport, Rhode Island	29.88	758.9	29.93	760.2	58.7	14.8	97	n.	15	6.7			10 n		n.	0.09	2.3	light rain	
New River, N. Carolina					62	16.7	78	n.			2	0	0			0	0	clear	
New Shoreham, Rhode I'd	29.89	759.2	29.92	760.0	60.4	15.8	87	ne.	32	14.3			10 s		ne.	0	0	cloudy	
New York, New York	29.81	757.2	29.99	761.7	67	19.4	59	ne.	6	2.7		4 cs	0	n.		c	0	fair	
Norfolk, Virginia	30.00	762.0	30.03	762.7	68	20.0	66	n.	7	3.1		0	0			0	0	clear	
North Platte, Nebraska	27.16	689.9	30.10	764.5	49.4	9.7	89	ne.	15	6.7			10 s		ne.	0	0	cloudy	
Olympia, Washington T'y	29.93	760.2	29.97	761.2	52.0	11.1	93	s.	5	2.2		4 ck	0	sw.		0.07	1.8	fair	
Omaha, Nebraska	28.85	732.8	30.04	763.0	55	12.8	93	n.	10	4.5		0	0			0	0	clear	
Oswego, New York	29.71	754.6	30.04	763.0	67.0	19.4	93	nw.	5	2.2		5 cs	5 n	nw.		inap.	inap.	light rain	
Pensacola, Florida	29.97	761.2	30.00	762.0	72	22.2	97	ne.	4	1.8			10 s		e.	0	0	cloudy	
Philadelphia, Pa	29.94	760.5	30.00	762.0	68.3	20.2	55	n.	7	3.1		6 cs	fg	w.		0	0	fair	
Phœnix, Arizona	28.74	730.0	30.49	774.4	68	20.0	61	e.	3	1.3		0	0			0	0	clear	
Pike's Peak, Colorado	17.96	456.2	30.17	766.3	30	— 1.1	70	sw.	2	0.9		0	0			0	0	clear	
Pioche, Nevada	24.06	611.1	30.08	764.0	51	10.6	24	s.	2	0.9		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.30	744.2	30.12	765.0	67	19.4	84	w.	6	2.7			10 s		sw.	0	0	cloudy	
Port Eads, Louisiana	29.98	761.5	29.99	761.7	77.1	25.1	94	ne	10	4.5		0	hz		calm	inap.	inap.	clear	
Port Huron, Michigan	29.42	747.3	30.12	765.0	55.2	12.9	82	sw.	6	2.7		0	fg		calm	0	0	clear	
Portland, Maine	29.96	761.0	30.01	762.2	57.5	14.2	80	n.	5	2.2		3 ck	5 s	w.	calm	0	0	cloudy	
Portland, Oregon	29.94	760.5	30.01	762.2	54.8	12.7	91	s.	4	1.8		0	9 s		s.	0.41	10.4	cloudy	
Portsmouth, N. Carolina					71	21.7	66	n.	19	8.5		0	0			0	0	clear	
Prescott, Arizona	24.81	630 2	30.00	762.0	48	8.9	74	s.	3	1.3		0	0			0	0	clear	
Punta Rassa, Florida	29.87	758.7	29.88	758.9	75.5	24.2	88	e.	12	5.4			10 ks		e.	1.57	39.9	threatening	
Red Bluff, California	29.60	751.8	29.94	760.5	56.0	13.3	51	calm	0	0		0	0			0	0	clear	
Rio Grande City, Texas	29.90	759.4	30.11	764.8	65	18.3	84	calm	0	0		0	0			0	0	clear	
Rochester, New York	29.45	748.0	30.09	764.3	64	17.2	84	nw.	7	3.1		3 cs	3s;hz	calm	nw.	0	0	fair	
Roseburg, Oregon	29.50	749.3	30.08	764.0	53.2	11.8	95	s.	1	0.4			10 ks		sw.	0.18	4.6	cloudy	
Sacramento, California	29.87	758.7	29.95	760.7	53.6	12.0	74	se.	3	1.3		0	0			0	0	clear	
St. Louis, Missouri	29.50	749.3	30.11	764.8	60.1	15.6	65	se.	5	2.2		0	0			0	0	clear	
St. Paul, Minnesota	29.20	741.7	30.08	764.0	53.2	11.8	93	w.	13	5.8		0	8 ks		n.	0	0	fair	
Salt Lake City, Utah	25.55	649.0	29.88	758.9	55	12.8	40	calm	0	0		8 k	0	sw.		0	0	cloudy	
San Antonio, Texas	29.39	746.5	30.09	764.3	59.6	15.3	87	calm	0	0		0	0			0	0	clear	
San Diego, California	29.80	756.9	29.87	758.7	56.1	13.4	80	w.	3	1.3			10 s			0	0	cloudy	
Sandusky, Ohio	29.46	748.3	30.14	765.5	59	15.0	81	w.	7	3.1		0	0			0	0	clear	
Sandy Hook, New Jersey	29.95	760.7	29.98	761.5	68.1	20.1	66	n.	14	6.3		3 k	hz	n.	calm	0	0	clear	
San Francisco, California	29.90	759.4	29.96	761.0	54	12.2	83	calm	0	0		0	0			0	0	clear	
Santa Fé, New Mexico	23.38	593.8	30.18	766.6	50	10.0	68	e.	1	0.4		0	1 k		calm	0	0	clear	
Savannah, Georgia	29.95	760 7	30.04	763.0	72	22.2	90	ne.	4	1.8			10 ks		ne.	0	0	cloudy	
Shreveport, Louisiana	29.87	758.7	30.10	764.5	56	13.3	93	calm	0	0		0	0			0	0	clear	
Silver City, New Mexico	24.35	618.5	29.92	760.0	49	9.4	71	s.	1	0.4		0	0			0	0	clear	
Sitka, Alaska	29.86	758.4	29.93	760.2	55.1	12.8	93	se.	4	1.8		5 k	0	calm		0	0	fair	
Smithville, North Carolina	30.04	763.0	30.08	764.0	63	17.2	84	n.	5	2.2		0	0			0.03	0.8	clear	
Spokane Falls, Wash. Ter.	28.00	711.2	30.02	762.5	43	6.1	93	e.	2	0.9		2 k	0			0.06	1.5	clear	
Springfield, Illinois	29.40	746.7	30.09	764.3	58.0	14.4	70	s.	9	4.0		0	0			0	0	clear	
Springfield, Massachusetts	29.86	758.4	29.98	761.5	64.0	17.8	63	n.	4	1.8		8 k	0	nw.		0	0	cloudy	
Stockton, Texas	27.03	686.5	30.10	764.5	56.2	13.4	80	se.	4	1.8		0	0			0	0	clear	
St. Vincent, Minnesota	29.32	744.7	30.21	767.3	48	8.9	93	nw.	4	1.8			10 s		calm	0	0	cloudy	
Thatcher's Island, Mass	29.93	760.2	29.98	761.5	58.4	14.7	100	n.	16	7.2			10 n		n.	0.01	0.3	light rain	
Toledo, Ohio	29.43	747.5	30.13	765.3	57	13.9	74	se.	4	1.8		0	0			0	0	clear	
Tucson, Arizona	27.46	697.5	29.82	757.4	66	18.9	60	s.	2	0.9		0	0			0	0	clear	
Umatilla, Oregon	29.68	753.9	30.09	764.3	52.5	11.4	70	s.	2	0.9			10 s		calm	0	0	cloudy	
Uvalde, Texas	29.12	739.6	29.94	760.5	62	16.7	84	calm	0	0		0	0			0	0	clear	
Vicksburg, Mississippi	29.83	757.7	30.09	764.3	57	13.9	86	n.	3	1.3		hz	hz	calm	calm	0	0	light haze	
Visalia, California	29.53	750.0	29.89	759.2	48.3	9.1	74	nw.	1	0.4		0	0			0	0	clear	
Washington, D. C.	29.93	760.2	30.04	763.0	65.0	18.3	73	nw.	1	0.4		3 cs	hz	nw.		0	0	fair	
Wickenburg, Arizona					60	15.6	77	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.00	762.0	30.06	763.5	64	17.8	84	n.	2	0.9		1 c	0	w.		0	0	fair	
Winnemucca, Nevada	25.60	650.2	29.93	760.2	33	0.6	50	s.	8	3.6		0	0			0	0	clear	
Wood's Holl, Mass	29.87	758.7	29.91	759.7	61	16.1	93	ne.	12	5.4			10 n		ne.	0.03	0.8	light rain	
Yankton, Dakota	28.81	731.8	30.12	765.0	44	6.7	93	n.	8	3.6		0	0			0	0	clear	
Yuma, Arizona	29.66	753.4	29.80	756.9	73.8	23.2	87	nw.	1	0.4		0	0			0	0	clear	
SUB-SERIES.																			
Bridgetown, Barbados, W. I.†	29.99	761.7	30.01	762.2	82	27.8	91	e.	6	2.7		5 ck	5 ks	e.	e.	0	0	fair	J. A. Racker.
Bogota, U. S. Columbia	22.07	560.6			52.5	11.4	82	se.	1	0.4		5 cs; k	2 s	w.		0.01	0.3	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.80	759.2	29.89	759.2	83	28.3	87	e.				0	2 ks		e.	0	0	clear	B. Bigar.
Havana, Cuba, W. I.	29.88	758.9	29.93	760.2	80	26.7	82	calm	0	0		5 cs	2 ks	calm	calm	0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.05	760.7	29.96	761.0	77.0	25.0	84	calm	0	0		3 cs	0			0	0	fair	Robert Johnstone
Navassa, W. I.	29.83	757.7	29.91	759.7	81	27.2	78	e.	12	5.4		5 cs; k	5 kn	e.	e.	0	0	squally	F. M. Everett.
Paramaribo, S. A.	30.01	762.2	30.01	762.2	82	27.8	79	se.			2	4 ck	3 s	e.		0.040	1.0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.49	749.0	30.05	763.3	76	24.4	89	s.					10 ks		s.	2.07	52.6	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					73.8	23.2		calm			0	2 ck	1 ks	se.		0.04	1.		Earl Flint.
Santiago de Cuba, W. I.	29.91	759.7	29.94	760.5	80	26.7	78	n.	1.2	0.5		4 ck	2 s	se.		0.02	0.5	fair	Robert Mason.
St. Thomas, W. I.‡	30.00	762.0	30.01	762.2	81	27.2	79	e.	8	3.6		3 c	4 ks	ne.	e.	0	0	fair	G. O. Gyllich.
York Factory, B. A.	30.24	768.1	30.29	769.4	36.0	2.2	95	n.	7	3.1		6 k	4 s	n.	n.	0	0	cloudy	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Thursday Island, Torres St.	29.91	759.7	76	24.4	81	ese.			2-3		0							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 36° 06′, W. 5° 20′	30.19	766.8	73	22.8	81	sw.			4		10	wsw.				1	wsw.	overcast	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.08	764.0	69	20.6		ne.			3		6	nne.						d. clouds	Capt. Hon. W. H. Jolliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 25° 24′, W. 65° 29′	30.08	764.0	82	27.8	91	se.			4		10					3	se.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.99	761.7	75	23.9	81	wsw.			1-2		10							d. clouds	Capt. F. W. Richards.
H. M. S. Champion, S. 8° 00′, W. 82° 30′	29.99	761.7	65	18.3	89	se.			3		7	calm				3	se.	d. clouds	Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	30.00	762.0	80	26.7		ne.			2		1	ne.				1	ne.	blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 18° 52′, W. 2° 20′	30.24	768.1	67	19.4		se.			5		9	ese.				3	ese.	d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.07	763.8	76	24.4	76	s.			4-5		8	ssw.						squally	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.09	764.3	57.5	14.2	84	wsw.			1		3	sw.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.49	749.0	94	34.4		nw.			1		5	se.				1	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 13° 04′, E. 80° 14′	29.72	754.9	84	28.9		sse.			1-2		7					3-4	sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 2° 49′, E. 59° 45′	29.89	759.2	81	27.2	82	e.			3		3	e.				3-4	se.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19	30.01	762.2	76	24.4		ne.			2		2					2	ene.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 12° 32′, W. 81° 44′	29.93	760.2	86	30.0	79	calm			0										Comm. R. N. Custance.
H. M. S. Flying Fish, Okosiri, Yezo, Japan	30.00	762.0	65	18.3	68	wnw.			3		7					2	wnw.	misty	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 19° 44′, W. 155° 04′	30.04	763.0	73	22.8	81	n.			1-2		9							raining	Comm. E. G. Bourke.
H. M. S. Garnet																			Capt. L. F. Jones
H. M. S. Griffon, N. 18° 29′, W. 77° 54′	29.92	760.0	81	27.2	74	calm			0		2							d. clouds	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, S. 4° 00′, E. 168° 30′	29.81	757.2	85	29.4	75	ene.			4		2	ene.				2	ene.	d. clouds	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 38° 19′ E. 141° 36′	29.95	760.7	76	24.4		calm			0		5					3	s.	drizzling	Capt. E. H. Seymour.
H. M. S. Kestrel, Canton, China *†	29.85	758.2	83	28.3							4	s.						d. clouds	Capt. W. M. Lang.
H. M. S. Kingfisher, S. 5° 43′, W. 81° 21′	30.06	763.5	59	15.0		ene.			1-2		7	e.						showery	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 20° 30′, E. 71° 00′	30.07	763.8	69	20.6		sse.			6		5	sse.				5	sse.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 20° 58′, W. 29° 30′	30.19	766.8	78	25.6	73	nne.			3		2					2	sse.	d. clouds	Capt. C. F. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 34′, E. 109° 32′	29.82	757.4	80.5	26.9	88	e.			1		6					1	ese.	misty	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.14	765.5	78	25.6	90	s.			2		0							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, S. 44° 29′, W. 76° 25′	29.89	759.2	49.5	9.7	96	ne.			4		10					2	ne.	misty	Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	30.02	762.5	62	16.7	97	ese.			2		10							misty	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 17° 01′, W. 72° 25′	30.07	763.8	60.5	15.8	97	s.			1		7					2	s.	d. clouds	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready, N. 8° 33′, E. 81° 15′	29.83	757 7	86	30.0		ssw.			2		3							d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 11° 51′, E. 51° 14′	29.73	755.1	78.3	25.7	82	sse.			3		2					1	sw.	d. clouds	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis, St. Vincent, Cape Verd Ids	30.05	763.3	79	26.1	90	nne.			1		5	nne.						d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 34° 58′, W. 15° 02′	30.13	765.3	76	24.4	72	ssw.			2		1	ssw.				1	wsw.	blue sky	Capt. T. H. Royse.
H. M. S. Tenedos, N. 50° 17′, W. 64° 01′	29.90	759.4	57	13.9	100	calm			0		8							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	30.04	763.0	61	16.1	77	sse.			1–2		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.98	761.5	81	27.2		n.			2		2							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D. C
H. M. S. Woodlark, Kurachee, Bombay, India	29.52	749.8	81.5	27.5	83	w.			3		3	w.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, S. 12° 47′, E. 12° 56′	30.08	763.9	65.1	18.4	84	nw.			4		10					3	w.	overcast	Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Id's	29.93	760.2	82.8	28.2	80	ene.			2		1					1		blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.90	759.5	83.3	28.5	79	ese.			1		1			5 h'r	5 h'r				P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES' NAVAL SERIES. By authority of the Secretary of the Navy. Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.03	762.7	74	23.3	90	ne.	7	3.1			8		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.01	762.2	58	14.4	88	ne.	6	2.7		8 c	0	n.		0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.79	756.7	77	25.0	77	sw.			1		5		sw.	0	0			fair	
Adams, Panama, Panama	29.78	756.4	80	26.7	91	ne.			1		2		w.			sm'h		fair	
Alaska, S. 11° 31′, W. 77° 48′	29.96	761.0	61	16.1	100	calm			0		10		s.			sm'h		cloudy	
Alert, Yokohama, Japan *	29.81	757.2	79	26.1	74	sw.			2		2		calm	0	0	sm'h		cloudy?	
Alliance, N. 75° 16′, E. 13° 25′	30.15	765.8	36	2.2	80	se.			3-5		8		s.	0	0	sm'h		cloudy	
Ashuelot, Kobe, Japan	30.04	763.0	75	23.9	86	ne.			4		8		ne.					cloudy	
Colorado, New York, N. Y.	29.97	761.2	69	20.6	65	nnw.	1	0.4			2		calm	0	0			clear	
Constitution, New Bedford, Mass.	29.85	758.2	60	15.6	?	nne.	8	3.6			10		ne.					rainy	
Franklin, Norfolk, Va	29.95	760.7	64	17.8	94	nnw.	6	2.7			0			0	0			clear	
Galena, Leghorn, Italy	30.15	765.8	74	23.3	81	sw.			2		10					sm'h		cloudy	
Independence, N. Yard, Mare I'd, Cal	29.80	756.9	50	10.0	71	sw.	6.0	2.7			0							clear	
Jamestown, Mare Isl'd, Cal *	29.92	760.0	59	15.0	88	ssw.			3		0			0	0			clear	
Kearsarge, Philadelphia, Pa	30.00	762.0	69	20.6	65	nw.			1		5		nw.			sm'h		fair	
Lackawanna, Mare Isl'd, Cal †	30.13	765.3	58	14.4	94	sw.			2		0							clear	
Lancaster, New York, N. Y.	29.97	761.2	68	20.0	74	n.	6	2.7			5		n.					misty	
Marion, Maldonado, Uruguay *	29.86	758.4	60	15.6		nne.			2		10					sm'h		cloudy	
Michigan, Erie, Pa	30.00	762.0	65	18.3	94	s.			1		10		s.					cloudy	
Minnesota, Newport, R. I.	29.94	760.5	59	15.0	94	nnw.			4-6		10		n.			sm'h		squally	
Monocacy, Yokohama, Japan	29.97	761.2	80	26.7	78	sw.			1		2		calm					fair	
Nipsic, Genoa, Italy	30.11	764.8	72	22.2	76	sse.			2		10					sm'h		overcast	
Onward, Callao, Peru †	30.01	762.2	60	15.6	100	sse.			3		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.91	759.7	80	26.7	82	e.			1		5		n;e.					fair	
Passaic, Washington, D. C.	30.02	762.5	72	22.2	100	calm			0		2							fair	
Pensacola, Panama, Panama	29.96	761.0	80	26.7	78	nw.			1		2			0	0	sm'h		clear	
Portsmouth, New London, Conn	30.03	762.7	58	14.4	94	nne.			4		10		ne.			sm'h		squally	
Powhatan, Aspinwall, Panama	29.95	760.7	79	26.1	92	sse.			1-2		2		n;e.			sm'h		fair	
Quinnebaug, Marseilles, France	30.07	763.8	72	22.2	76	ese.			2		2		calm			sm'h		hazy	
Ranger, Mare Island, Cal. *	29.81	757.2	59	15.0	82	ssw.			1		0			0	0	sm'h		clear	
Richmond, N. 11° 30′, W. 95° 10′	29.86	758.4	81	27.2	91	nne.			3		10		ne.	0.74	18.8	mod.	nw.	cloudy	
Saratoga, Wickford, R. I.	29.90	759.4	59	15.0	100	nne.			3		10		nne.	mod.	mod.	sm'h		raining	
Shenandoah, Maldonado, Uruguay *	30.16	766.1	61	16.1	88	nne.			3		10					sm'h		cloudy	
St. Louis, League Island, Pa	29.73	755.1	68	20.0	78	nnw.	3	1.3			8		nw.	0	0			cloudy	
Swatara, Chefoo, China †	30.11	764.8	73	22.8	67	ssw.			2		10		calm					cloudy	
Tennessee, New York, N. Y.	29.99	761.7	66	18.9	64	nnw.	18	8.0			2			0	0			fair	
Trenton, N. 25° 10′, W. 24° 50′ *	30.11	764.8	80	26.7	78	ene.			3		10			0	0	sm'h		cloudy	
Vandalia, New York, N. Y.	29.96	761.0	66	18.9	74	sw.			1		2		wnw.					fair	
Wabash, Boston, Mass.	30.29	769.4	61	16.1	77	n.	9	4.0			10		ne.	0	0			cloudy	
Wyoming, Port Royal, S. C.	30.01	762.2	72	22.2	85	ne.	12	5.4			8		ne.	1.10	27.9			cloudy	
Yantic, New York, N. Y. *	29.93	760.2	68	20.0	65	n.			1-2		2							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland *†..	29.82	757.4	.....	.....	.....	sw.	1	.....	5	.....	s.	.....	.....	.....	.....	showery.....	N. McLean.
S. S. Circassian, Capt. W. H. Smith N. 55° 20′, W. 7° 30′	29.92	760.0	54	12.2	87	s.	4	.....	8	.....	se.	0	0	3	s.	d. clouds.....	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 51° 34′, W. 19° 01′	29.18	741.2	47	8.3	.....	s.	7	.....	10	.....	s.	.....	.....	r'gh	sw.	raining.....	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, Agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, N. 39° 52′, W. 67° 02′ *†..	29.92	760.0	76	24.4	95	sse.	6	.....	10	.....	s.	.....	.....	mod. sm'h	se;ne.	overcast.....	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Liverpool, Eng *†..	30.15	765.8	61	16.1	88	w.	1	.....	2	.....	n.	.....	.....	.....	.....	fine.....	.....
S. S. Pennsylvania, Capt G. H. Dodge, N. 46° 08′ W. 34° 35′ ...†..	29.68	753.9	56	13.3	81	wnw.	6	.....	10	.....	w.	.....	.....	r'gh	n.	cloudy.....	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. British Merchant, Capt. E. J. Moloney, Off Fastnet, Ireland ‡.	29.72	754.9	62.5	16.9	86	sse.	4–5	.....	5	.....	.....	.....	.....	.....	.....	misty.....	.....
S. S. Cipero, Capt. W. N. Lailey, Demerara, Brit. Guiana	30.01	762.2	81.2	27.3	83	e.	2	.....	4	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan, N. 41° 20′, W. 34° 10′	29.97	761.2	65.8	18.8	74	wnw.	5	.....	5	.....	.....	.....	.....	.....	.....	blue sky	.....
Bk. Glaramara, Capt. R. Morton,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bg. Hermine, Capt. S. G. Jones, N. 60 19′, W. 21° 10	30.10	764.5	79.6	26.4	87	s.	4	.....	6	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bkt. Hope, Capt. Jas. Campbelle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, S. 44° 00′, E. 18° 12′	30.18	766.6	47	8.3	92	w.	4	.....	10	.....	.....	.....	.....	.....	.....	misty.....	.....
Bk. Mertola, Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pleione, Capt. C. H. Renant, S. 43° 07′, E. 15° 38′	30.21	767.3	51.5	10.8	83	w.	3	.....	10	.....	.....	.....	.....	.....	.....	misty.....	.....
Queen of Cambria, Capt. M. Parry N. 36° 33′, W. 16° 23′	30.09	764.3	71	21.7	73	ssw.	2	.....	8	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Rosetta, Capt. A. E. Barlow N. 16° 49′, E. 62° 45′	29.90	759.4	79	26.1	78	n.	1	.....	0	.....	.....	.....	.....	.....	.....	blue sky.....	.....
Sierra Estrella, Capt. P. Murdoch,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. N. Gray, N. 14° 06′, W. 31° 20′ ‡..	30.01	762.2	82.0	27.8	81	calm	0	.....	3	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Strathleven, Capt. C. W. Pearson, N. 31° 43′, E. 131° 06′	29.95	760.7	79.5	26.4	91	ene.	3	.....	6	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, Agent, San Francisco.																	
S. S. Newbern, Capt. E. Rogers, Mazatlan, Mexico †.	29.78	756.4	79	26.1	82	ne.	2	.....	7	.....	.....	h'vy	h'vy	mod.	sse.	cloudy	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., Agents, New York.																	
S. S. Gallia, Capt. W. H. P. Hains	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.																	
S. S. Braunschweig, Capt. C. Pohle, N. 50° 03′, W. 12° 46′	29.49	749.0	61.0	16.1	94	ssw.	5	.....	10	.....	sw.	.....	.....	r'gh	sw.	cloudy.....	.....
S. S. Hermann, Capt. H. Baur N. 39° 18′, W. 70° 37′	29.66?	753.4?	70.7	21.5	.....	ne.	6	.....	8	.....	nw.	3 h'r	3 h'r	very high	e.	fine	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N. 50° 05′, W. 20° 30′	29.24	742.7	56.5	13.6	75	wsw.	6—7	.....	10	.....	wsw.	12 hrs	h'vy	cross	wsw.	stormy.....	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer.. N. 39° 45′, W. 63° 42′	30.00	762.0	77.0	25.0	84	s.	5	.....	5	.....	sse.	5 h'r	5 h'r	cross	se.	fair	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, N. 26° 35′, E. 122° 25′ †..	30.07	763.8	82	27.8	83	ese.	3	.....	2?	.....	se.	0	0	sm'h	.....	cloudy?.....	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, San Francisco, Cal *†..	29.89	759.2	63	17.2	78	ssw.	2	.....	3	.....	wnw.	.....	.....	.....	.....	foggy.....	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 48° 00′, W. 166° 00′	29.89	759.2	57	13.9	87	e.	2	.....	9	.....	e.	.....	.....	con.	sw.	cloudy.....	.....
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Otterendorp, Agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann N. 42° 27′, W. 124° 40′ *†..	30.08	764.0	54	12.2	87	sse.	3	.....	2	.....	ssw.	.....	.....	light	nw.	fair.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon, Capt. Pollmann N. 40° 26′, W. 124° 23′ †..	30.03	762.7	55	12.8	93	nw.	6	.....	0	.....	.....	.....	.....	r'gh	nw.	clear.....	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 33° 41′, W. 118° 14′ †..	29.90	759.4	58	14.4	94	ne.	1		0					sm'h		clear	J. N. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, Seattle, Wash Ter †..	30.02	762.5	58	14.4	94	calm	0		10							cloudy	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson,																	G. H. Harrison.
S. S. Senator. Capt. Wallace, Eureka, Cal †..	30.02	762.5	52	11.1	93	nw.	1		10							foggy	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal †..	29.93	760.2	51	10.6	93	sw.	3		10		w.					foggy	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 46° 20′, W. 124° 48′ †..	30.03	762.8	57	13.9	100	se.	2		10		se.			he'vy	se.	light rain	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. —— S. 10° 38′, W. 170° 41′	29.91	759.7	79	26.1	86	ene.	3		5?		e.			long	ne.	clear?	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W. †	29.85	758.2	62	16.7	88	w.	3		0			0	0			clear	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry.. N. 44° 31′, E. 171° 16′ †*..	30.07	763.8	52	11.1	66	wsw.	5		8		w.			mod.	w.	cloudy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 17° 21′, W. 101° 56′ †	29.93	760.2	82	27.8	91	nnw.	2		5		nnw.	0	0	long	w.	fine	
S. S. City of Sidney, Capt. H. C. Dearborn,																	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 29° 09′, E. 127° 17′ †..	30.07	763.8	81	27.2	83	ese.	3		10		ese.	0	0	sm'h		cloudy	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle,																	R. R. Searle.
S. S. Grenada, Capt. M. Connolly N. 7° 30′, W. 82° 36′ †....	29.90	759.4	83	28.3	96	ene.	2		10		e.	4 hr	4 hr	mod.	s.	raining	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 34° 26′, E. 168° 02′—	29.78	756.4	62	16.7	83	var.	2		2?		ne.			sm'h	ne.	cloudy?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 40° 33′, W. 65° 27′ †.	30.01	762.2	78	25.6		s.	3		2		sse.	0	0	r'gh	se.	fine	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 49° 48′, W. 10° 45′ †..	29.81	757.2	62	16.7	83	s.	5		2		ssw.	0.1	3.	mod.	ssw.	clear	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, England †..	29.65	753.1	59	15.0	100	n.	1		5		n.	0	0			fair	R. Horsfall.
S. S. Britannic, Capt. H. Perry																	
S. S. Celtic, Capt. B. Gleadell, N. 46° 31′, W. 47° 21′ †..	30.10	764.5	56	13.3		w.	4		2		wnw.	2 h'r	2 h'r	high	n.	fair	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, N. 40° 59′, W. 62° 44′ †.	30.17	766.3	74	23.3	90	se.	4		5		sw.	sh'rs	sh'rs	mod.	e.	showery	W. A. Ward.
S. S. Republic. Capt. P. J. Irving																	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass. †	29.91	759.7	61	16.1	100	ne.	6		10 n			0.05	1.3			raining	
Golden Fleece																	
Hassler, Lt. Com. Nichols, N. 52° 09′, W 131° 13′ *†..	29.97	761.2	50	10.0		calm	0		6					sm'h		foggy	W. Randall.
S. Iron Cross, Capt. Randall, N. 1° 55′, W. 24° 10′ *..	30.04	763.0	78.4	25.8	99	sse.	3-4		4		sse.	0	0	mod.	s.	misty	E. Fry.
S. Pawashick, Capt. E. Fry. N. 41° 52′, W. 46° 30′ *†..	30.19	766.8	66	18.9	79	nnw.	2-3		1		n.			h'vy	n.	very fine	
S. S. Proteus, Capt. Pike																	J. Green.
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †..	30.12	765.0	76	24.4	68	wsw.	4		5		wsw.	0	0			fair	

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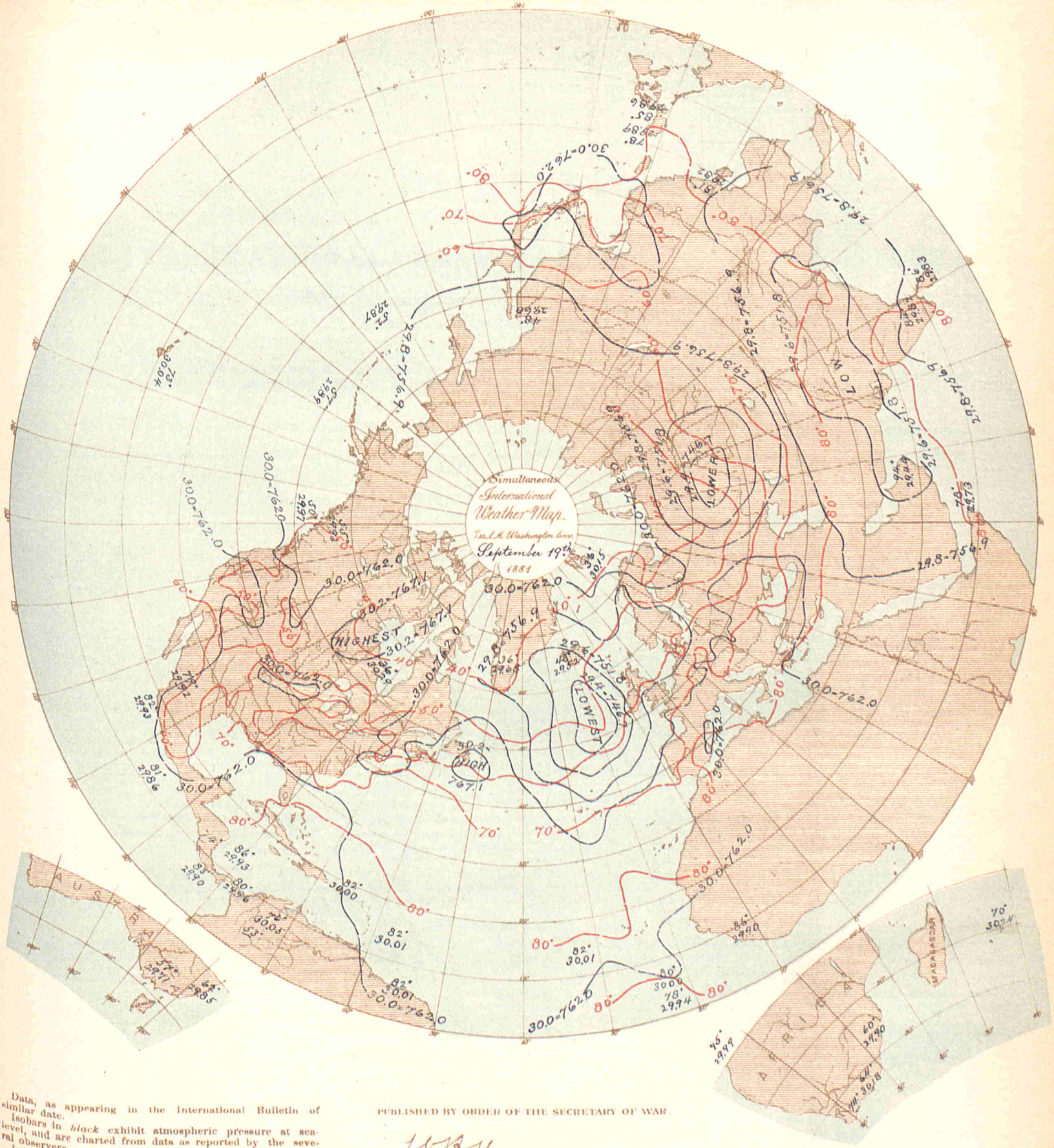
W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer. U. S. A.

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BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 20, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.97	761.1	84.7	29.3	59	calm			0		0			0	0	clear	Raynard.
Algiers ‡			29.95	760.6	81.7	27.6	74	nw.			3		10			inap.	inap.	covered	Nicolas.
La Calle ‡			29.95	760.6	85.6	29.8	71	n.			1		5			0	0	cloudy	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			29.96	761.0	96.8	36.0	14	sw.			3		2			inap.	inap.	fair	Dumas.
Tebessa ‡			29.99	761.8	91.8	33.2	11	nnw.			1		0			0	0	clear	Derché.
Geriville ‡					86.0	30.0	11	wsw.			7		0			inap.	inap.	clear	Lonchamp.
Laghouat ‡			30.02	762.5	91.8	33.2	14	e.			4		0			0	0	clear	Herbin.
Biskra ‡			30.02	762.4	95.4	35.2	26	nw.			1		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.68	753.9	29.77	756.1	44.3	6.8	74	wnw.	6	2.7			1			0.04	1.0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.38	746.2	29.91	759.6	72.7	22.6	65						3			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.12	739.7	29.87	758.7	63.7	17.6	78	wsw.	8.1	3.6			10			0.020	0.5		Dr. Wiersbicki.
Eperies	28.98	736.1	29.84	758.0	61.5	16.4	87	calm			0		10 8			0	0		Julius Mikolik.
Gratz ‡	28.70	729.0	29.92	759.9	65.3	18.5	82	w.			2		5			0	0		Andreas Rospini.
Hermannstadt	28.44	722.4	29.80	756.8	75.0	23.9	43	nw.			3		1			0.260	6.6		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.62	727.0	29.93	760.2	64.8	18.2	77	wsw.			2		5			1 228	31.2	cloudy	The Staff.
Lemberg	28.84	732.5	29.80	756.9	62.1	16.7	79	sw.			2		10			0.071	1.8		Dr. T. Stanecki.
Pola	29.83	757.7	29.94	760.5	74.7	23.7	74	se.			1		3			0	0		I. R. Hydrographic Office.
Szathmar	29.37	740.0	29.82	757.3	73.4	23.0	53	e.			2		5			0	0		Beicht Peter, S. J.
Szegedin	29.57	751.0	29.84	757.9	66.6	19.2	77	s.			1		8			0	0		Karl Stancel.
Trieste	29.87	758.6	29.97	761.2	73.4	23.0	68	nw.			1		8			0	0	cloudy	Secco.
Vienna	29.22	742.2	29.91	759.7	69.8	21.0	66	w.			2		1			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 22, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.71	754.6	29.80	756.9	55.1	12.8	87	sse.	16	7.2			5			0	0	blue sky	W. Boswell.
Armagh, Observatory	29.31	744.5	29.53	750.0	58.2	14.6	88	se.	23	10.3			10					raining	S. Call.
Bidston, Liverpool Obs'y			29.72	754.9	62.5	16.9	72	se.	23	10.3			6					d. clouds	John Hartnup.
Bolton, Sharples	29.21	741.9	29.73	755.1	64.3	17.9	65	sse.	12	5.4			7					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29.36	745.7	29.76	755.9	63.6	17.6	64	sw.			3		7			0.01	0.3	d. clouds	[A.S. J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.67	753.6	65.0	18.3	75	s.			0.4		7					d. clouds	John McLaren.
Chatham, School M. E.	29.74	755.4	29.87	758.7	64.8	18.2	80	sw.			2		7					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.39	746.5	29.61	752.1	61.0	16.1	88	sse.			6		9					overcast	The Staff.
Fort Napier, Natal	27.82	706.6	30.04	763.0	64.1	17.8	48	e.			2		5						Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.71	754.6	29.94	760.5	83.0	28.3	83	sw.			1		4					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.28	743.7	63	17.2	78	s.			4		10					raining	J. O'Donaghue.
Gibraltar, Mediterranean	29.95	760.7	30.01	762.2	78.6	25.9	84	w.			2		4					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.51	749.5	29.71	754.6	59.3	15.2	64	se.			7		6					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.65	753.1	29.82	757.4	66.0	18.9	75	sse.			1		10					overcast	The Staff.
Guernsey	29.52	749.8	29.73	755.1	62	16.7	85	se.			3		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.79	756.7	29.82	757.4	65.4	18.6	73	ne.	13	5.8			7					d. clouds	The Staff.
Leicester, Museum	29.35	745.5	29.58	751.3	65.0	18.3	68	s.			1		8					overcast	J. C. Smith.
Malta, Mediterranean	29.94	760.5	30.01	762.2	81.0	27.2	58	w.			1		1			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.87	758.7	29.91	759.7	85.0	29.4	75	s.			2		5					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.26	743.2	29.77	756.1	62.3	16.8	83	s.			3		9					d. clouds	John Mac Emali.
Oxford, Radcliffe Obs'y	29.56	750.8	29.78	756.4	64.5	18.1	70	sse.			5		6					squally	The Staff.
Plymouth	29.61	752.1	29.68	753.9	62.3	16.8	88	se.			4		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			29.75	755.6	53.8	12.1	81	sse.	22	9.8			6					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.76	755.9	29.82	757.4	78.0	25.6	49	ne.			2		6					d. clouds	Serg't W. H. Lyne.
Sheffield	29.52	749.8	29.78	756.4	64.0	17.8	82	sse.			2		5			0.05	1.3	d. clouds	W. F. Cooper.
Silloth Rectory	29.68	753.9	29.71	754.6	60.0	15.6	68	e.			4		8			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.77	756.1	63.1	17.3	66	sse.	22	9.8			10					misty	Rev. S. J. Perry.
Stratfield Turgiss	29.60	751.8	29.81	757.2	65.0	18.3	77	s.			3		8					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.54	750.3	29.55	750.6	65	18.3	78	se.			5		9					gloomy	W. Newcombe.
Valencia, Observatory	29.27	743.4	29.29	744.0	58.6	14.8	84	se.	27	12.1			10			blank	blank	overcast	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.58	751.3	29.62	752.3	61	16.1	95	n.	8	3.6			10 n			0.670	17.0	cloudy	H. J. Cundall, C. E.
Chatham, N. B. *	29.66	753.4	29.72	754.9	60	15.6	87	nw.	14	6.3		2 k	8 ks	nw.	nw.	0.02	0.5	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	29.82	757.4	29.84	757.9	52	11.1	86	w.	15	6.7		5 cs?	0	w.		0.28	7.1	clear?	J. McWilliams.
Fort Garry, Manitoba *	29.23	742.4	30.05	763.3	48	8.9	89	se.	4	1.8		5 k	5 ks	sw.	se.	0	0	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.51	749.5	29.63	752.6	65	18.3	90	nw.	10	4.5		0	8 ks		n.	0.851	21.6	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.70	754.4	30.02	762.5	60	15.6	70	n.	7	3.1		2 cs	8 k		nw.	0	0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.80	756.9	30.00	762.0	63	17.2	52	n.	8	3.6		0	2 ks		w.	0.20	5.1	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.41	747.0	30.10	764.5	53	11.7	93	ne.	11	4.9		2 k	0	n.		0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.36	745.7	30.05	763.3	58	14.4	100	n.	6	2.7		8 k	0	w.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.40	746.7	30.04	763.0	54	12.2	93	n.	1	0.4		8 k	hz.	w.		0	0	hazy	M. Payne.
Quebec, Quebec *	29.62	752.3	29.94	760.5	53	11.7	83	nw.			5	0	2 s		w.	0.38	9.7	fair	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.68	753.9	30.13	765.3	53	11.7	90	nw.	3	1.3		8 k	0	n.		0.15	3.8	cloudy	W. H. McIntyre.
Sangeen, Ontario *	29.34	745.2	30.04	763.0	58	14.4	90	se.	8	3.6			10 ks			0	0		K. Stewart.
St. Andrews, N. B.	29.69	754.1	29.74	755.4	60	15.6	92	nnw.	3	1.3		0	0			0.58	14.7	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	29.50	749.3	29.55	750.6	62	16.7	97	n.	8	3.6			10 n			0.57	14.5	light rain	T. C. Hill, C. E.
Toronto, Ontario *	29.67	753.6	30.05	763.3	61	16.1	87	nw.	6	2.7			10 ks		w.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	29.70	754.4	29.76	755.9	56	13.3	90	nw.	3	1.3		2 k	0	nw.		0.46	11.7	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.75	755.6	29.99	761.7	67	19.4	100	sw.					10 s			0.28	7.1	raining	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.19	766.8	30.22	767.6	64.5	18.1	94	e.	9.3	4.2		7 c	0			0.290	7.4		John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester *†	29.36	745.7			71.1	21.7	48	se.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai.	30.02	762.6	30.05	763.3	66.2	19.0	94	ne.	11.2	5.0			10 n			0.295	7.5	raining	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.82	757.3	29.86	758.5	57.9	14.4	91	ese.	7	3			10						Oversergent Fischer
Fanöe	29.89	759.1	29.91	759.6	62.4	16.9	84	wsw.			2		9						Overloerer Lauridsen
Godthaab, Greenland	29.63	752.5	29.67	753.6	36.0	2.2	82	ene.			3		9						S. Kleinschmidt.
Stykkisholm, Iceland	29.58	751.4	29.63	752.5	47.3	8.5	91	e.			6		10					raining	A. O. Thorlacius.
Thorshavn	29.80	757.0	29.84	757.9	51.4	10.8	77	e.	16	7			10						Overloerer Bergh.
Vestervig	29.81	757.2	29.90	759.5	58.5	14.7	86	calm			0		10						Loenrer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.17	740.9	29.79	756.6	81.0	27.2	50	se.			3	2 c	0			0	0	clear	M. Labroue, Director.
Alençon Normal School	29.30	744.2	29.85	758.2	66.6	19.2	98	se.			3	c	0	w.	w.	0	0		M. Nicot, Director.
Arras, Engineer School	29.60	751.9	29.85	758.2	68.9	20.5	72	se.					kn		se.				M. Klein, Commandant.
Avignon, Normal School	29.87	758.8	29.95	760.8	76.6	24.8	62	nw.			1					0	0		M. Giraud, Director.
Bar-sur-Seine	29.36	745.7	29.89	759.3	70.7	21.5	62	se.			1	0	5kn		ssw.	inap.	inap.	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.62	752.4	29.88	758.9	69.3	20.7	66	se.			1		8		se.	0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.04	737.7	29.91	759.6	69.1	20.6	68	e.			1		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.51	749.5	29.76	755.8	81.7	27.6	34	s.			1		5		sw.	0	0	cloudy	M. Rayet, Director.
Bourges, Normal School	29.24	742.7	29.77	756.1	77.9	25.5	48	e.			2		5		e.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.43	747.5	29.67	753.7	65.8	18.8	73	sse.			3		9		s.	0.039	1.0	stormy	M. de Rermaree, Dir.
Caen, Normal School	29.69	754.2	29.77	756.1	71.6	22	72	se.			2		5		s.	0	0	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					64.4	18.0	69	s.			2		5			0	0	cloudy	M. Jadot, Director.
Charleville, Normal School	29.43	747.4	29.92	760.0	69.4	20.8	90	s.			1		10		s.	0	0	covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.50	723.9	29.78	756.4	80.4	26.9	40	se.			1		2			0.035	0.9	¼ covered	M. Alluard, Director.
Cluny, Normal School	29.07	738.3	29.88	759.0	75.2	24	53	e.			1		0			0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.06	738.2	29.90	759.5	65.1	18.4	71	e.			1		2	e.	e.	0.559	14.2	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.42	690.4	29.84	758.0	73.8	23.2	35	n.			1	c	0			0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.89	733.8	30.03	762.8	79.5	26.4	48	sw.			2		8		sw.	0	0	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.16	740.6	29.89	759.3	73.4	23	53	nw.			1		k			0	0		M. Ablard, Director.
Guéret, Normal School	28.31	719.1	29.82	757.3	77.9	25.5	38	s.			1	0	2 s			0	0	slightly cl'dy	M. Rivoire, Director.
Lamballe, Normal School	29.48	748.7	29.74	755.5	65.8	18.8	73	sse.			4				sse.	1.669	42.4		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.61	752.0	29.71	754.6	66.2	19.0	72	se.			6		10	s.	se.	0	0	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.88	733.5	29.90	759.4	72.7	22.6	64	s.			1		2		s.	0.327	8.3	slightly cl'dy	M. André, Director.
Mans, Normal School	29.48	748.9	29.78	756.5	70.7	21.5	63	sse.			1		2		se.	0	0	slightly cl'dy	M. Piboen, Director.
Marseille, Observatory	29.67	753.5	29.93	760.1	77.9	25.5	58	s.			2		7		wsw.	0.028	0.7		M. Stephan, Director.
Montlouis l'Instituteur	24.83	630.6	29.95	760.6	62.6	17.0	92	sw.	7.4	3.3			7		nw.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.95	760.8	30.07	763.8	71.6	22	82	sse.			4		10		se.			light rain	M. Pourle, Director.
Nancy, Normal School	29.16	740.6	29.89	759.3	65.5	18.6	73	sw.			1	0	5 k			0.543	13.8	cloudy	M. Hasse.
Nantes, Observatory	29.60	751.7	29.76	755.8	75.7	24.3	60	se.			1-2		10 kn	sw.	sw.	0	0		M. Larocque, Director.
Nice	29.90	759.4	29.93	760.3	72.0	22.2	72	e.			3	1	1	e.	e.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	29.77	756.1	29.87	758.7	73.4	23.0	70	se.	9.4	4.2			6		ne.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	25.52	571.9			50.2	10.1							5		sw.	0	0	cloudy	Gen'l de Nansouty Dir.
Privas, Normal School					73.0	22.8	65	calm			0		2	n.	n.	0	0	slightly cl'dy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.14	638.5			57.9	14.4	63	s.			1	0	5 k			0.051	1.3	½ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	29.78	756.3	29.81	757.1	78.3	25.7	94	s.			2		0			0.197	5.0	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.54	750.4	29.75	755.6	72.7	22.6	71	n.			4		8		s.	0	0	¾ covered	M. Mouillot, Director.
Rodez, Normal School																			M. Rostel, Director.
Rouen, Normal School	29.82	757.3	29.90	759.5	68.0	20	81	sw.			1		5			0.59	15.	cloudy	M. Platrier, Director.
Saint Lô, Normal School	29.61	752.2	29.77	756.2	69.8	21	67	s.			4		5		sw.	0	0	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.72	754.9	29.89	759.1	70.3	21.3	62	se.			1		5	sw.	sse.	0	0		M. Renou, Director.
Toulouse, Observatory	29.18	741.1	29.90	759.4	78.4	25.8	50	sse.			4		8	w.		0	0	very cloudy	M Bailland, Director.
Tours	29.59	751.6	29.79	756.6	73.0	22.8	59	e.			2		5		w.	0.094	2.4	½ covered	M. de Tastes.
Versailles, Observatory	29.38	746.3	29.87	758.8	71.6	22.0	58	s.			1					0	0		Dr. A. Bérigny, Director.
Sub-Series. Paris, Montsouris Obs'y	29.61	752.1	29.90	759.5	71.4	21.9	63	sse.			2		7			0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.13	739.9	29.99	761.8	69.8	21.0	60	s.			1	1 cs	0			0	0	foggy	Prof. Dr. Hoh.
Berlin	29.74	755.5	29.91	759.8	65.3	18.5	61	nw.			1		8			0	0		Prof. Dr. Arndt.
Breslau	29.38	740.3	29.91	759.7	67.6	19.8	61	w.			2		7			0	0		Royal University Obs'y.
Carlsruhe	29.52	749.7	29.93	760.3	68.4	20.2	69	ese.			1		1	sw.		0.016	0.4		Albert Senz.
Cassel	29.22	742.3	29.95	760.6	66.9	19.4	74	ssw.			1		5	s.		0.165	4.2		Dr. H. Möhl.
Frankfort on the Main	29.60	751.7	29.95	760.7	67.8	19.9	67	ssw.			1		0			0	0		Physical Society.
Friedrichshafen	28.56	725.4	29.97	761.2	62.6	17.0	85	sw.			1		1	s.		0	0		Wilhelm, Chief Tel.
Hamburg	29.85	758.2	29.95	760.6	60.4	15.8	77	wsw.			3		5			0.106	2.7		E. Preller.
Kiel	29.87	758.7	29.89	759.1	61.5	16.4	77	nw.			2		10			0.008	0.2		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.54	750.4	29.96	760.9	65.1	18.4	69	nw.			2		8	w.		0.134	3.4		H. Leppig, Asst.
Magdeburg	29.74	755.5	29.93	760.2	67.8	19.9	59	wnw.			2	0	4 k		w.	0.020	0.5		Dr. Assmann.
Memel	29.72	754.9	29.77	756.1	45.7	7.6	75	ne.			1-2		10 n						Issermann.
Munich	28.18	715.8	30.04	763.1	68.2	20.1	58	sw.			1		3	w.		0.008	0.2		Central Station.
Neufahrwasser	29.78	750.3	29.79	750.7	59.7	15.4	85	nw.			5		10			0.067	1.7		A. Lothes.
Neustadt, Palatinate	29.42	747.2	29.95	760.6	68.2	20.1	72	calm			0		6	e.		0	0		Dicknether.
Stuttgart	29.00	736.5	29.80	758.5	68.9	20.5	70	ne.			1		4	w.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.48	723.4	29.94	760.5	68.0	20.0	58	calm			0		5	w.		0	0		Fischer.
Wustrow	29.89	759.3	29.92	759.9	59.7	15.4	86	wnw.			3	0	5 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.52	749.7	29.89	759.2	83.5	28.6		ne.			1.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.51	749.6	29.56	750.9	83.7	28.7	73	wsw.	18.0	8.0			3		wsw.	0	0	d. clouds	
Deesa	29.13	739.8	29.59	751.6	85.5	29.7	64	ssw.	17.2	7.7			6	sw.	sw.	0	0	d. clouds	
Bombay	29.69	754.1	29.73	755.0	82.1	27.8	81	w.	11.0	4.9			10		w.	0.18	4.6	overcast	
Poona, Yarrowda.	27.89	708.4	29.76	755.8	73.4	23 0	89	w.	11.0	4.9			10		w.	0.42	10.7	showery	
Belgaum	27.26	692.3	29.82	757.4	69.5	20.8	91	wsw.	8.0	3.6			10			0.50	12.7	showery	
Lahore	28.78	731.0	29.52	749.7	81.0	27.2	67	w.	2.5	1.1			10			0	0	threatening	
Roorkee	28.65	727.7	29.57	751.0	86.8	30.4	70	calm	1.8	0.8			4			0	0		
Agra	29.01	736.8	29.56	750.9	86.7	30.4	54	w.	4.3	1.9			0			0	0		
Nagpur	28.60	726.5	29.63	752.6	83.7	28.7	61	calm	4.6	2.1			5	w.		0	0	d. clouds	
Jubbulpore	28.30	718.8	29.65	753.0	79.8	26.6	75	nw.	3.5	1.6			4	n.		0	0	d. clouds	
Lucknow	29.19	741.5	29.56	750.9	86.1	30.1	67	wnw.	6.3	2.8			0			0	0	blue sky	
Allahabad	29.25	743.0	29.56	750.8	85.2	29.6	75	sw.	3.4	1.5			0			0	0	blue sky	
Patna	29.40	746.6	29.57	751.2	85.6	29.8	75	wnw.	4.9	2.2			4	wnw.	wnw.	0	0	d. clouds	
Hazaribagh	27.61	701.3	29.60	751.9	78.0	25.6	86	nw.	9.8	4.4			4			0	0		
Cuttack	29.53	750.0	29.61	752.1	85.0	29.4	78	calm	0.5	0.2			8			0	0	d. clouds	
Calcutta, Alipore	29.55	750.6	29.58	751.2	82.1	27.8	88	ese.	3.0	1.3			10		e.	0.36	9.1	overcast	
Dhubri	29.46	748.4	29.58	751.4	78.2	25.7	92	calm	3.5	1.6			1			1.20	30.5	d. clouds	
Chittagong	29.51	749.6	29.60	751.9	80.5	26.9	88	ssw.	3.7	1.6			10			0	0	overcast	
Sibsagar	29.29	743.9	29.62	752.3	83.2	28.4	82	ne.	1.9	0.8			10	w.	w.	0	0	d. clouds	
Jeypore	28.17	715.5	29.59	751.6	85.0	29.4	47	w.	5.5	2.5			4		w.	0	0	d. clouds	
Zanzibar, Africa			29.99	761.7	80.9	27.2	63	sse.	5	2.2			10			0.03	0.8	overcast	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.56	750.9	29.97	761.1	71.6	22.0	68	sw.	0.7	0.3			4			0.024	0.6		Prof. Giovanni Clodig.
Milan	29.46	748.3	29.97	761.2	73.8	23.2	55	s.	4.3	1.9			5	w.		0	0		Prof. Schiaparelli.
Padua	29.85	758.3	29.96	761.0	70.3	21.3	68	n.	3.8	1.7			7	sw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.05	737 8	29.94	760.4	73.2	22.9	64	se.	2.5	1.1			8	n.		0	0		Prof. P. F. Denza.
Genoa	29.81	757.1	30.00	761 9	71.6	22.0	74	se.	9.4	4.2			4	n.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.08	713.2	29.96	760.9	69.6	20.9	63	ene.			2		2			0	0		Prof. D. C. Bruno.
Pesaro	29.89	759.3	29.94	760.5	71.2	21.8	80	ne.					0			0	0		Prof. Luigi Guidi.
Florence	29.72	755.0	29.98	761.4	74.1	23.4	53	w.			2		6	wsw.		0	0		Prof. Costantino Pitter.
Leghorn	29.90	759.5	29.98	761.6	73.8	23.2	72	ssw.	0.7	0.3			3			0	0		Prof. P. Monte.
Rome	29.84	758.0	30.01	762.3	77.4	25.2	51	ssw.	13.6	6.1			5			0	0		Prof. P. S. Ferrari.
Lecce	29.71	754.5	29.96	760.9	83.5	28.6	36	se.	2.5	1.1			1			0	0		Prof. C. de Giorgi.
Cosenza	29.11	739.4	29.97	761.2	77.4	25.2	57	ese.	4.3	1.9			2	se.		0	0		Prof. D. Conti.
Cagliari	29.76	755.9	29.95	760.7	79.3	26.3	61	se.			2		10			0	0		Prof. A. Pacinotti.
Palermo	29.77	756.2	30.02	762.4	78.1	25.6	57	e.	6.9	3.1			3	nne.		0	0		Prof. G. Ciacciatore.
Syracuse	29.97	761.1	30.01	762.2	75.0	23.9	67	e.	3.1	1.4			0			0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.48	748.7	29.90	759.5	74.1	23.4	73	sw.	4.3	1.9			4	w.		0	0		Prof. F. Brioschi.
Stelvio	22.24	564.8			41.0	5.0	84	sw.			1	icks	0	s.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.29	566.1			50.7	10.4	71	w.			2	0	1 k	nw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.98	761.5	30.00	762.0	62.6	17.0	96	nne.	9.2	4.1			10 n			1.260	32.0	raining	K. Sasaki.
Kioto	29.83	757.7	30.00	762.0	67.6	19.8	90	nw.	2.2	1.0			10 n			0.710	18.0	raining	M. Tojima.
Nagasaki, I. M. Obs'y	29.76	755.9	29.96	761.0	68.4	20.2	83	ne.	4.8	2.1			10 s			1.570	39.9	overcast	S. Takehayashi.
Niigata	30.08	764.0	30.11	764.8	62.2	16.8	81	n.	4.3	1.9			10 n			1.135	28.8	raining	
Nobiru	30.05	763.3	30.06	763.5	62.1	16.7	92	n.	4.5	2.0			10 n			0.785	19.9	raining	
Sunporo	29.95	760.7	30.01	762.2	48.9	9.4	93	s.	5.4	2.4			3			0	0		
Tokei Obs'y, Yeddo	29.97	761.2	30.03	762.7	66.7	19.3	97	nne.	6.3	2.8			10 n			1.410	35.8	raining	The Staff.
Wakayama	29.93	760.2	29.98	761.5	71.5	21.9	78	n.				10 ck	0			0.350	8.9	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.99	761.7	30.19	766.7	71.7	22.1	55	e.	20.0	8.9		0	5		ese.	0	0	squally	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.72	602.5	29.94	760.5	50.9	10.5	68	calm	0	0		0	0			0	0	very fine	Vicente Fernandez.
Leon	24.47	621.4	30.22	767.6	53.4	11.9	78	n.			1	0	0			0	0	blue sky	Prof. M. Leal.
Mazatlan	29.68	753.8	29.94	760.3	79.0	26.1	89	e.	1.6	0.8		8 cs	1 k	calm	ese.	0	0	cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.16	588.4	30.28	769.2	44.6	7.0	76	calm	0	0		0	2 s			0	0	fine	The Staff.
Morelia	24.22	615.3	30.38	771.7	50.5	10.3	71	nw.			3	2	0	e.		0	0	clear	M. Tena, M. D.
Pabellon, Agnascalientes	24.00	609.6	30.05	763.2	52.5	11.4	66	w.			1	0	0			0	0	fine	M. V. de Leon, M. D.
Puebla, Catholic Institute	23.42	595.0	30.27	768.9	48.2	9.0	33	calm	0	0		0	0			0	0	very fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.61	574.3	30.24	768.3	50.0	10.0	44	ne.	5.1	2.3		0	0			0	0	fine	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.94	760.5	29.94	760.5	65 3	18.5		sse.			3					0.067	1.7		
Groningen	29.87	758.6	29.92	760.0	61.5	16.4		s.			1					0	0		
Helder	29.90	759.5	29.90	759.5	62.1	16.7		sse.			1					0	0		
Hellevoetsluis	29.92	760.0	29.92	760 0	67.0	19 8	74	sw.			2					0	0		
Utrecht	29.89	759.3	29.94	760 5	65.8	18.8	65	ssw.			1		5			0	0	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.83	757.6	29.89	759.2	57.9	14.4	90	calm	0	0			8			0.020	0.5	foggy	
Christiania	29.76	756.0	29.91	759.7	59.0	15.0	78	sw.	0	0			10			0.043	1.1		
Gjæsvær	30.15	765.7	30.17	766.3	39.7	4.3		sse.			7		0						
Lodingen	30.06	763.6	30.11	764.8	47.1	8.4	55	sse.			4		0			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.85	758.2	30.00	762.0	67.3	19.6	74	nw.	16.8	7.5			4			0	0		Dr. J. A. Sampaio.
Campo Major	28.94	735.0	29.91	759.7	71.6	22.0	53	ssw.	9.2	4.2			9			0.315	8.0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.97	761.1	30.05	763.3	77.0	25.0	62	wsw.	13.0	5.8			1			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.58	751.2	29.93	760.1	70.2	21.2	76	ssw.	23.7	10.6			9			0.165	4.2		The Staff.
Ponta Delgada, Azores	29.98	761.4	30.05	763.3	68.7	20.4	69	nw.	9.4	4.2			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.35	720.2	29.41	747.0	51.4	10.8	100	w.	31	14			10 n						Capt. Lasarew.
Archangel	30.06	763.6	30.08	764.1	36.1	2.3	66	n.	9	4		0	8 ks						Capt. Ssellwerstow.
Astrakhan	30.08	764.0	30.00	761.9	60.1	15.6	41	calm	0	0		0	0						Capt. Wisganow.
Barnaul ‡	28.98	736.0	29.45	747.9	71.1	21.7	38	s.	4	2			9					light clouds	Meteorological Obs'y.
Dorpat	29.61	752.2	29.86	758.5	43.2	6.2	87	ene.	18	8			10n;ks						Observatory.
Ekaterinburg	28.34	719.9	29.32	744.6	33.3	0.7	94	ne.	4	2			10					snowing	Meteorological Obs'y.
Kasan	29.40	746.8	29.68	753.8	41.4	5.2	31	nnw.	18	8		0	2 k						Observatory.
Kertch	29.91	759.7	29.93	760.2	69.1	20.6	64	ese.	4	2		0	1 k			0	0		Lagorio & Sastyres.
Kieff	29.04	737.6	29.65	753.0	70.0	21.1	56	wsw.	11	5		c;os;ck	7 ks						Observatory.
Lugan	29.67	753.6	29.87	758.7	66.6	19.2	39	wsw.	9	4			6						Meteorological Obs'y.
Moscow	29.21	741.9	29.69	754.1	42.1	5.6	94	se.	4	2			10 s					raining	Meteorological Obs'y.
Nikolaiev	29.81	757.2	29.88	759.0	74.5	23.6	58	s.	22	10		0	5 ks						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.53	750.0	29.61	752.2	44.4	6.9	69	w.			4	0	3 k			0.094	2.4		Lieut. Iwanow.
Pekin, China	30.07	763.7	30.21	767.3	66.7	19.3	67	se.	7	3		0	1 k			0	0		Physical Observatory.
St. Petersburg	29.97	761.2	29.98	761.6	44.4	6.9	41	e.	18	8		os	1 k						Central Physical Obs'y.
Tashkend, Laboratory	28.35	720.2	29.87	758.7	72.0	22.2	50	nw.	13	6			4						Teich, A. M.
Tiflis	28.58	725.9	29.93	760.3	76.1	24.5	44	se.	4	2		0	2 k						Physical Observatory.
Warsaw	29.37	746.1	29.79	756.7	60.3	15.7	91	nw.	7	3			10 n					raining	Astronomical Obs'y.
Wilna	29.22	742.1	29.63	752.5	60.8	16.0	86	sw.	2	1			10						Berg, Assistant.
Yeniseisk	29.30	744.3	29.58	751.4	56.3	13.5	57	sw.	2	1			3						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.76	755.9	62.8	17.1	67	sw.			2	0	8 k			0	0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.57	751.1	58	14.4	94	sse.			6		10			0	0	overcast	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.79	756.6	29.89	759.2	74.5	23.6	88	se.	3.1	1.4			9			0	0	hazy	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.71	754.6	29.76	756.0	70.9	21.6	66	s.	1.1	0.5		2	7	w.		0	0	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.94	684.3			67.1	19.5	53	sw.	11.4	5.1			10			0	0	covered	Domingo Martin.
Madrid, Royal Obs'y	27.72	704.1	29.86	758.4	75.2	24.0	39	sw.	15.2	6.8		0	9			0	0	almost cov'd	The Staff.
Murcia, Met. Obs'y ‡	29.79	756.6	29.93	760.2	86.2	30.1	47	ene.	2.2	1.0		2	3	w.		inap.	inap.	misty	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.71	729.1	29.57	751.0	61.9	16.6	94	ssw.	31.1	13.9			10			0.350	8.9	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.84	758.0	29.91	759.7	77.3	25.2	87	ssw.	2.5	1.2		20	1 k;s	sw.	w.	0.047	1.2	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.75	755.6	29.80	756.9	83.2	28.4	79	e.	4.4	2.0		0	1 s			0.28	7.0	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.93	760.1	30.02	762.5	74.8	23.8	61	w.	8.6	3.9			10		w.	0.013	0.3		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.95	760.6	30.04	762.9	81.0	27.2	91	s.	0	0		2 cs	1 k			0.858	21.8	clear	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.73	755.0	29.86	758.4	78.9	26.1	79	nnw.	3.6	1.6		0	0			0	0	very fair	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.27	768.8	30.31	769.8	41.0	5.0	51	e.			4		0			0	0		
Umea	30.17	766.2	30.22	767.5	43.5	6.4	79	e.			6		5			0	0		
Hernosand	30.11	764.8	30.16	766.1	41.9	5.5	89	ene.			4		10			1.193	30.3		
Stockholm	29.72	754.8	29.89	759.3	53.1	11.7	93	nne.			4		10			0.004	0.1	raining	
Wisby	29.73	755.1	29.79	756.0	55.4	13.0	89	nne.			6		7			0.303	7.7		
Sub-Series.																			
Upsala	29.81	757.2	29.90	759.4	53.1	11.7	84	nne.	10.5	4.7			10		nne.	0.024	0.6		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.55	725.2	29.95	760.7	63.3	17.4	76	n.			2		1			0	0	clear	The Observatory.
Zurich ‡	28.35	720.1	29.95	760.7	60.9	19.4	71	w.			1		0			0	0	clear	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.89	759.2	72.0	22.2	58	nne.	18	8.0			7		ne.	0	0		The Observatory.
Valona			30.05	763.2	76.6	24.8		nw.			1		0			0	0	clear	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.81	757.2	86.9	30.5	54	wsw.			2	0	3 k		w.	0	0		Prof. C. V. A. van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		

UNITED STATES SERIES.
By authority of the Secretary of War.
Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

Albany, New York	29.92	760.0	30.00	762.0	61	16.1	78	n.	1	0.4		sk.	sk.			inap.	inap.	dense smoke.	
Alpena, Michigan	29.47	748.5	30.11	765.5	56	13.3	80	ne.	8	3.6		10 cs	0			0	0	cloudy	
Atlanta, Georgia	28.91	734.3	30.09	764.3	65.0	18.3	84	nw.	4	1.8		0	0			0.04	1.0	clear	
Atlantic City, New Jersey	29.98	761.5	29.90	761.7	66.7	19.3	90	n.	4	1.8		5 c	0	calm		0	0	fair	
Augusta, Georgia	29.88	758.9	30.07	763.8	69.0	20.6	84	calm	0	0			10 s			0	0	cloudy	
Baltimore, Maryland	29.98	761.5	30.03	762.7	71	21.7	82	n.	5	2.2		5 ck	5ks;fg	w.	w;calm	0	0	cloudy	
Barnegat, New Jersey	29.96	761.0	29.98	761.5	65.0	18.3	78	nw.	9	4.0		2 c	hz.	calm	calm	0	0	clear	
Bismarck, Dakota	28.07	713.0	29.90	759.4	55	12.8	80	e.	12	5.4			10 s		se.	0	0	cloudy	
Boise City, Idaho	27.20	690.9	30.04	763.0	45.0	7.2	71	nw.	4	1.8		0	0			0	0	clear	
Boston, Massachusetts	29.76	755.9	29.92	760.0	62.0	16.7	78	w.	7	3.1		0	hz.			inap.	inap.	clear	
Brackettville, Texas	28.88	733.5	29.92	760.0	63	17.2	73	calm	0	0		0	1 s		calm	0	0	clear	
Brownsville, Texas	29.98	761.5	30.02	762.5	66	18.9	90	calm	0	0		0	0			0	0	clear	
Buffalo, New York	29.33	745.0	30.05	763.3	65.1	18.4	65	sw.	4	1.8		7 ck	sk.	nw.		0	0	dense smoke.	
Burlington, Vermont	29.70	754.4	29.99	761.7	59.0	15.0	81	n.	10	4.5			10 s		n.	inap.	inap.	cloudy	
Cairo, Illinois	29.70	754.4	30.10	764.5	62.6	17.0	92	n.	3	1.3		0	fg			0	0	clear	
Campo, California																			
Camp Thomas, Arizona	27.20	690.9			60	15.6	87	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	29.99	761.7	30.01	762.2	75	23.9	76	nw.	8	3.6		7 c	0			0	0	fair	
Cape May, New Jersey	29.97	761.2	29.99	761.7	72	22.2	82	n.	8	3.6			fg.			0	0	dense fog	
Castroville, Texas	29.26	743.2	29.97	761.2	58	14.4	75	nw.	4	1.8		4 c	0			0	0	fair	
Cedar Keys, Florida	29.97	761.2	29.99	761.7	72	22.2	82	ne.	12	5.4		3 ck	0	ne.		0	0	fair	
Champaign, Illinois	29.18	741.2	29.96	761.0	59.3	15.2	96	se.	4	1.8		0	0			0	0	clear	
Charleston, S. Carolina	29.99	761.7	30.05	763.3	71	21.7	76	n.	3	1.3		8 ck	0	sw.		0	0	cloudy	
Charlotte, N. Carolina	29.18	741.2	30.06	763.5	68	20.0	90	nw.	2	0.9		10 c;k	0	calm		0	0	cloudy	
Chattanooga, Tennessee	29.28	743.7	30.11	764.8	65	18.3	100	nw.	1	0.4			fg.		calm	0.03	0.8	dense fog	
Cheyenne, Wyoming	24.08	611.6	30.05	763.3	50.1	10.1	61	nw.	4	1.8		0	0			0	0	clear	
Chicago, Illinois	29.33	745.0	30.04	763.0	53.5	11.9	92	nw.	8	3.6			fg.			0	0	dense fog	
Chincoteague, Virginia	29.98	761.5	30.00	762.0	70	21.1	90	ne.	5	2.2		2 cs	sk.	calm	calm	0	0	dense smoke	
Cincinnati, Ohio	29.44	747.8	30.10	764.5	64	17.8	90	se.	2	0.9			fg.			0	0	dense fog	
Cleveland, Ohio	29.34	745.2	30.08	764.0	56.7	13.7	85	se.	9	4.0		4 k	fg.	w.		0	0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.23	742.4	30.09	764.3	56	13.3	86	ne.	1	0.4		0	0			0	0	clear	
Concho, Texas	28.16	715.3	30.10	764.5	53	11.7	74	nw.	4	1.8		0	0			0	0	clear	
Corsicana, Texas	29.61	752.1	30.08	764.0	66	18.9	58	se.	1	0.4		0	0			0	0	clear	
Davenport, Iowa	29.39	746.5	30.05	763.3	57	13.9	86	ne.	5	2.2		0	sk.		calm	0	0	clear	
Dayton, Washington T'y	28.30	718.8	30.11	764.8	42.0	5.6	82	se.	2	0.9		0	0			0.05	1.3	clear	
Deadwood, Dakota	25.28	642.1	29.98	761.5	53	11.7	77	calm	0	0			9 ks			0.25	6.3	cloudy	
Decatur, Texas	28.93	734.8	30.09	764.3	65	18.3	43	se.	6	2.7		0	0			0	0	clear	
Delaware Breakwater, Del.	29.97	761.2	29.99	761.7	72	22.2	84	n.	11	4.9			fg.			0	0	dense fog	
Denison, Texas	29.26	743.2	30.07	763.8	66	18.9	68	sw.	4	1.8		0	0			0	0	clear	
Denver, Colorado	24.75	628.6	29.97	761.2	57.5	14.2	48	s.	10	4.5		6 ck	c	sw.		0	0	fair	
Des Moines, Iowa	29.11	739.4	30.02	762.5	60	15.6	93	se.	4	1.8			fg.			0	0	dense fog	
Detroit, Michigan	29.34	745.2	30.06	763.5	65.0	18.3	84	s.	4	1.8		4 k	0	w.		0	0	fair	
Dodge City, Kansas	27.37	695.2	29.96	761.0	61.7	16.5	59	s.	11	4.9		0	1 s			0	0	clear	
Dubuque, Iowa	29.36	745.7	30.08	764.0	54.3	12.4	86	ne.	2	0.9		0	fg.		calm	0	0	clear	
Duluth, Minnesota	29.45	748.0	30.16	766.1	52	11.1	86	ne.	20	8.9			10 s		ne.	0	0	cloudy	
Eagle Pass, Texas	29.28	743.7	30.11	764.8	63.0	17.2	68	calm	0	0		0	0			0	0	clear	
Eagle Rock, Idaho	25.24	641.1	30.09	764.3	54	12.2	40	s.	16	7.2		0	6 s		sw.	0	0	fair	
Eastport, Maine	29.69	754.1	29.76	755.9	61.5	16.4	86	nw.	11	4.9		0	2 s		nw.	0.41	10.4	clear	
El Paso, Texas	26.29	667.8	30.04	763.0	65.4	18.6	54	calm	0	0		0	2 s			0	0	clear	
Erie, Pennsylvania	29.34	745.2	30.06	763.5	58	14.4	80	s.	4	1.8		4 k	0			0	0	fair	
Escanaba, Michigan	29.48	748.8	30.14	765.5	48	8.9	86	n.	13	5.8			10 s		n.	0	0	cloudy	
Florence, Arizona	28.47	723.1	30.07	763.8	68	20.0	61	s.	3	1.3		1 k	0			0	0	clear	
Fort Apache, Arizona																			
Fort Assinnaboine, Montana	27.09	688.1	29.90	759.4	46	7.8	63	s.	10	4.5		0	4 s		sw.	0	0	fair	
Fort Bennett, Dakota	28.23	717.0	29.77	756.1	56	13.3	93	s.	18	8.0			10 s		s.	0	0	cloudy	
Fort Benton, Montana	27.11	688.6	29.97	761.2	43	6.1	60	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	27.93	709.4	29.94	760.5	45	7.2	100	nw.	5	2.2		5 cs	0	e.		0.10	2.5	fair	
Fort Custer, Montana	26.78	680.2	30.02	762.5	50	10.0	59	nw.	2	0.9			10 s		calm	0	0	cloudy	
Fort Davis, Texas	24.97	634.2	29.93	760.2	58	14.4	72	calm	0	0		0	0			0	0	clear	
Fort Elliott, Texas	27.29	693.2	30.48	774.2	61	16.1	62	s.	8	3.6		8 k	0	s.		0	0	fair	
Fort Gibson, Indian T'y	29.48	748.8	30.03	762.7	56.1	13.4	62	calm	0	0		hz.	0			0	0	clear	
Fort Grant, Arizona					58	14.4	83	n.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas																			
Fort Keogh, Montana	27.40	695.9	29.94	760.5	49	9.4	86	nw.	1	0.4		4 c	0			0.20	5.1	fair	
Fort Macon, North Carolina	30.02	762.5	30.03	762.7	70	21.1	71	nw.	10	4.5		0	9 k;s		s.	0	0	cloudy	
Fort McKavett, Texas	27.84	707.1	29.75	755.6	56.1	13.4	63	calm	0	0		0	0			0	0	clear	
Fort Missoula, Montana	26.74	679.2	30.26	768.6	38	3.3	92	nw.	1	0.4			10 s			0.01	0.3	cloudy	
Fort St. Michaels	29.87	758.7	29.90	759.4	48	8.9	100	n.	4	1.8			10 n			0.13	3.3	light rain	
Fort Shaw, Montana	26.32	668.5	29.92	760.0	46	7.8	63	sw.	10	4.5		8 cs	0	calm		0	0	cloudy	
Fort Sill, Indian Territory	28.82	732.0	30.07	763.8	61.5	16.4	80	calm	0	0		0	0			0	0	clear	
Fort Stevenson, Dakota	28.01	711.4	29.88	758.9	48	8.9	93	e.	8	3.6			10 s		e.	0.13	3.3	cloudy	
Fort Verde, Arizona					56.2	13.4	51	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.32	719.3	29.77	756.1	60	15.6	67	nw.	2	0.9		7 cs	0			0	0	fair	
Galveston, Texas	29.98	761.5	30.02	762.5	71	21.7	80	nw.	4	1.8		hz.	0			0	0	dense haze	
Grand Haven, Michigan	29.35	745.5	30.02	762.5	57.5	14.2	90	n.	5	2.2		0	0			0	0	clear	
Hatteras, North Carolina	30.00	762.0	30.02	762.5	72	22.2	82	n.	1	0.4		4 cs	2 s			0	0	fair	
Helena, Montana	25.76	654.3	30.15	765.8	46	7.8	76	sw.	4	1.8		2 k	0	calm		0	0	fair	
Henrietta, Texas	28.97	735.8	29.85	758.2	74	23.3	71	s.	2	0.9		0	0			0	0	clear	
Huron, Dakota	28.54	724.9	29.93	760.2	51.2	10.7	96	se.	7	3.1		5 cs	0			0	0	fair	
Indianapolis, Indiana	29.24	742.7	30.04	763.0	62	16.7	84	s.	1	0.4		0	fg.		calm	0	0	clear	
Indianola, Texas	30.00	762.0	30.03	762.7	68.5	20.3	90	n.	6	2.7		0	hz.			0	0	clear	
Jacksboro, Texas	28.90	734.0	30.00	762.0	65	18.3	63	sw.	2	0.9		0	0			0	0	clear	
Jacksonville, Florida	29.96	761.0	30.00	762.0	71	21.7	84	ne.	6	2.7		2 cs	0			0.58	14.7	clear	
Keokuk, Iowa	29.35	745.5	30.01	762.2	61.6	16.4	92	calm	0	0		0	fg.			0	0	dense fog	
Key West, Florida	29.88	758.9	29.91	759.7	82.0	27.8	82	w.	12	5.4		2 c	7 ks		w.	0.59	15.0	cloudy	
Kittyhawk, North Carolina	30.00	762.0	30.02	762.5	68	20.0	73	n.	4	1.8		7 cs	0	w.		0	0	cloudy	
Knoxville, Tennessee	29.10	739.1	30.14	765.5	62	16.7	100	calm	0	0			fg.		calm	0	0	dense fog	
La Crosse, Wisconsin	29.28	743.7	30.05	763.3	57	13.9	69	ne.	3	1.3		0	7 s			0	0	fair	
La Mesilla, New Mexico	26.18	665.0	30.33	770.4	54.0	12.2	80	calm	0	0		0	0			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	29.12	739.6	30.02	762.5	60	15.6	75	calm	0	0		0	0			0	0	clear	
Lewiston, Idaho	29.20	741.7	30.05	763.3	46	7.8	68	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.75	755.6	30.07	763.8	62	16.7	84	e.	1	0.4		0	sk.			0	0	clear	
Los Angeles, California	29.61	752.1	29.99	761.7	50.1	10.1	93	nw.	1	0.4		0	fg.		calm	0	0	fair	
Louisville, Kentucky	29.50	749.3	30.07	763.8	64.5	18.1	93	s.	1	0.4		0	0			0	0	clear	
Lynchburg, Virginia	29.36	745.7	30.06	763.5	71	21.7	79	calm	0	0			10 s			0	0	cloudy	
Madison, Wisconsin	29.06	738.1	30.09	764.3	50	10.0	86	n.	6	2.7		0	0			0	0	clear	
Marquette, Michigan	29.46	748.3	30.19	766.8	48	8.9	93	n.	4	1.8			10 s		calm	0	0	cloudy	
Mason, Texas	28.43	722.1	30.19	766.8	56	13.3	80	sw.	1	0.4		0	0			0	0	clear	
Memphis, Tennessee	29.76	755.9	30.10	764.5	65	18.3	72	calm	0	0		hz.	sk.	calm	calm	0	0	dense smoke.	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.32	744.7	30.08	764.0	53	11.7	93	nw.	14	6.3			fg			0	0	dense fog	
Mobile, Alabama	29.97	761.2	30.04	763.0	68.0	20.0	90	n.	5	2.2		0	0			0	0	clear	
Montgomery, Alabama	29.84	757.9	30.07	763.8	68	20.0	93	calm	0	0		0	0			inap.	inap.	clear	
Moorhead, Minnesota	29.00	736.6	30.02	762.5	48	8.9	93	se.	8	3.6		10 cs	0	se.		0	0	cloudy	
Morgantown, W. Virginia	29.10	739.1	30.07	763.8	63.3	17.4	89	calm	0	0			fg			0	0	dense fog	
Mt. Washington, N. H.	23.75	603.2	29.95	760.7	43.0	6.1	96	nw.	60	26.8			fg		nw.	0	0	dense fog	
Nashville, Tennessee	29.55	750.6	30.09	764.3	62.8	17.1	91	nw.	2	0.9		0	fg			0	0	dense fog	
New Haven, Connecticut	29.84	757.9	29.95	760.7	63	17.2	63	n.	4	1.8		0	sk			0	0	dense smoke	
New London, Connecticut	29.89	759.2	29.94	760.5	67	19.4	78	calm	0	0		0	0			0.02	0.5	clear	
New Orleans, Louisiana	29.96	761.0	30.02	762.5	73.0	22.8	76	ne.	8	3.6		1 ck	0			0.17	4.3	clear	
Newport, Rhode Island	29.89	759.2	29.94	760.5	64.0	17.8	87	n.	3	1.3		1 c	hz	calm		0.02	0.5	dense haze	
New River, N. Carolina					66	18.9	78	nw.			1		10 s			0	0	cloudy	
New Shoreham, Rhode I'd	29.91	759.7	29.94	760.5	64.2	17.9	90	nw.	8	3.6		4 cs	sk	calm	calm	0	0	fair	
New York, New York	29.82	757.4	30.00	762.0	65	18.3	63	nw.	4	1.8		4 cs	fg			0	0	fair	
Norfolk, Virginia	29.98	761.5	30.00	762.0	69	20.6	84	nw.	3	1.3			10s;sk			0	0	cloudy	
North Platte, Nebraska	26.99	685.5	29.93	760.2	49	9.4	91	e.	3	1.3		0	fg			0	0	dense fog	
Olympia, Washington T'y	29.92	760.0	29.96	761.0	54.0	12.2	93	s.	3	1.3			10 s		calm	0.39	9.9	cloudy	
Omaha, Nebraska	28.80	731.5	29.99	761.7	59	15.0	93	se.	4	1.8		0	0			0	0	clear	
Oswego, New York	29.69	754.1	30.02	762.5	62.0	16.7	87	ne.	6	2.7		3 cs	sk	nw.		inap.	inap.	fair	
Pensacola, Florida	30.00	762.0	30.03	762.7	69	20.6	93	ne.	5	2.2		0	0			0.26	6.6	clear	
Philadelphia, Pa	29.97	761.2	30.03	762.7	69	20.6	66	n.	9	4.0		0	fg			0	0	clear	
Phœnix, Arizona	28.80	731.5	30.55	776.0	70	21.1	76	e.	2	0.9		0	0			0	0	clear	
Pike's Peak, Colorado	17.94	455.7	30.15	765.8	30	— 1.1	61	sw.	34	15.2		8 cs	0			0	0	fair	
Pioche, Nevada	24.08	611.6	30.10	764.5	57	13.9	23	s.	8	3.6		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.29	744.0	30.11	764.8	57.8	14.3	86	w.	3	1.3			fg		calm	0	0	dense fog	
Port Eads, Louisiana	30.00	762.0	30.01	762.2	77.0	25.0	86	n.	10	4.5		2 c	4 s	n.	n.	0	0	fair	
Port Huron, Michigan	29.36	745.7	30.05	763.3	60.3	15.7	85	nw.	1	0.4		10 cs	0	calm		0	0	cloudy	
Portland, Maine	29.83	757.7	29.88	758.9	62.5	16.9	78	nw.	5	2.2		0	3 s; fg		calm	0	0	fair	
Portland, Oregon	29.96	761.0	30.03	762.7	53.3	11.8	89	s.	5	2.2			10 s		s.	0.16	4.1	cloudy	
Portsmouth, N. Carolina					73	22.8	76	w.	6	2.7		10 c	0	calm		0	0	cloudy	
Prescott, Arizona	24.81	630.2	30.00	762.0	48	8.9	80	w.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	29.86	758.4	29.87	758.7	74.5	23.6	90	ne.	14	6.3			10 n		ne.	0.45	11.4	light rain	
Red Bluff, California	29.57	751.1	29.91	759.7	54.5	12.5	52	nw.	1	0.4		0	0			0	0	clear	
Rio Grande City, Texas	29.86	758.4	30.07	763.8	61	16.1	87	calm	0	0		0	0			0	0	clear	
Rochester, New York	29.40	746.7	30.04	763.0	58	14.4	81	sw.	5	2.2		1 ck	sk	nw.		0	0	dense smoke	
Roseburg, Oregon	29.48	748.8	30.06	763.5	48.5	9.2	91	sw.	2	0.9			10 ks			0.01	0.3	cloudy	
Sacramento, California	29.85	758.4	29.94	760.5	55.5	13.1	74	se.	8	3.6		0	0			0	0	clear	
St. Louis, Missouri	29.43	747.5	30.04	763.0	66.9	19.4	63	s.	6	2.7		0	sk			0	0	clear	
St. Paul, Minnesota	29.19	741.4	30.07	763.8	54.6	12.6	85	e.	8	3.6		0	9 k		e.	0	0	cloudy	
Salt Lake City, Utah	25.57	649.5	29.90	759.4	50	10.0	35	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.37	746.0	30.07	763.8	58.4	14.7	87	calm	0	0		0	0			0	0	clear	
San Diego, California	29.83	757.7	29.90	759.4	62.6	17.0	78	n.	4	1.8			10 s			0	0	cloudy	
Sandusky, Ohio	29.36	745.7	30.05	763.3	60	15.6	70	sw.	7	3.1		0	0			0	0	clear	
Sandy Hook, New Jersey	29.95	760.7	29.98	761.5	67.1	19.5	73	nw.	7	3.1		5 k	fg	nw.	calm	0	0	fair	
San Francisco, California	29.91	759.7	29.97	761.2	53	11.7	96	sw.	24	10.7		0	fg		sw.	0	0	fair	
Santa Fé, New Mexico	23.36	593.3	30.16	766.1	49	9.4	68	ne.	3	1.3		0	3 k		calm	0	0	fair	
Savannah, Georgia	29.95	760.7	30.04	763.0	71	21.7	90	n.	3	1.3			10 ks		ne.	0	0	cloudy	
Shreveport, Louisiana	29.83	757.7	30.06	763.5	59.7	15.4	87	calm	0	0		0	0			0	0	clear	
Silver City, New Mexico	24.35	618.5	29.92	760.0	51	10.6	59	nw.	3	1.3		0	0			0	0	clear	
Sitka, Alaska	29.92	760.0	29.99	761.7	52	11.1	66	n.	15	6.7		0	0			0	0	clear	
Smithville, North Carolina	30.02	762.5	30.06	763.5	63	17.2	84	n.	6	2.7		0	9 k		ne.	0	0	cloudy	
Spokane Falls, Wash. Ter.	27.97	710.4	29.99	761.7	43	6.1	93	nw.	1	0.4			10 s			0.02	0.5	cloudy	
Springfield, Illinois	29.33	745.0	30.02	762.5	63.0	17.2	68	sw.	4	1.8		0	sk			0	0	dense smoke	
Springfield, Massachusetts	29.83	757.7	29.95	760.7	58.0	14.4	93	calm	0	0			fg			0	0	dense fog	
Stockton, Texas	27.03	686.5	30.10	764.5	63.2	17.3	68	se.	12	5.4		0	8 s		se.	0	0	fair	
St. Vincent, Minnesota	29.19	741.4	30.08	764.0	46	7.8	100	se.	2	0.9			10 n		calm	0.01	0.3	heavy rain	
Thatcher's Island, Mass	29.87	758.7	29.92	760.0	64.3	17.9	90	nw.	1	0.4		0	hz			0.28	7.1	clear	
Toledo, Ohio	29.35	745.5	30.05	763.3	61	16.1	78	se.	5	2.2		3 ck	0	sw.		0	0	clear	
Tucson, Arizona	27.50	698.5	29.86	758.4	73	22.8	64	se.	4	1.8		0	0			0	0	clear	
Umatilla, Oregon	29.68	753.9	30.09	764.3	47.0	8.3	86	e.	2	0.9		0	1 s		calm	0.07	1.8	clear	
Uvalde, Texas	29.10	739.1	29.92	760.0	59	15.0	70	calm	0	0		0	0			0	0	clear	
Vicksburg, Mississippi	29.80	756.9	30.06	763.5	69	20.6	84	e.	5	2.2		0	0			0	0	clear	
Visalia, California	29.54	750.3	29.90	759.4	48.5	9.2	70	nw.	2	0.9		0	0			0	0	clear	
Washington, D. C.	29.93	760.2	30.04	763.0	70	21.1	84	nw.	2	0.9		8cs;ck	fg.	nw.		0	0	cloudy	
Wickenburg, Arizona					60	15.6	78	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	29.98	761.5	30.04	763.0	67	19.4	73	n.	4	1.8		4 c; ck	0	calm		0	0	fair	
Winnemucca, Nevada	25.60	650.2	29.93	760.2	35	1.7	53	s.	4	1.8		0	0			0	0	clear	
Wood's Holl, Mass	29.89	759.2	29.92	760.0	65	18.3	90	nw.	6	2.7		0	hz.			inap.	inap.	dense haze	
Yankton, Dakota	28.62	726.9	29.94	760.5	55	12.8	93	e.	5	2.2			10 s			0	0	cloudy	
Yuma, Arizona	29.70	754.4	29.84	757.9	79.8	26.6	88	se.	15	6.7		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	30.01	762.2	30.03	762.7	82	27.8	91	ne.	5	2.2		5 k	5 ks	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.09	561.1			51.0	10.6	82	s.	1	0.4		5 k	2 s;n	w.		0.01	0.3	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.92	760.0	29.92	760.0	82	27.8	87	e.				0	2 k		e.	0	0	clear	B. Bigar.
Havana, Cuba, W. I.	29.89	759.2	29.94	760.5	80	26.7	82	calm	0	0		2 cs	2 ks	calm	calm	0.10	2.5	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.97	761.2	29.98	761.5	77.8	25.4	90	calm	0	0		5 cs	5 ks		e.	0	0	cloudy	Robert Johnstone.
Navassa, W. I.	29.87	758.7	29.95	760.7	81	27.2	87	e.	10	4.5		8 cs; k	2 k	e.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	30.04	763.0	30.04	763.0	81	27.2	83	se.			3	3 c	2 k			0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.48	748.8	30.04	763.0	79	26.1	89	calm			0	5 c	5 s	s.	calm	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24		calm			0	2 ck	0	nw.		0	0		Earl Flint.
Santiago de Cuba, W. I.	29.98	761.5	30.01	762.2	80	26.7	82	calm	0	0		2 ck	0			0.11	2.8	fair	Robert Mason.
St. Thomas, W. I.‡	30.01	762.2	30.02	762.5	82	27.8	79	e.	6	2.7		0	3 ks		e.	0.04	1.0	clear	G. O. Gyllich.
York Factory, B. A.	30.15	765.8	30.20	767.1	37.0	2.8	95	se.	10	4.5			10 s		se.	0.01	0.3	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Friday Island, Torres St	29.91	759.7	76.2	24.6	89	ese.			2		2							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibralter, Mediterranean	30.18	766.6	71	21.7	80	nnw.			1		2	wsw.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.90	759.4	68	20.0		nne.			2		1							blue sky	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 27° 36′, W. 65° 30′	30.07	763.8	83	28.3	87	sse.			4		4					2	sse.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.98	761.5	71	21.7	85	calm			0		10	calm						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, S. 9° 25′, W. 80° 30′	30.03	762.7	67	19.4	84	se.			4		8	se.				4	se.	d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A, T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.85	758.2	80	26.7		sw.			1		1	calm				2	wsw.		Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 17° 20′, W. 4° 12′	30.21	767.3	66	18.9		ene.			3		9	ese.				2	ese.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	29.97	761.2	76	24.4	81	sse.			4–5		9	sse.						squally	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	29.64	752.8	66.5	19.2	97	ssw.			2		7	sw.						showery	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.51	749.5	94	34.4		nw.			1		5	nw.				1	n.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 11° 56′, E. 79° 50′	29.73	755.1	85	29.4		sw.			1–2		10					5	sw.	overcast	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 2° 08′, E. 62° 26′	29.87	758.7	81	27.2	82	se.			4		1	se.				3	se.	blue sky	Capt. R. D. King.
H. M. S. Falcon, N. 35° 48′, E. 10° 19′	29.90	759.4	78	25.6		e.			2		2					1	ese.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 12° 32′, W. 81° 44′	29.96	761.0	84	28.9	87	e.			1										Comm. R. N. Custance.
H. M. S. Flying Fish, Okosiri, Yezo, Japan	30.01	762.2	62	16.7	77	nw.			2		4	nw.				2	wnw.	misty	Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 19° 44′, W. 155° 04′	30.03	762.7	72	22.2	80	w.			1		8							showery	Comm. E. G. Bourke.
H. M. S. Garnet, N. 35° 08′, W. 56° 40′	29.94	760.5	61	16.1	88	ne.			4		10					2	n.	overcast	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 29′, W. 77° 54′	29.99	761.7	80	26.7	82	calm			0		2							d. clouds	Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, S. 2° 00′, E. 167° 30′	29.82	757.4	84	28.9	71	e.			4		4	e.				2	e.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 37° 57′, E. 141° 24′	30.06	763.5	64	17.8		nw.			1–2			nw.				4	nw.	raining	Capt. R. E. Tracey.
H. M. S. Kestrel, Canton, China *†	29.87	758.7	88	31.1							4	w.						d. clouds	Capt. W. M. Lang.
H. M. S. Kingfisher, S. 5° 05′, W. 81° 05′	30.04	763.0	64	17.8		calm			0		5	calm						d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 20° 30′, E. 67° 00′	30.10	764.5	70	21.1		ese.			4		3	se.				4	sse.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 21° 54′, W. 28° 49′	30.18	766.6	72	22.2	85	wsw.			1		2					1	ssw.	d. clouds	Lt. C. F. Oldham.
H. M. S. Lily																			
H. M. S. London																			
H. M. S. Magpie, N. 20° 12′, E. 109° 27′	29.81	757.2	84.5	29.2	80	sse.			2		4					1	ese.	d. clouds	Lt. A. Carpenter.
H. M. S. Midge																			
H. M. S. Malabar																			
H. M. S. Minotaur																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.08	764.0	81	27.2	78	sse.			2		0							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, S. 41° 53′, W. 76° 30′	29.77	756.1	50.5	10.3	96	ne.			1		10					2	nne.	misty	Capt. F. Edwards

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	29.55	750.6	65.5	18.6	92	nw.			3		9	nnw.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 18° 13′, W. 70° 47′	30.13	765.3	60.5	15.8	97	se.			1		10					2	s.	overcast	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready, N. 8° 33′, E. 81° 15′	29.82	757.4	82	27.8		sw.			1		4							d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 11° 51′, E. 51° 14′	29.70	754.4	86.3	30.2	62	s.			2		1							blue sky	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis, St. Vincent, Cape Verd Ids	30.02	762.5	81	27.2	87	calm			0		8	sse.						raining	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 31° 55′, W. 17° 00′	30.10	764.5	75	23.9	76	sw.			4		1	sw.				2	wsw.	blue sky	Capt. T. H. Boyse.
H. M. S. Tenedos, N. 49° 30′, W. 64° 35′	29.69	754.1	55.5	13.1	93	nnw.			3		7							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	30.03	762.7	59	15.0	94	calm			0		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.95	760.7	80	26.7		nnw.			1		2							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.57	751.1	82.5	28.1	87	wsw.			2-3		4	sw.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, S. 11° 46′, E. 12° 47′	30.08	764.0	72.0	22.2	81	var.			1		10					1	w.	overcast	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	29.97	761.2	82.4	28.0	85	ene.			1		6			½ h'r	½ h'r	1		showery	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.89	759.2	82.4	28.0	81	ese.			1		2							d. clouds	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	30.14	765.5	71	21.7	90	ne.	3	1.3			5		se.	0	0			fair	
N. Yard, Portsmouth, N. H.	29.88	758.9	64	17.8	78	nw.	5	2.2			0			0	0			hazy	
Naval Hospital, Yokohama, Japan	29.87	758.7	67.5	19.7	95	ne.			2		10		ne.	0.07	1.8			sprinkling	
Adams, Panama, Panama	29.74	755.4	81	27.2	87	ene.			1		5		w.			sm'h		fair	
Alaska, Callao, Peru	30.00	762.0	60	15.6	100	ese.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.87	758.7	71	21.7	91	n.			2		10		calm			sm'h		drizzling	
Alliance, N. 76° 40′, E. 10° 50′	30.06	763.5	38	3.3	81	se.			1		10			snow	snow	sm'h		snowing	
Ashuelot, Kobe, Japan	30.00	762.0	72	22.2	85	nne.			1		10		calm					overcast	
Colorado, New York, N. Y.	29.97	761.2	68	20.0	65	nw.	4	1.8			0			0	0			hazy	
Constitution, New Bedford, Mass.	29.88	758 9	63	17.2	100	nw.	1	0.4			2							clear	
Franklin, Norfolk, Va.	29.94	760.5	66	18.9	94	nnw.	2	0.9			10		w.	0	0			cloudy	
Galena, Leghorn, Italy	29.98	761.5	74	23.3	90	ssw.			1		0					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal.	29.90	759.4	60	15.6	71	sw.	12.0	5.4			0							clear	
Jamestown, Mare Isl'd, Cal. *	29.90	759.4	56	13.3	94	wsw.			3		0			0.08	2.0			clear	
Kearsarge, Philadelphia, Pa.	30.01	762.2	69	20.6	75	nnw.			1		5					sm'h		hazy	
Lackawanna, Mare Isl'd, Cal. †	30.15	765.8	59	15.0	94	sw.			2		0							clear	
Lancaster, New York, N. Y.	29.92	760.0	67	19.4	79	nnw.	4	1.8			2		w.					misty	
Marion, Maldonado, Uruguay *	29.79	756.7	61	16.1		ne.			6		10		ne.			mod.	ne.	cloudy	
Michigan, Erie, Pa.	29.98	761.5	69	20.6	44	s.			2		2		w.					fair	
Minnesota, Newport, R. I.	29.94	760.5	66	18.9	89	nnw.			1		2			0	0	sm'h		clear	
Monocacy, Yokohama, Japan	30.03	762.7	70	21.1	90	n.			2		10		calm					rainy	
Nipsic, Genoa, Italy	30.02	762.5	73	22.8	81	sse.			3		2					sm'h		d. clouds	
Onward, Callao, Peru †	30.04	763.0	59	15.0	100	calm			0		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.90	759.4	81	27.2	83	se.			1		2		calm					fair	
Passaic, Washington, D. C.	30.03	762.7	66	18.9	94	calm			0		0							clear	
Pensacola, Panama, Panama	29.96	761.0	79	26.1	86	calm			0		5			0	0	sm'h		fair	
Portsmouth, New London, Conn.	29.93	760.2	62	16.7	?	calm			0		2					sm'h		hazy	
Powhatan, Aspinwall, Panama	29.98	761.5	80	26.7	91	se.			1		8		n.			sm'h		fair	
Quinnebaug, Marseilles, France	29.92	760.0	73	22.8	55	ssw.			1		2		calm			sm'h		fair	
Ranger, Mare Island, Cal. *	29.91	759.7	60	15.6	76	ssw.			3–5		0			0	0	sm'h		clear	
Richmond, N. 11° 00′, W. 93° 04′	29.92	760.0	82	27.8	96	sse.			3		8		sse.	0.14	3.6	long	se.	cloudy	
Saratoga, Wickford, R. I.	29.91	759.7	62	16.7	?	calm			0		0			0	0	sm'h		hazy	
Shenandoah, Maldonado, Uruguay *	30.04	763.0	61	16.1	88	n.			4		10					sm'h		cloudy	
St. Louis, League Island, Pa.	29.72	754.9	68	20.0	79	calm	0	0			2		nw.	0	0			misty	
Swatara, Chefoo, China †	30.14	765.5	72	22.2	62	ene'			2		0							clear	
Tennessee, New York, N. Y.	30.01	762.2	67	19.4	69	nw.	1	0.4			5			0	0			hazy	
Trenton, N. 24° 25′, W. 26° 45′ *	30.11	764.8	79	26.1	82	ne.			4		10			0	0	sm'h		cloudy	
Vandalia, New York, N. Y.	29.97	761.2	66	18.9	68	nw.			1		2		calm					fair	
Wabash, Boston, Mass.	29.91	759.7	62	16.7	83	w.	5	2.2			0			0	0			clear	
Wyoming, Port Royal, S. C.	30.00	762.0	73	22.8	81	n.	8	3.6			8		calm	0	0			cloudy	
Yantic, New York, N. Y. *	29.96	761.0	67	19.4	74	n.			1		2							clear	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland †*	29.83	757.7				e.	2		5		ese.					fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, N. 51° 31′ W. 11° 24′	29.28	743.7	58	14.4		s.	3		10		ssw.			con.	s; w.	cloudy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 41° 09′, W. 60° 36′ *†..	29.69	754.1	74	23.3	90	wsw.	7		10		wsw.	4 h'r	rain	h'vy	w.	overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent,																	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Liverpool, England *†..	29.90	759.4	63	17.2	89	sw.	1		5		w.					fine	
S. S. Pennsylvania, Capt. G. H. Dodge, N. 45° 03′, W. 39° 26′ ..†..	29.84	757.9	59	15.0	82	wnw.	5		10		w.			mod.	ne.	cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, Capt. E. J. Moloney, ‡																	
S. S. Cipero, Capt. W. N. Lailey, Demerara, British Guiana	30.02	762.5	83	28.3	79	e.	1		3							d. clouds	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 42° 46′, W. 29° 40′	29.90	759.4	61.5	16.4	80	w.	6		9							drizzling	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, N. 5° 33′, W. 19° 34′	30.12	765.0	74	23.3	98	var.	1		10							raining	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 44° 00′, E. 20° 20′	30.26	768.6	44	6.7	84	ssw.	3		9							d. clouds	
Bk. Mertola, Capt. E. W. Turner																	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant, S. 43° 10′, E. 16° 18′	30.24	768.1	50	10.0	85	e.	2		8							foggy	
Queen of Cambria, Capt. M. Parry N. 34° 35′, W. 15° 23′	29.98	761.5	74	23.3	79	wsw.	6		4							showery	
S. S. Rosetta, Capt. A. E. Barlow, N. 15° 45′, E. 57° 42′	29.95	760.7	78	25.6	86	nne.	3		2							blue sky	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 14° 12′, W. 31° 36′	30.04	763.0	80.7	27.1	83	nne.	3		3							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson N. 33° 16′, E. 135° 55′	29.92	760.0	76.0	24.4	98	e.	3		5							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA, AND MEXICAN S.S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers N. 23° 32′, W. 107° 50′ †	29.74	755.4	81	27.2	87	s.	2		7		sw.	0	0	mod.	s.	cloudy	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains,																	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
Braunschweig, Capt. C. Pohle N. 49° 50′, W. 5° 36′	29.47	748.5	58.0	14.4	?	ssw.	6		8		ssw.			r'gh	sw.	cloudy	
S. S. Hermann, Capt. H. Baur N. 37° 10′, W. 75° 05′	29.98	761.5	74.3	23.5		nw.	2		10		nw.	0	0	light	w.	fine	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jungst, N. 49° 53′, W. 24° 06′	29.25	742.9	59.0	15.0	70	nw.	6		7		wnw.	24h'r	shr's	hv'y	wnw.	raining	T. Jüngst.
S. S. Leipsic, Capt. F. Pfeiffer. N. 41° 24′, W. 57° 54′	29.68	753.9	75.5	24.2	93	sw.	8		5		sw.	4 h'r	4 h'r	r'gh	sw.	squally	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche,																	Englehart and von [Goessel
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 24° 07′, E. 118° 42 †..	30.04	763.0	82	27.8	87	calm	0		2		ne.	0	0	sm'h		clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, San Francisco, Cal *†..	30.08	764.0	62	16.7	83	w.	3		4		w.					foggy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 48° 00′, W. 160° 36′	30.18	766.6	62	16.7	88	se.	6		10		se.			sli't	sw.	cloudy	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann N. 38° 47′. W. 123° 44′ *†	30.02	762.5	58	14.4	94	ne.	2		2		nw.			light	nw.	fair	G. Reichmann.
S. S. Columbia, Capt. F. Bolles, West Point, Columbia River †..	30.00	762.0	56	13.3	90	calm	0		10			18h'rs	18h'rs			rainy	
S. S. Oregon, Capt. Pollmann, N. 45°, 34′ W. 124° 06′ †..	30.03	762.7	54	12.2	93	s.	1		5		sse.			sm'h	nw.	hazy	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 34° 23′, W. 119° 51′ †	29.92	760.0	61	16.1	94	nne.	1		2		ne.			sm'h		fair	J. N. Ingalls.
S. S. Dakota, Capt. ——,																	
S. S. Idaho, Capt. T. Huntington, Esquimalt, Vancouver's Id †	29.86	758.4	86	13.3	94	calm	0		10							cloudy	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,																	G. H. Harrison.
S. S. Senator, Capt. Wallace, Eureka, Cal †	30.02	762.5	55	12.8	93	calm	0		10							hazy	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal †	29.97	761.2	53	11.7	93	sw.	2		5		sw.					fair	G. Debney.
S. S. Victoria, H. M. Hayward, N. 43° 25′, W, 124° 48′	30.10	764.5	55	12.8	100	se.	2		0					mod.	se.	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——, S. 5° 51′, W. 169° 16′	29.85	758.2	77	25.0	91	ene.	2		8		ne.			mod	ne.	showery	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W †	29.71	754.6	65	18.3	84	n.	2		0			0	0			clear	W. H. Hawes, 2d Offl.
S. S. City of Panama Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 43° 18′, E. 165° 35′ *†	30.11	764.8	55	12.8	80	wnw.	3		10		w.	0	0	mod.	nnw.	foggy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Manzanillo, Mexico †	29.95	760.7	84	28.9	91	nnw.	2		5		nnw.	0	0	long	w.	fine	E. L. Salk.
S. S. City of Sydney, Capt. H. C. Dearborn,																	
S. S. City of Tokio, Com. J. Maury N. 31° 18′, E. 131° 01 †	30.08	764.0	82	27.8	75	e.	4		6		ene.	0	0	sm'h		cloudy	A. L. Ritchie, 2d Offl.
S. S. Colima, R. R. Searle N. 36° 18′, W. 122° 21′ †	30.01	762.2	60	15.6	100	nw.	4		10		nw.	0	0	mod.	nw.	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 8° 33′, W. 79° 31′ †	29.91	759.7	80	26.7	87	ne.	2		5?		ne.	2 h'rs	2 h'rs	sm'h		clear	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 34° 09′, E. 161° 43′	29.94	760.5	63	17.2	78	w.	2		2		w.			cf'd.	ne; sw.	clear?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 41° 41′, W. 59° 29′ †	29.80	756.9	70	21.1		w.	5		8		wnw.	2 h'rs	2 h'rs	high	w.	gloomy	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, N. 49° 26′, W. 17° 44′ †	29.21	741.9	57	13.9	81	sw.	5		3		sw.	0.2	5.	long	w.	fair	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, Eng †	29.63	752.6	59	15.0	?	n.	2		8		nw.	7 h'r	7 h'r			fair	A. Horsfall.
S. S. Britannic, Capt. H. Perry,																	
S. S. Celtic, Capt. B. Gleadell, N. 44° 24′, W. 54° 33′ †	29.61	752.1	62	16.7		ssw.	5		10		w.	5 h'r	5 h'r	mod.	nw.	cloudy	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 41° 49′, W. 54° 36′ †	29.97	761.2	74	23.3	90	s.	4		5		sw.	sh's	sh's	mod.	w.	showery	W. A. Ward.
S. S. Republic, Capt. P. J. Irving																	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass †	29.96	761.0	65	18.3	100	w.	2	0	2s			0.01	0.3			clear	
Golden Fleece																	
Hassler Lt. Com. Nichols, N. 52° 09′, W. 131° 13′ *†	29.93	760.2	56	13.3		sw.	1		7		sse.			sm'h		misty	
S. Iron Cross, Capt. Randall, N. 3° 50′, W. 25° 15′ *	30.03	762.7	80	26.7	98	sse.	4	ck	5 k	ne.	s.	mod.	mod.	mod.	s.	misty	W. Randall.
S. Pawashick, Capt. E. Fry, N. 42° 01′, W. 44° 41′ *†	29.97	761.2	67	19.4	89	w.	3		1		n.			h'vy	nne.	very fine	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	29.94	760.5	72	22.2	76	ssw.	7		8		sw.	0	0			cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer U. S. A.

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BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 21, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.99	761.8	79.5	26.4	79	n.			2		3			0	0	pretty fair	Raynard.
Algiers ‡			29.96	760.9	81.0	27.2	52	w.			7		2			0	0	fair	Nicolas.
La Calle ‡			29.97	761.2	87.4	30.8	56	wnw.			1		4			inap.	inap.	cloudy	Fonfrède.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			29.99	761.8	85.8	29.9	28	n			1		1			0	0	very fair	Dumas.
Tebessa ‡			29.99	761.8	91.4	33.0	12	nnw.			4		5			0	0	cloudy	Derché.
Geriville ‡					90.3	32.4	11	nw.			5		0			inap.	inap	clear	Lonchamp.
Laghouat ‡			30.01	762.2	94.3	34.6	9	s.			5		4			0	0	cloudy	Herbin.
Biskra ‡			30.02	762.4	96.1	35.6	22	se.			1		8			0	0	very cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.99	761.7	30.08	764.0	41.8	5.4	92	w.	13	5.8			8			0.13	3.3	showery	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.25	743.0	29.78	756.3	74.5	23.6	65	e.			2		3			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.17	740.9	29.93	760.2	59.0	15.0	81	e.	12.5	5.6			10			0.283	7.2		Dr. Wiersbicki.
Eperies	28.97	735.9	29.83	757.7	62.8	17.1	77	n.			3	c	7 8			0.039	1.0		Julius Mikolik.
Gratz ‡	28.56	725.3	29.76	756.0	66.9	19.4	81	se.			1		3			0	0		Andreas Rospini.
Hermannstadt	28.45	722.5	29.82	757.4	71.2	21.8	52	nw.			1		5			0.024	0.6	raining	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.42	721.9	29.72	755.0	63.3	17.4	88	ne.			2		2			0	0		The Staff.
Lemberg	28.91	734.4	29.90	759.5	52.2	11.2	79	sw.			1		10			0	0		Dr. T. Stanecki.
Pola	29.73	755.2	29.84	757.9	73.9	23.3	76	sse.			2		5			0	0		I. R. Hydrographic Office.
Szathmar	29.37	745.9	29.82	757.4	65.8	18.8	60	w.			2		8			0	0		Beicht Petér, S. J.
Szegedin	29.54	750.3	29.81	757.1	70.2	21.2	67	calm			0		2			0	0		Karl Stancel.
Trieste	29.76	755.8	29.86	758.4	71.4	21.9	74	nw.			1		2			0.016	0.4	almost clear	Secco.
Vienna	29.11	739.5	29.81	757.2	65.7	18.7	80	e.			2		10			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.54	750.3	29.63	752.6	55.6	13.1	90	se.	26	11.6			10			0.810	20.6	squally	W. Boswell.
Armagh, Observatory	29.03	737.3	29.25	742.9	58.9	14.9	81	ese.	15	6.7			10					gloomy	S. Call.
Bidston, Liverpool Obs'y			29.35	745.5	61.3	16.3	82	sse.	17	7.6			10					overcast	John Hartnup.
Bolton, Sharples	28.84	732.5	29.37	746.0	59.8	15.4	90	ese.	6	2.7			9					raining	Thomas Mackereth.
Bradford, Yorkshire	29.01	736.8	29.41	747.0	59.2	15.1	87	sw.			2		10			0.71	18.0	overcast	J. McLan[A.S. Jsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.42	747.3	61.4	16.3	88	se.			0.6		10					raining	John McLaren.
Chatham, School M. E.	29.38	746.2	29.51	749.5	60.8	16.0	94	sw.			1		10					raining	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.17	740.9	29.39	746.5	59.0	15.0	64	sw.			4		4					d. clouds	The Staff.
Fort Napier, Natal	27.68	703.1	29.90	759.4	67.2	19.6	54	e.			1		3					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.71	754.6	29.94	760.5	84.0	28.9	83	se.			4		5					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.23	742.4	54	12.2	93	w.			2		10					raining	J. O'Donaghue.
Gibraltar, Mediterranean	30.04	763.0	30.10	764.5	72.8	22.7	87	w.			2		3					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.22	742.2	29.42	747.3	58.5	14.7	80	e.			7		10					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.28	743.7	29.45	748.0	63.0	17.2	88	ssw.			1		10			blank	blank	overcast	The Staff.
Guernsey	29.25	742.9	29.47	748.5	60	15.6	73	ssw.			2		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.42	747.3	29.46	748.3	62.6	17.0	85	sw.	10	4.5			9					threatening	The Staff.
Leicester, Museum	29.16	740.7	29.40	746.7	62.3	16.8	87	se.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.82	757.4	29.90	759.4	85.0	29.4	62	sw.			2		0			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.87	758.7	29.92	760.0	84.5	29.2	79	s.			1		4			blank	blank	d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	28.89	733.8	29.40	746.7	59.0	15.0	87	s.			3		10					overcast	John Mac Emall.
Oxford, Radcliffe Obs'y	29.20	741.7	29.43	747.5	63.1	17.3	70	ssw.			6		6			blank	blank	squally	The Staff.
Plymouth	29.32	744.7	29.40	746.7	61.7	16.5	70	sw.			3		8					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.66	753.4	55	13.3	87	se.	34	15.2			10					misty	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.69	754.1	29.76	755.9	76.0	24.4	66	ssw.			1		8					d. clouds	Serg't W. H. Lyne.
Sheffield	29.09	738.9	29.36	745.7	59.9	15.5	97	sse.			1		10			0.19	4.8	showery	W. F. Cooper.
Silloth Rectory	29.35	745.5	29.38	746.2	59.0	15.0	84	se.			6		10			0.345	8.8	raining	Rev. F. Redford, M. A.
Stonyhurst, Observatory					58.8	14.9	90	ese.	12	5.4			10					raining	Rev. S. J. Perry.
Strathfield Turgiss	29.24	742.7	29.46	748.3	62.8	17.1	75	s.			2		10					overcast	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.42	747.3	29.43	747.5	64	17.8	57	sw.			6		6					d. clouds	W. Newcombe.
Valencia, Observatory	29.26	743.2	29.28	743.7	56.4	13.6	74	sw.			6		6			blank	blank	d. clouds	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.78	756.4	29.82	757.4	47	8.3	67	nw.	12	5.4		0	2 s			0	0	fair	H. J. Cundall, C. E.
Chatham, N. B.*	29.86	758.4	29.92	760.0	43	6.1	71	w.	15	6.7		0	0			0	0	clear	G. A. Blair.
Chicoutimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.03	762.7	30.05	763.3	44	6.7	68	n.	40	17.9		0	2 s		n.	0	0	clear	J. McWilliams.
Fort Garry, Manitoba*	28.93	734.8	29.74	755.4	47	8.3	96	w.	4	1.8		2 k	5 ks	nw.	w.	0.520	13.2	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.77	756.1	29.90	759.4	47	8.3	71	nw.	12	5.4		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.82	757.4	30.16	766.1	46	7.8	77	n.	9	4.0			sk.			0	0	dense smoke	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	30.00	762.0	30.20	767.1	46	7.8	63	ne.	9	4.0		0	0			0	0	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.45	748.0	30.16	766.1	45	7.2	86	e.	6	2.7		2 k	2 ks	e.	e.	0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.40	746.7	30.09	764.3	55	12.8	93	ne.	9	4.0		8 k	0	w.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.39	746.5	30.03	762.7	56	13.3	86	e.	5	2.2		5 k	hz; sk	w.		0	0	hazy	M. Payne.
Quebec, Quebec*	29.83	757.7	30.16	766.1	40	4.4	65	n.			5	0	0			0	0	clear	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.76	755.9	30.23	767.8	38	3.3	92	calm	0	0			fg.		e.	0	0	foggy	W. H. McIntyre.
Saugeen, Ontario*	29.35	745.5	30.06	763.5	53	11.7	93	se.	12	5.4			sk.			0	0	smoky	K. Stewart.
St. Andrews, N. B.	29.95	761.0	30.01	762.2	45	7.2	60	nw.	6	2.7		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.68	753.9	29.73	755.1	52	11.1	71	nw.	12	5.4		0	5 ks		nw.	0.12	3.0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.77	756.1	30.15	765.8	52	11.1	69	ne.	10	4.5		sk.	5 ks		se.	0	0		Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.92	760.0	29.99	761.7	49	9.4	80	n.	8	3.6		2 k	0	n.		0	0	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.66	753.4	29.92	760.0	51	10.6	86	nw.					10 s			1.60	40.6		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.30	769.6	30.33	770.4	65.5	18.6	85	sw.	7.7	3.4		0	3 k			0.050	1.3	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.42	747.3			71	21.7	44	sse.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.08	764.0	30.10	764.6	69.8	21.0	85	ne.	5.8	2.6			10			0.079	2.0	covered	M. Marc Dechevrens, S. J.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.98	761.6	30.03	762.8	52.5	11.4	86	ese.	38	17			10						Oversergent Fischer
Fanöe	29.84	757.8	29.85	758.3	57.6	14.2	86	e.			6		9						Overloerer Lauridsen
Godthaab, Greenland	29.54	750.2	29.58	751.3	35.6	2.0	89	ne.			3		8						S. Kleinschmidt.
Stykkisholm, Iceland	29.46	748.2	29.50	749.3	50.4	10.2	87	e.			4		10					raining	A. O. Thorlacius.
Thorshavn	29.79	756.7	29.83	757.6	52.9	11.6	89	se.	16	7			10						Overloerer Bergh.
Vestervig	29.87	758.6	29.96	760.9	55.0	12.8	87	e.			6		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School					62.2	16.8	81	sse.			3		8			0	0	very cloudy	M. Labroue, Director.
Alençon Normal School	29.04	737.6	29.59	751.6	63.3	17.4	81	sw.			4		n	w.	sw.	0	0		M. Nicot, Director.
Arras, Engineer School	29.26	743.3	29.51	749.5	66.0	18.9	86	s.					n						M. Klein, Commandant.
Avignon, Normal School	29.62	752.3	29.70	754.3	77.0	25	68	e.			4		5		s.	0	0	cloudy	M. Giraud, Director.
Bar-sur-Seine	29.03	737.4	29.56	750.8	72.3	22.4	71	s.			1		8		sw.	0	0	very cloudy.	M. Saillard, Director.
Beauvais, Normal School	29.27	743.4	29.52	749.8	66.4	19.1	93	s.			2		5	se.	wsw.	0.43	11.	cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.78	731.1	29.64	752.8	68.0	20	89	s.			1		10			0	0	covered	M. Gobin, Director.
Bordeaux, Observatory	29.41	747.0	29.67	753.6	57.4	14.1	82	w.			1		10			0.039	1.0	raining	M. Rayet, Director.
Bourges, Normal School	29.02	737.2	29.56	750.8	59.0	15	85	nw.			2		8		nw.	0.04	1.	raining	M. Postel, Director.
Brest, Naval Observatory	29.29	743.9	29.53	750.1	63.7	17.6	68	ssw.			2		9		ssw.	0.150	3.8	stormy	M. de Kermaree, Dir.
Caen, Normal School	29.45	747.9	29.52	749.8	61.9	16.6	83	sw.			1		8		sw.	0	0	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					69.4	20.8	58	sw.			3		8			0.331	8.4	very cloudy	M. Jadot, Director.
Charleville, Normal School	29.07	738.3	29.55	750.6	73.8	23.2	56	sse.			2		5			0	0	½ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.21	716.5	29.52	749.9	61.5	16.4	81	s.			2		10			0	0	stormy	M. Alluard, Director.
Cluny, Normal School	28.65	727.6	29.54	750.4	76.6	24.8	66	e.			6		2		s.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	28.74	730.1	29.57	751.0	68.2	20.1	72	s.			1		5	s.	s.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.31	693.6	29.74	755.5	70.5	21.4	56	ne.			1	0	8 kn		s.	2.72	69.	¾ covered	M. Jeanginard, Director.
Grésque, du. Rhone	28.70	728.9	29.84	757.9	75.6	24.2	59	se.			3		10		se.	0	0	covered	M. Kina, Director.
Grenoble, Normal School	28.87	733.4	29.60	751.9	74.5	23.6	62	ese.			1		kn		s.	0	0		M. Ablard, Director.
Guéret, Normal School	28.07	712.9	29.61	752.2	59.0	15	82	nw.			2		10 n			0.98	25.	raining	M. Rivoire, Director.
Lamballe, Normal School	29.27	743.5	29.54	750.2	61.7	16.5	74	sw.			3				sw.	0.102	2.6		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.43	747.4	29.53	750.0	64.4	18.0	53	sw.			4		10		sw.	0.031	0.8	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.58	725.9	29.59	751.6	69.1	20.6	70	ssw.			2		10		ssw.	0	0	covered	M. André, Director.
Mans, Normal School	29.29	744.0	29.60	751.7	60.8	16	79	sw.			1		10		sw.	0	0	covered	M. Piboen, Director.
Marseille, Observatory	29.47	748.6	29.73	755.2	74.8	23.8	72	se.			3		9		se.	0.106	2.7		M. Stephan, Director.
Montlouis l'Instituteur	24.57	624.1	29.81	757.1	60.8	16.0	55	w.	18.6	8.3			0			0.150	3.8		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.06	753 3	29.76	750.0	74.8	23.8	91	se.			4		10					light rain	M. Pourle, Director.
Nancy, Normal School	28.88	733.5	29.61	752.1	69.8	21	73	wsw.			1		5 k			0	0	cloudy	M. Hasse.
Nantes, Observatory	29.43	747.4	29.59	751.5	66.6	19.2	93	sw.			2–3	0	8k; kn	sw.	sw.	0.12	3.		M. Larocque, Director.
Nice	29.75	755.6	29.78	756.4	72.7	22.6	74	e.			3	1	1	e.	e.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	29.40?	746.8?	29.50?	749.4?	84.7	29.3	25	sw.	24.2	10.8			5	se.	se.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.25	565.2			43.0	6.1							10		sw.	1.024	26.0	snowy	Gen'l de Nansouty Dir.
Privas, Normal School					69.1	20.6	57	s.			3		5			0	0	cloudy	M. Talhen.
Puy de Dôme Obs'y, Summit	24.85	631.2			46.6	8.1	99	wnw.			4		10					raining	M. Alluard, Director.
Rochefort, Naval Obs'y	29.45	748.0	29.48	748.8	62.6	17.0	80	ssw.			2		10		w.	0.339	8.6	covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.37	746.1	29.59	751.5	58.6	14.8	95	w.			1		10		s.	0.100	2.7	covered	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.47	748.6	29.56	750.8	64.4	18	80	sw.			1		10			0.20	5.	covered	M. Platrier, Director.
Saint Lô, Normal School	29.05	737.9	29.21	741.9	62.4	16.9	68	ssw.			3		10		sw.	0.12	3.	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.38	746.2	29.54	750.4	68.4	20.2	77	sw.			2		8	ssw.	ssw.	0.425	10.8		M. Renou, Director.
Toulouse, Observatory	28.98	736.1	29.69	754.2	62.2	16.8	83	wnw.			2		10	nw.		0.819	20.8	stormy	M. Bailland, Director.
Tours	29.41	747.0	29.61	752.0	62.1	16.7	75	wsw.			1		10		w.	0.228	5.8	covered	M. de Tastes.
Versailles, Observatory	29.06	738.0	29.55	750.5	67.6	19.8	65	w.			1					0.331	8.4		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.26	743.2	29.55	750.6	70.0	21.1	76	ssw.			3		8		sw.	0.551	14.0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.93	734.9	29.79	756.6	68.9	20.5	66	sse.			3	0	3 cks		s.	0	0		Prof. Dr. Hoh.
Berlin	29.08	753.9	29.85	758.2	66.7	19.3	71	ne.			1		5			0	0		Prof. Dr. Arndt.
Breslau	29.38	740.3	29.91	759.7	62.6	17.0	75	e.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.24	742.7	29.65	753.0	69.4	20.8	77	w.			1		9	sw.		0	0		Albert Senz.
Cassel	28.98	736.2	29.70	754.4	72.3	22.4	65	ssw.			2		5	s.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.29	744.0	29.64	752.9	70.7	21.5	67	ese.			1		7			0	0		Physical Society.
Friedrichshafen	28.32	719.4	29.71	754.7	64.8	18.2	83	ssw.			1		7	wsw.		0.622	15.8		Wilhelm, Chief Tel.
Hamburg	29.73	755.1	29.82	757.5	62.8	17.1	71	e.			4		4	sw.		0	0		E. Preller.
Kiel	29.84	757.8	29.85	758.2	58.5	14.7	84	ese.			4		10			0.004	0.1		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.39	746.4	29.80	756.8	66.2	19.0	63	e.			5		5			0	0		H. Leppig, Asst.
Magdeburg	29.61	752.2	29.80	756.8	67.6	19.8	57	ese.			2		6 cs	ssw.		0	0		Dr. Assmann.
Memel	30.17	766.4	30.22	767.6	44.2	6.8	89	ene.			3–4	0	1 s						Issermann.
Munich	27.95	709.8	29.79	756.7	68.5	20.3	67	ne.			2		4	nw.		0	0		Central Station.
Neufahrwasser	30.11	764.8	30.13	765.2	55.4	13.0	79	e.			4		10			0.024	0.6		A. Lothes.
Neustadt, Palatinate	29.15	740.5	29.67	753.7	68.7	20.4	76	calm			0		5	w.		0	0	foggy	Dicknether.
Stuttgart	28.73	729.8	29.58	751.4	71.6	22.0	66	s.			1		5	w.		0.260	6.6		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.26	717.7	29.71	754.6	67.5	19.7	66	se.			4		6	w.		0	0		Fischer.
Wustrow	29.91	759.7	29.93	760.3	57.7	14.3	87	e.			4		10			0.197	5.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.41	747.0	29.78	756.5	84.2	29.0		sw.			1.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.62	752.5	29.68	753.7	83.7	28.7	74	sw.	10.0	4.5			4		wsw.	0	0	d. clouds	
Deesa	29.23	742.4	29.70	754.2	85.3	29.6	61	ssw.	8.0	3.6			1		s.	0	0	d. clouds	
Bombay	29.73	755.2	29.77	756.2	83.7	28.7	75	wsw.	9.0	4.0			3		wsw.	0.02	0.5	d. clouds	
Poona, Yarrowda	27.92	709.3	29.78	756.5	76.0	24.4	78	w.	17.0	7.6			6		w.	0.05	1.3	d. clouds	
Belgaum	27.26	692.3	29.80	757.0	73.2	22.9	86	wsw.	13.0	5.8			4	nw.	sw.	0.15	3.8	showery	
Lahore	28.93	734.8	29.66	753.4	86.0	30.0	51	ne.	2.9	1.3			7			0	0	d. clouds	
Roorkee	28.77	730.8	29.66	753.3	85.8	29.9	72	nw.	1.3	0.6			5			0	0		
Agra	29.11	739.3	29.67	753.5	83.2	28.4	60	sw.	1.9	0.8			9			0	0		
Nagpur	28.66	728.0	29.69	754.1	85.9	29.9	59	nw.	2.7	1.2			2	sw.		0	0	d. clouds	
Jubbulpore	28.36	720.4	29.70	754.4	84.8	29.3	52	ne.	1.8	0.8			4	s.		0	0	d. clouds	
Lucknow	29.31	744.5	29.68	754.0	84.2	29.0	68	calm	2.3	1.0			1			0	0	d. clouds	
Allahabad	29.36	745.7	29.67	753.6	82.0	27.8	76	sw.	2.0	0.9			1			0	0	d. clouds	
Patna	29.49	749.1	29.67	753.6	86.4	30.2	76	ne.	2.5	1.1			4	ne.	ne.	0	0	d. clouds	
Hazaribagh	27.69	703.3	29.70	754.3	76.8	24.9	86	sw.	5.9	2.6			8			0.84	21.3	showery	
Cuttack	29.60	751.9	29.68	754.0	77.6	25.3	84	ene.	0.3	0.1			9			1.04	26.4	d. clouds	
Calcutta, Alipore	29.63	752.6	29.65	753.2	77.3	25.2	98	sse.	1.0	0.4			10		ne.	0.13	3.3	overcast	
Dhubri	29.59	751.6	29.71	754.7	79.1	26.2	87	ene.	5.2	2.3			9			0	0	d. clouds	
Chittagong	29.61	752.2	29.70	754.4	80.7	27.1	89	ssw.	3.8	1.7			9			0	0	d. clouds	
Sibsagar	29.34	745.3	29.68	753.8	81.6	27.6	85	ene.	1.9	0.8			10	sw.	sw.	0	0	d. clouds	
Jeypore	28.26	717.8	29.67	753.7	88.7	31.5	42	wnw.	2.7	1.2			2		w.	0	0	d. clouds	
Zanzibar, Africa			29.96	761.0	83.9	28.8	42	sse.	6	2.7			2			0.02	0.5	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.45	747.9	29.85	758.2	71.6	22.0	87	sw.	0.7	0.3			10			0	0		Prof. Giovanni Clodig.
Milan	29.34	745.1	29.85	758.1	71.4	21.9	66	e.	3.1	1.4			10	w.		0	0		Prof. Schiaparelli.
Padua	29.74	755.5	29.85	758.3	73.9	23.3	65	se.	3.8	1.7			6	nw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	28.90	734.1	29.80	756.9	67.1	19.5	86	nnw.	1.3	0.6			9	nw.		0.098	2.5		Prof. P. F. Denza.
Genoa	29.65	753.1	29.85	758.1	70.3	21.3	77	se.	6.9	3.1			6	se.		0	0		Prof. G. M. Garibaldi.
Mondovi	27.95	709.8	29.85	758.1	62.2	16.8	88	wnw.			2		8			0.016	0.4		Prof. D. C. Bruno.
Pesaro	29.77	756.2	29.82	757.4	72.3	22.4	72	se.	6.9	3.1			5	w.		0	0		Prof. Luigi Guidi.
Florence	29.58	751.3	29.83	757.7	74.7	23.7	63	w.			2		5	sse.		0	0		Prof. Costantino Pitter.
Leghorn	29.76	756.0	29.85	758.2	74.1	23.4	78	s.	1.8	0.8			4			0	0		Prof. P. Monte.
Rome	29.70	754.4	29.87	758.8	79.2	26.2	58	sw.	12.5	5.6			9			0	0		Prof. P. S. Ferrari.
Lecce	29.64	752.9	29.89	759.2	79.3	26.3	47	e.	2.5	1.1			1			0	0		Prof. C. de Giorgi.
Cosenza	29.01	736.9	29.89	759.1	82.8	28.2	60	sse.	3.8	1.7			5	se.		0	0		Prof. D. Conti.
Cagliari	29.64	752.8	29.83	757.6	80.1	26.7	67	ese.			2		8	sw.		0.008	0.2		Prof. A. Pacinotti.
Palermo	29.62	752.4	29.87	758.6	82.2	27.9	46	ne.	5.6	2.5			0			0	0		Prof. G. Ciacciatore.
Syracuse	29.80	756.8	29.84	757.9	82.4	28.0	63	s.	3.1	1.4			4	wsw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.36	745.7	29.87	758.6	75.6	24.2	71	se.	0	0			5	sw.		0	0		Prof. F. Brioschi.
Stelvio	22.17	563.1			46.4	8.0	64	sw.			4		10 n	sw.		0.083	2.1	covered	Prof. P. F. Denza.
Valdobbia	22.16	562.8			45.3	7.4	78	wnw.			1		10 n			0.453	11.5	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y	30.09	764.3	30.10	764.5	63.9	17.7	73	nne.	7.0	3.1			10 s			0.913	23.2	covered	K. Sasaki.
Kioto	29.99	761.7	30.16	766.0	61.1	16.2	84	n.	1.6	0.7			10 n			0.330	8.4	raining	M. Tojima.
Nagasaki, I. M. Obs'y	29.81	757.2	30.01	762.2	70.2	21.2	66	ne.	10.8	4.8			9 s			0.680	17.3	cloudy	S. Takehayashi.
Niigata	30.16	766.0	30.19	766.8	58.7	14.8	82	w.	4.9	2.2			9 ks			0.240	6.1	overcast	
Nobiru	30.15	765.8	30.17	766.3	56.0	13.3	95	calm	0.8	0.4		0	4 s			0.145	3.7	fair	
Supporo	29.94	760.5	30.00	762.0	49.7	9.8	87	sse.	4.2	1.9			1			0.015	0.4		
Tokei Obs'y, Yeddo	30.15	765.8	30.22	767.6	57.9	14.4	96	n.	3.3	1.5			10 n;s			0.680	17.3	light rain	The Staff.
Wakayama	30.09	764.3	30.14	765.5	63.4	17.4	96	e.					10 n			0.929	23.6	raining	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.94	760.5	30.13	765.4	72.8	22.7	56	e.	12.5	5.6		0	7		ese.	0	0	cloudy	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.9	29.91	759.9	50.9	10.5	70	calm	0	0		0	0			0	0	fine	Vicente Fernandez.
Leon	24.43	620.5	30.14	765.6	56.8	13.8	77	n.			2	1 c	0			0	0	clear	Prof. M. Leal.
Mazatlan	29.70	754.3	29.95	760.8	78.5	25.8	89	nnw.	0.9	0.4		1 cs	1 n		sw.	0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.12	587.3	30.19	766.8	47.3	8.7	64	calm	0	0		0	0			0	0	very fine	The Staff.
Morelia	24.26	616.2	30.49	774.5	45.5	7.5	69	ene.			3	0	0			0	0		M. Tena, M. D.
Pabellon, Aguascalientes	23.98	609.0	30.02	762.4	51.8	11.0	76	calm			0	1 cs	0			0	0	clear	M. V. de Leon, M. D.
Puebla, Catholic Institute	23.42	594.9	30.23	767.8	50.5	10.3	54	calm	0	0		0	0			0.032	0.8	fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.59	573.8	30.20	767.1	51.3	10.7		ne.	1.7	0.8		0	0			0	0	clear	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.54	750.4	29.54	750.4	65.7	18.7		ese.			3					0	0		
Groningen	29.60	751.9	29.66	753.3	63.7	17.6		ese.			5					0	0		
Helder	29.60	751.9	29.60	751.9	62.8	17.1		e.			4					0.028	0.7		
Hellevoetsluis	29.56	750.8	29.56	750.8	62.1	16.7	90	e.			2					0	0		
Utrecht	29.56	750.7	29.60	751.9	63.1	17.3	88	ese.			1		8			0.012	0.3	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.93	760.2	29.99	761.8	61.9	16.6	58	calm	0	0			3			0	0		
Christiania	30.07	763.7	30.22	767.5	52.5	11.4	64	sse.	0	0			10			0	0		
Gjæsvær	30.08	764.0	30.10	764.6	41.0	5.0		wnw.			6		10						
Lodingen	30.14	765.6	30.19	766.8	46.2	7.9	61	calm			0		0			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.95	760.8	30.10	764.6	68.4	20.2	76	nnw.	2.7	1.1			4			0	0		Dr. J. A. Sampaio.
Campo Major	28.98	736.2	29.97	761.2	68.0	20.0	47	wnw.	9.4	4.2			8			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.06	763.5	30.15	765.7	75.2	24.0	66	sw.	4.3	1.9			9			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.69	754.0	30.04	763.0	67.5	19.7	51	nw.	13.6	6.1			7			0.008	0.2		The Staff.
Ponta Delgada, Azores	30.10	764.5	30.17	766.3	74.5	23.6	62	calm	0	0			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.71	729.1	29.80	756.9	39.2	4.0	63	w.	13	6			10 n						Capt. Lasarew.
Archangel	30.21	767.2	30.22	767.7	36.5	2.5	87	nne.	4	2		0	8 k						Capt. Sseliwerstow.
Astrakhan	29.77	756.1	29.69	754.0	68.7	20.4	55	se.	13	6		0	5 s						Capt. Wisganow.
Barnaul ‡	29.25	742.9	29.74	755.3	56.5	13.6	41	sw.	4	2			9						Meteorological Obs'y.
Dorpat	30.01	762.2	30.26	768.6	41.5	5.3	62	ne.	9	4			10 k						Observatory.
Ekaterinburg	28.79	731.3	29.78	756.4	31.5	— 0.3	76	n.	13	6			10						Meteorological Obs'y.
Kasan	29.37	745.9	29.65	753.0	31.5	— 0.3	94	e.	7	3			10					snowing	Observatory.
Kertch	29.63	752.5	29.65	753.0	72.3	22.4	70	sw.	9	4		0	6 n			0	0		Lagorio & Sastyrex.
Kieff	29.20	741.7	29.85	758.1	42.3	5.7	74	n.	11	5		c	10 ks						Observatory.
Lugan	29.27	743.5	29.47	748.5	62.4	16.9	87	wsw.	9	4			10			blank	blank		Meteorological Obs'y.
Moscow	29.28	743.8	29.78	756.4	32.2	0.1	83	nw.	4	2			10 s						Meteorological Obs'y.
Nikolaiev	29.77	756.1	29.84	757.9	70.0	21.1	67	nw.	13	6			9 kn						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	29.59	751.6	29.68	753.8	50.2	10.1	76	calm			0		10 n			0	0		Lieut. Iwanow.
Pekin, China	30.11	764.8	30.25	768.4	66.9	19.4	57	calm	0	0		0	6 k			0	0		Physical Observatory.
St. Petersburg	30.19	766.9	30.21	767.3	39.9	4.4	65	ne.	11	5			10n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.48	723.5	30.02	762.6	66.6	19.2	62	calm	0	0			0						Teich, A. M.
Tiflis	28.32	719.2	29.67	753.6	73.2	22.9	56	calm	0	0			9 s						Physical Observatory.
Warsaw	29.61	752.2	30.04	763.1	50.4	10.2	72	ene.	13	6			10 ks						Astronomical Obs'y.
Wilna	29.73	755.0	30.15	765.9	43.5	6.4	50	ne.	7	3			2						Berg, Assistant.
Yeniseisk	29.39	746.4	29.66	753.4	61.0	16.1	62	calm	0	0			7						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.49	749.0	57.9	14.4	88	se.			4		10 ks			0.61	15.5	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			29.44	747.8	57	13.9	94	e.			4	10	0	e.		0.2	5.	overcast	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.63	752.5	29.73	755.1	77.9	25.5	66	ssw.	4.5	2.0			2 k			0	0	clear	Antonio Rave, Director
Bilbao, Met. Obs'y	29.73	755.2	29.79	759.6	57.2	14.0	91	se.	0.9	0.4			10			0.370	9.4	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	20.91	683.4			47.3	8.5	86	sw.	14.8	6.6			10			0.504	12.8	covered	Domingo Martin.
Madrid, Royal Obs'y	27.68	703.0	29.87	758.8	61.2	16.2	44	w.	25.5	11.4		0	1			0.079	2.0	slightly cl'dy	The Staff.
Murcia, Met. Obs'y ‡	29.70	754.4	29.84	758.0	85.6	29.8	41	nw.	5.6	2.5		3	4	e.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.89	733.6	29.77	756.2	61.7	16.5	73	w.	11.2	5.0			8			0.661	16.8	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.86	758.5	29.93	760.1	77.1	25.1	87	sse.	5.1	2.3		2 ck	0	sw.		0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.77	756.2	29.82	757.5	85.1	29.5	79	se.	2.2	1.0		0	2 ks			0	0	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.97	761.1	30.06	763.6	73.2	22.9	66	w.	7.3	3.3		0	4		w.	0.064	1.6		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.93	760.3	30.02	762.6	81.0	27.2	89	se.	0	0		1 cs	1 k			0	0	clear	E. Oadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.73	755.1	29.86	758.5	79.2	26.2	85	nnw.	5.2	2.3		0	0			0	0	fair	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.31	769.8	30.35	770.8	40.6	4.8	87	sw.			2		10			0	0		
Umea	30.30	769.6	30.35	770.9	44.6	7.0	55	sw.			2		10			0	0		
Hernosand	30.31	769.9	30.30	771.2	45.5	7.5	58	s.			2		10			0.075	1.9		
Stockholm	30.12	765.1	30.30	769.6	49.6	9.8	69	se.			4		10			0.071	1.8		
Wisby	30.13	765.4	30.19	766.9	49.6	9.8	57	sse.			6		7			0.039	1.0		
Sub-Series.																			
Upsala	30.24	768.0	30.32	770.2	47.3	8.5	67	ne.	6.5	2.9			8		se.	0	0		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.34	719.7	29.72	755.0	66.6	19.2	82	ne.			1		9			0.134	3.4	covered	The Observatory.
Zurich ‡	28.11	714.1	29.71	754.7	66.2	19.0	80	nw.			2		4			0.453	11.5	lightly cl'dy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.81	757.1	74.7	23.7	64	sw.	9	4.0			9		sw.	0	0		The Observatory.
Valona			30.03	762.7	76.1	24.5		nw.			1		0			0	0	clear	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.74	755.4	83.5	28.6	63	sw.			3	0	5 n		sw.	0.235	6.0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.07	763.8	30.15	765.8	55	12.8	69	n.	6	2.7		0	0			0	0	clear	
Alpena, Michigan	29.42	747.3	30.10	764.5	56	13.3	80	e.	9	4.0		10 cs	0			0	0	cloudy	
Atlanta, Georgia	28.90	734.0	30.08	764.0	67.5	19.7	90	n.	5	2.2		0	0			0	0	clear	
Atlantic City, New Jersey	30.02	762.5	30.03	762.7	68	20.0	90	n.	3	1.3		5 ck	hz.	calm	calm	0	0	fair	
Augusta, Georgia	29.90	759.4	30.09	764.3	68.0	20.0	90	sw.	1	0.4		0	0			0	0	clear	
Baltimore, Maryland	30.01	762.2	30.06	763.5	67	19.4	73	ne.	3	1.3		0	fg.			0	0	light fog	
Barnegat, New Jersey	30.02	762.5	30.04	763.0	68.0	20.0	73	e.	19	8.5		4 ck	0	sw.		0	0	fair	
Bismarck, Dakota	28.10	713.7	29.93	760.2	47	8.3	100	calm	0	0		0	0			0.04	1.0	clear	
Boise City, Idaho	27.01	686.0	29.85	758.2	47.3	8.5	66	w.	4	1.8		2 k	0	w.		0	0	fair	
Boston, Massachusetts	29.94	760.5	30.10	764.5	54.7	12.6	74	nw.	6	2.7		0	hz.			0	0	clear	
Brackettville, Texas	28.80	731.5	29.84	757.9	64	17.8	68	ne.	6	2.7		0	0			0	0	clear	
Brownsville, Texas	29.91	759.7	29.95	760.7	69	20.6	93	calm	0	0		hz.	0			0	0	dense haze	
Buffalo, New York	29.38	746.2	30.10	764.5	53.2	11.8	76	ne.	16	7.2		0	sk.			0	0	dense smoke	
Burlington, Vermont	29.90	759.4	30.19	766.8	44.7	7.1	75	n.	7	3.1		0	0			0	0	clear	
Cairo, Illinois	29.66	753.4	30.06	763.5	66.1	18.9	86	s.	2	0.9		0	fg.			0	0	clear	
Campo, California																			
Camp Thomas, Arizona	27.20	690.9			68	20.0	81	calm			0		9 ks			0	0	cloudy	
Cape Henry, Virginia	30.03	762.7	30.05	763.3	69	20.6	90	sw.	3	1.3		0	sk.			0	0	clear	
Cape May, New Jersey	29.99	761.7	30.02	762.5	72	22.2	90	nw.	8	3.6		0	fg.			0	0	clear	
Castroville, Texas	29.19	741.4	29.88	758.9	64	17.8	68	w.	2	0.9		4 c	0			0	0	fair	
Cedar Keys, Florida	29.98	761.5	30.00	762.0	71	21.7	84	n.	9	4.0		0	0			0	0	clear	
Champaign, Illinois	29.19	741.4	29.97	761.2	58.8	14.9	93	se.	7	3.1		0	fg.			0	0	light fog	
Charleston, S. Carolina	29.99	761.7	30.05	763.3	70	21.1	71	n.	4	1.8		0	0			0	0	clear	
Charlotte, N. Carolina	29.18	741.2	30.06	763.5	68	20.0	73	ne.	4	1.8		hz.	hz.	calm	calm	0	0	dense haze	
Chattanooga, Tennessee	29.28	743.7	30.11	764.8	64.0	17.8	93	calm	0	0			fg.		calm	0	0	dense fog	
Cheyenne, Wyoming	24.06	611.1	30.02	762.5	46.2	7.9	68	n.	4	1.8		0	0			0	0	clear	
Chicago, Illinois	29.28	743.7	29.99	761.7	56.6	13.7	98	s.	3	1.3			fg.			0	0	dense fog	
Chincoteague, Virginia	30.02	762.5	30.04	763.0	69	20.6	93	nw.	3	1.3		0	sk.		calm	0	0	dense smoke	
Cincinnati, Ohio	29.42	747.3	30.08	764.0	65.5	18.6	84	s.	2	0.9		0	fg.			0	0	clear	
Cleveland, Ohio	29.31	744.5	30.05	763.3	63	17.2	78	s.	4	1.8		2 k	sk.	w.		0	0	dense smoke	
Coleman City, Texas																			
Columbus, Ohio	29.20	741.7	30.06	763.5	64	17.8	84	s.	1	0.4		0	fg.			0	0	clear	
Concho, Texas	28.08	713.2	30.02	762.5	55	12.8	80	w.	4	1.8		0	0			0	0	clear	
Corsicana, Texas	29.56	750.8	30.03	762.7	70	21.1	76	s.	4	1.8		0	0			0	0	clear	
Davenport, Iowa	29.29	744.0	29.95	760.7	60	15.6	87	e.	4	1.8		1 cs	fg.	sw.	calm	0	0	fair	
Dayton, Washington T'y	28.12	714.2	29.93	760.2	46	7.8	76	se.	3	1.3		4 k	0	calm		0	0	fair	
Deadwood, Dakota	25.35	643.9	30.05	763.3	57	13.9	42	calm	0	0		0	0			0	0	clear	
Decatur, Texas	28.82	732.0	29.96	761.0	65	18.3	43	s.	6	2.7		0	0			0	0	clear	
Delaware Breakwater, Del.	29.99	761.7	30.01	762.2	68	20.0	90	w.	7	3.1			hz.			0	0	dense haze	
Denison, Texas	29.20	741.7	30.01	762.2	66	18.9	73	s.	3	1.3		0	0			0	0	clear	
Denver, Colorado	24.77	629.1	29.99	761.7	54.5	12.5	37	s.	6	2.7		0	1 s		calm	0	0	clear	
Des Moines, Iowa	28.98	736.1	29.89	759.2	73	22.8	82	sw.	7	3.1			10 s		sw.	0	0	cloudy	
Detroit, Michigan	29.34	745.2	30.06	763.5	63.0	17.2	90	n.	5	2.2		hz.	fg.			0	0	dense haze	
Dodge City, Kansas	27.29	693.2	29.88	758.9	63	17.2	42	s.	12	5.4		0	1 s			0	0	clear	
Dubuque, Iowa	29.22	742.2	29.94	760.5	59.1	15.1	87	s.	6	2.7		1 c	fg.	se.	calm	0	0	fair	
Duluth, Minnesota	29.10	739.1	29.82	757.4	53	11.7	86	ne.	7	3.1			10 s		ne.	0.03	0.8	cloudy	
Eagle Pass, Texas	29.21	741.9	30.04	763.0	63.0	17.2	68	s.	3	1.3		0	0			0	0	clear	
Eagle Rock, Idaho	25.21	640.3	30.06	763.5	33	0.6	33	n.	3	1.3		5 cs	0	sw.		0	0	fair	
Eastport, Maine	29.96	761.0	30.03	762.7	46	7.8	60	nw.	12	5.4		0	0			0	0	clear	
El Paso, Texas	26.21	665.7	29.96	761.0	65.2	18.4	73	n.	1	0.4			10 s			0	0	cloudy	
Erie, Pennsylvania	29.33	745.0	30.06	763.5	60	15.6	75	calm	0	0		hz.	0			0	0	dense haze	
Escanaba, Michigan	29.30	744.2	29.96	761.0	58	14.4	87	e.	13	5.8			10 s		se.	0	0	cloudy	
Florence, Arizona	28.39	721.1	29.99	761.7	77	25.0	82	s.	3	1.3		6 k	2 s	s.	s.	0	0	cloudy	
Fort Apache, Arizona	25.01	635.2	29.92	760.0	58	14.4	90	e.	2	0.9		0	5 s		calm	0.03	0.8	fair	
Fort Assinnaboine, Montana	27.19	690.6	30.00	762.0	40	4.4	73	sw.	9	4.0		0	1 s		sw.	0	0	clear	
Fort Bennett, Dakota	28.33	719.6	29.87	758.7	51	10.6	100	n.	2	0.9		9 cs	0			0	0	cloudy	
Fort Benton, Montana	27.21	691.1	30.07	763.8	43	6.1	68	ne.	2	0.9		5 k	0	calm		0	0	fair	
Fort Buford, Dakota	27.90	708.6	29.91	759.7	35	1.7	100	w.	1	0.4		0	0			0	0	clear	
Fort Custer, Montana	26.79	680.5	30.03	762.7	45	7.2	57	sw.	2	0.9		0	0			0	0	clear	
Fort Davis, Texas	24.94	633.5	29.90	759.4	59	15.0	62	w.	3	1.3		0	0			0	0	clear	
Fort Elliott, Texas	27.24	691.9	30.42	772.7	58	14.4	54	calm	0	0		10 k	0			0	0	cloudy	
Fort Gibson, Indian T'y	29.43	747.5	29.98	761.5	61.5	16.4	62	w.	2	0.9		hz; 1 c	0			0	0	clear	
Fort Grant, Arizona					65	18.3	75	e.	2	0.9		1 k	7 s			0	0	cloudy	
Fort Griffin, Texas																			
Fort Keogh, Montana	27.46	697.5	30.00	762.0	41	5.0	82	w.	4	1.8		4 c	0	sw.		0	0	fair	
Fort Macon, North Carolina	30.03	762.7	30.04	763.0	71	21.7	82	n.	4	1.8		hz.	hz.	calm	calm	0	0	dense haze	
Fort McKavett, Texas	27.77	705.3	29.66	753.4	60.2	15.7	71	calm	0	0		0	0			0	0	clear	
Fort Missoula, Montana	26.70	678.2	30.22	767.6	34	1.1	100	sw.	1	0.4		0	0			0	0	clear	
Fort St. Michaels	29.66	753.4	29.69	754.1	47	8.3	92	sw.	20	8.9			10 n			0.07	1.8	light rain	
Fort Shaw, Montana	26.43	671.3	30.03	762.7	33	0.6	88	nw.	6	2.7		10 cs	0	calm		0	0	cloudy	
Fort Sill, Indian Territory	28.75	730.2	30.00	762.0	65.8	18.8	63	calm	0	0		0	0			0	0	clear	
Fort Stevenson, Dakota	28.03	712.7	29.93	760.2	40	4.4	92	w.	4	1.8		0	0			inap.	inap.	clear	
Fort Verde, Arizona					60.4	15.8	88	s.			1		10 s		s.	0.01	0.3	cloudy	
Fredericksburg, Texas	28.27	718.0	29.80	756.9	62	16.7	62	sw.	3	1.3		0	0			0	0	clear	
Galveston, Texas	29.97	761.2	30.01	762.2	74	23.3	90	w.	3	1.3		hz.	0			0	0	clear	
Grand Haven, Michigan	29.35	745.5	30.02	762.5	54.5	12.5	93	e.	5	2.2		0	0			0	0	clear	
Hatteras, North Carolina	30.02	762.5	30.04	763.0	74	23.3	76	n.	5	2.2		hz	hz.			0	0	light haze	
Helena, Montana	25.78	654.8	30.17	766.3	55	12.8	49	s.	2	0.9		2 k	0	calm		0	0	fair	
Henrietta, Texas	28.97	735.8	29.84	757.9	75	23.9	53	sw.	4	1.8		0	0			0	0	clear	
Huron, Dakota	28.49	723.6	29.88	758.9	54	12.2	96	nw.	12	5.4			10 s			0.01	0.3	cloudy	
Indianapolis, Indiana	29.25	742.9	30.05	763.3	63	17.2	90	calm	0	0		0	fg.		calm	0	0	clear	
Indianola, Texas	29.96	761.0	29.99	761.7	75.1	23.9	90	sw.	5	2.2		2 cs	2 ks	e.	calm	0	0	fair	
Jacksboro, Texas	28.83	732.3	29.92	760.0	66	18.9	58	s.	3	1.3		0	0			0	0	clear	
Jacksonville, Florida	29.97	761.2	30.01	762.2	70	21.1	84	ne.	6	2.7		0	0			0	0	clear	
Keokuk, Iowa	29.29	744.0	29.95	760.7	67.4	19.7	57	s.	1	0.4		1 cs	0			0	0	clear	
Key West, Florida	29.90	759.4	29.93	760.2	80.0	26.7	88	e.	5	2.2		1 cs	3 k		e.	0	0	fair	
Kittyhawk, North Carolina	30.02	762.5	30.04	763.0	69	20.6	90	ne.	3	1.3		hz.	hz.			0	0	dense haze	
Knoxville, Tennessee	29.10	739.1	30.14	765.5	62.3	16.8	96	calm	0	0		0	fg.		calm	0	0	clear	
La Crosse, Wisconsin	29.04	737.6	29.81	757.2	63.4	17.4	84	s.	16	7.2		2 cs	6 s	s.		0	0	fair	
La Mesilla, New Mexico	26.09	662.7	30.24	768.1	58.0	14.4	77	calm	0	0		4 ck	5 s			0	0	cloudy	
Laredo, Texas																			
Leavenworth, Kansas	29.06	738.1	29.96	761.0	65	18.3	54	s.	4	1.8		4 cs	0	sw.		0	0	fair	
Lewiston, Idaho	29.07	738.4	29.92	760.0	48	8.9	71	w.	1	0.4		0	0			0.02	0.5	clear	
Little Rock, Arkansas	29.69	754.1	30.01	762.2	63	17.2	90	calm	0	0		0	sk.			0	0	clear	
Los Angeles, California	29.50	749.3	29.88	758.9	56.2	13.4	93	e.	4	1.8			fg.		calm	0	0	dense fog	
Louisville, Kentucky	29.47	748.5	30.04	763.0	67.0	19.4	90	calm	0	0		0	sk.			0	0	clear	
Lynchburg, Virginia	29.36	745.7	30.06	763.5	69.3	20.7	78	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	28.93	734.8	29.96	761.0	58	14.4	93	se.	8	3.6			fg.		calm	0	0	dense fog	
Marquette, Michigan	29.19	741.4	29.92	760.0	55	12.8	93	s.	14	6.3			10 s		s.	0	0	cloudy	
Mason, Texas	28.37	720.6	30.10	764.5	60	15.6	78	calm	0	0		0	0			0	0	clear	
Memphis, Tennessee	29.71	754.6	30.05	763.3	68	20.0	84	calm	0	0		0	sk		calm	0	0	dense smoke	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.23	742.4	29.99	761.7	53	11.7	93	se.	8	3.6			fg			0	0	dense fog	
Mobile, Alabama	29.96	761.0	30.03	762.7	70.0	21.1	90	n.	4	1.8		0	0			0	0	clear	
Montgomery, Alabama	29.83	757.7	30.06	763.5	66.1	18.9	90	ne.	2	0.9		1 k	0			0	0	clear	
Moorhead, Minnesota	28.84	732.5	29.85	758.2	50	10.0	93	nw.	12	5.4			10 s			inap.	inap.	cloudy	
Morgantown, W. Virginia	29.10	739.1	30.08	764.0	58.9	14.9	90	calm	0	0		0	fg			0	0	clear	
Mt. Washington, N. H.	23.77	603.7	29.97	761.2	29.0	—1.7	43	nw.	50	22.3		0	0			0	0	clear	
Nashville, Tennessee	29.53	750.0	30.07	753.8	63.6	17.6	91	calm	0	0			fg			0	0	dense fog	
New Haven, Connecticut	29.99	761.7	30.10	764.5	58	14.4	70	ne.	10	4.5		5 k	0	w.		0	0	fair	
New London, Connecticut	30.03	762.7	30.08	764.0	63	17.2	84	n.	5	2.2		0	0			0	0	clear	
New Orleans, Louisiana	29.94	760.5	30.00	762.0	74.8	23.8	90	ne.	2	0.9		0	0			0	0	clear	
Newport, Rhode Island	30.04	763.0	30.09	764.3	57.8	14.3	75	n.	4	1.8		0	0			0	0	clear	
New River, N. Carolina					72	22.2	62	n.			1	1 cs	0			0	0	clear	
New Shoreham, Rhode I'd	30.05	763.3	30.08	764.0	60.0	15.6	75	ne.	21	9.4		0	3 s		ne.	0	0	fair	
New York, New York	29.91	759.7	30.09	764.3	64	17.8	68	ne.	16	7.2		4 cs	fg	sw.		0	0	fair	
Norfolk, Virginia	30.01	762.2	30.04	763.0	70	21.1	90	calm	0	0		0	hz			0	0	clear	
North Platte, Nebraska	27.00	685.8	29.94	760.5	58	14.4	78	ne.	22	9.8		3 k	6 s	ne.	ne.	0	0	threatening	
Olympia, Washington T'y	29.83	757.7	29.87	758.7	54.0	12.2	93	s.	1	0.4			10 s		calm	0.09	2.3	cloudy	
Omaha, Nebraska	28.72	729.5	29.91	759.7	66	18.9	56	s.	4	1.8			10 s		sw.	0	0	cloudy	
Oswego, New York	29.82	757.4	30.14	765.5	52.0	11.1	80	e.	4	1.8		hz	sk.			0	0	dense smoke	
Pensacola, Florida	29.99	761.7	30.02	762.5	70	21.1	90	nw.	4	1.8		0	0			0.01	0.3	clear	
Philadelphia, Pa.	30.01	762.2	30.07	763.8	65	18.3	68	e.	12	5.4		1 c	hz			0	0	dense haze	
Phœnix, Arizona	28.71	729.2	30.44	773.2	72	22.2	71	nw.	1	0.4		5 k	3 s	s.	s.	0	0	cloudy	
Pike's Peak, Colorado	17.89	454.4	30.10	764.5	28	— 2.2	59	sw.	24	10.7		2 cs	0			0	0	clear	
Pioche, Nevada	23.98	609.1	30.00	762.0	53	11.7	22	s.	6	2.7		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.28	743.7	30.10	764.5	62	16.7	84	nw.	1	0.4		0	fg		calm	0	0	clear	
Port Eads, Louisiana	30.00	762.0	30.01	762.2	77.0	25.0	88	e.	7	3.1		0	1 k;hz		c.; e.	0	0	clear	
Port Huron, Michigan	29.36	745.7	30.05	763.3	59.1	15.1	81	e.	2	0.9		0	sk		calm	0	0	dense smoke	
Portland, Maine	30.05	763.3	30.10	764.5	53	11.7	66	ne.	8	3.6		0	0			0	0	clear	
Portland, Oregon	29.80	750.9	29.87	758.7	54.7	12.6	91	n.	1	0.4			10 n			inap.	inap	light rain	
Portsmouth, N. Carolina					75	23.9	76	ne.	6	2.7		0	fg		calm	0	0	clear	
Prescott, Arizona	24.76	628.9	29.95	760.7	56	13.3	83	calm	0	0		0	0			0	0	clear	
Punta Rassa, Florida	29.92	760.0	29.93	760.2	76	24.4	76	ne.	8	3.6		0	hz.		calm	inap.	inap.	clear	
Red Bluff, California	29.53	750.0	29.87	758.7	56.0	13.3	69	se.	1	0.4		hz	1 s	calm	calm	0	0	fair	
Rio Grande City, Texas	29.77	756.1	29.98	761.5	65	18.3	84	calm	0	0		0	0			0	0	clear	
Rochester, New York	29.51	749.5	30.15	765.8	53	11.7	80	e.	6	2.7		10 ck	sk.	n.		0	0	cloudy	
Roseburg, Oregon	29.30	744.2	29.88	758.9	54.1	12.3	86	calm	0	0			10 s			0	0	cloudy	
Sacramento, California	29.83	757.7	29.91	759.7	52.9	11.6	80	se.	12	5.4		0	0			0	0	clear	
St. Louis, Missouri	29.40	746.7	30.01	762.2	66.0	18.9	73	se.	1	0.4		0	sk			0	0	clear	
St. Paul, Minnesota	28.89	733.8	29.77	756.1	60.5	15.8	92	se.	6	2.7			10 ks		sw.	0	0	threatening	
Salt Lake City, Utah	25.49	647.4	29.82	757.4	52	11.1	28	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.28	743.7	29.98	761.5	61.6	16.4	84	calm	0	0		0	0			0	0	clear	
San Diego, California	29.79	756.7	29.86	758.4	63.4	17.4	78	n.	2	0.9			10 s			0	0	cloudy	
Sandusky, Ohio	29.35	745.5	30.04	763.0	65.2	18.4	90	nw.	7	3.1			fg.			0	0	dense fog	
Sandy Hook, New Jersey	30.04	763.0	30.07	763.8	67.0	19.4	84	ne.	19	8.5		5 k	0	ne.		0	0	fair	
San Francisco, California	29.87	758.7	29.93	760.2	56	13.3	93	sw.	5	2.2			fg		sw.	0	0	dense fog	
Santa Fé, New Mexico	23.30	591.8	30.10	764.5	49.3	9.6	67	sw.	1	0.4		7 ck	0	sw.		0	0	fair	
Savannah, Georgia	29.96	761.0	30.05	763.3	70	21.1	79	n.	3	1.3		0	hz			0	0	clear	
Shreveport, Louisiana	29.78	756.4	30.01	762.2	65	18.3	90	calm	0	0		0	0			0	0	clear	
Silver City, New Mexico	24.29	617.0	29.86	758.4	61	16.1	66	calm	0	0		9 k	0	calm		0	0	cloudy	
Sitka, Alaska	29.99	761.7	30.06	763.5	52	11.1	73	calm	0	0			10 s		calm	0	0	cloudy	
Smithville, North Carolina	30.01	762.2	30.05	763.3	66	18.9	78	n.	6	2.7		0	hz			0	0	clear	
Spokane Falls, Wash. Ter.	27.93	709.4	29.95	760.7	44	6.7	93	ne.	1	0.4		5 k	0			0.01	0.3	fair	
Springfield, Illinois	29.32	744.7	30.01	762.2	63.5	17.5	86	se.	5	2.2		1 c	sk	w.		0	0	clear	
Springfield, Massachusetts	29.98	761.5	30.11	764.8	57.9	14.4	74	n.	4	1.8		0	hz			0	0	clear	
Stockton, Texas	26.97	685.0	30.04	763.0	60.6	15.9	62	sw.	8	3.6		0	0			0	0	clear	
St. Vincent, Minnesota	28.93	734.8	29.82	757.4	47	8.3	96	w.	4	1.8		0	1 s		calm	0.15	3.8	clear	
Thatcher's Island, Mass.	30.05	763.3	30.11	764.8	57.0	13.9	80	nw.	13	5.8		4 k	0	nw.		0	0	fair	
Toledo, Ohio	29.34	745.2	30.04	763.0	61	16.1	87	calm	0	0			fg			0	0	dense fog	
Tucson, Arizona	27.42	696.5	29.78	756.4	75	23.9	76	s.	2	0.9			10 ks			0	0	cloudy	
Umatilla, Oregon	29.52	749.8	29.93	760.2	53.0	11.7	69	s.	6	2.7			10 s		calm	0	0	cloudy	
Uvalde, Texas	29.03	737.3	29.84	757.9	61	16.1	78	calm	0	0		0	0			0	0	clear	
Vicksburg, Mississippi	29.75	755.9	30.02	762.5	71	21.7	71	e.	5	2.2		0	0			0	0	clear	
Visalia, California	29.52	749.8	29.88	758.9	56	13.3	69	nw.	3	1.3		0	0			0	0	clear	
Washington, D. C.	29.95	760.7	30.06	763.5	63.0	17.2	100	calm	0	0		0	fg			0	0	clear	
Wickenburg, Arizona					67	19.4	78	calm			0	0	8 ks			0	0	cloudy	
Wilmington, N. Carolina	29.98	761.5	30.04	763.0	70	21.1	70	n.	4	1.8		hz	hz.	calm	calm	0	0	dense haze	
Winnemucca, Nevada	25.49	647.4	29.82	757.4	36	2.2	53	s.	6	2.7		0	0			0	0	clear	
Wood's Holl, Mass.	30.04	763.0	30.07	763.8	58	14.4	74	ne.	4	1.8		0	0			0	0	clear	
Yankton, Dakota	28.64	727.4	29.95	760.7	62	16.7	84	sw.	4	1.8			10 s			0	0	cloudy	
Yuma, Arizona	29.63	752.6	29.77	756.1	79.8	26.6	65	w.	2	0.9		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.99	761.7	30.01	762.2	82	27.8	96	e.	3	1.3		hz	5 ks		e.	0	0	fair	J. A. Racker.
Bogota, U. S. Columbia	22.07	560.6			50.0	10.0	84	s.	1	0.4		8 k	2 s	se.		1.03	26.2	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.91	759.7	29.91	759.7	83	28.3	87	e.				0	5 ks		ese.	0.4	10.		B. Bigar.
Havana, Cuba, W. I.	29.90	759.4	29.95	760.7	80	26.7	82	calm	0	0		2 cs	2 ks	calm		inap.	inap.	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.94	760.5	29.95	760.7	75.7	24.3	88	calm	0	0		7cs,ck	2 s	e.		0.01	0.3	cloudy	Robert Johnstone
Navassa, W. I.	29.84	757.9	29.92	760.0	81	27.2	87	e.	4	1.8		5 cs; k	5 k;ks	e.	se.	1.20	30.5	fair	F. M. Everett.
Paramaribo, S. A.	30.01	762.2	30.01	762.2	81	27.2	78	se.			2	0	2 c			0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.48	748.8	30.04	763.0	73	22.8	94	calm			0		10 ks		calm	1.18	30.0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					74.5	23.6		nw.			1	2 ck	0	se.		0	0		Earl Flint.
Santiago de Cuba, W. I.	29.91	759.7	29.94	760.5	81	27.2	74	n.	1.2	0.5		2 ck	8 ks		se.	0	0	cloudy	Robert Mason.
St. Thomas, W. I. ‡	30.00	762.0	30.01	762.2	82	27.8	82	se.	4	1.8		1 c	3 k	ne.	se.	0	0		G. O. Gyllich.
York Factory, B. A.	29.98	761.5	30.03	762.7	37.0	2.8	100	se.	15	6.7		6 k	4 s	s.	se.	0.05	1.3	raining	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Friday Island, Torres St	29.91	759.7	76.2	24.6	86	ene.			2		3							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibraltar, Mediterranean	30.20	767.1	72	22.2	80	nnw.			2-3		4	nw.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.79	756.7	74	23.3		calm			0		3	calm						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 25° 30′, W. 65° 25′	30.02	762.5	82	27.8	87	ssw.			4		5					2	ssw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.99	761.7	72.5	22.5	78	wnw.			1-2		3	nnw.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, S. 10° 35′, W. 79° 05′	30.03	762.7	64	17.8	89	sse.			5		9					3	ene.	d. clouds	Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.77	756.1	80	26.7		wsw.			2		3	wsw.				3	wsw.	d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 16° 04′, W. 5° 20′	30.14	765.5	67	19.4		ese.			2		6	ese.				2	ese.	d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	29.90	759.4	75	23.9	95	wsw.			1		10							raining	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	29.46	748.3	52	11.1	90	w.			1		10							overcast	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.59	751.6	92	33.3		se.			1		4	se.				1	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 11° 56′, E. 79° 50′	29.74	755.4	84.5	29.2		sse.			1		8					3	ssw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, S. 1° 04′, E. 65° 05′	29.86	758.4	83	28.3	74	e.			3-4		6	e.				1	se.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19	29.81	757.2	82	27.8		wsw.			1		2					1	w.	misty	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 12° 32′, W. 81° 44′	29.94	760.5	83	28.3	91	se.			1		2	e.						d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish, Off Land Slip, Yezo, Japan	30.11	764.8	57	13.9	75	nne.			3		5	ne.				2	ne.	misty	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 19° 44′, W. 155° 04′	30.11	764.8	70	21.1	90	wsw.			4-5		10							raining	Comm. E. G. Bourke.
H. M. S. Garnet, S. 34° 54′, W. 56° 13′	29.55	750.6	61	16.1	94	ssw.			6		2							d. clouds	Capt. L. F. Jones
H. M. S. Griffon, N. 18° 51′, W. 77° 10′	29.95	760.7	82	27.8	74	ese.			1		2							d. clouds	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, 0° 00′, E. 166° 30′	29.86	758.4	81	27.2	78	e.			3-4		2	e.				2	e.	d. clouds	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 34 45′ E. 140° 50′	30.16	766.1	65	18.3		n.			4-6		7	n				5	n.	d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel, Canton, China *†	29.88	758.9	84	28.9							6	calm						d. clouds	Capt. W. M. Lang.
H. M. S. Kingfisher, Payta, Peru, S. A.	30.02	762.5	63	17.2		calm			0		5	calm						d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 21° 00′, E. 64° 00′	30.09	764.3	72	22.2		e.			3		3	ese.				3	ese.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 22° 12′, W. 27° 56′	30.20	767.1	72	22.2	80	sse.			1		2					2	s.	d. clouds	Capt. C. F. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 08′, E. 109° 25′	29.85	758.2	84	28.9	81	ene.			3-4		2					2	ese.	misty	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.92	760.0	85	29.4	91	ssw.			2		0					0		blue sky	Capt. C. G. Tryon.
H. M. S. Mutine																			Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S Northampton, Halifax, Nova Scotia	29.80	756.9	49	9.4	71	nw.			4		5	nw.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican, S. 19° 45′, W. 70° 24′	30.11	764.8	61	16.1	100	ese.			2		10					2	s.	overcast	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready, N. 8° 33′, E. 81° 15′	29.86	758.4	83	28.3		wsw.			1		6							d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 11° 51′, E. 51° 14′	29.68	753.9	82.3	27.9	70	s.			3		2							d. clouds	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis, N. 14° 16′, W. 23° 05′	30.01	762.2	82	27.8	83	calm			0		7	ese.				2	ssw.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 28° 35′, W. 18° 55′	30.16	766.1	76	24.4	79	nne.			2		1	nne.				1	nne.	blue sky	Capt. T. H. Royse.
H. M. S. Tenedos, N. 47° 15′, W. 62° 30′	29.75	755.6	50.5	10.3	90	nw.			6		7					5	n.	squally	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	30.04	763.0	60	15.6	88	calm			0		10	calm						drizzling	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.94	760.5	78	25.6		n.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C
H. M. S. Woodlark, Kurachee, Bombay, India	29.69	754.1	83.5	28.6	67	w.			2		0							blue sky	Capt. T. P. Nesham.
H. M. S. Wrangler																			

GERMAN NAVAL SERIES.

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PORTUGUESE NAVAL SERIES.

Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.

Bengo, S. 11° 46′, E. 12° 47′	30.00	761.9	73.0	22.8	76	wsw.			5		0					2		blue sky	Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Id's	29.97	761.3	83.3	28.5	78	ene.			1		4					3		d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.87	758.8	83.3	28.5	78	ese.			1		3							d. clouds	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.

H. M Corvette Saga																			Capt. M. von Krusenstiern
H. M Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	30.09	764.3	71	21.7	90	n.	2	0.9			2		sw.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.10	764.5	53	11.7	80	nw.	4	1.8		5 c?	0	nw.		0	0			cloudy?	
Naval Hospital, Yokohama, Japan	29.99	761.7	59.5	15.3	88	e.			3		10		ne.	0.04	1.0			misty	
Adams, Panama, Panama	29.71	754.6	76	24.4	95	nne.			1		5		calm			sm'h		fair	
Alaska, Callao, Peru	29.97	761.2	60	15.6	100	s.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	30.00	762.0	62	16.7	88	nne.			2		10		calm			sm'h		misty	
Alliance. N. 77° 21′, E. 9° 45′	30.09	764.3	34	1.1	71	ssw.			3		10			0	0	sm'h		overcast	
Ashuelot, Kobe, Japan	30.12	765.0	66	18.9	74	ene.			1		10		calm					cloudy	
Colorado, New York, N. Y.	30.07	763.8	65	18.3	73	ne.	4	1.8			2							hazy	
Constitution. New Bedford, Mass.	30.03	762.7	57	13.9	100	nne.	3	1.3			2							clear	
Franklin, Norfolk, Va.	29.94	760.5	70	21.1	100	nw.	2	0.9			0			0	0			clear	
Galena. Leghorn, Italy	29.84	757.9	74	23.3	81	s.			2		5					sm'h		fair	
Independence, N. Yard, Mare I'd, Cal.	29.78	756.4	59	15.0	76	wsw.	2.4	1.1			2		wsw.					fair	
Jamestown, Mare Isl'd, Cal. *	29.89	759 2	57	13.9	81	wnw.			4		2			0	0			clear	
Kearsarge, Philadelphia, Pa.			68	20.0	79	ne.			2		5					sm'h		hazy	
Lackawanna. Mare Isl'd, Cal. †	30.12	765.0	59	15.0	94	w.			2		0							clear	
Lancaster, New York, N. Y.	30.07	763.8	69	20.6	70	ene.					8		calm					d. clouds	
Marion, Maldonado, Uruguay *	29.35	745.5	62	16.7		nw.			1		10		nw.	light	light	sm'h		cloudy	
Michigan. Erie, Pa.	29.98	761.5	59	15.0	100	se.			1									hazy	
Minnesota, Newport, R. I.	30.09	764.3	60	15.6	82	nne.			2		0			0	0	sm'h		hazy	
Monocacy, Yokohama, Japan	30.20	767.1	61	16.1	88	n.			2		10		calm					cloudy	
Nipsic. Genoa, Italy	29.82	757.4	73	22.8	76	se.			4		8		se.			sm'h		d. clouds	
Onward, Callao, Peru †	30.03	762.7	59	15.0	100	sse.			1		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.91	759.7	83	28.3	75	ese.			1		10		calm					overcast	
Passaic, Washington, D. C.	30.16	766.1	69	20.6	95	ne.			1		10							overcast	
Pensacola. N. 7° 06′, W. 79° 37′	29.95	760.7	77	25.0	91	sw.			3		8			slt	slt	sm'h		cloudy	
Portsmouth, New London, Conn.	30.07	763.8	57	13.9	100	nne.			4		2					sm'h		clear	
Powhatan. Aspinwall, Panama	29.95	760.7	78	25.6	86	sse.			1-2		8		s.			sm'h		fair	
Quinnebaug, Marseilles, France	29.71	754.6	75	23.9	72	se.			5		2		se.			sm'h		hazy	
Ranger, Mare Island, Cal. *	29.87	758.7	56	13.3	94	sw.			3		2		calm	0	0	sm'h		clear	
Richmond, N. 10° 40′, W. 91° 10′	29.90	759.4	78	25.6	100	sw.			4		10		sw.	2.87	72.9	sm'h		threatening.	
Saratoga. Wickford, R. I.	30.01	762.2	55	12.8	100	n.			2		1		n.	0	0	sm'h		clear	
Shenandoah, Maldonado, Uruguay *	29.60	751.8	59	15.0	94	sse.			4		2					sm'h		fair	
St. Louis, League Island, Pa.	29.74	755.4	68	20.0	70	nne.	4	1.8			2		calm	0	0			clear	
Swatara. Chefoo, China †	30.20	767.1	70	21.1	66	ne.			2		0							clear	
Tennessee, New York, N. Y.	30.08	764.0	68	20.0	65	ne.	15	6.7			5			0	0			fair	
Trenton, N. 23° 25′, W. 29° 20′ *	30.07	763.8	79	26.1	82	ne.			4		10			0	0	sm'h		cloudy	
Vandalia. New York, N. Y.	30.04	763.0	68	20.0	65	ne.			3		2		ne.					fair	
Wabash, Boston, Mass.	30.10	764.5	54	12.2	80	nnw.	6	2.7			2		nw.	0	0			fair	
Wyoming. Port Royal, S. C.	30.01	762.2	73	22.8	72	nne.	7	3.1			2		calm	0	0			fair	
Yantic, New York, N. Y. *	30.04	763.0	65	18.3	68	ne.			3		5							hazy	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland †*	29.54	750.3	.....	.....	.....	ene.	3	.....	10	.....	e.	.....	.....	.....	.....	raining	N. McLean.
S. S. Circassian, Capt. W. H. Smith	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson Off Arklow Light ship, Ireland	29.37	746.0	61	16.1	.....	s.	3	.....	10	.....	sw.	.....	.....	sm'h	.....	cloudy	
AMERICAN S. S. CO.																	
Peter Wright & Sons, agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, N. 41° 44′, W. 53° 25′ *†	29.79	756.7	68	20.0	95	n.	4	.....	5?	.....	n.	0	0	mod.	nw.	cloudy?	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Liverpool, Eng *†	29.40	746.7	58	14.4	94	se.	4	.....	10	.....	se.	.....	.....	.....	.....	heavy rain	
S. S. Pennsylvania, Capt. G. H. Dodge, N. 42° 57′, W. 44° 29′ †	29.66	753.4	64	17.8	73	w.	5	.....	10	.....	w.	.....	.....	r'gh	w.	cloudy	C. Rodman, 3d Off.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. British Merchant, E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Cipero, Capt. W. N. Lailey, N. 9° 15′, W. 58° 48′	30.00	762.0	83.5	28.6	83	e.	2	.....	4	.....	.....	.....	.....	2	ene.	d. clouds	
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Coppename, Capt. A. Buchan, N. 44° 30′, W. 26° 43′	29.84	757.9	62.8	17.1	90	sw.	4	.....	10	.....	.....	.....	.....	.....	.....	overcast	
Bk. Glaramara, Capt. R. Morton,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bg. Hermine, Capt. S. G. Jones, N. 4° 32′, W. 18° 33′	30.05	763.3	74.7	23.7	95	s.	6	.....	10	.....	.....	.....	.....	.....	.....	heavy rain	
Bkt. Hope, Capt. J. Campbell ‡	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Lochee, Capt. J. Raeburn, S. 44° 00′, E. 23° 40′	30.31	769.9	47.6	8.7	77	nw.	5	.....	8	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Mertola, Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Pielone, Capt. C. H. Renant, S. 43° 21′, E. 19° 40	30.26	768.6	50.5	10.3	86	nw.	5	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	
Queen of Cambria, Capt. M. Parry, N. 33° 28′, W. 16° 33′	30.14	765.5	79	26.1	58	nw.	2	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Rosetta, Capt. A. E. Barlow, N. 14° 32′, E. 52° 45′	29.99	761.7	78	25.6	80	ne.	4	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Shun Lee, Capt. J. N. Gray, N. 15° 40′, W. 33° 18′ ‡	30.00	762.0	80.5	26.9	78	nne.	4-5	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, N. 35° 18′, E. 139° 43′	30.11	764.8	61.5	16.4	.....	nne.	4	.....	6	.....	.....	.....	.....	.....	.....	raining	R. Ladd, 1st Officer.
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, agent San Francisco.																	
S. S. Newbern, Capt. E. Rogers N. 23° 58′, W. 111° 29′ †	29.78	756.4	77	25.0	82	w.	6	.....	10	.....	wsw.	0	0	light	wsw.	cloudy	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., agents, New York.																	
S. S. Galia, Capt. W. H. P. Hains	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.																	
S. S. Braunschweig, Capt. C. Pohle, Off Dover, England	29.20	741.7	63.0	17.2	97	s.	3	.....	10	.....	s.	.....	.....	sm'h	.....	rainy	
S. S. Hermann, Capt. H. Baur,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst, N. 49° 33′, W. 28° 14′	29.53	750.0	59.0	15.0	94	ssw.	3	.....	10	.....	ssw.	16 h'r	16 h'r	r'gh	wnw; ssw.	raining	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer N. 42° 53′, W. 51° 45′	29.73	755.1	62.0	16.7	77	nnw.	4	.....	2	.....	nnw.	3 h'r	3 h'r	mod.	wnw.	fair	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Englehart & von [Goesset.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, Hong Kong, China †	30.03	762.7	84	28.9	79	ese.	2	.....	2	.....	se.	0	0	sm'h	.....	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 38° 40′ W. 124° 32′ *†	30.13	765.3	61	16.1	71	w.	2	.....	6?	.....	wnw.	.....	.....	mod.	nw.	clear?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 47° 30′, W. 153° 32′	30.45	773.4	62	16.7	91	s.	5	.....	0	.....	.....	.....	.....	sli't	sw.	fine	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Oterendorp, agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles N. 41° 40′, W. 124° 50′ †	29.87	758.7	57	13.9	87	s.	4	.....	10	.....	ssw.	0	0	light	sse.	cloudy	
S. S. Oregon, Capt. Pollmann Portland, Oregon †	29.87	758.7	55	12.8	93	calm	0	.....	10	.....	.....	.....	.....	.....	.....	cloudy	C. W. Pohle, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 35° 46′, W. 121° 23′ †..	29.92	760.0	53	11.7	93	nw.	3		0					sm'h		fair	J. N. Ingalls.
S. S. Dakota, Capt. ——— N. 40° 47′, W. 127° 41′ †.	29.88	758.9	55	12.8	74	nw.	2		5?		nw.	0	0	sm'h		clear?	
S. S. Idaho, Capt. T. Huntington, N. 47° 11′, W. 125° 03′ †..	29.76	755.9	56	13.3	87	se.	4		10		se.					rainy	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 35° 10′ W. 120° 40′ †.	29.97	761.2	57	13.9	81	nw.	3		0			0	0	sm'h	nw.		G. H. Harrison.
S. S. Senator. Capt. Wallace, Eureka, Cal †..	29.93	760.2	51	10.6	86	nw.	1		2							clear	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal †.	29.93	760.2	54	12.2	87	sw.	2		?		sw.					cloudy?	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 40° 20′, W. 124° 32′ †..	30.10	764.5	55	12.8	100	se.	2		10		s.			mod.	se.	cloudy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——— S. 1° 02′, W. 167° 16′	29.85	758.2	76	24.4	91	ne.	3		5		ne.			sm'h		fine	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W. †	29.91	759.7	62	16.7	83	s.	3		10			0	0			overcast	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry.. N. 41° 45′, E. 159° 36′ †*..	30.08	764.0	62	16.7	94	ne.	3		10		n.	light	light	light	w.	rainy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt.——— N. 21° 09′, W. 105° 30′ †	29.91	759.7	84	28.9	96	nnw.	2		5		nnw.	0	0	long	w.	fine	
S. S. City of Sidney, Capt. H. C. Dearborn,																	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 33° 28′, E. 135° 47′ †..	30.18	766.6	78	25.6	69	ene.	6		10			0.5	13.	r'gh	ene.	rainy	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, N. 32° 16′, W. 120° 25′ †..	29.99	761.7	62	16.7	?	nw.	5		10		nw.	0	0	r'gh	nw.	gloomy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly Panama, Panama †..	29.92	760.0	84	28.9	79	ne.	2		5?		ne.	1 hr	1 hr			clear?	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 34° 00′, E. 156° 00′—	29.87	758.7	65	18.3	78	wsw.	3		5?		w.			sm'h	w.	cloudy ?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 42° 46′, W. 53° 26′ †.	30.06	763.5	63	17.2		nnw.	1		2		wnw.	0	0	high	w.	fine	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 48° 54′, W. 23° 36′ †..	29.66	753.4	55	12.8	87	w.	6		10		wnw.	0.1	3.	h'vy	wnw.	dull	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, England †..	29.60	751.8	58	14.4	?	nne.	2		5		nw.	0	0			fair	R. Horsfall.
S. S. Britannic, Capt. H. Perry																	
S. S. Celtic, Capt. B. Gleadell, N. 42° 31′, W. 61° 06′ †..	29.79	756.7	60	15.6		nnw.	4		5		nw.	3 h'r	h'vy	long	w.	fair	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, N. 43° 18′, W. 46° 24′ †.	29.79	756.7	64	17.8	94	wnw.	5		8		w.	h'vy	h'vy	high	w.	showery	
S. S. Republic. Capt. P. J. Irving																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Off Martha's Vineyard, Mass †..	30.02	762.5	65	18.3	100	nne.	5	0	5 s?			0	0			clear?	
Golden Fleece																	
Hassler, Lt. Com. Nichols, N. 52° 09′, W 131° 13′ *†..	30.00	762.0	56	13.3		nnw.	2		0					sm'h		blue sky	
S. Iron Cross, Capt. Randall, N. 5° 40′, W. 25° 42′ *..	29.98	761.5	81.8	27.7	98	ssw.	3	8 ck	0	n; sw.		0	0	mod.	s.	misty	W. Randall.
S. Pawashick. Capt. E. Fry. N. 42° 21′, W. 40° 30′ *†..	29.55	750.6	73	22.8	95	ssw.	6		8		wsw.			r'gh	sw.	cloudy	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †..	30.07	763.8	74	23.3	59	nnw.	5		2		nw.	mod.	mod.			fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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TAKEN SIMULTANEOUSLY ON SEPTEMBER 22, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.07	763.7	78.8	26.0	81	w.			4		2			0	0	fair	Raynard.
Algiers ‡			30.07	763.8	79.2	26.2	82	w.			6		0			0	0	clear	Nicolas.
La Calle ‡			30.06	763.5	85.6	29.8	75	n.			1		4			0	0	cloudy	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			30.04	763.1	80.6	27.0	41	n.			1		1			0	0	fair	Dumas.
Tebessa ‡			30.03	762.8	89.2	31.8	12	ssw.			7		3			0	0	pretty fair	Derché.
Geriville ‡					91.0	32.8	11	nnw.			2		0			0	0	clear	Lonchamp.
Laghouat ‡			30.06	763.4	88.2	31.2	10	sw.			2		1			0	0	very fair	Herbin.
Biskra ‡			30.06	763.4	95.0	35.0	26	se.			1		8			0	0	very cloudy.	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.07	763.8	30.16	766.0	47.8	8.8	87	sw.	2	0.9			8			0.12	3.0	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.09	738.8	29.61	752.0	75.7	24.3	67	s.			4		8			0.012	0.3	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.06	738.2	29.83	757.7	50.0	10.0	76	ene.	21.7	9.7			10			0.402	10.2		Dr. Wiersbicki.
Eperies	28.94	735.1	29.82	757.4	52.5	11.4	88	calm			0		10 n			0	0		Julius Mikolik.
Gratz ‡	28.42	721.8	29.62	752.4	64.9	18.3	87	se.			3		10			0.008	0.2	thnd'r storm	Andreas Rospini.
Hermannstadt	28.45	722.7	29.86	758.5	59.7	15.4	68	sse.			5		10			0.016	0.4		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.39	721.1	29.72	754.8	54.1	12.3	80	wnw.			3		10			0.130	3.3	gloomy	The Staff.
Lemberg	29.00	736.5	29.99	761.8	48.2	9.0	66	se.			3		10			0.492	12.5		Dr. T. Stanecki.
Pola	29.60	751.7	29.70	754.4	71.6	22.0	65	wsw.			3		10			0	0		I. R. Hydrographic Office.
Szathmar	29.33	745.0	29.79	756.6	61.5	16.4	78	e.			4		9			0.409	10.4		Beicht Peter, S. J.
Szegedin	29.41	747.1	29.68	753.8	76.1	24.5	49	sw.			4		6			0	0		Karl Stancel.
Trieste	29.60	751.9	29.71	754.5	73.6	23.1	59	sw.			3		10			1.075	27.3		Secco.
Vienna	28.97	735.7	29.66	753.3	64.2	17.9	61	w.			5		9			0.339	8.6		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 23, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Aberdeen	29.75	755.6	29.85	758.2	51.9	11.1	93	ese.	25	11.2			10			0.005	0.1	drizzling	W. Boswell.
Armagh, Observatory	29.51	749.5	29.74	755.4	58.6	14.8	73	ssw.	3	1.3			3					d. clouds	S. Call.
Bidston, Liverpool Obs'y			29.65	753.1	56.6	13.7	73	wnw.	24	10.7			9					overcast	John Hartnup.
Bolton, Sharples	29.10	739.1	29.62	752.3	55.5	13.1	85	nnw.	12	5.4			10					overcast	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.18	741.2	29.58	751.3	56.3	13.5	81	w.			2		10			0.40	10.2	raining	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.57	751.1	57.0	13.9	93	nw.			0.4		10					raining	John McLaren.
Chatham, School M. E.	29.49	749.0	29.62	752.3	56.1	13.4	83	sw.			1		10					misty	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.53	750.0	29.75	755.6	60.9	16.1	63	nnw.			1		5					d. clouds	The Staff.
Fort Napier, Natal	27.98	710.7	30.20	767.1	55.2	12.9	80	s.			3		9					overcast	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.73	755.1	29.96	761.0	83.0	28.3	83	s.			3		4					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.70	754.4	60	15.6	70	wsw.			3		4					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	30.10	764.5	30.15	765.8	73.6	23.1	84	sw.			3		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.48	748.8	29.69	754.1	55.0	12.8	92	ene.			2		10					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.43	747.5	29.60	751.8	56.6	13.7	82	w.			1		10					overcast	The Staff.
Guernsey	29.48	748.8	29.70	754.4	60.5	15.8	76	wnw.			2		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.58	751.3	29.62	752.3	57.7	14.3	71	w.	10	4.5			10					threatening	The Staff.
Leicester, Museum	29.38	746.2	29.62	752.3	62.2	16.8	80	nw.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.90	759.4	29.97	761.2	84.0	28.9	71	nw.			1		6			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.89	759.2	29.94	760.5	84.0	28.9	83	s.			1		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	28.92	734.6	29.43	747.5	57.7	14.3	77	wnw.			4		7					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.40	746.7	29.63	752.6	57.4	14.1	67	wnw.			5		10					squally	The Staff.
Plymouth	29.64	752.8	29.71	754.6	62.0	16.7	61	n.			2		2					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.95	760.7	51.9	11.1	86	se.	30	13.4			10					misty	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.90	759.4	29.96	761.0				ne.			2							d. clouds	Serg't W. H. Lyne.
Sheffield	29.30	744.2	29.58	751.3	57.1	13.9	90	nw.			4		10			0.38	9.7	showery	W. F. Cooper.
Silloth Rectory	29.61	752.1	29.64	752.8	55.7	13.2	96	calm			0		10			0.185	4.7	raining	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.64	752.8	57.1	13.9	71	w.	8	3.6			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	29.42	747.3	29.64	752.8	58.6	14.8	73	nw.			3		8					squally	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.77	756.1	29.79	756.7	67	19.4	68	nnw.			4		5					d. clouds	W. Newcombe.
Valencia, Observatory	29.75	755.6	29.77	756.1	58.6	14.8	78	sw.	14	6.3			10					d. clouds	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected Inch.	Mill.	Reduced Inch.	Mill.	Temperature Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.14	765.5	30.18	766.6	47	8.3	75	w.	3	1.3			10 s			0.065	1.6	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.15	765.8	30.21	767.3	36	2.2	89	sw.	2	0.9		0	0			0	0	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.04	763.0	30.07	763.8	41	5.0	76	s.	18	8.0		5 k	5 s	nw.	calm	0	0	cloudy	J. McWilliams.
Fort Garry, Manitoba*	29.08	738.6	29.92	760.0	37	2.8	96	w.	4	1.8				w.	w.	0.020	0.5	hazy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.19	764.5	30.24	768.1	46	7.8	77	nw.	6	2.7		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.66	753.4	29.99	761.7	65	18.3	84	s.	7	3.1		hz.	0			0	0	dense haze	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.81	757.2	30.01	762.2	53	11.7	69	s.	13	5.8		8 k	2 ks	n.		Inap.	inap.	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.21	741.9	29.88	758.9	62	16.7	93	sw.	6	2.7		2 cs	2 ks	w.	w.	0.20	5.1	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.35	745.5	30.02	762.5	60	15.6	94	calm	0	0		10 c	0	sw.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.36	745.7	30.00	762.0	61	16.1	96	e.	8	3.6		8 ck	hz; sk	w.		0	0	cloudy	M. Payne.
Quebec, Quebec*	29.78	756.4	30.11	764.8	44	6.7	76	e.			1		8 ks		w.	0	0	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.44	747.8	29.89	759.2	56	14.4	57	calm	0	0		8 ck	sk.	n.		0.03	0.8	smoky	W. H. McIntyre.
Saugeen, Ontario*	29.22	742.2	29.95	760.7	63	17.2	93	se.	13	5.8			8 ks			0.11	2.8	cloudy	K. Stewart.
St. Andrews, N. B.	30.18	766.6	30.23	767.8	42	5.6	82	nw.	1	0.4		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.08	764.0	30.14	765.5	45	7.2	74	nw.	8	3.6		2 c	2 ks			0	0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.63	752.6	30.01	762.2	56	13.3	96	nw.	3	1.3		2 ck	8 n	w.		0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.19	766.8	30.25	768.3	44	6.7	93	calm	0	0		0	0			0	0	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.72	754.9	29.97	761.2	43	6.1	75	nw.					10 s			0.22	5.6		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected Inch.	Mill.	Reduced Inch.	Mill.	Temperature Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Cape St. Francis Lt. House‡	30.25	768.3	30.28	769.1	64.5	18.1	97	ene.	7.3	3.3		3 c	0			0	0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.38	746.2			79	26.1	37	nw.			1	2	4			0	0	light clouds	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected Inch.	Mill.	Reduced Inch.	Mill.	Temperature Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.02	762.4	30.04	763.0	70.7	21.5	87	ne.	10.7	4.8			10			0.319	8.1	covered	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.98	761.6	30.03	762.8	47.8	8.8	59	ese.	43	19			5						Oversergent Fischer
Fanöe	29.83	757.7	29.85	758.2	52.7	11.5	66	e.			7		1						Overloerer Lauridsen
Godthaab, Greenland	29.39	746.5	29.43	747.6	36.0	2.2	84	nne.			4		1						S. Kleinschmidt.
Stykkisholm, Iceland	29.56	750.7	29.60	751.8	55.4	13.0	80	se.			4		8						A. O. Thorlacius.
Thorshavn,	30.01	762.3	30.05	763.2	52.0	11.1	85	ese.	18	8			10						Overloerer Bergh.
Vestervig	29.91	759 7	30.00	762.0	51.1	10.6	61	e.			7		2						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.24	742.8	29.90	759.4	52.9	11.6	86	s.			1		8			1.032	26.2	raining	M. Labroue, Director.
Alençon Normal School	29.17	740.9	29.72	754.9	60.1	15.6	78	nw.			2		k	s.	w.	0.102	2.6		M. Nicot, Director.
Arras, Engineer School	29.36	745.7	29.61	752.1	57.7	14.3	66	wnw.				0	kn		nw.				M. Klein, Commandant.
Avignon, Normal School	29.84	757.0	29.88	759.0	66.2	19	54	w.			1		10			0.220	5.6	covered	M. Giraud, Director.
Bar-sur-Seine	29.18	741.2	29.73	755.1	56.8	13.8	86	nw.			2		10		w.	1.752	44.5	raining	M. Saillard, Director.
Beauvais, Normal School	29.42	747.2	29.68	753.8	60.4	15.8	73	w.			1		8		w.	0.20	5.	very cloudy.	M. Frère Eugène Marie.
Besançon, Normal School	28.89	733.8	29.77	756.2	59.0	15	87	ssw.			1		5		s.	0	0	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.54	750.4	29.80	756.9	61.7	16.5	72	wsw.			2		8		nw.	0.661	16.8	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.17	740.8	29.67	753.6	56.8	13.8	63	sw.			4		8		sw.	0.807	20.5	raining	M. Postel, Director.
Brest, Naval Observatory	29.54	750.4	29.79	756.6	61.9	16.6	66	nnw.			1		3		nnw.	0.157	4.0		M. de Rermaree, Dir.
Caen, Normal School	29.59	751.6	29.67	753.5	63.0	17.2	77	nw.			1		5			0	0	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					65.1	18.4	71	s.			2		10			0.929	23.6	covered	M. Jadot, Director.
Charleville, Normal School.	29.10	740.6	29.66	753.3	57.2	14	63	wsw.			1		10			1.10	28.	covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.41	721.5	29.74	755.5	57.2	14.0	58	sw.			2		10			0.945	24.0	covered	M. Alluard, Director.
Cluny, Normal School	28.95	735.2	29.77	756.1	60.4	15.8	66	se.			1		4	s.		0	0		M. de Villemontée, Dir.
Commercy, Normal School.	28.86	733.1	29.71	754.6	55.4	13	81	w.			1		5	w.	w.	1.787	45.4	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.33	694.1	29.85	758.2	53.6	12	69	ne.			3	0	5 kn		se.	1.89	48.	½ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	28.81	731.8	29.95	760.8	64.8	18.2	47	sw.			2		8		sw.	0.283	7.2	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.07	738.3	29.82	757.4	61.0	16.1	62	nw.			1		k			0.244	6.2		M. Ablard, Director.
Guéret, Normal School	28.17	715.5	29.72	754.8	54.9	12.7	72	sw.			4		n		ene.	0.189	4.8		M. Rivoire, Director.
Lamballe, Normal School	29.45	748.0	29.72	754.8	62.6	17	70	nw.			2				nw.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.65	753.2	29.76	755.8	66.2	19.0	63	nnw.			2		8	sw.	n.	0.209	5.3	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.76	730.4	29.80	756.8	61.0	16.1	72	s.			3		8		sw	0.472	62.8	very cloudy	M. André, Director.
Mans, Normal School	29.40	746.8	29.67	753.5	59.7	15.4	68	wsw.			1		5		w.	0.043	1.1	cloudy	M. Piboen, Director.
Marseille, Observatory	29.60	751.9	29.87	758.6	68.4	20.2	46	nw.			2.3		10		nw.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.79	629.7	30.03	762.7	50.4	10.2	66	e.	11.2	5.0			8			0.091	2.3		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.85	758.2	29.96	760.9	68.0	20		sw.			1		1		wnw.	0	0	clear	M. Pourie, Director.
Nancy, Normal School	28.94	735.1	29.69	754.1	59.0	15	68	sw.			1		10			1.185	30.1	covered.	M. Hasse.
Nantes, Observatory	29.56	750.9	29.72	755.0	64.8	18.2	69	ssw.			0—1	0	6k; n	s.	nnw.	0.130	3.3		M. Larocque, Director.
Nice	29.71	754.5	29.74	755.4	71.6	22.0	45	w.			8		2	w.	w.	1.146	29.1	slightly cl'dy	Capt. Boissière, Director.
Perpignan, Observatory	29.76	756.0	29.87	758.6	68.2	20.1	38	ne.	3.8	1.7			6		wsw.	0.114	2.9		Dr. Fines.
Pic-du-Midi, Plantade	22.42	569.5			32.2	0.1							10		w.	0.488	12.4	snowy	Gen'l de Nansouty Dir.
Privas, Normal School					68.0	20	91	nw.			1		2			0.24	6.	slightly cl'dy	M. Talluen.
Puy de Dôme Obs'y, Summit	24.88	631.9			37.0	2.8	100	sw.			6		10			2.004	50.9	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.69	754.1	29.72	754.9	63.9	17.7	95	sw.			3		8		w.	0.122	3.1	¾ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.50	749.2	29.71	754.5	57.2	14	91	w.			1		5		nw.	0.390	9.9	cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.59	751.5	29.67	753.7	59.0	15	78	sw.			1		10			0	0	covered	M. Platrier, Director.
Saint Lô, Normal School	29.57	751.0	29.72	755.0	56.7	13.7	100	nw.			1		10		nw.			raining	M. Delaplanche, Dir.
Saint Maur, Observatory	29.53	750.0	29.69	754.2	58.1	14.5	73	sw.			1		9		w.	0.197	5.0		M. Renou, Director.
Toulouse, Observatory	29.25	743.0	29.98	761.4	53.6	12.0	100	wsw.			1		10		w.	0.583	14.8	covered	M Bailland, Director.
Tours																			M. de Tastes.
Versailles, Observatory	29.21	742.0	29.70	754.4	59.7	15.4	68	w.			1					0.055	1.4		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.41	747.1	29.71	754.5	56.7	13.7	91	sw.			1		10		wsw.	0.126	3.2	raining	M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.86	733.0	29.71	754.7	56.7	13.7	73	w.			3		10 n		w.	0.012	0.3	raining	Prof. Dr. Hoh.
Berlin	29.61	752.0	29.78	756.4	47.3	8.5	86	e.			4		10			0	0		Prof. Dr. Arndt.
Breslau	29.30	744.1	29.82	757.5	47.1	8.4	82	e.			3		10			0.094	2.4	sprinkling	Royal University Obs'y.
Carlsruhe	29.29	743.9	29.71	754.5	58.3	14.6	78	sw.			2		10	sw.		0.350	8.9		Albert Senz.
Cassel	28.87	733.2	29.58	751.4	56.8	13.8	94	s.			2		10	s.		0.094	2.4		Dr. H. Möhl.
Frankfort on the Main	29.26	743.2	29.61	752.2	58.1	14.5	81	ssw.			1		10			0.189	4.8		Physical Society.
Friedrichshafen	28.37	720.5	29.78	756.3	58.3	14.6	73	sw.			3		10	w.		0	0		Wilhelm, Chief Tel.
Hamburg	29.07	753 6	29.84	757.8	46.4	8.0	78	e.			6		10			0	0	hazy	E. Preller.
Kiel	29.86	758.4	29.87	758.8	52.0	11.1	66	e.			8		8			0	0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.24	742.7	29.66	753.3	52.2	11.2	89	e.			2		10					light rain	H. Leppig, Asst.
Magdeburg	29.49	749.1	29.68	753.9	49.5	9.7	86	e.			5		10 s		ene.	0	0		Dr. Assmann.
Memel	30.21	767.2	30.25	768.4	44.2	6.8	82	e.			3	0	3 k						Issermann.
Munich	27.97	710.4	29.82	757.3	52.7	11.5	67	nw.			2		10	w.		0.024	0.0		Central Station.
Neufahrwasser	30.12	765.1	30.14	765.5	47.1	8.4	50	e.			5		10			0	0		A. Lothes.
Neustadt, Palatinate	29.15	740.4	29.67	753.6	58.1	14.5	77	w.			5		10	w.		0.236	0.0		Dicknether.
Stuttgart	28.77	730.8	29.65	753.0	59.9	15.5	65	w.			2		10			0.126	3.2		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.25	717.6	29.74	755.5	55.9	13.3	68	w.			4		10	w.		0.079	2.0		Fischer.
Wustrow	29.89	759.1	29.91	759.7	50.5	10.3	67	e.			5	0	5s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.58	751.3	29.95	760.8	84.6	29.2		s.			1.5		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.76	756.0	29.81	757.2	84.2	29.0	66	ssw.					0			0	0	blue sky	
Deesa	29.34	745.1	29.81	757.1	83.4	28.6	69	ene.	6.1	2.7			8		ese.	0	0	d. clouds	
Bombay	29.80	756.9	29.84	757.9	80.7	27.1	83	s.	10.0	4.5			7		ssw.	0.12	3.0	d. clouds	
Poona, Yarrowda.	28.02	711.8	29.90	759.3	74.3	23.5	81	wnw.	4.0	1.8			9		wnw.	0.75	19.0	d. clouds	
Belgaum	27.31	693.7	29.87	758.6	72.1	22.3	79	w.	9.0	4.0			4		se.	0	0	d. clouds	
Lahore	29.03	737.4	29.75	755.8	90.1	32.3	43	nw.	2.1	0.9			0			0	0	blue sky	
Roorkee	28.84	732.6	29.72	755.0	88.8	31.6	63	calm	0.8	0.4			2			0	0		
Agra	29.20	741.6	29.75	755.7	88.7	31.5	50	w.	1.6	0.7			2			0	0		
Nagpur	28.72	729.4	29.76	755.8	79.7	26.5	75	s.	2.9	1.3			9		sw.	0.05	1.3	gloomy	
Jubbulpore	28.43	722.0	29.78	756.3	82.4	28.0	66	calm	2.3	1.0			3	s.		0	0	d. clouds	
Lucknow	29.38	746.2	29.75	755.6	90.1	32.3	46	calm	0.4	0.2			0			0	0	blue sky	
Allahabad																			
Patna	29.58	751.2	29.75	755.9	83.8	28.8	81	ne.	4.0	1.8			6	ne.	ne.	0.01	0.3	d. clouds	
Hazaribagh	27.74	704.5	29.72	754.9	82.8	28.2	64	e.	5.7	2.6			10	e.	w.	0	0	thund'r st'm	
Cuttack	29.62	752.5	29.71	754.6	80.0	26.7	90	se.	0.7	0.3			10			0.94	23.9	d. clouds	
Calcutta, Alipore	29.70	754.4	29.72	755.0	80.6	27.0	91	ese.	6.0	2.7			10			0.05	1.5	overcast	
Dhubri	29.68	753.7	29.80	756.8	78.6	25.9	90	ne.	7.4	3.3			0			0.03	0.8	blue sky	
Chittagong	29.68	753.7	29.76	756.0	82.7	28.2	85	ssw.	3.2	1.4			10			0	0	overcast	
Sibsagar	29.51	749.5	29.85	758.1	78.7	25.9	97	sw.	3.2	1.4			10	w.	w.	0.54	13.7	overcast	
Jeypore	28.37	720.5	29.80	756.8	84.7	29.3	55	nnw.	2.8	1.2			7		nnw.	0	0	d. clouds	
Zanzibar, Africa			30.01	762.2	85.3	29.6	53	sse.	7	3.1			1			0	0	blue sky	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.28	743.7	29.69	754.0	68.4	20.2	70	sw.	7.4	3.3			10			0.894	22.7		Prof. Giovanni Clodig.
Milan	29.16	740.7	29.67	753.7	70.7	21.5	49	wsw.	6.3	2.8			8	nw.		0.185	4.7		Prof. Schiaparelli.
Padua	29.56	750.7	29.67	753.5	71.6	22.0	42	wsw.	18.6	8.3			1	w.		0.079	2.0		Prof. Dott. Lorenzoni.
Moncalieri	28.74	730.1	29.64	752.9	70.2	21.1	54	ese.	4.3	1.9			3	e.		0.008	0.2		Prof. P. F. Denza.
Genoa	29.51	749.5	29.71	754.5	66.6	19.2	61	e.	9.8	4.4			4	se.		0.043	1.1		Prof. G. M. Garibaldi.
Mondovi	27.77	705.4	29.67	753.7	68.2	20.1	29	w.			2		1	w.		0	0		Prof. D. C. Bruno.
Pesaro	29.68	753.9	29.73	755.1	72.7	22.6	46	sw.	15.4	6.9			8	sw.		0	0		Prof. Luigi Guidi.
Florence	29.56	750.8	29.81	757.2	69.4	20.8	50	sw.			6		10	sw.		0	0		Prof. Costantino Pitter.
Leghorn	29.77	756.1	29.85	758.3	67.8	19.9	60	sw.	15.4	6.9			10			0.748	19.0		Prof. P. Monte.
Rome	29.73	755.2	29.91	759.6	73.0	22.8	51	wsw.	12.5	5.6			10			0	0		Prof. P. S. Ferrari.
Lecce	29.66	753.3	29.91	759.6	83.1	28.4	55	ssw.	15.4	6.9			7	sw.		0	0		Prof. C. de Giorgi.
Cosenza	29.06	738.1	29.93	760.3	81.3	27.4	61	ssw.	2.5	1.1			7	sw.		0	0		Prof. D. Conti.
Cagliari	29.75	755.6	29.94	760.4	80.8	27.1	33	s.			2		3			0	0		Prof. A. Pacinotti.
Palermo	29.71	754.5	29.95	760.7	85.3	29.6	46	nw.	7.4	3.3			6	wsw.		0	0		Prof. G. Ciacciatore.
Syracuse	29.86	758.4	29.90	759.5	81.7	27.6	69	se.	2.5	1.1			10	nw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.37	746.0	29.87	758.8	77.0	25.0	75	wsw.	12.5	5.6			8	w.		0	0		Prof. F. Brioschi.
Stelvio	21.97	558.1			30.7	— 0.7	94	wsw.			6		10 n	n.		0.417	10.6	misty	Prof. P. F. Denza.
Valdobbia	21.98	558.3			40.5	4.7	58	n.			2		8 kn	nw.		0.256	6.5	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.08	764.0	30.10	764.5	61.7	16.5	94	nne.	5.5	2.5			10 n			0.740	18.8	raining	K. Sasaki.
Kioto	30.00	762.0	30.17	766.3	62.4	16.9	88	nnw.	3.1	1.4			10 n			0.690	17.5	raining	M. Tojima.
Nagasaki, I. M. Obs'y	29.78	756.4	29.98	761.5	70.2	21.2	73	ne.	2.8	1.2			9 s			0.020	0.5	cloudy	S. Takehayashi.
Niigata	30.18	766.6	30.22	767.6	60.0	15.6	93	ene.	1.3	0.6			9 s			0	0	cloudy	
Nobiru	30.26	768.6	30.27	768.8	58.1	14.5	96	nnw.	2.5	1.1		0	2 s			0.005	0.1	fair	
Supporo	30.09	764.3	30.15	765.8	51.9	11.1	86	s.	1.8	0.8			0			0	0		
Tokei Obs'y, Yeddo	30.21	767.3	30.28	769.1	59.3	15.2	86	nnw.	4.0	1.8			10 s			0.310	7.9	cloudy	The Staff.
Wakayama	30.08	764.0	30.13	765.3	63.7	17.6	93	calm	0	0			10 n			0.350	8.9	slight rain	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.99	761.7	30.18	766.7	74.0	23.3	56	e.	14.5	6.5		0	4		e.	0.03	0.8	fine	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.8	29.91	759.8	54.1	12.3	74	calm	0	0		0	0			0	0	very fine	Vicente Fernandez.
Leon	24.41	620.0	30.11	764.8	57.1	14.2	80	n.			2	0	0			0	0	clear	Prof. M. Leal.
Mazatlan	29.63	752.5	29.88	759.0	77.5	25.3	84	n.	0.9	0.4		1 cs	1 k	calm	ese.	0	0	clear	F. Quijano, U. E.
Mexico, Central Obs'y	23.08	586.3	30.16	766.1	46.4	8.0	57	calm	0	0		0	0			0	0	very fine	The Staff.
Morelia	24.29	617.0	30.47	773.9	48.7	9.3	64	ne.			3	1	2	s.		0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.92	607.5	29.88	759.0	57.2	14.0	71	nnw.			1	0	0			0	0	fine	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.39	594.3	30.23	767.8	48.6	9.2	71	calm	0	0		0	0			0	0	very fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.55	572.8	30.11	764.9	55.8	13.2	50	calm	0	0		0	0			0	0	fine	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.56	750.8	29.56	750.8	58.1	14.5		sw.			4					1.193	30.3		
Groningen	29.54	750.4	29.60	751.8	52.5	11.4		e.			5					0	0		
Helder	29.51	749.6	29.51	749.6	55.2	12.9		e.			4					0.173	4.4		
Hellevoetsluis	29.50	749.2	29.50	749.2	55.6	13.1	97	wsw.			5					1.398	35.5		
Utrecht	29.43	747.5	29.48	748.7	56.5	13.6	96	ssw.			4		10			0.535	13.6	dull	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.03	762.8	30.10	764.4	57.6	14.2	37	calm	0	0			0			0	0		
Christiania	30.15	765.8	30.30	769.6	48.6	9.2	50	e.	11	5			9			0	0		
Gjæsvær	30.10	764.6	30.13	765.2	41.0	5.0		w.			6		10						
Lodingen	30.21	767.3	30.26	768.5	47.1	8.4	68	se.			1		1			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.91	759.7	30.06	763.5	70.9	21.6	89	wsw.	9.8	4.4			5			0	0		Dr. J. A. Sampaio.
Campo Major	29.11	739.3	30.09	764.2	69.1	20.6	51	wnw.	3.8	1.7			8			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.15	765.8	30.23	767.9	74.8	23.8	60	sse.	3.1	1.4			8			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.84	758.0	30.20	767.1	66.0	18.9	73	sw.	13.0	5.8			7			blank	blank		The Staff.
Ponta Delgada, Azores	30.08	764.1	30.15	765.9	73.4	23.0	80	sw.	11.9	5.3			4	nne.		0.098	2.5		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.98	736.0	30.07	763.6	48.2	9.0	65	ssw.	4	2		0	0						Capt. Lasarew.
Archangel	30.17	766.3	30.19	766.8	36.1	2.3	80	nne.	9	4		0	0						Capt. Sselliwerstow.
Astrakhan	29.92	759.9	29.84	757.8	52.0	11.1	55	nw.	18	8			10 s			blank	blank		Capt. Wisganow.
Barnaul ‡	29.72	755.0	30.24	768.1	43.3	6.3	69	wsw.	4	2			3						Meteorological Obs'y.
Dorpat	30.04	763.1	30.30	769.5	45.7	7.6	59	ne.	7	3		0	8 k						Observatory.
Ekaterinburg	28.64	727.4	29.61	752.0	39.0	3.9	97	sse.	18	8			10					raining	Meteorological Obs'y.
Kasan	28.98	736.0	29.25	742.9	34.3	1.3	91	sw.	13	6			10 n						Observatory.
Kertch	30.08	764.0	30.10	764.5	49.6	9.8	64	n.	9	4		4 cs	0			0	0		Lagorio & Sastyrez.
Kieff	29.50	749.4	30.16	766.1	41.4	5.2	45	ne.	4	2		c	1 ks						Observatory.
Lugan	29.85	758.1	30.06	763.4	44.1	6.7	37	nw.	22	10			6			blank	blank		Meteorological Obs'y.
Moscow	29.39	746.4	29.88	759.0	30.2	— 1.0	84	ne.	13	6			10 s						Meteorological Obs'y.
Nikolaiev	30.11	764.9	30.19	766.7	51.6	10.9	44	ene.	4	2		1 cs	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.69	754.1	29.78	756.3	49.5	9.7	87	calm			0	0	7 k			0	0		Lieut. Iwanow.
Pekin, China	30.03	762.7	30.17	766.3	60.1	15.6	84	nw.	4	2			10 n			0.051	1.3	raining	Physical Observatory.
St. Petersburg	30.21	767.4	30.23	767.8	39.6	4.2	65	n.	9	4			9 n;k						Central Physical Obs'y.
Tashkend, Laboratory	28.33	719.6	29.84	758.0	71.2	21.8	72	calm	0	0			0						Teich, A. M.
Tiflis	28.45	722.6	29.82	757.4	70.2	21.2	47	nnw.	31	14		0	1 k						Physical Observatory.
Warsaw	29.63	752.6	30.06	763.5	45.7	7.6	50	e.	25	11		9 cs	0						Astronomical Obs'y.
Wilna	29.85	758.1	30.28	769.2	41.0	5.0	49	ne.	7	3			2						Berg, Assistant.
Yeniseisk	29.83	757.7	30.13	765.2	42.4	5.8	72	wsw.	16	7			8						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.78	756.4	54.0	12.2	100	e.			2		10 n			0.51	13.0	raining	Andrew Gibb.
Monach Lt. House, Hebrides			29.74	755.4	57	13.9	94	sse.			3		10			0	0	overcast	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.83	757.6	29.93	760.3	72.5	22.5	41	wsw.	4.3	1.9			7			0	0	fair	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.16	766.0	30.21	767.4	59.7	15.4	92	nw.	1.1	0.5			10			0.224	5.7	raining	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.08	687.9			55.8	13.2	78	sw.	14.8	6.6			10			0	0	covered	Domingo Martin.
Madrid, Royal Obs'y	27.86	707.7	30.06	763.5	64.4	18.0	48	w.	15.4	6.9		0	7			0	0	cloudy	The Staff.
Murcia, Met. Obs'y ‡	29.88	758.9	30.02	762.6	80.8	27.1	40	nne.	3.4	1.5		0	2			0	0	almost clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.13	739.8	30.02	762.4	61.5	16.4	90	sw.	9.4	4.2			10			0.232	5.9	misty	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.85	758.2	29.92	759.9	76.7	24.8	88	sse.	1.3	0.6		1 c	k	w.		0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.80	756.8	29.85	758.1	84.8	29.3	78	sw.	19.8	9.0		0	8 kn		ne.	0	0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.09	764.3	30.19	766.7	71.2	21.8	57	w.	14.8	6.6		1	5	nw.	nw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.94	760.5	30.03	762.8	85.6	29.8	74	nw.	0	0		1 c	1 k			0	0	clear	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.71	754.7	29.85	758.1	80.3	26.8	83	n.	2.7	1.2			10 ks		n.	0	0	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.27	768.8	30.31	769.8	46.0	7.8	94	sw.			4		0			0	0		
Umea	30.28	769.0	30.33	770.3	48.2	9.0	71	sw.			2		9			0	0		
Hernosand	30.30	769.5	30.35	770.8	49.5	9.7	70	sse.			2		10			0	0		
Stockholm	30.14	765.6	30.32	770.1	48.9	9.4	71	ese.			2		6			0	0		
Wisby	30.19	766.8	30.25	768.3	47.8	8.8	55	se.			6		7			0.012	0.3		
Sub-Series.																			
Upsala	30.21	767.3	30.30	769.5	49.5	9.7	48	e.	4.7	2.1			4		ene.	0	0		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.40	721.4	29.82	757.4	56.1	13.4	67	ssw.			4		10			0.783	19.9	covered	The Observatory.
Zurich ‡	28.17	715.5	29.80	756.8	57.7	14.3	72	e.			2		7			0.185	4.7	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.02	762.4	72.7	22.6	62	ene.	19	8.5			9		ne.	0	0		The Observatory.
Valona			30.04	763.1	82.8	28.2		s.			1		2			0	0	slightly cld'y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.90	759.5	84.9	29.4	54	w.			1	0	1 k		sw.	0.49	12.4		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.06	763.5	30.14	765.5	62.5	16.9	78	s.	12	5.4		3 c	5 k		s.	0	0	fair	
Alpena, Michigan	29.30	744.2	29.97	761.2	58	14.4	93	nw.	8	3.6			10 s			0.25	6.3	cloudy	
Atlanta, Georgia	28.95	735.6	30.14	765.5	69.2	20.7	70	s.	6	2.7		0	0			0	0	clear	
Atlantic City, New Jersey	30.19	766.8	30.20	767.1	68.3	20.2	90	e.	8	3.6			10 s		calm	0	0	cloudy	
Augusta, Georgia	29.95	761.0	30.15	765.8	68.0	20.0	84	ne.	1	0.4		0	0			0	0	clear	
Baltimore, Maryland	30.14	765.5	30.19	766.8	69	20.6	84	se.	3	1.3			10s;fg		e;calm	0	0	cloudy	
Barnegat, New Jersey	30.17	766.3	30.19	766.8	67.0	19.4	84	se.	13	5.8		4 k	5 s	calm	s.	0	0	cloudy	
Bismarck, Dakota	28.13	714.5	29.96	761.0	47	8.3	77	ne.	6	2.7			10 s		calm	0	0	cloudy	
Boise City, Idaho	26.96	684.8	29.80	756.9	49.0	9.4	71	w.	2	0.9			10 s		calm	0	0	cloudy	
Boston, Massachusetts	30.08	764.0	30.24	768.1	55.0	12.8	74	s.	8	3.6		0	8 s		s.	0	0	fair	
Brackettville, Texas	28.76	730.5	29.79	756.7	66	18.9	84	e.	6	2.7		0	0			0	0	clear	
Brownsville, Texas	29.85	758.2	29.89	759.2	71	21.7	94	calm	0	0			hz.			0	0	dense haze	
Buffalo, New York	29.34	745.2	30.06	763.5	60.8	16.0	85	se.	4	1.8		5 ck	sk.	sw.		0	0	dense smoke	
Burlington, Vermont	29.78	756.4	30.08	764.0	57.2	14.0	71	s.	18	8.0		7 ck	0	w.		0	0	fair	
Cairo, Illinois	29.67	753.6	30.07	763.8	68.6	20.3	82	s.	3	1.3		0	0			0	0	clear	
Campo, California																			
Camp Thomas, Arizona	27.18	690.4			65	18.3	84	calm			0	hz.	hz.			0.02	0.5	fair	
Cape Henry, Virginia	30.15	765.8	30.17	766.3	72	22.2	84	e.	3	1.3		0	hz.			0	0	clear	
Cape May, New Jersey	30.18	766.6	30.21	767.3	71	21.7	84	se.	10	4.5			10 s		se.	0	0	cloudy	
Castroville, Texas	29.16	740.7	29.85	758.4	63	17.2	90	w.	2	0.9		0	0			0	0	clear	
Cedar Keys, Florida	30.01	762.2	30.03	762.7	74	23.3	85	ne.	10	4.5		0	0			0	0	clear	
Champaign, Illinois	29.15	740.4	29.92	760.0	64.8	18.2	84	s.	10	4.5		1 c	0	s.		0	0	clear	
Charleston, S. Carolina	30.04	763.0	30.10	764.5	74	23.3	90	ne.	6	2.7		0	hz.			0	0	clear	
Charlotte, N. Carolina	29.25	742.9	30.13	765.3	69	20.6	78	e.	3	1.3		hz.	0	calm		0	0	dense haze	
Chattanooga, Tennessee	29.31	744.5	30.14	765.5	65.4	18.6	91	calm	0	0		6 k	fg.	n.	calm	0	0	fair	
Cheyenne, Wyoming	23.96	608.6	29.93	760.2	46.5	8.1	84	nw.	4	1.8		0	5 s		nw.	0.17	4.3	fair	
Chicago, Illinois	29.24	742.7	29.95	760.7	66.3	19.1	80	e.	7	3.1		5 ck	0			0	0	fair	
Chincoteague, Virginia	30.16	766.1	30.18	766.6	71	21.7	90	se.	8	3.6		0	sk.		calm	0	0	dense smoke	
Cincinnati, Ohio	29.42	747.3	30.08	764.0	68	20.0	84	se.	2	0.9		8 c	fg.	w.		0	0	fair	
Cleveland, Ohio	29.33	745.0	30.07	763.8	66.9	19.4	79	se.	5	2.2		3 c	5 s;fg	w.	s.	0	0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.21	741.9	30.07	763.8	67	19.4	78	s.	3	1.3		3 cs	0	sw.		0	0	clear	
Concho, Texas	28.02	711.7	29.96	761.0	63	17.2	84	calm	0	0		0	0			0	0	clear	
Corsicana, Texas	29.54	750.3	30.01	762.2	70	21.1	70	calm	0	0		0	0			0	0	clear	
Davenport, Iowa	29.29	744.0	29.95	760.7	66	18.9	73	ne.	6	2.7		3 cs	4 s	w.	sw.	0	0	fair	
Dayton, Washington T'y	28.05	712.5	29.86	758.4	47.0	8.3	86	n.	1	0.4		0	0			0	0	clear	
Deadwood, Dakota	25.35	643.9	30.05	763.3	47	8.3	74	n.	8	3.6			9 ks		s.	0	0	cloudy	
Decatur, Texas	28.78	731.0	29.90	759.4	70	21.1	66	s.	8	3.6		0	3 s			0	0	fair	
Delaware Breakwater, Del.	30.16	766.1	30.18	766.6	70	21.1	90	se.	14	6.3			9 ks		se.	0	0	cloudy	
Denison, Texas	29.15	740.4	29.95	761.0	72	22.2	66	s.	3	1.3		0	0			0	0	clear	
Denver, Colorado	24.66	626.4	29.88	758.9	53.0	11.7	74	s.	6	2.7		0	2 s		calm	0	0	clear	
Des Moines, Iowa	28.97	735.8	29.88	758.9	63	17.2	84	se.	6	2.7		3 c	3 s	w.		inap.	inap.	fair	
Detroit, Michigan	29.31	744.5	30.03	762.7	68.0	20.0	84	e.	1	0.4		2 c	fg.	w.		0	0	clear	
Dodge City, Kansas	27.21	691.1	29.80	756.9	65.2	18.4	50	s.	17	7.6		0	4 k		s.	0	0	fair	
Dubuque, Iowa	29.25	742.9	29.97	761.2	65.1	18.4	84	s.	2	0.9		4 cs	hz.	sw.		0.02	0.5	fair	
Duluth, Minnesota	29.23	742.4	29.94	760.5	54	12.2	86	nw.	13	5.8		0	0			0.02	0.5	clear	
Eagle Pass, Texas	29.16	740.7	29.99	761.7	68.0	20.0	78	calm	0	0		0	0			0	0	clear	
Eagle Rock, Idaho	25.07	636.8	29.92	760.0	34	1.1	60	s.	3	1.3		6 cs	0	sw.		0	0	fair	
Eastport, Maine	30.17	766.3	30.24	768.1	47	8.3	77	nw.	1	0.4		0	0			0	0	clear	
El Paso, Texas	26.17	664.7	29.92	760.0	67.4	19.7	78	w.	6	2.7		0	4 s		w.	0	0	fair	
Erie, Pennsylvania	29.32	744.7	30.04	763.0	69	20.6	78	s.	3	1.3		8 cs	0			0	0	cloudy	
Escanaba, Michigan	29.30	744.2	29.96	761.0	50	10.0	96	w.	5	2.2		0	fg.			0.01	0.3	clear	
Florence, Arizona	28.37	720.6	29.97	761.2	70	21.1	82	calm	0	0		0	0			0	0	clear	
Fort Apache, Arizona	24.99	634.7	29.90	759.4	54	12.2	86	e.	3	1.3			10 s		calm	0.08	2.0	cloudy	
Fort Assinnaboine, Montana	27.11	688.6	29.92	760.0	45	7.2	86	ne.	4	1.8			10 s		ne.	0	0	cloudy	
Fort Bennett, Dakota	28.22	716.8	29.76	755.9	55	12.8	100	e.	20	8.9		0	7 ks		w.	0.18	4.6	threatening.	
Fort Benton, Montana	27.12	688.8	29.98	761.5	45	7.2	71	e.	12	5.4		0	6 ks		calm	0	0	fair	
Fort Buford, Dakota	28.06	712.7	30.07	763.8	39	3.9	54	ne.	2	0.9		3 cs	0	n.		0	0	clear	
Fort Custer, Montana	26.72	678.7	29.96	761.0	50	10.0	65	calm	0	0		0	1 s		calm	0	0	clear	
Fort Davis, Texas	24.88	631.9	29.84	757.9	64	17.8	56	w.	6	2.7		0	0			0	0	clear	
Fort Elliott, Texas	27.17	690.1	30.36	771.1	61	16.1	67	se.			1	0	0			0	0	clear	
Fort Gibson, Indian T'y	29.39	746.5	29.94	760.5	66.5	19.2	59	se.	3	1.3		hz.	0			0	0	clear	
Fort Grant, Arizona					58	14.4	93	e.	2	0.9		0	7 s		sw.	0.07	1.8	fair	
Fort Griffin, Texas																			
Fort Keogh, Montana	27.41	696.2	29.95	760.7	48	8.9	93	nw.	6	2.7		0	8 s		nw.	0.05	1.3	cloudy	
Fort Macon, North Carolina	30.10	764.5	30.11	764.8	73	22.8	97	ne.	12	5.4		hz.	hz.	calm	calm	0	0	dense haze	
Fort McKavett, Texas	27.71	703.8	29.58	751.3	64.7	18.2	73	s.	4	1.8		0	0			0	0	clear	
Fort Missoula, Montana	26.56	674.6	30.08	764.0	44	6.7	68	sw.	8	3.6		0	0			0	0	clear	
Fort St. Michaels	29.49	749.0	29.52	749.8	44	6.7	84	s.	28	12.5			10 n			0.23	5.8	light rain	
Fort Shaw, Montana	26.30	668.0	29.90	759.4	39	3.9	92	ne.	1	0.4		3 cs	c	calm		0.02	0.5	clear	
Fort Sill, Indian Territory	28.70	729.0	29.95	760.7	65.5	18.6	69	s.	1	0.4		4 c	0	w.		0	0	fair	
Fort Stevenson, Dakota	28.14	714.7	30.01	762.2	45	7.2	86	n.	4	1.8		c	0			0	0	clear	
Fort Verde, Arizona					65.9	18.8	69	nw.			2	0	0			0.56	14.2	clear	
Fredericksburg, Texas	28.22	716.8	29.75	755.6	62	16.7	72	sw.	1	0.4		0	0			0	0	clear	
Galveston, Texas	29.93	760.2	29.97	761.2	76.8	24.9	82	calm	0	0		hz.	1 ks			0	0	dense haze	
Grand Haven, Michigan	29.30	744.2	29.96	761.0	65.0	18.3	90	calm	0	0			10 n		sw.	0.06	1.5	light rain	
Hatteras, North Carolina	30.11	764.8	30.13	765.3	77	25.0	82	ne.	11	4.9		hz.	hz.			0	0	light haze	
Helena, Montana	25.68	652.3	30.07	763.8	55	12.8	69	calm	0	0		3 k	0	calm		0.12	3.0	fair	
Henrietta, Texas	29.00	736.6	29.88	758.9	73	22.8	59	s.	5	2.2		0	0			0	0	clear	
Huron, Dakota	28.51	724.1	29.90	759.4	51	10.6	93	n.	12	5.4		0	7 ks		nw.	0	0	fair	
Indianapolis, Indiana	29.22	742.2	30.02	762.5	68.5	20.3	82	s.	4	1.8		3 c	hz.	calm	calm	0	0	fair	
Indianola, Texas	29.92	760.0	29.95	760.7	78.5	25.8	82	se.	9	4.0		2 k	2 ks	se.	calm	0	0	fair	
Jacksboro, Texas	28.79	731.3	29.89	759.2	67	19.4	63	sw.	3	1.3		0	0			0	0	clear	
Jacksonville, Florida	29.99	761.7	30.03	762.7	74	23.3	90	ne.	5	2.2		1 cs	0			0.05	1.3	clear	
Keokuk, Iowa	29.26	743.2	29.92	760.0	67.2	19.6	68	calm	0	0		5 k	0			0	0	fair	
Key West, Florida	29.90	759.4	29.93	760.2	81.5	27.5	81	e.	7	3.1		1 cs	6 ks;s		e.	0.04	1.0	fair	
Kittyhawk, North Carolina	30.14	765.5	30.16	766.1	74	23.3	85	ne.	8	3.6		0	hz.			0	0	dense haze	
Knoxville, Tennessee	29.13	739.9	30.17	766.3	65	18.3	91	calm	0	0		0	1 s		calm	0	0	clear	
La Crosse, Wisconsin	29.16	740.7	29.93	760.2	61	16.1	84	n.	4	1.8			10 s			0	0	cloudy	
La Mesilla, New Mexico	26.05	661.7	30.20	767.1	61.8	16.6	84	calm	0	0		2 ck	3 s	sw.		0	0	fair	
Laredo, Texas																			
Leavenworth, Kansas	28.99	736.3	29.89	759.2	68	20.0	73	s.	10	4.5		6 k	0	sw.		0	0	fair	
Lewiston, Idaho	28.96	735.6	29.81	757.2	48	8.9	71	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.67	753.6	29.99	761.7	67	19.4	90	calm	0	0		0	0			0	0	clear	
Los Angeles, California	29.54	750.3	29.92	760.0	53.1	11.7	86	sw.	4	1.8		0	fg.		calm	0	0	clear	
Louisville, Kentucky	29.47	748.5	30.04	763.0	67.3	19.6	84	s.	4	1.8		0	0			0	0	clear	
Lynchburg, Virginia	29.48	748.8	30.17	766.3	68.3	20.2	78	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	28.95	735.3	29.98	761.5	64	17.8	90	e.	3	1.3			10 s		w.	0.03	0.8	cloudy	
Marquette, Michigan	29.21	741.9	29.94	760.5	54	12.2	86	sw.	3	1.3		0	0			0.05	1.3	clear	
Mason, Texas	28.31	719.1	30.04	763.0	60	15.6	87	calm	0	0		0	0			0	0	clear	
Memphis, Tennessee	29.72	754.9	30.06	763.5	72	22.2	75	calm	0	0		hz.	hz;1 s	calm	calm;s	0	0	dense haze	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.21	741.9	29.97	761.2	63	17.2	93	se.	1	0.4			10 s		sw.	0.48	12.2	cloudy	
Mobile, Alabama	29.98	761.5	30.05	763.3	69.0	20.6	90	ne.	5	2.2		3 k	0			0	0	clear	
Montgomery, Alabama	29.86	758.4	30.09	764.3	66.1	18.9	93	e.	2	0 9		0	0			0	0	clear	
Moorhead, Minnesota	28.95	735.3	29.96	761.0	44	6.7	93	n.	2	0.9			10 s			0.04	1.0	cloudy	
Morgantown, W. Virginia	29.11	739.4	30.09	764.3	57.5	14.2	81	calm	0	0		0	fg			0	0	clear	
Mt. Washington, N. H.	23.92	607.6	30.12	765.0	41.4	5.2	94	nw.	44	19.7			fg		nw.	0	0	light fog	
Nashville, Tennessee	29.54	750.3	30.08	764.0	66.3	19.1	91	calm	0	0		0	fg			0	0	clear	
New Haven, Connecticut	30.10	764.5	30.22	767.6	63	17.2	78	s.	6	2.7			10 s		s.	0	0	cloudy	
New London, Connecticut	30.21	767.3	30.26	768.6	60	15.6	75	s.	14	6.3		4 k	0	s.		0	0	fair	
New Orleans, Louisiana	29.96	761.0	30.02	762.5	75.0	23.9	90	n.	3	1.3		0	0			0	0	clear	
Newport, Rhode Island	30.20	767.1	30.25	768.3	59.0	15.0	65	se.	6	2.7		0	0			0	0	clear	
New River, N. Carolina					76	24.4	69	ne.			2	0	hz			0	0	fair	
New Shoreham, Rhode I'd.	30.23	767.8	30.26	768.6	58.4	14.7	69	se.	9	4.0		0	0			0	0	clear	
New York, New York	30.04	763.0	30.22	767.6	64	17.8	84	se.	8	3.6		4 cs	5 s	w.	w.	0	0	cloudy	
Norfolk, Virginia	30.14	765.5	30.17	766.3	68	20.0	78	calm	0	0			hz			0	0	dense haze.	
North Platte, Nebraska	26.88	682.7	29.82	757.4	56.3	13.5	86	ne.	11	4.9		3 k	7 s	ne.	ne.	inap.	inap.	cloudy	
Olympia, Washington T'y	29.76	755.9	29.80	756.9	47.0	8.3	100	ne.	1	0.4			fg		calm	0.01	0.3	dense fog	
Omaha, Nebraska	28.64	727.4	29.83	757.7	63	17.2	68	s.	6	2.7		3 cs	5 s			0	0	cloudy	
Oswego, New York	29.71	754.6	30.04	763.0	60.0	15.6	81	se.	4	1.8		4 c	sk.	w.		0	0	fair	
Pensacola, Florida	30.01	762.2	30.04	763.0	69	20.6	84	ne.	4	1.8		0	0			0	0	clear	
Philadelphia, Pa.	30.15	765.8	30.21	767.3	63	17.2	90	se.	6	2.7			10s; fg		e.	0	0	cloudy	
Phœnix, Arizona	28.71	729.2	30.46	773.7	65	18.3	73	ne.	1	0.4		3 k	0	e.		0.02	0.5	fair	
Pike's Peak, Colorado	17.81	452.4	30.02	762.5	32	0.0	71	sw.	24	10.7		1 cs	0			0	0	clear	
Ploche, Nevada	23.90	607.0	29.92	760.0	50	10.0	26	s.	2	0.9		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.30	744.2	30.12	765.0	65.8	18.8	84	calm	0	0		4 c	0	nw.		0	0	fair	
Port Eads, Louisiana	30.01	762.2	30.02	762.5	76.6	24.8	74	e.	12	5.4		0	1 k; hz		e.; c.	0	0	clear	
Port Huron, Michigan	29.31	744.5	30.00	762.0	65.8	18.8	81	se.	6	2.7		7 c; ck	sk.	w.	calm	0	0	fair	
Portland, Maine	30.16	766.1	30.21	767.3	57.5	14.2	69	s.	9	4.0			10 s		calm	0	0	cloudy	
Portland, Oregon	29.72	754.9	29.80	756.9	52	11.1	93	n.	2	0.9		0	1 s			0.01	0.3	clear	
Portsmouth, N. Carolina					76	24.4	85	n.	16	7.2		hz	0	calm		0	0	clear	
Prescott, Arizona	24.69	627.1	29.88	758.9	56	13.3	77	s.	4	1.8		0	0			0.39	9.9	clear	
Punta Rassa, Florida	29.92	760.0	29.92	760.0	76	24.4	85	ne	6	2.7		2 ck	0	sw.		0	0	clear	
Red Bluff, California	29.40	746.7	29.74	755.4	56	13.3	93	se.	5	2.2			10 n		s.	0.15	3.8	light rain	
Rio Grande City, Texas	29.73	755.1	29.94	760.5	67	19.4	84	calm	0	0		3 c	0	calm		0	0	clear	
Rochester, New York	29.42	747.3	30.06	763.5	62	16.7	78	sw.	7	3.1		5 c	sk	n.		0	0	dense smoke	
Roseburg, Oregon	29.22	742.2	29.80	756.9	51	10.6	90	ne.	3	1.3		0	5 ks			0	0	fair	
Sacramento, California	29.73	755.1	29.81	757.2	59.2	15.1	87	se.	4	1.8			10 n			0.01	0.3	light rain	
St. Louis, Missouri	29.38	746.2	29.99	761.7	69.8	21.0	70	s.	5	2.2		2 c	0			0	0	fair	
St. Paul, Minnesota	29.03	737.3	29.91	759.7	51.0	10.6	93	se.	2	0.9			fg			0.34	8.6	dense fog	
Salt Lake City, Utah	25.40	645.1	29.73	755.1	55	12.8	26	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.26	743.2	29.96	761.0	63.8	17.7	90	calm	0	0		0	0			0	0	clear	
San Diego, California	29.83	757.7	29.90	759.4	64.5	18.1	78	nw.	10	4.5		0	5 s			0	0	fair	
Sandusky, Ohio	29.34	745.2	30.04	763.0	68.2	20.1	78	sw.	9	4.0		5 ck	0	sw.		0	0	fair	
Sandy Hook, New Jersey	30.17	766.3	30.20	767.1	67.0	19.4	78	s.	6	2.7		8 k	0	n.		0	0	cloudy	
San Francisco, California	29.75	755.0	29.81	757.2	59	15.0	90	sw.	10	4.5		0	5 s		sw.	0.18	4.6	fair	
Santa Fé, New Mexico	23 26	590.8	30.06	763 5	52	11.1	80	calm	0	0			10 s		calm	inap.	inap.	threatening.	
Savannah, Georgia	29.99	761 7	30.08	764.0	72.8	22.7	90	ne.	6	2.7		0	fg			0	0	clear	
Shreveport, Louisiana	29.97	761.2	30.00	762.0	70.3	21.3	84	s.	2	0.9		0	1 s		calm	0.02	0.5	clear	
Silver City, New Mexico	24.31	617.5	29.88	758.9	63	17.2	83	calm	0	0		0	7 s		s.	0.11	2.8	fair	
Sitka, Alaska	29.52	749 8	29.59	751.6	54	12.2	93	sw.	7	3.1			10 n		calm	1.20	30.5	light rain	
Smithville, North Carolina	30.07	763.8	30.11	764.8	67	19.4	93	ne.	6	2.7		hz	6 k		ne.	0	0	fair	
Spokane Falls, Wash. Ter.	27.79	705.8	29.81	757.2	43	6.1	83	ne.	1	0.4		0	0			0	0	clear	
Springfield, Illinois	29.28	743.7	29.97	761.2	67.1	19.5	78	s.	6	2.7		1 c	1 s; sk	w.	w.	0	0	clear	
Springfield, Massachusetts	30.07	763.8	30.20	767.1	58.8	14.9	81	s.	4	1.8			10 s		s.	0	0	cloudy	
Stockton, Texas	26.90	683.2	29.97	761.2	64.5	18.1	70	s.	12	5.4		0	0			0	0	clear	
St. Vincent, Minnesota	29.06	738.1	29.95	760.7	41	5.0	92	nw.	4	1.8		0	1 s		calm	0	0	clear	
Thatcher's Island, Mass.	30.20	767.1	30.25	768.3	59.0	15.0	75	s.	20	8.9			10 s		s.	0	0	cloudy	
Toledo, Ohio	29.31	744.5	30.01	762.2	68	20.0	78	se.	5	2.2		2 ck	sk	w.		0	0	fair	
Tucson, Arizona	27.41	696.2	29.77	756.1	69	20.6	81	s.	1	0.4		1 k	0			0.28	7.1	clear	
Umatilla, Oregon	29.47	748.5	29.88	758.9	51.0	10.6	66	w.	6	2.7		0	4 s		sw.	0	0	fair	
Uvalde, Texas	28.98	736 1	29.79	756.7	65	18.3	84	calm	0	0		0	0			0	0	clear	
Vicksburg, Mississippi	29.77	756.1	30.03	762.7	69	20.6	84	se.	5	2.2		1 k	0	calm		0	0	clear	
Visalia, California	29.49	749.0	29.85	758.2	56.5	13.6	77	se.	6	2.7		0	6 s			0	0	fair	
Washington, D. C.	30.07	763.8	30.18	766.6	69.0	20.6	93	e.	2	0.9			5cs; fg		se.	0	0	cloudy	
Wickenburg, Arizona					65	18.3	93	calm			0	0	5 ks		sw.	0.77	19.6	fair	
Wilmington, N. Carolina	30.06	763.5	30.12	765.0	69	20.6	84	ne.	1	0.4		hz	fg	calm	calm	0	0	dense haze.	
Winnemucca, Nevada	25.39	644.9	29.72	754.9	51	10.6	35	se.	8	3.6			10 ks		sw.	0	0	cloudy	
Wood's Holl, Mass.	30.22	767.6	30.26	768.6	58	14.4	74	se.	12	5.4		1 ck	hz	w.		0	0	clear	
Yankton, Dakota	28.54	724.9	29.85	758 2	55	12.8	93	ne.	6	2.7			10 s			0.07	1.8	cloudy	
Yuma, Arizona	29.64	752.8	29.78	756.4	68.8	20.4	51	nw.	2	0.9		0	0			0.05	1.3	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I. ‡	29.96	761.0	29.98	761.5	82	27.8	96	e.	2	0.9		5 k	5 ks	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.06	560.3			52.5	11.4	82	calm	0	0		8 k	2 s	nw.		0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.91	759.7	29.91	759.7	84	28.9	87	e.				0	2 ks		ese.	0.03	0.8	clear	B. Bigar.
Havana, Cuba, W. I.	29.90	759.4	29.95	760.7	80	26.7	82	calm	0	0		2 cs	0	calm		0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.92	760.0	29.93	760.2	76.0	24.4	91	calm	0	0			10 n; s		e.	0.40	10.2	squally	Robert Johnstone.
Navassa, W. I.	29.83	757.7	29.91	759.7	82	27.8	75	e.	20	8.9		5 cs	5 kn	e.	e.	0.01	0.3	fair	F. M. Everett.
Paramaribo, S. A.	30.00	762.0	30.00	762.0	80	26.7	82	se.			2	0	4 k			0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.43	747.5	29.99	761.7	75	23.9	94	calm			0		10 ks		sw.	2.20	55.9	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					74.5	23.6						9 ck	0	se.		0	0		Earl Flint.
Santiago de Cuba, W. I.	29.91	759.7	29.94	760.5	80	26.7	82	calm	0	0		8 ck	0			c	0	cloudy	Robert Mason.
St. Thomas, W. I. ‡	30.01	762.2	30.02	762.5	82	27.8	79	e.	5	2.2		0	2 ks		e.	0	0	clear	G. O. Gyllich.
York Factory, B. A.	29.94	760.5	29.99	761.7	36.0	2.2	95	sw.	16	7.2		4 k	3 s	sw.	sw.	0	0	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatros																			
H. M. S. Alert, Friday Island, Torres St.	29.95	760.7	76.8	24.9	82	ssw.			4-6		2							squally	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibraltar, Mediterranean	30.19	766.8	70	21.1	61	nw.			3		1							blue sky	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.03	762.7	72	22.2		ne.			2		6	ne.						showery	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche, N. 30° 30′, W. 65° 16′	30.02	762.5	77	25.0	95	n.			4		10					1	n.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadi ea, S. 8° 48′, E. 13° 14′	30.00	762.0	72	22.2	78	w.			1		4	wnw.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, S. 11° 50′, W. 77° 35′	29.92	760.0	61	16.1	94	se.			4		10					5	s.	drizzling	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A. T. Bruce.
H. M. S. Crocodile																			Capt. F. A. Wetherall.
H. M. S. Cruiser																			
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.88	758.9	79	26.1		wsw.			2		2	wsw.				2	wsw.	d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido, S. 15° 55′ W. 5° 42′	30.12	765.0	69	20.6		ne.			1-3		4	ene.						d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	29.98	761.5	75.5	24.2	90	nne.			2-3		6	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	29.77	756.1	45	7.2	89	wnw.			1-3		7	w.						squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.67	753.6	89	31.7		se.			2		3	se.				2	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 9° 49′, E. 81° 04′	29.72	754.9	85	29.4		se.			1		2					2	s.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, N. 0° 09′, E. 67° 38′	29.91	759.7	84	28.9	71	e.			1-2		4	e.				2	se.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19′	29.91	759.7	81	27.2		ene.			2		3					1	e.	d. clouds	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 21° 29′, E. 55° 37′	30.18	766.6	72	22.2	75	e.			3		8					2	ese.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 12° 48′, W. 80° 35′	29.95	760.7	85	29.4	91	e.			1		5					2		raining	Comm. R. N. Custance.
H. M. S. Flying Fish, Off Land Slip, Japan	30.22	767.6	58.5	14.7	84	nne.			2		3					2	nw.	misty	Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 19° 44′, W. 155° 04′	30.11	764.8	71	21.7	85	nw.			2		8							showery	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	29.94	760.5	52	11.1	72	ssw.			5		4							squally	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 25′, W. 77° 05′	29.92	760.0	81	27.2	82	e.			1		1							blue sky	Comm. J. Ingles.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, N. 1° 00′, E. 165° 20′	29.89	759.2	80	26.7	78	wsw.			3		8	wsw.				3	wsw.	raining	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 35° 17′, E. 139° 39′	30.25	768.3	64	17.8		n.			1		4	n.				3	n.	raining	Capt. R. E. Tracey.
H. M. S. Kestrel, Canton, China *†	29.89	759.2	80	26.7							5	calm						d. clouds	
H. M. S. Kingfisher, Payta, Peru	30.03	762.7	60	15.6		ese.			1		5	calm						d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 21° 40′, E. 62° 00′	30.17	766.3	73	22.8		e.			2		2	ese.				2	ese.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 23° 06′, W. 27° 53′	30.20	767.1	76	24.4	72	e.			2		2					1	e.	d. clouds	Capt. S. Grove.
H. M. S. Magpie, N. 20° 13′, E. 109° 41′	29.84	757.9	82.5	28.1	86	ene			1		0					1	sse.	misty	Capt. A. Carpenter.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.00	762.0	83	28.3	83	ese.			1		7	ese.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, S. 36° 45′, W. 75° 14′	30.00	762.0	53	11.7	93	n.			5		10					3	n.	drizzling	Capt. F. Edwards.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	30.13	765.3	47	8.3	89	nw.			2		0							blue sky	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 20° 12′, W. 70° 11′	30.04	763.0	59	15.0	100	calm			0		10					2	sw.	overcast	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready, N. 8° 33′, E. 81° 15′	29.84	757.9	85	29.4		calm			0		7							d. clouds	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 11° 51′, E. 51° 14′	29.78	756.4	84.3	29.1	68	s.			3		1							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 12° 47′, E. 45° 20′	29.61	752.1	80	26.7	82	se.			1–2									blue sky	Comm. W. Byles.
H. M. S. Serapis, N. 11° 36′, W. 19° 30′	30.05	763.3	82	27.8	87	calm			0		7	ese.				2	ssw.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 25° 00′, W. 20° 50′	30.16	766.1	78	25.6	86	ene.			5		1	ne.				3	ene.	blue sky	Capt. T. H. Boyse.
H. M. S. Tenedos, N. 47° 13′, W. 61° 54′	30.13	765.3	46	7.8	85	wnw.			2		4							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S Thunderer																			Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	29.96	761.0	59	15.0	94	calm			0		10	calm						overcast	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne,																			Capt. J. E. Stokes.
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.93	760.2	80	26.7		ne.			1		9							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Kurachee, Bombay, India	29.81	757.2	83.5	28.6	75	wsw.			2–3		0							blue sky	Capt. T. P. Nesham.
H M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo																			Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, Porto Praya, Cape Verd Ids	30.01	762.2	85.8	29.9	74	e.			3		5		ne.			2	e.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamegu, Macao, China	29.89	759.1	81.1	27.3	82	nne.			2		2			4 h'r	4 h'r			showery	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	30.09	764.3	71	21.7	80	ne.	3	1.3			0			0	0			clear	
N. Yard, Portsmouth, N. H.	30.21	767.3	56	13.3	87	sw.	7	3.1		10 c	0	w.		0.3	8.			cloudy	
Naval Hospital, Yokohama, Japan	30.08	764.0	60	15.6	85	n.			1		10		n.	0.20	5.1			raining	
Adams, Panama, Panama	29.67	753.6	79	26.1	91	ne.			1		5		calm			sm'h		fair	
Alaska, Callao, Peru	29.90	759.4	60	15.6	100	calm			0		10					sm'h		cloudy	
Alert, Yokohama, Japan *	30.10	764.5	63	17.2	89	nw.			3		10		wnw.			sm'h		raining	
Alliance, N. 78° 12′, E. 8° 50′	30.03	762.7	24	— 4.4	87	nw.			3		10			0	0	sm'h		cloudy	
Ashuelot, Kobe, Japan	30.17	766.3	66	18.9	79	ne.			4		10		nne.					overcast	
Colorado, New York, N. Y.	30.17	766.3	64	17.8	83	se.	4	1.8			8			0	0			fair	
Constitution, off Catty Hawk, Isl'd, Mass	30.20	767.1	50	10.0	?	se.	6	2.7			5		se.					fair	
Franklin, Norfolk, Va.	30.06	763.5	67	19.4	?	calm	0	0			0			0	0			foggy	
Galena, Leghorn, Italy	29.79	756.7	69	20.6	70	sw.			4-6		5					sm'h		squally	
Independence, N. Yard, Mare I'd, Cal.	29.72	754.9	60	15.6	71	sse.	10.8	4.8			8		sse.					cloudy	
Kearsarge, Philadelphia, Pa.	30.21	767.3	65	18.3	89	ene.			1		10					sm'h		cloudy	
Lackawanna, Mare Isl'd, Cal. †	29.98	761.5	59	15.0	100	sw.			4		0?							raining?	
Lancaster, New York, N. Y.	30.15	765.8	70	21.1	85	ssw.	6	2.7			7		ssw.					d. clouds	
Marion, Maldonado, Uruguay *	29.76	755.9	53	11.7		ssw.			5		8		ssw.			mod.	sw.	fair	
Michigan, Erie, Pa.	29.99	761.7	67	19.4	84	s.			2		8		w.					fair	
Minnesota, Newport, R. I.	30.23	767.8	65	18.3	44	sse.			2		0			0	0	sm'h		clear	
Monocacy, Yokohama, Japan	30.29	769.4	61	16.1	94	wnw.			2		10		calm					rainy	
Nipsic, Genoa, Italy	29.69	754.1	71	21.7	66	se.			2		2		se.			sm'h		d. clouds	
Onward, Callao, Peru †	29.98	761.5	59	15.0	94	se.			1		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.90	759.4	82	27.8	87	ene.			1		5		calm					fair	
Passaic, Washington, D. C.	30.16	766.1	71	21.7	95	se.			1		2							fair	
Pensacola, N. 4° 46′, W. 79° 45′	29.89	759.2	79	26.1	86	sw.			2		8			0	0	sm'h		cloudy	
Portsmouth, New London, Conn.	30.23	767.8	60	15.6	88	se.			3		5		se.			sm'h		fair	
Powhatan, Aspinwall, Panama	29.87	758.7	83	28.3	87	se.			1		8							cloudy	
Quinnebaug, Marseilles, France	29.86	758.4	67	19.4	51	nnw.			2		10		w.			sm'h		cloudy	
Ranger, Mare Island, Cal. *	29.73	755.1	62	16.7	83	sw.			4		8					sm'h		threatening.	
Richmond, N. 10° 07′, W. 89° 50′	29.83	757.7	81	27.2	96	wnw.			1		10		w.	0.03	0.8	sm'h		threatening.	
Saratoga, Wickford, R. I.	30.18	766.6	59	15.0	100	se.			1		2		se	0	0	sm'h		fair	
Shenandoah, Maldonado, Uruguay *	30.10	764.5	54	12.2	61	s.			4		2					sm'h		fair	
St. Louis, League Island, Pa.	29.90	759.4	63	17.2	89	ne.	4	1.8			10		ne.	0	0			cloudy	
Swatara, Chefoo, China †	30.13	765.3	71	21.7	62	e.			2		5		calm					fair	
Tennessee, New York, N. Y.	30.23	767.8	67	19.4	100	sse.	10	4.5			8			0	0			cloudy	
Trenton, N. 23° 00′, W. 31° 50′ *	30.05	763.3	80	26.7	91	e.			4		8			5 h'r	mod	sm'h		fair	
Vandalia, New York, N. Y.	30.19	766.8	65	18.3	89	se.			2		0							clear	
Wabash, Boston, Mass.	30.26	768.6	58	14.4	64	s.	7	3.1			10		s.	0	0			cloudy	
Wyoming, Port Royal, S. C.	30.07	763.8	74	23.3	86	ne.	10	4.5			2		ne.	0	0			clear	
Yantic, New York, N. Y. *	30.11	764.8	66	18.9	79	se.			2		5							hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland *†..	29.77	756.1	.....	.....	.....	ne.	2	.....	10	.....	ene.	.....	.....	.....	.....	raining.....	N. McLean.
S. S. Circassian, Capt. W. H. Smith	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 43° 30′, W. 46° 56′	29.63	752.6	67	19.4	89	nw.	6	.....	2	.....	nw.	.....	.....	mod.	nw.	clear.....	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Queenstown, Ireland *†..	30.00	762.0	59	15.0	88	ssw.	1	.....	2	.....	sw.	.....	.....	.....	.....	fine.....	.....
S. S. Pennsylvania, Capt G. H. Dodge, N. 41° 35′ W. 49° 30′ †..	29.79	756.7	63	17.2	78	n.	5	.....	10	.....	nw.	.....	.....	r'gh	wnw	cloudy.....	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. British Merchant, Capt. E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Cipero, Capt. W. N. Lailey, N. 12° 28′, W. 60° 22′	29.98	761.5	82.4	28.0	87	ne.	3	.....	6	.....	.....	.....	.....	1	ne.	showery.....	.....
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan, N. 46° 28′, W. 24° 18′	29.66	753.4	62.3	16.8	91	s.	4	.....	10	.....	.....	.....	.....	.....	.....	overcast.....	.....
Bk. Glaramara, Capt. R. Morton,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bg. Hermine, Capt. S. G. Jones, N. 3° 24′, W. 18° 42	30.04	763.0	78.7	25.9	84	sse.	5	.....	8	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bkt. Hope, Capt. Jas. Campbelle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, S. 44° 00′, E. 29° 17′	30.16	766.1	50.9	10.5	86	nw.	6	.....	10	.....	.....	.....	.....	.....	.....	misty.....	.....
Bk. Mertola, Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pleione, Capt. C. H. Renant, S. 43° 22′, E. 24° 59′	30.16	766.1	51.5	10.8	83	nnw.	5	.....	9	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Queen of Cambria, Capt. M. Parry N. 33° 01′, W. 17° 50′	30.23	767.8	73.8	23.2	70	nne.	1	.....	10	.....	.....	.....	.....	.....	.....	overcast.....	.....
S. S. Rosetta, Capt. A. E. Barlow N. 13° 18′, E. 47° 47′	29.96	761.0	82	27.8	71	ene.	4-5	.....	2	.....	.....	.....	.....	.....	.....	blue sky.. ...	.....
Sierra Estrella, Capt. P. Murdoch,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 16° 40′, W. 34° 33′	30.03	762.7	79.5	26.4	82	nne.	1	.....	2	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Strathleven, Capt. C. W. Pearson, N. 35° 26′, E. 139° 41′	30.17	766.3	60.5	15.8	97	n.	2	.....	10	.....	.....	.....	.....	.....	.....	raining.....	.....
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, Magdalena Bay, Lower Cal	29.77	756.1	73	22.8	37	wnw.	1	.....	1	.....	wnw.	0	0	sm'h	.....	clear.....	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains.. N. 40° 31′, W. 69° 33′	30.18	766.6	75	23.9	.....	e.	2	.....	0	.....	.....	.....	.....	sm'h	.....	fine.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Hermann, Capt. H. Baur	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Schmidt, 3d Officer
S. S. Köln, Capt. T. Jüngst, N. 49° 07′, W. 32° 49′	29.32	744.7	60.0	15.6	85	sw.	5	.....	10	.....	sw.	9 h'r	sh'rs	cross	wsw.	cloudy.....	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer.. N. 44° 27′, W. 45° 49′	29.65	753.1	55.0	12.8	74	wnw.	6	.....	2	.....	wnw.	1 h'r	1 h'r	r'gh	wnw.	fair.....	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche.. N. 52° 03′, E. 2° 42′	29.48	748.8	56.0	13.3	?	wsw.	6	.....	10	.....	wsw.	4 h'r	4 h'r	r'gh	wnw.	rainy.....	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Hong Kong †..	29.98	761.5	82	27.8	91	calm	0	.....	2	.....	sw.	0	0	sm'h	.....	clear.....	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley. N. 40° 09′, W. 128° 14′ *†..	29.81	757.2	65	18.3	73	w.	6	.....	5?	.....	wnw.	.....	.....	he'vy	nnw.	cloudy?.....	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 46° 15′, W. 148° 10′	30.27	768.8	58	14.4	88	nnw.	5	.....	9	.....	nw.	.....	.....	sli't	w.	cloudy.....	.....
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles Off San Francisco, Cal †	29.81	757.2	50	10.0	93	sw.	1	.....	2	.....	sw.	6 h'r	6 h'r	sm'h	.....	foggy.....	.....
S. S. Oregon, Capt. Pollmann Portland, Oregon †..	29.79	756.7	55	12.8	93	calm	0	.....	10	.....	.....	.....	.....	.....	.....	cloudy	O. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
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PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, San Francisco, Cal.....†..	29.82	757.4	58	14.4	94	sw.	3	.....	10	.....	sw.	.....	.....	.....	.....	drizzling	J. N. Ingalls.
S. S. Dakota, Capt. ——, N. 44°, 45′ W. 124° 49′.....†..	29.79	756.7	54	12.2	93	n.	4	.....	10	.....	nw.	0	0	sm'h	.....	overcast.....	.....
S. S. Idaho, Capt. T. Huntington, N. 42° 59′, W. 124° 41′.....†...	30.06	763.5	58	14.4	88	n.	4	.....	0	.....	.....	.....	.....	.....	.....	foggy.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 33° 40′. W. 119° 45′.....†.	29.94	760.5	67	19.4	74	wnw.	6	.....	8	.....	w.	.....	.....	long	w.	cloudy.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, Eureka, Cal.....†.	29.70	754.4	55	12.8	100	s.	2	.....	9	.....	s.	.....	.....	.....	.....	light rain.....	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal.....†	29.80	756.9	57	13.9	94	s.	3	.....	10	.....	s.	.....	.....	.....	.....	cloudy.....	G. Debney.
S. S. Victoria, H. M. Hayward, N. 37° 59′, W, 122° 30′.....	29.88	759.0	55	12.8	80	sw.	2	.....	0	.....	.....	.....	.....	.....	.....	hazy.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——, N. 3° 57′, W. 165° 51′.....	29.85	758.2	79	26.1	82	ene.	4	.....	8	.....	ne.	.....	.....	mod.	ne.	cloudy	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†..	30.03	762.7	61	16.1	71	se.	5	.....	10	.....	.....	0	0	.....	.....	cloudy	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Berry, N. 39° 52′, E. 153° 42′.....*†..	30.34	770.6	62	16.7	72	n.	2	.....	10	.....	n.	0	0	light	n.	fair.	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Mazatlan, Mexico.....†	29.93	760.2	84	28.9	?	nnw.	2	.....	5	.....	nnw.	0	0	sm'h	s.	fine.....	.....
S. S. City of Sydney, Capt. H. C. Dearborn,..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 35° 00′. E. 139° 20 .....†..	30.29	769.4	74	23.3	81	n.	5	.....	fg	.....	.....	0	0	r'gh	ne.	foggy.....	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle N. 28° 52′, W. 117° 18′.....†	29.99	761.7	65	18.3	100	nw.	5	.....	9	.....	nnw.	0	0	mod.	nnw.	gloomy.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, Panama, Panama.....†.	29.91	759.7	82	27.8	87	calm	0	.....	5?	.....	nne.	2 h'r	2 h'r	.....	.....	clear?.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, S. 33° 51′, E. 151° 51′.....	30.08	764.0	56	13.3	87	sse.	6	.....	10	.....	sse.	.....	.....	cross	sse.	overcast.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 43° 50′, W. 47° 43′.....†..	30.24	768.1	54	12.2	.....	nnw.	5	.....	5	.....	wnw.	0	0	r'gh	n.	fine	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 48° 07′, W. 28° 58′.....†..	29.51	749.5	58	14.4	88	sw.	5	.....	10	.....	sw.	0.1	3.	h'vy	wsw.	dull	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, Eng.....†..	29.57	751.1	60	15.6	94	nne.	1	.....	8	.....	n.	0	0	.....	.....	fair.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 40° 50′, W. 68° 13′.....†..	30.20	767.1	61	16.1	.....	ne.	2	.....	2	.....	ne.	0	0	sm'h	.....	fair	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 43° 56′, W. 38° 52′.....†.	29.50	749.3	62	16.7	94	wnw.	3	.....	5	.....	w.	0	0	mod.	nw.	d. clouds....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Martha's Vineyard, Mass.....†..	30.10	764.5	59	15.0	94	sse.	3	0	2s	.....	.....	0	0	.....	.....	clear.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols, N. 50° 34′, W. 129° —′.....*†..	29.92	760.0	53	11.7	.....	sw.	1	.....	0	.....	.....	.....	.....	.....	.....	misty.....	.....
S. Iron Cross, Capt. Randall, N. 7° 06′, W. 25° 54′.....*	30.02	762.5	79.4	26.3	100	ssw.	1–2	ck	4 s	nne.	sw.	h'vy	h'vy	mod.	sw; se.	d. clouds.....	W. Randall.
S. Pawashick, Capt. E. Fry, N. 42° 22′, W. 38° 50′.....*†..	29.31	744.5	62	16.7	100	e.	5	.....	10	.....	.....	.....	.....	r'gh	wnw.	heavy rain ..	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal.....†.	30.22	767.6	72	22.2	67	ese.	4	.....	2	.....	w.	0	0	.....	.....	fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 23, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.11	764.8	73.4	23.0	87	calm			0		4			0	0	cloudy	Raynard.
Algiers ‡			30.13	765.4	79.5	26.4	69	nnw.			0		4			0	0	cloudy	Nicolas.
La Calle ‡			30.12	765.0	92.8	33.8	69	nw.			2		2			inap.	inap.	fair	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			30.10	764.4	77.0	25.0	45	n.			1		1			0	0	very fair	Dumas.
Tebessa ‡			30.08	763.9	88.9	31.6	20	ne.			3		9			0	0	covered	Derché.
Geriville ‡					92.5	33.6	10	wsw.			1		0			0.102	2.6	clear	Lonchamp.
Laghouat ‡			30.09	764.2	88.2	31.2	11	se.			2		3			0.094	2.4	pretty fair	Herbin.
Biskra ‡			30.09	764.2	82.4	28.0	41	nw.			1		10			inap.	inap.	covered	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.95	760.7	30.04	763.0	48.9	9.4	80	s.	4	1.8			1			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.36	745.8	29.91	759.7	55.8	13.2	90	w.			1		10			0.102	2.6	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.34	745.2	30.13	765.2	42.1	5.6	85	ne.	21.7	9.7			10			1 512	38.4		Dr. Wiersbicki.
Eperies	28.96	735.5	29.84	757.9	49.5	9.7	80	n.			3		10 ks		s.	0.984	25.0		Julius Mikolik.
Gratz ‡	28.61	726.8	29.84	757.9	61.2	16.2	70	sse.			2		8			0.236	6.0		Andreas Rospini.
Hermannstadt	28.40	721.4	29.78	756.4	67.8	19.9	57	nw.			5		5			0.028	0.7		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.59	726.2	29.93	760.3	51.1	10.6	91	wsw.			3		10			0.795	20.2	raining	The Staff.
Lemberg	29.03	737.4	30.06	763.6	34.3	1.3	94	ne.			3		10			0.720	18.3		Dr. T. Stanecki.
Pola	29.75	755.7	29.86	758.5	69.4	20.8	63	wnw.			3		8			0	0		I. R. Hydrographic Office.
Szathmar	29.34	745.1	29.79	756.6	63.0	17.2	70	se.			5		10			0	0		Beicht Peter, S. J.
Szegedin	29.59	751.5	29.86	758.5	63.5	17.5	64	sw.			1		10			0	0		Karl Stancel.
Trieste	29.74	755.4	29.84	758.0	67.6	19.8	56	e.			3		8			0.098	2.5	cloudy	Secco.
Vienna	29.20	741.6	29.91	759.7	55.0	12.8	87	w.			3		10			0.083	2.1		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 25, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Aberdeen	30.13	765.3	30.23	767.8	52.2	11.2	70	se.	25	11.2			10			0.010	0.3	squally	W. Boswell.
Armagh, Observatory	29.80	756.9	30.02	762.5	55.5	13.1	83	se.	13	5.8			10					gloomy	S. Call.
Bidston, Liverpool Obs'y			30.04	763.0	55.8	13.2	78	e.	18	8.0			10					misty	John Hartnup.
Bolton, Sharples	29.52	749.8	30.06	763.5	52.0	11.1	90	ene.	9	4.0			10					gloomy	Thomas Mackereth.
Bradford, Yorkshire	29.69	754.1	30.09	764.3	51.5	10.8	95	ne.			2		10			0.16	4.1	raining	[A.S. J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.96	761.0	58.4	14.7	93	e.			0.4		10					overcast	John McLaren.
Chatham, School M. E.	29.86	758.4	29.99	761.7	58.8	14.9	90	e.			1		10			blank	blank	gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.83	757.7	30.06	763.5	59.7	15.4	72	n.			1		5					foggy	The Staff.
Fort Napier, Natal	27.75	704.8	29.97	761.2	71.4	21.9	45	ne.			2		1					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.76	755.9	30.00	762.0	82.0	27.8	87	nw.			2		3					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.86	758.4	59	15.0	76	w.			4		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	30.10	764.5	30.15	765.8	76.0	24.4	81	nw.			2		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.90	759.4	30.11	764.8	54.1	12.3	79	e.			6		10			blank	blank	overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.80?	756.9?	29.97?	761.2?	58.8	14.9	87	ene.			1		10					overcast	The Staff.
Guernsey	29.79	756.7	30.01	762.2	62	16.7	71	wnw.			2		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.94	760.5	29.98	761.5	59.1	15.1	81	nne.	8	3.6			10					misty	The Staff.
Leicester, Museum	29.37	746.0	29.62	752.3	59.6	15.3	81	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.92	760.0	30.00	762.0	82.0	27.8	70	nw.			1		5			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.98	761.5	30.02	762.5	86.0	30.0	79	se.			1		7					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.50	749.3	30.02	762.5	56.3	13.5	91	ne.			3		9					d. clouds	John Mac Emall.
Oxford, Radcliffe Obs'y	29.76	755.9	29.99	761.7	56.9	13.8	90	n			1		10			blank	blank	overcast	The Staff.
Plymouth	29.95	760.7	30.03	762.7	62.0	16.7	80	sw.			2		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.18	766.6	53	11.7	66	sse.	36	16.1			5					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.82	757.4	29.88	758.9	83.6	28.7	37	sw.			1		2			blank	blank	misty	Serg't W. H. Lyne.
Sheffield	29.79	756.7	30.07	763.8	57.1	13.9		ne.			1		10			0.05	1.3	drizzling	W. F. Cooper.
Silloth Rectory	30.06	763.5	30.09	764.3	56.5	13.6	84	sse.			4		8			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.10	764.5	53.0	11.7	85	e.	9	4.0			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	29.79	756.7	30.01	762.2	58.0	14.4	92	ne.			1		10					overcast	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.02	762.5	30.04	763.0	67	19.4	64	s.			4		6					d. clouds	W. Newcombe.
Valencia, Observatory	29.83	757.7	29.86	758.4	58.7	14.8	95	se.	29	13.0			10					misty	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.91	759.7	29.95	760.7	57	13.9	87	w.	8	3.6			10 s			0.075	1.9	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	29.87	758.7	29.93	760.2	53	11.7	96	sw.	4	1.8		10 cs	hz.	sw.		0	0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.92	760.0	29.95	760.7	50	10.0	93	w.	20	8.9			sk.			0.13	3.3	light smoke.	J. McWilliams.
Fort Garry, Manitoba*	29.00	736.6	29.83	757.7	44	6.7	96	s.	6	2.7		5 k	sk.	s.	s.	0	0	smoky	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.91	759.7	30.03	762.7	58	14.4	93	w.	4	1.8			10 ks		w.	0	0	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.58	751.3	29.91	759.7	60	15.6	93	e.	5	2.2			10 s		e.	0.57	14.5	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.78	756.4	29.97	761.2	58	14.4	96	e.	3	1.3			10 n			0.01	0.3	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.21	741.9	29.89	759.2	54	12.2	93	e.	6	2.7			10 n		e.	0.28	7.1	light rain	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.25	742.9	29.91	759.7	70	21.1	95	sw.	7	3.1		8 ck	2 n	sw.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.29	744.0	29.90	759.4	70	21.1	90	w.	8	3.6		8 ck	0	w.		0	0	cloudy	M. Payne.
Quebec, Quebec*	29.69	754.1	30.01	762.2	53	11.7		calm			0		fg.			0.01	0.3	foggy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.48	748.8	29.93	760.2	56	13.3	90	n.	4	1.8			10 s		sw.	0.04	1.0	light rain	W. H. McIntyre.
Saugeen, Ontario*	29.12	739.6	29.81	757.2	62	16.7	87	s.	11	4.9			10 n		s.	0.65	16.5	cloudy	K. Stewart.
St. Andrews, N. B.	29.98	761.5	30.03	762.7	55	12.8	93	calm	0	0			fg.			0	0	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.88	758.9	29.93	760.2	54	12.2	93	sw.	13	5.8			10 n			0.02	0.5	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.54	750.3	29.91	759.7	63	17.2	100	e.	8	3.6		2 cs	5 ks	w.	w.	0.05	1.3		Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.00	762.0	30.07	763.8	58	14.4	93	sw.	3	1.3			10 s		sw.	0	0	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.83	757.7	30.08	764.0	45	7.2	100	sw.					10 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Cape St. Francis Lt. House†	30.09	764.3	30.12	765.0	65.0	18.3	94	w.	13.6	6.1		2 c	0			0	0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.34	745.2			80.9	27.2	31	sw.			1	1	2			0	0	light clouds	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.97	761.3	30.00	761.9	67.3	19.6	87	nne.	2.7	1.2		0	1			0	0	clear	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.30	769.7	30.35	770.9	48.9	9.4	61	ese.	27	12			4						Oversergent Fischer
Fanöe	30.28	769.1	30.30	769.6	52.9	11.6	61	e.			6		1						Overloerer Lauridsen
Godthaab, Greenland	29.29	744.0	29.33	745.1	36.7	2.6	89	ne.			4		1						S. Kleinschmidt.
Stykkisholm, Iceland	29.50	749.4	29.55	750.5	53.6	12.0	80	se.			4		10					raining	A. O. Thorlacius.
Thorshavn,	30.09	764.3	30.13	765.2	51.8	11.0	83	s.	18	8			10						Overloerer Bergh.
Vestervig	30.28	769.1	30.37	771.4	50.7	10.4	63	e.			6		4						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.52	749.8	30.17	766.3	60.8	16	83	w.			1		8			0.756	19.2	very cloudy	M. Labroue, Director.
Alençon Normal School	29.52	749.8	30.07	763.8	63.7	17.6	74	nw.			3		k	w.	w.	0.12	3.		M. Nicot, Director.
Arras, Engineer School	29.75	755.7	30.01	762.2	57.2	14	93	s.					n						M. Klein, Commandant.
Avignon, Normal School	29.99	761.8	30.07	763.8	64.0	17.8	56	n.			2		10			0.04	1.	covered	M. Giraud, Director.
Bar-sur-Seine	29.52	749.7	30.06	763.6	62.1	16.7	68	nw.			1	0	8kn		w.	0.244	6.2	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.76	755.8	30.02	762.4	60.6	15.9	81	sw.			1		10		w.	0	0	covered	M. Frère Eugène Marie.
Besançon, Normal School	29.25	743.0	30.14	765.5	60.1	15.6	87	ssw.			1		2		n.	0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.85	758.3	30.11	764.9	60.6	15.9	86	sse.			1		10		sw.	0.047	1.2	covered	M. Rayet, Director.
Bourges, Normal School	29.47	748.6	30.02	762.4	63.0	17.2	74	sw.			2		5		sw.	0.110	2.8	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.80	756.8	30.04	763.0	68.0	20.0	70	ese.			1		6		e.	0	0		M. de Rermaree, Dir.
Caen, Normal School	29.93	760.3	30.01	762.2	59.4	15.2	93	w.			1		8		w.	0	0	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					65.1	18.4	67	ne.			3		5			0	0	cloudy	M. Jadot, Director.
Charleville, Normal School.	29.53	750.0	30.04	762.9	57.6	14.2	69	sse.			1		5		sw.	0.244	6.2	½ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.71	729.2	30.04	763.1	63.3	17.4	49	nw.			1		5			0.008	0.2	½ covered	M. Alluard, Director.
Cluny, Normal School	29.25	743.0	30.09	764.2	59.0	15.0	70	w.			2		4			1.73	44.		M. de Villemontée, Dir.
Commercy, Normal School.	29.22	742.1	30.07	763.8	58.3	14.6	72	w.			1		5	w.	w.	0.098	2.5	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.44	697.0	29.93	760.1	60.8	16	59	ne.			1	5 ck	0	n.		0	0	½ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	28.92	734.6	30.06	763.6	61.5	16.4	42	nw.			4		5		nw.	0.008	0.2	½ covered	M. Kina, Director.
Grenoble, Normal School	29.26	743.2	30.02	762.4	61.2	16.2	60	nw.			4		kn			0.169	4.3		M. Ablard, Director.
Guéret, Normal School	28.52	724.5	30.10	764.5	63.5	17.5	66	sw.			2		k		ne.	0	0		M. Rivoire, Director.
Lamballe, Normal School	29.80	756.8	30.06	763.6	64.4	18	63	nw.			1				nw.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.97	761.2	30.07	763.8	68.0	20.0	64	s.			1		5		s.	0	0	½ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.05	737.9	30.11	764.7	57.2	14.0	67	n.			1		5		nnw.	0.213	5.4	cloudy	M. André, Director.
Mans, Normal School	29.77	750.2	30.08	764.0	60.8	16	63	w.			1		5		nw.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.71	754.6	29.98	761.4	66.6	19.2	52	nw.			4		5		nw.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.91	632.8	30.15	765.8	50.5	10.3	61	nw.	9.4	4.2			9			0.016	0.4		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.01	762.3	30.12	765.0	72.3	22.4	49	nnw.			3		1		nw.	0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.32	744.7	30.08	763.9	59.7	15.4	83	w.			1		10 n			0.217	5.5	covered	M. Hasse.
Nantes, Observatory	29.94	760.5	30.10	764.6	68.4	20.2	54	ssw.			0-1	c	8k;kn	nne.	sw.	0.161	4.1		M. Larocque, Director.
Nice	29.86	758.5	29.90	759.4	69.1	20.6	44	sw.			2		10	sw.	sw.	0	0	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.96	760.9	30.06	763.5	67.3	19.6	51	n.	16.8	7.5			8		w.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.63	574.7			36.0	2.2							10		w.	0.185	4.7	raining	Gen'l de Nansouty Dir.
Privas, Normal School					61.2	16.2	91	nw.			2		2	nw.	nw.	0	0	slightly cl'dy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.21	640.3			42.3	5.7	82	wnw.			3	0	5 k			0.169	4.3	½ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.04	763.0	30.07	763.8	65.5	18.6	94	sw.			1		10		w.	0	0	covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.87	758.6	30.08	764.0	66.9	19.4	70	w.			1		5		sw.	0.244	6.2	cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	29.87	758.7	29.96	760.9	59.0	15	89	nw.			1		10			0	0	covered	M. Platrier, Director.
Saint Lô, Normal School	29.86	758.5	30.02	762.5	60.3	15.7	82	nw.			1		10		nw.	0.028	0.7	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.88	759.0	30.05	763.2	55.8	13.2	88	ssw.			1		10		wsw.	0	0		M. Renou, Director.
Toulouse, Observatory	29.46	748.3	30.19	766.8	64.0	17.8	81	wnw.			3		10	nw.		0.016	0.4	covered	M Bailland, Director.
Tours																			M. de Tastes.
Versailles, Observatory	29.55	750.6	30.04	763.1	55.0	12.8	95	w.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.76	755.8	30.05	763.2	55.9	13.3	93	sw.			1		10		w.	inap.	inap.		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.17	740.8	30.03	762.8	45.1	7.3	73	nw.			3		10 n		wnw.	0.413	10.5	raining	Prof. Dr. Hoh.
Berlin	29.98	761.6	30.16	766.0	53.1	11.7	52	e.			4		10			0.102	2.6		Prof. Dr. Arndt.
Breslau	29.56	750.9	30.10	764.4	44.4	6.9	73	e.			2		10			0.713	18.1		Royal University Obs'y.
Carlsruhe	29.60	751.9	30.02	762.6	60.4	15.8	79	nw.			2		10	nw.		0.067	1.7		Albert Senz.
Cassel	29.35	745.5	30.07	763.8	46.0	7.8	83	nne.			3		8	n.		0.638	16.2		Dr. H. Möhl.
Frankfort on the Main	29.68	753.9	30.05	763.2	48.6	9.2	86	nne.			2		10			0.106	2.7		Physical Society.
Friedrichshafen	28.62	726.9	30.05	763.2	56.8	13.8	75	w.			3		10	w.		0.236	6.0		Wilhelm, Chief Tel.
Hamburg	30.11	764.8	30.21	767.2	51.8	11.0	45	ene.			4		3	n.		0	0		E. Preller.
Kiel	30.21	767.4	30.23	767.8	50.4	10.2	60	e.			7		0			0	0		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.69	754.0	30.12	765.0	40.8	4.9	78	ne.			4		10	ne.		0.961	24.4		H. Leppig, Asst.
Magdeburg	29.95	760.8	30.15	765.8	44.6	7.0	75	e.			4		10 s		e.	0.457	11.6		Dr. Assmann.
Memel	30.35	771.0	30.40	772.2	49.8	9.9	74	ne.			3	0	2 s						Issermann.
Munich	28.18	715.7	30.04	763.0	51.4	10.8	84	nw.			2		10	nw.		0.047	1.2	raining	Central Station.
Neufahrwasser	30.34	770.7	30.36	771.1	47.3	8.5	51	e.			3		6			0	0		A. Lothes.
Neustadt, Palatinate	29.47	748.6	30.00	762.0	60.8	16.0	66	nnw.			1		7	nw.		0.039	1.0		Dicknether.
Stuttgart	29.06	738.0	29.94	760.5	58.1	14.5	65	w.			1		10			0.120	3.2	sprinkling	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.54	725.0	30.08	764.0	45.1	7.3	91	n.			4		10	1.		0.315	8.0		Fischer.
Wustrow	30.28	769.1	30.30	769.7	49.5	9.7	49	ene.			5	0	3 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.61	752.2	29.99	761.7	86.4	30.2		s.			2.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.77	756.0	29.82	757.3	86.9	30.5	62	sw.	16.0	7.2			0			0	0	blue sky	
Deesa	29.31	744.4	29.77	756.2	89.7	32.1	55	nnw.	4.0	1.8			1	sw.		0	0	d. clouds	
Bombay	29.80	756.9	29.84	757.9	82.7	28.2	72	w.	9.0	4.0			1		wsw.	0	0	d. clouds	
Poona, Yarrowda	27.97	710.4	29.83	757.6	76.8	24.9	75	wsw.	7.0	3.1			4		wnw.	0	0	d. clouds	
Belgaum	27.32	693.8	29.86	758.5	74.0	23.3	69	wsw.	8.0	3.6			0			0	0	blue sky	
Lahore	29.00	736.5	29.72	754.9	92.0	33.3	34	calm	0.4	0.2			0			0	0	blue sky	
Roorkee	28.86	732.9	29.74	755.3	88.8	31.6	68	calm	1.4	0.6			2			0	0		
Agra	29.18	741.2	29.73	755.2	89.7	32.1	56	w.	1.3	0.6			2			0	0		
Nagpur	28.68	728.5	29.71	754.7	84.0	28.9	63	calm	3.7	1.6			9			0	0	gloomy	
Jubbulpore	28.40	721.2	29.74	755.3	84.8	29.3	58	e.	1.1	0.5			8	s.		0	0	overcast	
Lucknow	29.46	748.3	29.84	757.8	80.2	26.8	80	ene.	3.2	1.4			5	wnw.		0	0	d. clouds	
Allahabad	29.42	747.1	29.72	755.0	83.4	28.6	83	ene.	2.1	0.9			10			0	0	overcast	
Patna	29.57	751.0	29.75	755.5	84.6	29.2	85	ne.	6.6	3.0			6	ne.	ne.	0.35	8.9	d. clouds	
Hazaribagh	27.74	704.6	29.74	755.5	78.8	26.0	81	ese.	8.0	3.6			8	w.	e.	0.54	13.7	thund'r st'm.	
Cuttack	29.61	752.0	29.69	754.1	81.0	27.2	84	w.	0.9	0.4			9			0.79	20.1	d. clouds	
Calcutta, Alipore	29.71	754.6	29.73	755.2	82.2	27.9	85	sse.	5.0	2.2			6			0.13	3.3	d. clouds	
Dhubri	29.64	752.8	29.76	755.9	82.2	27.9	83	calm	1.9	0.8			0			0	0	blue sky	
Chittagong	29.71	754.6	29.80	756.8	82.0	27.8	81	ssw.	3.2	1.4			7			0	0	d. clouds	
Sibsagar	29.43	747.4	29.76	755.9	83.9	28.8	83	sw.	3.4	1.6			7	w.	w.	0	0	d. clouds	
Jeypore	28.35	720.0	29.76	755.9	89.9	32.2	46	ene.	3.1	1.4			7		e.	0	0	d. clouds	
Zanzibar, Africa			30.02	762.5	80.7	27.1	71	sse.	4	1.8			9			0.25	6.3	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.50	749.3	29.91	759.6	63.1	17.3	60	calm	0	0			4			0.028	0.7		Prof. Giovanni Clodig.
Milan	29.42	747.2	29.93	760.2	65.8	18.8	47	sw.	4.9	2.2			2			0.039	1.0		Prof. Schiaparelli.
Padua	29.81	757.1	29.92	759.9	62.1	16.7	66	nne.	3.8	1.7			8			0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.00	736.7	29.90	759.5	67.1	19.5	65	s.	1.8	0.8			1			0	0		Prof. P. F. Denza.
Genoa	29.72	754.9	29.92	759.9	68.0	20.0	49	sw.	2.5	1.1			4	w.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.02	711.7	29.92	760.0	63.7	17.6	36	ne.			2		2	w.		0	0		Prof. D. C. Bruno.
Pesaro	29.85	758.2	29.90	759.4	65.1	18.4	61	n.	10.5	4.7			8	w.		0	0		Prof. Luigi Guidi.
Florence	29.64	752.8	29.89	759.2	65.8	18.8	56	nw.			2		3	nw.		0.150	3.8		Prof. Costantino Pitter.
Leghorn	29.84	758.0	29.93	760.2	68.0	20.0	61	wnw.	15.0	6.7			5			0	0		Prof. P. Monte.
Rome	29.77	756.1	29.94	760.5	73.8	23.2	45	wsw.	8.7	3.9			8			0.028	0.7		Prof. P. S. Ferrari.
Lecce	29.70	754.4	29.95	760.7	80.2	26.8	43	wsw.	23.7	10.6			9	sw.		0	0		Prof. C. de Giorgi.
Cosenza	29.12	739.7	30.00	761.9	75.9	24.4	63	ese.	3.8	1.7			6	se.		0.102	2.6		Prof. D. Conti.
Cagliari	29.82	757.4	30.01	762.2	74.1	23.4	46	nw.			4		9	w.		0	0		Prof. A. Pacinotti.
Palermo	29.79	756.7	30.04	762.9	76.1	24.5	55	wnw.	15.4	6.9			10	e.		0	0		Prof. G. Ciacciatore.
Syracuse	29.90	759.5	29.95	760.6	80.8	27.1	64	sse.	3.8	1.7			10	sw.		0	●		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.44	747.8	29.95	760.8	70.7	21.5	71	sw.	9.8	4.4			10	w.		0.004	0.1		Prof. F. Brioschi.
Stelvio	22.12	561.9			34.3	1.3	61	n.			2		10 n	n.		0	0	covered	Prof. P. F. Denza.
Valdobbia	22.16	562.9			40.3	4.6	77	n.			2	0	6 k		wnw.	0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.76	755.9	29.78	756.4	65.8	18.8	96	ne.	2.8	1.2			10 n			0.223	5.7	light rain	K. Sasaki.
Kioto	29.63	752.6	29.80	756.9	66.8	19.3	95	nw.	2.9	1.3			10 n			0.390	9.9	raining	M. Tojima.
Nagasaki, I. M. Obs'y	29.62	752.3	29.82	757.4	71.2	21.8	77	ne.	8.2	3.7			9 s			0.005	0.1	cloudy	S. Takehayashi.
Niigata	29.92	759.9	29.95	760.7	59.9	15.5	92	se.	9.2	4.1			10 n			0.965	24.5	raining	
Nobiru	30.05	763.3	30.06	763.5	61.1	16.2	93	ne.	10.8	4.8			10 n			0.920	23.4	raining	
Supporo	29.95	760.7	30.01	762.2	56.6	13.7	91	se.	1.8	0.8			10			0	0		
Tokei Obs'y, Yeddo	29.93	760.2	30.00	762.0	58.0	14.4	97	n.	7.3	3.3			10 n			0.785	19.9	light rain	The Staff.
Wakayama	29.71	754.6	29.76	755.9	69.6	20.9	96	calm	0	0			10 n			0.063	1.6	light rain	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.02	762.5	30.21	767.3	72.9	22.7	65	e.	18.5	8.3		0	5		ese.	0.02	0.5	squally	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.66	601.1	29.88	759.1	54.3	12.4	59	calm	0	0		0	0			0	0	very fine	Vicente Fernandez.
Leon	24.41	620.0	30.14	765.4	55.8	13.2	79	nw.			1	0	0			0	0	fine	Prof. M. Leal.
Mazatlan	29.61	752.2	29.87	758.7	79.3	26.3	89	e.	0.9	0.4		0	1 k			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.10	586.8	30.16	766.0	50.0	10.0	66	calm	0	0		0	0			0	0	very fine	The Staff.
Morelia	24.22	615.2	30.32	770.1	56.3	13.5	65	sw.			3	0	0			0	0	fine	M. Tena, M. D.
Pabellon, Aguascalientes	23.95	608.1	30.02	762.4	52.7	11.5	76	calm				0	0			0	0	fine	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.7	30.21	767.4	50.7	10.4	63	calm	0	0		0	0			0.004	0.1	fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.58	573.5	30.16	766.1	55.0	12.8	52	calm	0	0		1 cs	0			0	0	clear	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.03	762.7	30.03	762.7	63.7	17.6		e.			3					0.406	10.3		
Groningen	30.10	764.4	30.15	765.8	49 3	9.6		e.			2					0.102	2.6		
Helder	30.10	764.5	30.10	764.5	47.5	8.6		e.			4					0.339	8.6		
Hellevoetsluis	30.04	763.0	30.04	763 0	51.1	10.6	92	e.			3					0.756	19.2		
Utrecht	30.02	762.5	30.07	763 7	47.1	8.4	92	e.			2		10			0	0	dull	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.34	770.6	30.40	772.2	52.9	11.6	60	calm	0	0			3			0	0		
Christiania	30.27	768.9	30.42	772.7	50.0	10.0	56	sw.	9	4			0			0	0		
Gjesvær	30.10	764.4	30.12	765.0	40.6	4.8		w.			6		10					raining	
Lodingen	30.26	768.6	30.31	769.8	48.0	8.9	70	s.			1		10			0.063	1.6		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.93	760.1	30.08	763.9	71.6	22.0	91	w.	19.9	8.9			6			0.079	2.0		Dr. J. A. Sampaio.
Campo Major	29.41	747.0	30.15	765.7	75.6	24.2	46	nnw.	6.3	2.8			7			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.18	766.5	30.26	768.7	73.6	23.1	60	sw.	6.3	2.8			8			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.90	759.5	30.26	768.5	70.7	21.5	63	nnw.	4.9	2.2			9			0	0		The Staff.
Ponta Delgada, Azores	30.11	764.8	30.18	766.6	74.5	23.6	81	sw.	11.9	5.3			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.53	724.6	29.57	751.1	60.3	15.7	58	s.	11	5		0	8 k						Capt. Lasarew.
Archangel	30.03	762.7	30.05	763.2	35.1	1.7	88	nw.	9	4			10					light snow	Capt. Sselliwerstow.
Astrakhan	30.23	767.9	30.15	765.8	54.1	12.3	35	wsw.	9	4		0	1 s						Capt. Wisganow.
Barnaul	29.54	750.3	30.04	762.9	55.0	12.8	41	calm	0	0			4					light clouds	Meteorological Obs'y.
Dorpat	30.09	764.3	30.34	770.6	46.9	8.3	59	nw.	7	3			10 k						Observatory.
Ekaterinburg	28.50	723.8	29.48	748.7	32.2	0.1	79	wsw.	18	8			10						Meteorological Obs'y.
Kasan	29.29	744.0	29.57	751.0	30.7	— 0.7	73	wnw.	11	5			10					light snow	Observatory.
Kertch	29.95	760.7	29.97	761.2	60.1	15.6	74	se.	11	5		0	6 n			0	0		Lagorio & Sastyrex.
Kieff	29.49	749.0	30.15	765.8	39.4	4.1	42	nne.	11	5		0	10 ks						Observatory.
Lugan	29.93	760.3	30.14	765.6	39.6	4.2	58	calm	0	0			10			blank	blank		Meteorological Obs'y.
Moscow	29.43	747.6	29.92	759.9	39.4	4.1	37	nnw.	10.1	4.5		0	0						Meteorological Obs'y.
Nikolaiev	29.88	758.9	29.95	760.7	39.6	4.2	93	sw.	45	20			10 n					raining	Capt. Kurdakow.
Nikolaievsk, on the Amoor	30.00	761.9	30.08	764.1	42.3	5.7	82	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.97	761.3	30.11	764.9	64.2	17.9	73	calm	0	0			10 n			0	0		Physical Observatory.
St. Petersburg	30.19	766.8	30.21	767.2	46.2	7.9	67	nnw.	13	6			10n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.41	721.5	29.91	759.6	76.6	24.8	77	calm	0	0			7						Teich, A. M.
Tiflis	28.75	730.2	30.13	765.2	70.9	21.6	46	nw.	4	2			9 ks						Physical Observatory.
Warsaw	29.76	755.8	30.19	766.8	45.3	7.4	45	e.	18	8		0	2 ks						Astronomical Obs'y.
Wilna	29.89	759.2	30.32	770.2	45.1	7.3	46	ene.	7	3			2						Berg, Assistant.
Yeniseisk	30.03	762.7	30.32	770.2	41.9	5.5	77	w.	9	4			10						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.17	766.3	54.0	12.2	83	e.			4		10 k			0.51	13.0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.94	760.5	56	13.3	94	sse.			7		10			0	0	overcast	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.98	761.4	30.08	764.1	68.7	20.4	56	se.	3.1	1.4			3			0	0	fair	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.10	764.4	30.15	765.8	68.0	20.0	82	nw.	1.1	0.5			10			0.677	17.2	raining	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.24	691.9			62.6	17.0	75	sw.	8.5	3.8			9			0	0	almost cov'd	Domingo Martin.
Madrid, Royal Obs'y	27.96	710.2	30.14	765.6	70.0	21.1	52	sw.	2.7	1.2			10			0	0	covered	The Staff.
Murcia, Met. Obs'y	29.96	760.9	30.10	764.5	84.2	29.0	38	sw.	2.0	0.9		5	4			0	0	almost cov'd	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.27	743.4	30.15	765.8	64.6	18.1	37	sw.	5.6	2.5			10			0.165	4.2	covered	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.88	758.8	29.94	760.5	76.6	24.8	87	e.	3.1	1.4		8cs;ck	2 ks	s.	ese.	0.768	19.5	cloudy	Benito Vines, S. J.
Manilla, Philippine Islands	29.75	755.6	29.80	756.9	83.9	28.8	79	sw.	20.5	9.3		6 ck	0	w.		0.07	1.8	very cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.04	763.1	30.14	765.6	78.3	25.7	40	nnw.	1.9	0.8		3	5	n.	n.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.90	759.4	29.99	761.7	86 0	30.0	83	e.	4.9	2.2		3 cs	5 km	e.	e.	0	0	cloudy	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.65	753.2	29.79	756.6	81.2	27.3	83	n.	1.5	0.6		0	7 ks		nnw.	0	0	cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.23	767.9	30.27	768.9	47.5	8.6	68	calm			0		0			0	0		
Umea	30.27	768.8	30.32	770.1	55.8	13.2	57	sw.			2		0			0	0		
Hernosand	30.30	769.7	30.35	771.0	54.1	12.3	55	s.			2		0			0	0		
Stockholm	30.24	768.0	30.41	772.5	49.3	9.6	60	calm			0		10			0	0		
Wisby	30.32	770.1	30.38	771.6	49.3	9.6	71	nne.			4		5			inap.	inap.		
Sub-Series.																			
Upsala	30.29	769.3	30.37	771.5	49.6	9.8	60	wnw.	3.8	1.7			4			0.008	0.2		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.66	728.0	30.08	763.9	58.8	14.9	67	n.			1		6			0	0	cloudy	The Observatory.
Zurich	28.45	722.6	30.07	763.8	58.3	14.6	68	nw.			4		7			0.012	0.3	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.93	760.1	82.4	28.0	41	sw.	9	4.0			0			0.012	0.3		The Observatory.
Valona			30.14	765.6	79.7	26.5		s.			1		2			0.08	2.	slightly cld.y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.99	761.7	82.0	27.8	63	n.			1	0	0			0	0		Prof. C. V. A. van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
UNITED STATES SERIES. By authority of the Secretary of War. Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.																			
Albany, New York	29.97	761.2	30.05	763.3	68.5	20.3	84	s.	10	4.5			10 s		s.	0.29	7.4	cloudy	
Alpena, Michigan	29.27	743.4	29.94	760.5	55	12.8	93	ne.	4	1.8			10 n			0.16	4.1	light rain	
Atlanta, Georgia	29.01	736.8	30.19	766.8	68.5	20.3	84	e.	4	1.8		0	hz.			0	0	clear	
Atlantic City, New Jersey	30.16	766.1	30.17	766.3	69.8	21.0	94	sw.	7	3.1			fg.		calm	0	0	dense fog	
Augusta, Georgia	30.02	762.5	30.20	767.1	69.2	20.7	84	e.	1	0.4		0	0			0	0	clear	
Baltimore, Maryland	30.10	764.5	30.15	765.8	67	19.4	93	s.	3	1.3		0	fg.			0	0	dense fog	
Barnegat, New Jersey	30.13	765.3	30.15	765.8	69.0	20.6	93	sw.	11	4.9			10s;fg		sw.;c	0	0	cloudy	
Bismarck, Dakota	27.94	709.7	29.77	756.1	45	7.2	86	e.	10	4.5		0	0			0.06	1.5	clear	
Boise City, Idaho	27.07	687.5	29.91	759.7	46.0	7.8	86	nw.	4	1.8			10 s		calm	0	0	cloudy	
Boston, Massachusetts	29.92	760.0	30.08	764.0	65.0	18.3	93	sw.	15	6.7		0	9 s		sw.	0	0	cloudy	
Bracketville, Texas	28.77	730.7	29.78	756.4	75	23.9	85	e.	12	5.4			10 s		se.	0	0	cloudy	
Brownsville, Texas	29.89	759.2	29.93	760.2	78	25.6	88	calm	0	0		0	0			0	0	clear	
Buffalo, New York	29.24	742.7	29.96	761.0	72	22.2	82	sw.	7	3.1		0	9 s		sw.	0	0	cloudy	
Burlington, Vermont	29.66	753.4	29.95	760.7	64.0	17.8	90	s.	14	6.3			10 s		w.	0.19	4.8	cloudy	
Cairo, Illinois	29.69	754.1	30.09	764.3	70.7	21.5	80	s.	3	1.3		0	fg.			0	0	clear	
Campo, California	27.42	696.5	29.99	761.7	55.5	13.1	80	w.	5	2.2			fg.		w.	0	0	dense fog	
Camp Thomas, Arizona	27.10	688.3			55	12.8	80	calm			0	0	2 k			0	0	clear	
Cape Henry, Virginia	30.20	767.1	30.22	767.6	69	20.6	93	sw.	6	2.7			fg.			0	0	dense fog	
Cape May, New Jersey	30.14	765.5	30.16	766.1	71	21.7	90	s.	17	7.6			fg.			0	0	dense fog	
Castroville, Texas	29.16	740.7	29.83	757.7	77	25.0	82	s.	7	3.1			10 s			0	0	cloudy	
Cedar Keys, Florida	30.06	763.5	30.08	764.0	74	23.3	88	ne.	10	4.5		0	0			0.05	1.3	clear	
Champaign, Illinois	29.15	740.4	29.91	759.7	68.3	20.2	90	sw.	9	4.0			9 s		sw.	inap.	inap.	cloudy	
Charleston, S. Carolina	30.11	764.8	30.17	766.3	75	23.9	90	n.	6	2.7		0	3 s;hz		w.	0	0	clear	
Charlotte, N. Carolina	29.32	744.7	30.20	767.1	67	19.4	84	ne.	1	0.4		hz.	sk.	calm	calm	0	0	dense haze	
Chattanooga, Tennessee	29.35	745.5	30.18	766.6	65.0	18.3	93	calm	0	0		3 ck	fg.	w.	calm	0	0	fair	
Cheyenne, Wyoming	23.85	605.8	29.82	757.4	43.2	6.2	93	w.	2	0.9		0	0			0.01	0.3	clear	
Chicago, Illinois	29.25	742.9	29.96	761.0	68.7	20.4	82	sw.	6	2.7			10 n			0.46	11.7	light rain	
Chincoteague, Virginia	30.19	766.8	30.21	767.3	73	22.8	97	sw.	12	5.4		2 k	sk.	sw.	calm	0	0	dense smoke	
Cincinnati, Ohio	29.45	748.0	30.11	764.8	72	22.2	76	s.	3	1.3		4 c;cs	0			0	0	fair	
Cleveland, Ohio	29.27	743.4	30.01	762.2	73.5	23.1	62	sw.	18	8.0		2 c	5 s	w.	sw.	0	0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.23	742.4	30.09	764.3	70	21.1	81	sw.	5	2.2			10 s		sw.	0	0	cloudy	
Concho, Texas	28.05	712.5	29.99	761.7	69	20.6	84	s.	8	3.6		0	0			0	0	clear	
Corsicana, Texas	29.55	750.6	30.02	762.5	75	23.9	76	s.	1	0.4		0	6 ks		s.	0	0	fair	
Davenport, Iowa	29.24	742.7	29.90	759.4	69	20.6	76	w.	4	1.8		0	8 s		sw.	0.03	0.8	cloudy	
Dayton, Washington T'y	28.04	712.2	29.85	758.2	54.0	12.2	74	sw.	6	2.7		4 cs	0	sw.		0	0	fair	
Deadwood, Dakota	25.06	636.5	29.70	754.4	52	11.1	86	ne.	6	2.7		6 k	0	sw.		inap.	inap.	cloudy	
Decatur, Texas	28.76	730.5	29.89	759.2	67	19.4	59	sw.	14	6.3		0	2 s			0	0	fair	
Delaware Breakwater, Del.	30.15	765.8	30.17	766.3	69	20.6	100	s.	18	8.0			fg.			0	0	dense fog	
Denison, Texas	29.18	741.2	29.99	761.7	68	20.0	90	s.	4	1.8		0	5 s		s.	0	0	fair	
Denver, Colorado	24.56	623.8	29.78	756.4	51.2	10.7	74	s.	2	0.9		0	sk.		calm	0	0	clear	
Des Moines, Iowa	28.90	734.0	29.81	757.2	68	20.0	78	sw.	3	1.3		3 c	5 s	sw.	sw.	0.03	0.8	fair	
Detroit, Michigan	29.27	743.4	29.99	761.7	72.0	22.2	71	sw.	12	5.4		0	9 s		w.	0	0	threatening.	
Dodge City, Kansas	27.17	690.1	29.76	755.9	67.4	19.7	58	s.	17	7.6		4 cs	0	sw.		0	0	fair	
Dubuque, Iowa	29.14	740.1	29.86	758.4	66	18.9	78	s.	4	1.8			10 s		calm	0.07	1.8	cloudy	
Duluth, Minnesota	29.23	742.4	29.94	760.5	53	11.7	93	nw.	2	0.9			10 s		calm	0	0	cloudy	
Eagle Pass, Texas	29.15	740.4	29.98	761.5	74.0	23.3	85	se.	5	2.2			10 s		se.	0	0	cloudy	
Eagle Rock, Idaho	25.05	636.3	29.90	759.4	46	7.8	58	s.	9	4.0			10 s		sw.	0	0	cloudy	
Eastport, Maine	29.96	761.0	30.03	762.7	56	13.3	93	sw.	1	0.4			10 s			inap.	inap.	cloudy	
El Paso, Texas	26.18	665.0	29.93	760.2	67.4	19.7	66	w.	6	2.7		0	0			0	0	clear	
Erie, Pennsylvania	29.24	742.7	29.97	761.2	71	21.7	76	sw.	9	4.0		5 k	0	sw.		0.01	0.3	fair	
Escanaba, Michigan	29.29	744.0	29.95	760.7	54	12.2	100	ne.	6	2.7			10 n		ne.	0.67	17.0	light rain	
Florence, Arizona	28.41	721.6	30.01	762.2	59	15.0	67	sw.	4	1.8		0	0			0	0	clear	
Fort Apache, Arizona	25.01	635.2	29.92	760.0	47	8.3	86	ne.	2	0.9		0	0			0	0	clear	
Fort Assinnaboine, Montana	26.82	681.2	29.63	752.6	43	6.1	83	sw.	3	1.3		2 c	0	sw.		0	0	fair	
Fort Bennett, Dakota	28.10	713.7	29.64	752.8	54	12.2	100	s.	8	3.6			9 ks		sw.	0.49	12.4	cloudy	
Fort Benton, Montana	26.87	682.5	29.73	755.1	43	6.1	76	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	27.80	706.1	29.82	757.4	48	8.9	83	se.	4	1.8		8 ck	0	w.		0	0	cloudy	
Fort Custer, Montana	26.49	672.8	29.73	755.1	47	8.3	92	e.	3	1.3		9 cs	0	calm		0	0	cloudy	
Fort Davis, Texas	24.91	632.7	29.87	758.7	66	18.9	61	w.	4	1.8		0	0			0	0	clear	
Fort Elliott, Texas	27.15	689.6	30.34	770.6	63	17.2	73	se.			1	7 k	0	se.		0	0	fair	
Fort Gibson, Indian T'y	29.37	746.0	29.92	760.0	71.5	21.9	54	sw.	5	2.2		hz.	0			0	0	dense haze	
Fort Grant, Arizona					56	13.3	77	ne.	6	2.7		0	0			0	0	clear	
Fort Griffin, Texas	28.64	727.4	29.85	758.2	72.2	22.3	84	se.	8	3.6		5 cs	0	se.		0	0	fair	
Fort Keogh, Montana	27.14	689.3	29.68	753.9	50	10.0	86	se.	9	4.0		6 cs	0	sw.		0.02	0.5	fair	
Fort Macon, North Carolina	30.18	766.6	30.19	766.8	74	23.3	90	ne.	4	1.8		hz.	hz.	calm	calm	0	0	dense haze	
Fort McKavett, Texas	27.71	703.8	29.56	750.8	68.8	20.4	90	e.	8	3.6		0	2 k		s.	0	0	clear	
Fort Missoula, Montana	26.47	672.3	29.99	761.7	42	5.6	93	calm	0	0		0	3 s			0	0	fair	
Fort St. Michaels	29.56	750.8	29.59	751.6	44	6.7	92	s.	10	4.5			10 s			0.04	1.0	cloudy	
Fort Shaw, Montana	26.17	667.7	29.77	756.1	43	6.1	76	w.	4	1.8		0	0			0	0	clear	
Fort Sill, Indian Territory	28.69	728.7	29.94	760.5	69.5	20.8	80	s.	12	5.4		5 ck	0	w.		0	0	fair	
Fort Stevenson, Dakota	27.92	709.2	29.78	756.4	49	9.4	93	e.	7	3.1			10 n		e.	0.10	2.5	light rain	
Fort Verde, Arizona					55.2	12.9	56	n.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.31	719.1	29.82	757.4	70	21.1	97	sw.	6	2.7		0	9 ks		sw.	0	0	cloudy	
Galveston, Texas	29.97	761.2	30.01	762.2	79	26.1	82	s.	7	3.1		0	2 ks		s.	0.15	3.8	clear	
Grand Haven, Michigan	29.25	742.9	29.92	760.0	65.0	18.3	92	s.	5	2.2			10 s		w.	0.12	3.0	cloudy	
Hatteras, North Carolina	30.19	766.8	30.21	767.3	75	23.9	90	calm	0	0		hz.	hz.			0	0	dense haze	
Helena, Montana	25.51	647.9	29.90	759.4	60	15.6	50	s.	12	5.4		0	8 s		calm	0	0	cloudy	
Henrietta, Texas	28.94	735.1	29.81	757.2	76	24.4	68	se.	10	4.5		0	0			0	0	clear	
Huron, Dakota	28.41	721.6	29.80	756.9	52.3	11.3	96	nw.	3	1.3			10s;fg			0	0	cloudy	
Indianapolis, Indiana	29.24	742.7	30.04	763.0	72	22.2	82	sw.	3	1.3		2 k	6 ks	sw.	sw.	0.12	3.0	cloudy	
Indianola, Texas	29.94	760.5	29.97	761.2	77.2	25.1	85	s.	7	3.1		0	1 ks		calm	inap.	inap.	clear	
Jacksboro, Texas	28.77	730.7	29.85	758.2	71	21.7	82	s.	8	3.6		0	0			0	0	clear	
Jacksonville, Florida	30.05	763.3	30.09	764.3	71	21.7	90	ne.	5	2.2		0	0			0.35	8.9	clear	
Keokuk, Iowa	29.24	742.7	29.90	759.4	72.4	22.4	68	sw.	8	3.6		8 k	0	sw.		0	0	cloudy	
Key West, Florida	29.96	761.0	29.98	761.5	77.7	25.4	83	calm	0	0			10 n			0.50	12.7	light rain	
Kittyhawk, North Carolina	30.20	767.1	30.22	767.6	72	22.2	97	e.	4	1.8		0	hz.			0	0	dense haze	
Knoxville, Tennessee	29.19	741.4	30.23	767.8	63	17.2	99	calm	0	0			fg.		calm	0	0	dense fog	
La Crosse, Wisconsin	29.07	738.4	29.84	757.9	60	15.6	93	n.	4	1.8			fg.			0.19	4.8	dense fog	
La Mesilla, New Mexico	26.04	661.4	30.19	766.8	56.3	13.5	86	calm	0	0		0	0			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	28.97	735.8	29.87	758.7	69	20.6	66	se.	6	2.7		3 k	0	s.		inap.	inap.	fair	
Lewiston, Idaho	28.91	734.3	29.76	755.9	55	12.8	100	sw.	1	0.4			10 n		calm	0.01	0.3	light rain	
Little Rock, Arkansas	29.69	754.1	30.01	762.2	70	21.1	84	calm	0	0		0	hz.			0	0	clear	
Los Angeles, California	29.60	751.8	29.98	761.5	59.0	15.0	81	sw.	4	1.8			8 s		calm	inap.	inap.	cloudy	
Louisville, Kentucky	29.50	749.3	30.07	763.8	72.5	22.5	76	s.	8	3.6		0	0			0	0	clear	
Lynchburg, Virginia	29.50	749.3	30.19	766.8	67.6	19.8	78	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	28.87	733.3	29.90	759.4	64	17.8	93	se.	6	2.7		3 k	6 s	w.	w.	0.51	13.0	clearing	
Marquette, Michigan	29.24	742.7	29.97	761.2	53	11.7	100	calm	0	0			fg;10s		calm	0.58	14.7	cloudy	
Mason, Texas	28.31	719.1	30.00	762.0	71	21.7	84	calm	0	0			10 s		s.	0	0	cloudy	
Memphis, Tennessee	29.74	755.4	30.08	764.0	72	22.2	71	calm	0	0		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.17	740.9	29.93	760.2	61	16.1	87	s.	6	2.7		0	5 s			0.20	5.1	fair	
Mobile, Alabama	30.01	762.2	30.08	764.0	72.0	22.2	84	ne.	3	1.3		0	0			0	0	clear	
Montgomery, Alabama	29.91	759.7	30.14	765.5	69	20.6	93	e.	2	0.9		0	hz			0	0	clear	
Moorhead, Minnesota	28.86	733.0	29.87	758.7	45	7.2	93	se.	6	2.7		0	5 s		se.	0	0	fair	
Morgantown, W. Virginia	29.09	738.9	30.04	763.0	70.0	21.1	82	sw.	3	1.3		2 cs	3 s		sw.	0	0	fair	
Mt. Washington, N. H.	23.91	607.3	30.11	764.8	47.0	8.3	96	nw.	36	16.1			fg		nw.	0.60	15.2	dense fog	
Nashville, Tennessee	29.59	751.6	30.13	765.3	68.9	20.5	79	calm	0	0		0	fg			0	0	clear	
New Haven, Connecticut	30.01	762.2	30.12	765.0	68	20.0	90	s.	7	3.1			10s;sk		s.	0	0	cloudy	
New London, Connecticut	30.10	764.5	30.16	766.1	68	20.0	90	s.	4	1.8			10 s		s.	0	0	cloudy	
New Orleans, Louisiana	29.99	761.7	30.05	763.3	75.1	23.9	90	e.	5	2.2		0	0			0	0	clear	
Newport, Rhode Island	30.09	764.3	30.14	765.5	66.2	19.0	92	sw.	7	3.1		2 c	3 s	calm	calm	0	0	fair	
New River, N. Carolina					75	23.9	82	ne.			1	0	0			0	0	clear	
New Shoreham, Rhode I'd.	30.11	764.8	30.14	765.5	67.0	19.4	90	sw.	12	5.4		0	0			0	0	clear	
New York, New York	29.96	761.0	30.14	765.5	66	18.9	100	sw.	10	4.5			10s;fg		sw.	0	0	cloudy	
Norfolk, Virginia	30.18	766.6	30.21	767.3	70	21.1	100	sw.	3	1.3			fg			0	0	dense fog	
North Platte, Nebraska	26.81	681.0	29.75	755.6	57.4	14.1	93	e.	2	0.9			fg			0	0	dense fog	
Olympia, Washington T'y	29.76	755.9	29.80	756.9	51.0	10.6	93	s.	2	0.9		0	4 s		calm	0	0	fair	
Omaha, Nebraska	28.59	726.2	29.78	756.4	68	20.0	70	s.	15	6.7		0	5 ks		sw.	inap.	inap.	fair	
Oswego, New York	29.61	752.1	29.94	760.5	69.0	20.6	78	w.	4	1.8		5 c	sk			inap.	inap.	fair	
Pensacola, Florida	30.05	763.3	30.08	764.0	73	22.8	90	e.	5	2.2		0	0			0	0	clear	
Philadelphia, Pa.	30.08	764.0	30.14	765.5	71	21.7	94	w.	12	5.4			10s;fg		sw.	0	0	cloudy	
Phœnix, Arizona	28.76	730.5	30.54	775.7	60	15.6	60	ne.	3	1.3		0	0			0	0	clear	
Pike's Peak, Colorado	17.72	450.1	29.94	760.5	29	— 1.7	67	sw.	44	19.7		0	0			0.32	8.1	clear	
Pioche, Nevada	23.95	608.3	29.97	761.2	47	8.3	61	sw.	8	3.6		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.26	743.2	30.08	764.0	71.3	21.8	62	s.	8	3.6		1 k	0	sw.		0	0	clear	
Port Eads, Louisiana	30.04	763.0	30.05	763.3	77.0	25.0	79	e.	10	4.5		0	hz;1k		c; e.	0	0	clear	
Port Huron, Michigan	29.23	742.4	29.92	760.0	66.1	18.9	85	sw.	10	4.5			10 n		sw.	0.03	0.8	light rain	
Portland, Maine	29.97	761.2	30.02	762.5	61	16.1	87	s.	3	1.3			10s;fg		sw.	0.03	0.8	cloudy	
Portland, Oregon	29.84	757.9	29.90	759.4	54.6	12.6	88	se.	7	3.1		0	9 s		s.	0.38	9.7	cloudy	
Portsmouth, N. Carolina					77	25.0	82	ne.	5	2.2		hz	0	calm		0	0	clear	
Prescott, Arizona	24.69	627.1	29.88	758.9	50	10.0	50	s.	5	2.2		0	0			0	0	clear	
Punta Rassa, Florida	29.99	761.7	30.00	762.0	76	24.4	90	ne.	7	3.1		4 ck	1 k	e.	calm	0	0	fair	
Red Bluff, California	29.70	754.4	30.04	763.0	55.5	13.1	95	calm	0	0		0	5 s		calm	0.59	15.0	fair	
Rio Grande City, Texas	29.76	755.9	29.96	761.0	74	23.3	90	se.	4	1.8		0	0			0	0	clear	
Rochester, New York	29.31	744.5	29.95	760.7	69	20.6	70	sw.	7	3.1		0	6s;sk		calm	0	0	fair	
Roseburg, Oregon	29.46	748.3	30.04	763.0	52.7	11.5	88	calm	0	0			10 s			inap.	inap.	cloudy	
Sacramento, California	29.99	761.7	30.07	763.8	53.3	11.8	93	nw.	3	1.3			10 s			0.29	7.4	cloudy	
St. Louis, Missouri	29.39	746.5	30.00	762.0	73.9	23.3	71	s.	8	3.6		2 c	0			0	0	fair	
St. Paul, Minnesota	28.98	736.1	29.86	758.4	54.5	12.5	90	ne.	6	2.7			10 s		ne.	0.42	10.7	cloudy	
Salt Lake City, Utah	25.50	647.7	29.83	757.7	50	10.0	35	nw.	22	9.8			10 s		calm	0	0	threatening.	
San Antonio, Texas	29.26	743.2	29.96	761.0	75.5	24.2	90	se.	6	2.7			10 ks		se.	0	0	cloudy	
San Diego, California	29.87	758.7	29.94	760.5	62.8	17.1	84	calm	0	0		0	4 s			0.03	0.8	fair	
Sandusky, Ohio	29.30	744.2	29.99	761.7	70	21.1	79	w.	16	7.2		0	9 s		w	0.04	1.0	threatening.	
Sandy Hook, New Jersey	30.10	764.5	30.13	765.3	71.0	21.7	90	w.	13	5.8			10 s		w.	0	0	cloudy	
San Francisco, California	29.98	761.5	30.04	763.0	54	12.2	93	sw.	4	1.8		0	fg		nw.	0.07	1.8	clear	
Santa Fé, New Mexico	23.23	590.0	30.03	762.7	48.3	9.1	68	calm	0	0		0	2 s		calm	0.02	0.5	fair	
Savannah, Georgia	30.05	763.3	30.14	765.5	74	23.3	97	n.	3	1.3		0	hz			0	0	clear	
Shreveport, Louisiana	29.80	756.9	30.04	763.0	69.5	20.8	78	s.	3	1.3		0	1 s		calm	0	0	clear	
Silver City, New Mexico	24.24	615.7	29.81	757.2	50	10.0	80	calm	0	0		0	0			0.60	15.2	clear	
Sitka, Alaska	20.13	739.9	29.20	741.7	49.1	9.5	93	w.	12	5.4			10 n		w.	1.40	35.6	light rain	
Smithville, North Carolina	30.14	765.5	30.18	766.6	78	25.6	77	se.	9	4.0		4 k	hz.	e.		0	0	fair	
Spokane Falls, Wash. Ter.	27.71	703.8	29.73	755.1	42	5.6	93	s.	1	0.4		2 k	0			0	0	clear	
Springfield, Illinois	29.28	743.7	29.97	761.2	72.5	22.5	76	sw.	7	3.1			9 s		w.	0.03	0.8	cloudy	
Springfield, Massachusetts	29.96	761.0	30.09	764.3	66.4	19.1	93	s.	5	2.2			10 s		s.	0.08	2.0	cloudy	
Stockton, Texas	26.89	683.0	29.96	761.0	65.8	18.8	75	s.	8	3.6		1 cs	0	calm		0	0	clear	
St. Vincent, Minnesota	28.96	735.6	29.85	758.2	45	7.2	93	se.	3	1.3			10 s		calm	0	0	cloudy	
Thatcher's Island, Mass.	30.00	762.0	30.05	763.3	63.5	17.5	90	sw.	7	3.1		sk	sk			0	0	light smoke.	
Toledo, Ohio	29.30	744.2	30.00	762.0	72	22.2	76	sw.	4	1.8			10 ks		sw.	0.01	0.3	cloudy	
Tucson, Arizona	27.40	695.9	29.76	755.9	63	17.2	78	se.	2	0.9		0	0			0	0	clear	
Umatilla, Oregon	29.43	747.5	29.84	757.9	60.0	15.6	58	w.	20	8.9		0	1 s		sw.	0	0	clear	
Uvalde, Texas	28.98	736.1	29.77	756.1	76	24.4	82	se.	4	1.8			1c ks		s.	0	0	cloudy	
Vicksburg, Mississippi	29.82	757.4	30.08	764.0	69	20.6	84	se.	5	2.2		0	hz.		calm	0	0	clear	
Visalia, California	29.60	751.8	29.96	761.0	50	10.0	68	se.	3	1.3		0	4 s			0.09	2.3	fair	
Washington, D. C.	30.04	763.0	30.15	765.8	70.0	21.1	94	s.	4	1.8		5 cs	fg	w.		0	0	fair	
Wickenburg, Arizona					50	10.0	93	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.13	765.3	30.19	766.8	71	21.7	84	calm	0	0		hz	sk	calm	calm	0	0	dense haze.	
Winnemucca, Nevada	25.55	649.0	29.88	758.9	40	4.4	89	sw.	10	4.5		3 ck	0	sw.		0.12	3.0	fair	
Wood's Holl, Mass.	30.08	764.0	30.11	764.8	65	18.3	93	sw.	20	8.9		0	hz			0	0	clear	
Yankton, Dakota	28.45	722.6	29.76	755.9	54	12.2	93	ne.	5	2.2			fg			inap.	inap.	dense fog	
Yuma, Arizona	29.71	754.6	29.85	758.2	68.8	20.4	59	nw.	4	1.8		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.96	761.0	29.98	761.5	84	28.9	87	e.	6	2.7		5 ck	5 ks	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.06	560.3			51.5	10.8	71	e.	1	0.4		5 cs; k	2 s; ks	sw.		0.01	0.3	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.90	759.4	29.91	759.7	82	27.8	87	se.				0	5 k		ese.	0	0		B. Bigar.
Havana, Cuba, W. I.	29.93	760.2	29.98	761.5	79	26.1	82	calm	0	0			10 ks		calm	0.97	24.6	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.95	760.7	29.96	761.0	77.0	25.0	80	calm	0	0		4 cs	4 s	e.		0.43	10.9	squally	Robert Johnstone.
Navassa, W. I.	29.85	758.2	29.93	760.2	82	27.8	75	ne.	10	4.5		2 k; ks	8 kn	ne.	e.	0.79	20.1	cloudy	F. M. Everett.
Paramaribo, S. A.	30.01	762.2	30.01	762.2	80	26.7	78	se.			2	3 c	4 k	e.	e.	0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.42	747.3	29.97	761.2	80	26.7	89	ne.				0	5 k		sw.	0	0	fair	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24		e.			1	8 ck	10 n		e.	2.32	59.		Earl Flint.
Santiago de Cuba, W. I.	29.96	761.0	29.99	761.7	81	27.2	74	calm	0	0		4 ck	0			0	0	fair	Robert Mason.
St. Thomas, W. I. ‡	30.00	762.0	30.01	762.2	82	27.8	82	ne.	3	1.3		3 c	2 ks	se.	ne.	0	0		G. O. Gyllich.
York Factory, B. A.	30.06	763.5	30.11	764.8	35.0	1.7	95	w.	14	6.3			10 s		w.	0	0	cloudy	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Thursday Island, Torres St	29.99	761.7	76	24.4	86	se.			2		3							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibralter, Mediterranean	30.19	766.8	69.5	20.8	82	calm			0		5							d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.91	759.7	85	29.4		var.			1-2		3	calm						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 32° 09′, W. 66° 22′	30.16	766.1	78	25.6	86	nne.			3-4		4					1	ne.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	30.06	763.5	68	20.0	94	wsw.			1		9	calm						d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A, T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 05, E. 20° 50′	29.93	760.2	78	25.6		sw.			2		3	wsw.				2	sw.	d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.18	766.6	70	21.1		var.			1		2	ese.						d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.09	764.3	76.5	24.7	74	nne.			1-2		4	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	29.89	759.2	47.5	8.6	89	calm			0		10							overcast	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.64	752.8	84	28.9		se.			2-3		5	se.				1	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.86	758.4	81	27.2		s.			1-2		3					3	sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, N. 1° 05′, E. 70° 29′	29.88	758.9	84	28.9	67	ne.			2		2	ne.				4	se.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19′	29.98	761.5	77	25.0		nw.			2		2					1	nnw.	d. clouds	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 22° 42′, E. 53° 36′	30.21	767.3	72	22.2	75	e.			2-3		1					2	ese.	blue sky	Capt. P. Aldrich.
H. M. S. Flamingo, N. 13° 08′, W. 78° 44′	29.93	760.2	84	28.9	96	e.			1-2		6					3	e.	thund'r st'm	Comm. R. N. Custance.
H. M. S. Flying Fish, Yessashi, Yezo, Japan	30.02	762.5	64	17.8	86	e.			1		8					1	se.	misty	Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 19° 44′, W. 155° 04′	30.05	763.3	67	19.4	90	wnw.			2		7							d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	30.22	767.6	53	11.7	86	e.			3		7							d. clouds	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 27′, W. 77° 07′	29.93	760.2	82	27.8	83	sse.			1		7					3	ne.	d. clouds	Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, N. 1° 50′, E. 164° 30′	29.88	758.9	83	28.3	74	nne.			2		6	nne.				2	se.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 35° 17′, E. 139° 39′	30.22	767.6	65	18.3		n.			2-3		6	n.				3	n.	raining	Capt. R. E. Tracey.
H. M. S. Kestrel, Canton, China *†	29.82	757.4	88	31.1							4	nw.						d. clouds	Capt. W. M. Lang.
H. M. S. Kingfisher, Payta, Peru	29.93	760.2	70	21.1		sse.			1		2	nw.				1	nw.	d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 22° 20′, E. 59° 40′	30.19	766.8	72	22.2		ese.			4		2	ese.				2	ese.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 24° 17′, W. 27° 28′	30.24	768.1	80	26.7	66	ne.			2		1					1	sse.	blue sky	Lt. C. F. Oldham.
H. M. S. Lily																			
H. M. S. London																			
H. M. S. Magpie, N. 20° 16′, E. 109° 44′	29.80	756.9	84.4	29.1	77	nne.			1		2							misty	Lt. A. Carpenter.
H. M. S. Midge																			
H. M. S. Malabar																			Capt. H. H. Rawson.
H. M. S. Minotaur																			Capt. J. G. Mead.
H. M. S. Modeste																			
H. M. S. Monarch, Sfax, Tunis	30.07	763.8	80	26.7	91	nne.			4		2	nne.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, S. 34° 32′, W. 74° 00′	30.15	765.8	54	12.2	86	sse.			1		3					1	sse.	d. clouds	Capt. F. Edwards

Stations and Vessels.	Barometer reduced to sea-level. Inch.	Barometer reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Sea-swell. Character.	Sea-swell. Dir'n from.	Weather.	Observers.
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	29.99	761.7	58.5	14.7	97	s.			1		10							misty	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican, S. 21° 34′, W. 70° 20′	30.03	762.7	60	15.6	100	ese.			1		9					4	s.	misty	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 42° 36′, W. 63° 00′	30.08	764.0	63	17.2	83	w.			4							sm'h		d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 11° 51′, E. 51° 14′	29.83	757.7	87.3	30.7	72	s.			2		1							blue sky	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 13° 30′, E. 47° 32′	29.62	752.3	82	27.8	63	calm			0							3	ene.		Comm. W. Byles.
H. M. S. Serapis, N. 8° 50′, W. 16° 04′	30.05	763.3	80	26.7	91	s.			3		6	s.				2	ssw.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 21° 20′, W. 22° 50′	30.14	765.5	78	25.6	82	ene.			5		5	ene.				4	ene.	d. clouds	Capt. T. H. Royse.
H. M. S. Tenedos, N. 46° 30′, W. 61° 40′	29.94	760.5	57	13.9	100	wsw.			4		3					2	w.	d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	29.95	760.7	60	15.6	94	calm			0		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	30.01	762.2	81	27.2		nnw.			2		6							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C
H. M. S. Woodlark, N. 24° 46′, E. 66° 36′	29.83	757.7	82.5	28.1	70	wsw.			2–4		0					5	sw.	misty	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, S. 11° 46′, E. 12° 47′	30.04	762.9	70.5	21.4	86	wsw.			4		2					2	w.	d. clouds	Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanzo, Porto Praya, Cape Verd Id's	30.00	761.9	86.0	30.0	88	wsw.			2		0					2	sw.	blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.82	757.3	82.4	28.0	77	nw.			2									blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M Corvette Saga																			Capt. M. von Krusenstiern
H. M Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.18	766.6	75	23.9	86	ne.	6	2.7			5		se.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.03	762.7	67	19.4	89	sw.	8	3.6			0			0.5	13.			clear	
Naval Hospital, Yokohama, Japan	29.90	759.4	59	15.0	94	n.			4		10		n.	0.50	12.7			misty	
Adams, N. 9° 12′, W. 79° 20′	29.66	753.4	81	27.2	87	ese.			2		2		calm			sm'h		fair	
Alaska, Callao, Peru	29.92	760.0	60	15.6	100	calm			0		8					sm'h		cloudy	
Alert, Yokohama, Japan *	29.89	759.2	63	17.2	89	n.			3		10		calm			sm'h		raining	
Alliance, N. 78° 55′, E. 9° 00′	29.50	749.3	32	0.0	100	e.			6		10		e.	snow	snow	mod. chop		snowy	
Ashuelot, Kobe, Japan	29.81	757.2	72	22.2	85	ne.			2		10		ne.					rainy	
Colorado, New York, N. Y.	30.09	764.3	68	20.0	95	sw.	4	1.8			10		sw.					misty	
Constitution, off Gutty Hawk, Isl'd, Mass	30.10	764.5	64	17.8	100	sw.	8	3.6			5		ne.					fair	
Franklin, Norfolk, Va	30.14	765.5	70	21.1	?	sw.	3.6	1.6			10			0	0			foggy	
Galena, Leghorn, Italy	29.91	759.7	69	20.6	70	w.			5		5		w.			sm'h		fair	
Independence, N. Yard, Mare I'd, Cal	29.89	759.2	55	12.8	80	sse.	10.8	4.8			10		sse.					overcast	
Kearsarge, N. 40° 03′, W. 73° 55′	30.15	765.8	69	20.6	95	sw.			3		10					sm'h		hazy	
Lackawanna, Mare Isl'd, Cal †	30.19	766.8	56	13.3	100	w.			1		10		w.					cloudy	
Lancaster, New York, N. Y.	30.11	764.8	69	20.6	95	sw.	3	1.3			0							misty	
Marion, Maldonado, Uruguay *	29.98	761.5	54	12.2		e.			0–1		8		calm			sm'h		fair	
Michigan, Erie, Pa	29.92	760.0	71	21.7	95	sw.			2		5		sw.					fair	
Minnesota, Newport, R. I.	30.13	765.3	67	19.4	89	ssw.			4		0			0	0	sm'h		clear	
Monocacy, Yokohama, Japan	30.06	763.5	63	17.2	89	nnw.			3		10							rainy	
Nipsic, Genoa, Italy	29.90	759.4	68	20.0	56	wsw.			2		2					sm'h		d. clouds	
Onward, Callao, Peru †	29.97	761.2	59	15.0	100	calm			0		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.83	757.7	82	27.8	83	nw.			1		5		calm					fair	
Passaic, Washington, D. C.	30.10	764.5	73	22.8	95	w.			1		0							clear	
Pensacola, N. 2° 43′, W. 80° 12′	29.91	759.7	79	26.1	82	ssw.			2		10			0	0	sm'h		cloudy	
Portsmouth, New London, Conn	30.13	765.3	67	19.4	100	sse.			2		10		s.			sm'h		cloudy	
Powhatan, Aspinwall, Panama	29.88	758.9	80	26.7	96	se.			2		2		s.			sm'h	se.	fair	
Quinnebaug, Marseilles, France	29.99	761.7	66	18.9	89	nnw.			6		2		calm			sm'h		fair	
Ranger, Mare Island, Cal *	29.94	760.5	58	14.4	82	calm			0							sm'h		foggy	
Richmond, N. 9° 17′, W. 86° 45′	29.86	758.4	79	26.1	91	calm			0		10			0.10	2.5	long	se.	threatening.	
Saratoga, Wickford, R. I.	30.12	765.0	65	18.3	100	s.			2		8		s.	0	0	sm'h		cloudy	
Shenandoah, Maldonado, Uruguay *	30.26	768.6	53	11.7	80	ne.			3		8					sm'h		fair	
St. Louis, League Island, Pa	29.87	758.7	72	22.2	90	sw.	5	2.2			10		se.	0.05	1.3			cloudy	
Swatara, Chefoo, China †	30.02	762.5	72	22.2	67	ene.			1		2		calm					fair	
Tennessee, New York, N. Y.	30.15	765.8	71	21.7	95	ssw.	5	2.2			10			light	light			overcast	
Trenton, N. 22° 35′, W. 34° 45′ *	30.12	765.0	82	27.8	83	s.			4		2			1 h'r	1 h'r	sm'h		fair	
Vandalia, New York, N. Y.	30.11	764.8	68	20.0	95	sw.			2		10		calm					misty	
Wabash, Boston, Mass.	30.11	764.8	66	18.9	94	sw.	8	3.6			8		sw.	0.51	13.0			hazy	
Wyoming, Port Royal, S. C.	30.14	765.5	74	23.3	90	nne.	10	4.5			2		calm	0.34	8.4			clear	
Yantic, New York, N. Y. *	30.10	764.5	68	20.0	100	ssw.			2		10							hazy	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland †*	30.17	766.3				ene.	3		8		ene.					cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson,																	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, N. 46° 16′, W. 40° 24′	29.80	756.9	55	12.8	87	nw.	7		5		nw.	sh'rs	sh'rs	h'vy	nw.	fair	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent,																	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 51° 28′, W. 15° 28′ *†	29.73	755.1	61	16.1	88	sw.	6		10		sw.			mod.	wsw.	stormy	
S. S. Pennsylvania, Capt. G. H. Dodge, N. 40° 35′, W. 55° 14′ †	30.18	766.6	70	21.1	75	w.	3		8		w.			mod.	nw.	cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, Capt. E. J. Moloney, ‡																	
S. S. Clpero, Capt. W. N. Lailey, N. 13° 57′ W. 63° 29′	29.99	761.7	83.5	28.6	91	ne.	3		3					2	ne.	d. clouds	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 48° 04′, W. 20° 53′	29.72	754.9	61.2	16.2	90	ssw.	4		10							overcast	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, N. 1° 48′, W. 20° 38′	30.08	764.0	77.5	25.3	89	sse.	6		7							d. clouds	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 44° 14′, E. 35° 15′	29.77	756.1	45.6	7.6	96	nw.	4		10							raining	
Bk. Mertola, Capt. E. W. Turner N. 36° 52′, W. 8° 37′	30.21	767.3	67.5	19.7	91	wnw.	2		4							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant, S. 43° 16′, E. 28° 53′	29.87	758.7	49	9.4	85	sse.	4		5							d. clouds	
Queen of Cambria, Capt. M. Parry N. 31° 41′, W. 18° 24′	30.27	768.8	76	24.4	64	nne.	4		4							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow, N. 12° 28′, E. 44° 09′	29.96	761.0	83	28.3	79	e.	4		1							blue sky	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray,																	
S. S. Strathleven, Capt. C. W. Pearson Yokohama, Japan	29.89	759.2	87.5	30.8	94	n.	3		10							raining	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA, AND MEXICAN S.S. CO.																	
J. Birminghom, agent San Francisco.																	
S. S. Newbern, Capt. E. Rogers N. 25° 20′, W. 113° 54′ †	29.87	758.7	68	20.0	79	nw.	5		1		wnw.	0	0	mod.	nw.	clear	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., agents, New York.																	
S. S. Gallia, Capt. W. H. P. Hains, N. 41° 17′, W. 61° 50′	30.21	767.3	69	20.6		w.	3		8		wnw.			sm'h		fine	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD.																	
A. Schumacher & Co., agents, Baltimore, and Oelrich & Co., agents, New York.																	
Braunschweig, Capt. C. Pohle																	
S. S. Hermann, Capt. H. Baur																	
S. S. Köln, Capt. T. Jungst, N. 48° 51′, W. 37° 31′	29.60	751.8	60	15.6	71	wsw.	7—8		10		wsw.	12h'r	shr's	hv'y	wsw.	stormy	E. Schmidt, 3d Officer.
S. S. Leipsic, Cept. F. Pfeiffer. N. 46° 20′, W. 39° 28′	29.83	757.7	53.0	11.7	67	nw.	5-6		5		nw.	6 h'r	6 h'r	r'gh	nw.	squally	T. Jüngst.
S. S. Strassburg, Capt. Heimbruche, N. 50° 19′, W. 2° 24′	30.03	762.7	59	15.0	82	wnw.	3		8		wnw.	7 h'r	7 h'r	mod.	wnw.	cloudy	Walter & Reichler.
OCCIDENTAL & ORIENTAL S. S. CO.																	Englehart and von [Goessel
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, Hong Kong, China †	29.99	761.7	85	29.4	83	calm	0		0			0	0	sm'h			J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 41° 24′, W. 133° 50′ *†	30.30	769.6	63	17.2	94	w.	4		9		w.			mod.	nw.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 44° 49′, W. 139° 45′	30.21	767.3	60	15.6	82	wnw.	5		9					sl't	wnw.	cloudy	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Otereudorp, agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolies																	
S. S. Oregon, Capt. Pollmann, Po'tland, Oregon †	29.93	760.2	55	12.8	93	se.	2		3		se.					clear	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, San Francisco, Cal.....†..	30.02	762.5	53	11.7	93	nw.	3	.....	10	.....	w.	.....	.....	.....	.....	foggy.....	J. N. Ingalls.
S. S. Dakota, Capt. ——— Strait of Fuga.....†..	29.69	754.1	60	15.6	88	sse.	2	.....	10	.....	se.	rain	rain	sm'h	.....	raining.....	.....
S. S. Idaho, Capt. T. Huntington, N. 39° 26′, W. 123° 49′.....†..	30.13	765.3	58	14.4	88	s.	2	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 32° 40′ W. 117° 15′.....†..	30.02	762.5	69	20.6	70	se.	5	.....	8	.....	sse.	driz	driz	long	se.	cloudy.....	G. H. Harrison.
S. S. Senator. Capt. Wallace, N. 38° 38′, W. 123° 37′.....†.	30.05	763.3	51	10.6	93	se.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal.....†	30.03	762.7	53	11.7	100	calm	0	.....	10	.....	.....	.....	.....	.....	.....	cloudy.....	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, San Francisco, Cal.....†..	30.05	763.2	55	12.8	93	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——— N. 8° 23′, W. 163° 51′.....	29.80	756.9	80	26.7	82	ne.	5	.....	10	.....	nne.	.....	.....	r'gh	ne.	rainy.....	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†	29.79	756.7	61	16.1	82	s.	5	.....	10	.....	.....	rain	rain	.....	.....	overcast.....	W. H. Hawes, 2d Off. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. City of Peking, Capt. G. G. Barry.. N. 37° 49′, E. 147° 57′.....†*..	30.22	767.6	70	21.1	90	ne.	3	.....	10	.....	ne.	0	0	sm'h	.....	cloudy.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt.——— N. 22° 50′, W. 107° 55′.....†	29.91	759.7	84	28.9	100	nnw.	2	.....	5	.....	nnw.	0	0	sm'h	s.	fine.....	.....
S. S. City of Sidney, Capt. H. C. Dearborn,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury Yokohama, Japan.....†..	30.06	763.5	62	16.7	88	nne.	3	.....	10	.....	.....	1.	25.	.....	.....	rainy.....	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, N. 25° 42′, W. 114° 09′.....†..	30.00	762.0	71	21.7	100	nnw.	4	.....	7	.....	nnw.	0	0	mod.	nnw.	cloudy.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly Panama, Panama.....†..	29.82	757.4	84	28.9	83	nnw.	2	.....	2	.....	nw.	2 h'rs	2 h'rs	.....	.....	clear.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	29.90	759.4	54	12.2	?	s.	6	.....	10	.....	s.	.....	.....	.....	.....	overcast.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 45° 33′, W. 41° 57′.....†.	30.37	771.4	56	13.3	.....	nw.	5	.....	8	.....	nw.	0	0	r'gh	n.	squally.....	A. Fedderson, 2d Off.
S. S. Rhyniand, Capt. W. G. Randall, N. 47° 01′, W. 34° 48′.....†..	29.76	755.9	55	12.8	80	w.	6	.....	5	.....	w.	0.1	3.	h'vy	w.	clear.....	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, England.....†..	29.99	761.7	60	15.6	100	se.	2	.....	10	.....	se.	0	0	.....	.....	cloudy.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, N. 46° 22′, W. 30° 05′.....†.	29.95	760.7	59	15.0	88	w.	6	.....	8	.....	w.	0	0	mod.	sw.	d. clouds.....	.....
S. S. Republic, Capt. P. J. Irving N. 40° 31′, W. 69° 45′.....†..	30.17	766.3	68	20.0	90	sse.	2	.....	2	.....	s.	0	0	sli't	ssw.	misty.....	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass.....†..	30.14	765.5	66	18.9	?	s.	5	0	5 ks	.....	.....	0	0	.....	.....	fair.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler, Lt. Com. Nichols, N. 50° 29′, W 128° 04′.....*†..	29.67	753.6	55	12.8	.....	ese.	1-2	.....	10	.....	se.	.....	.....	sm'h	.....	raining.....	.....
S. Iron Cross, Capt. Randall, N. 7° 45′, W. 25° 38′.....*..	29.99	761.7	79	26.1	97	nnw.	1	.....	5	.....	n.	h'vy	h'vy	mod.	ssw.	d. clouds.....	W. Randall.
S. Pawashick, Capt. E. Fry. N. 42° 12′, W. 35° 03′.....*†..	29.81	757.2	64	17.8	83	w.	6	.....	2	.....	w.	.....	.....	r'gh	w.	cloudy.....	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal.....†..	30.27	768.8	78	25.6	65	nne.	4	.....	8	.....	w.	0	0	.....	.....	cloudy.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 24, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.11	764.9	77.4	25.2	79	nw.			3		1			0	0	very fair	Raynard.
Algiers ‡			30.15	765.7	75.2	24.0	77	nnw.			3		0			0	0	clear	Nicolas.
La Calle ‡			30.12	765.0	78.4	25.8	56	n.			3		5			0.055	1.4	cloudy	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			30.11	764.7	79.7	26.5	33	n			1		0			0	0	clear	Dumas.
Tebessa ‡			30.09	764.3	88.9	31.6	15	n.			5		5			inap.	inap	cloudy	Derché.
Geriville ‡					93.6	34.2	10	w.			3		0			0	0	clear	Lonchamp.
Laghouat ‡			30.10	764.5	77.4	25.2	35	sw.			2		0			0.165	4.2	fair	Herbin.
Biskra ‡			30.11	764.7	87.4	30.8	41	nw.			1		3			0	0	pretty fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.12	765.0	30.21	767.3	51.1	10.6	80	sw.	10	4.5			10			0.01	0.3	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.71	754.7	30.28	769.0	47.8	8.8	76	ne.			4		10			0.181	4.6		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.67	753.5	30.46	773.6	46.6	8.1	56	ene.	20.6	9.2			4			0	0		Dr. Wiersbicki.
Eperies	29.41	746.9	30.31	769.9	45.0	7.2	59	n.			5	cs	5 s		s.	0	0		Julius Mikolik.
Gratz ‡	29.01	736.8	30.29	769.3	47.1	8.4	90	sse.			2		10			0.118	3.0		Andreas Rospini.
Hermannstadt	28.78	730.9	30.24	768.2	47.1	8.4	89	ese.			5		10			0.453	11.5	raining	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.99	736.3	30.37	771.3	45.3	7.4	89	ne.			1		10			0	0	gloomy	The Staff.
Lemberg	29.43	747.4	30.45	773.4	42.6	5.9	57	sw.			2		3			0	0		Dr. T. Stanecki.
Pola	29.97	761.1	30.08	763.9	60.8	16.0	54	ene.			4		4			0	0		I. R. Hydrographic Office.
Szathmar	29.74	755.3	30.21	767.3	50.7	10.4	75	e.			4		10			0.094	2.4		Belcht Peter, S. J.
Szegedin	29.90	759.5	30.19	766.7	52.5	11.4	79	nw.			3		10			0	0		Karl Stancel.
Trieste	30.00	762.1	30.11	764.7	61.7	16.5	49	e.			5		8			0	0	cloudy	Secco.
Vienna	29.63	752.5	30.36	771.2	44.4	6.9	72	nnw.			2		10			0.047	1.2		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 27, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.02	762.5	30.12	765.0	52.9	11.6	87	sse.	19	8.5			10			0.090	2.3	squally	W. Boswell.
Armagh, Observatory	29.70	754.4	29.94	760.5	59.9	15.5	94	s.	8	3.6			10					drizzling	S. Call.
Bidston, Liverpool Obs'y			30.05	763.3	56.7	13.7	87	se.	24	10.7			10					overcast	John Hartnup.
Bolton, Sharples	29.56	750.8	30.10	764.5	56.3	13.5	85	ese.	6	2.7			10					gloomy	Thomas Mackereth.
Bradford, Yorkshire	29.73	755.1	30.12	765.0	57.6	14.2	84	ne.			2		10			0.47	11.9	raining	J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.14	765.5	62.0	16.7	88	se.			0.2		10					overcast	John McLaren.
Chatham, School M. E.	30.07	763.8	30.20	767.1	62.0	16.7	85	se.			2		8					gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.86	758.4	30.08	764.0	60.7	15.9	96	s.			2		10					rain & fog	The Staff.
Fort Napier, Natal	27.78	705.6	30.00	762.0	69.0	20.6	67	se.			2		3					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.75	755.6	29.98	761.5	84.0	28.9	83	ne.			3		2					d clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.94	760.5	64	17.8	62	w.			2		4					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	30.10	764.5	30.15	765.8	73.9	23.3	84	ne.			4		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.80	756.9	30.00	762.0	53.6	12.0	93	e.			6		10					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.01	762.2	30.18	766.6	63.8	17.7	80	sse.			1		9					overcast	The Staff.
Guernsey	29.93	760.2	30.15	765.8	60.5	15.8	98	sse.			2		10					drizzling	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.15	765.8	30.19	766.8	64.4	18.0	75	s.	7	3.1			10					misty	The Staff.
Leicester, Museum	29.89	759.2	30.15	765.8	59.0	15.0	85	se.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.89	759.2	29.96	761.0	77.0	25.0	60	nw.			2		8			0	0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.02	762.5	30.06	763.5	82.0	27.8	82	se.			1		8			blank	blank	d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.62	752.3	30.14	765.5	57.2	14.0	92	sse.			2		10					overcast	John Mac Email.
Oxford, Radcliffe Obs'y	29.94	760.5	30.16	766.1	59.4	15.2	84	sse.			2		10					threatening	The Staff.
Plymouth	30.04	763.0	30.11	764.8	60.8	16.0	97	s.			2		10					raining	John Merrifield.
Sandwick Manse, Orkneys			30.01	762.2	53	11.7	86	s.	30	13.4			10					misty	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.93	760.2	30.00	762.0	80.0	26.7	54	ne.			2		6			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	29.89	759.2	30.17	766.3	58.8	14.9	84	s.			1		10			0.38	9.7	overcast	W. F. Cooper.
Silloth Rectory	30.01	762.2	30.04	763.0	55.2	12.9	87	wsw.			4		10			0.570	14.5	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.12	765.0	56.9	13.8	81	sse.	19	8.5			10					overcast	Rev. S. J. Perry.
Straitfield Turgiss	29.95	760.7	30.17	766.3	61.3	16.3	85	e.			2		9					overcast	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.04	763.0	30.06	763.5	65	18.3	89	sw.			4		10					raining	W. Newcombe.
Valencia, Observatory	30.01	762.2	30.03	762.7	59.0	15.0	84	wnw.	10	4.5			6			blank	blank	d. clouds	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.04	763.0	30.08	764.0	54	12.2	76	ene.	8	3.6			10 s			0.060	1.5	cloudy.	H. J. Cundall, C. E.
Chatham, N. B. *	30.08	764.0	30.14	765.5	47	8.3	93	n.	6	2.7		0	0			0	0	clear	G. A. Blair.
Chicoutimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	30.15	765.8	30.17	766.3	44	6.7	93	calm	0	0		2 k	fg.	ne.		0	0	light fog	J. McWilliams.
Fort Garry, Manitoba *	28.50	723.9	29.30	744.2	51	10.6	93	se.	5	2.2			10 n			0.010	0.3	light rain	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.89	759.2	30.02	762.5	56	13.3	96	n.	5	2.2			10 ks		e.	0.530	13.5	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.69	754.1	30.01	762.2	58	14.4	93	ne.	3	1.3			10 n		ne.	0.24	6.1	light rain	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H Rigby.
Montreal, Quebec *	29.86	758.4	30.05	763.3	53	11.7	93	e.	8	3.6			10 n			0.17	4.3	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.23	742.4	29.91	759.7	57	13.9	100	se.	18	8.0			10 n		e.	1.03	26.2	heavy rain	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.29	744.0	29.96	761.0	69	20.6	100	sw.	7	3.1		10 ck	0	sw.		0.45	11.4	fair	H. Morgan.
Port Stanley, Ontario	29.32	744.7	29.94	760.5	69	20.6	97	w.	5	2.2			8 k		sw.	0.03	0.8	cloudy	M. Payne.
Quebec, Quebec *	29.79	756.7	30.11	764.8	51	10.6	83	ne.			6	2 k	2 s	n.	e.	0.06	1.5	fair	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.54	750.3	30.00	762.0	56	13.3	96	e.	4	1.8			10 ks		se.	0.07	1.8	light rain	W. H. McIntyre.
Sangeen, Ontario *	29.15	740.4	29.83	757.7	67	19.4	93	s.	6	2.7			10 ks			0.98	24.9	cloudy	K. Stewart.
St. Andrews, N. B.	30.00	762.0	30.05	763.3	54	12.2	91	ne.	2	0.9			10 n			0.27	6.9	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	30.02	762.5	30.07	763.8	55	12.8	86	ne.	4	1.8		10 c	0	w.		0.01	0.3	fair	T. C. Hill, C. E.
Toronto, Ontario *	29.60	751.8	29.97	761.2	64	17.8	97	e.	10	4.5			fg.			0.21	5.3	foggy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	29.93	760.2	30.00	762.0	57	13.9	100	nw.	1	0.4		fg.	fg.			0.39	9.9	light fog	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.92	760.0	30.17	766.3	53	11.7	80	w.				0	0			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House	30.32	770.1	30.35	770.9	61.0	16.1	97	se.	14.4	6.4			10 s			0.280	7.1	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester *†	29.40	746.7			72	22.2	51	s.			1	0	1			0	0	fine	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai.	29.94	760.5	29.97	761.2	65.3	18.5	90	nnw.	3.6	1.6		0	0			0	0	clear	M. Marc Dechevrens, S. J.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Barometer. Corrected for instru-m'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.48	774.2	30.53	775.4	51.3	10.7	61	se.	13	6			10						Oversergent Fischer
Fanöe	30.46	773.6	30.48	774.1	54.1	12.3	59	se.			4		0						Overloerer Lauridsen
Godthaab, Greenland	29.43	747.4	29.47	748.5	32.0	0.0	87	wnw.			3		10					snowing	S. Kleinschmidt.
Stykkisholm, Iceland	29.31	744.4	29.35	745.5	53.6	12.0	75	se.			7		10					raining	A. O. Thorlacius.
Thorshavn	29.85	758.2	29.89	759.1	53.6	12.0	93	s.	9	4			10						Overloerer Bergh.
Vestervig	30.39	771.8	30.48	774.1	52.9	11.6	65	se.			2		0						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.58	751.3	30.22	767.5	63.7	17.6	78	w.			1		8			0	0	very cloudy	M. Labroue, Director.
Alençon Normal School	29.69	754.2	30.24	768.2	64.4	18	80	w.			2		s	w.	w.	0.024	0.6		M. Nicot, Director.
Arras, Engineer School	30.00	762.1	30.26	768.6	56.7	13.7	89	sse.					n		sse.				M. Klein, Commandant.
Avignon, Normal School	30.03	762.7	30.11	764.7	68.7	20.4	46	n.			3		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.69	754.1	30.24	768 0	64.0	17.8	67	se.			1	0	5 kn		e.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.99	761.7	30.25	768.3	65.3	18.5	64	e.			1		10		ssw.	0.008	0.2	covered	M. Frère Eugène Marie.
Besançon, Normal School	29.34	745.2	30.22	767.7	59.4	15.2	78	ne.			1		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.96	760.9	30.21	767.4	66.6	19.2	70	e.			1		8		ese.	0.051	1.3	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.65	753.2	30.21	767.2	64.4	18	71	n.			1		5		n.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.90	759.4	30.14	765.6	64.0	17.8	92	w.			1		10		w.	0.031	0.8	raining	M. de Kermaree, Dir.
Caen, Normal School	30.12	765.0	30.19	766.9	61.5	16.4	79	nnw.			1		8		nnw.	0	0	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					62.6	17.0	62	wnw.			2		10			0	0	covered	M. Jadot, Director.
Charleville, Normal School	29.78	756.5	30.30	769.5	55.8	13.2	64	se.			1		5			0	0	½ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.85	732.7	30.18	766.5	65.3	18.5	52	ne.			1		5			0	0	½ covered	M. Alluard, Director.
Cluny, Normal School	29.39	746 4	30.22	767.6	66.6	19.2	56	n.			1		1			0.217	5.5		M. de Villemontée, Dir.
Commercy, Normal School	29.43	747.6	30.31	769.9	50.7	10.4	77	e.			1		5	e.	e.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.53	699.2	30.02	762.5	62.2	16.8	44	sw.			2	5 0	0	n.		0	0	½ covered	M. Jeanginard, Director.
Gréasque, du. Rhone	29.00	738.1	30.20	767.1	71.1	21.7	35	w.			2		2		w.	0	0	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.35	745.5	30.11	764.8	62.4	16.9	69	se.			1		k			0	0		M. Ablard, Director.
Guéret, Normal School	28.64	727 4	30.21	767.2	63.1	17.3	50	n.			1		n			0	0		M. Rivoire, Director.
Lamballe, Normal School	29.89	759.3	30.16	766.1	64.4	18	99	s.			2		mist		s.	0	0	misty	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.11	704.7	30.21	767.3	63.5	17.5	95	sw.			1		mist		calm	0.059	1.5	misty	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.14	740.2	30.19	766.9	63.1	17.3	56	n.			2		5		n.	0	0	cloudy	M. André, Director.
Mans, Normal School	29.95	760.6	30.25	768.4	64.2	17.9	66	sw.			1		8		n.	0	0	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.76	755.8	30.02	762.5	70.7	21.5	39	w.			2		0			0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.99	634.8	30.20	767.8	55.4	13.0	64	nw.	5.6	2.5			7		w.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.93	760.3	30.04	763.0	67.3	19.6	42	nw.			1		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.54	750.4	30.32	770.0	52.0	11.1	76	nne.			1	0	5 kn		n.	0	0	cloudy	M. Hasse.
Nantes, Observatory	30.09	764.3	30.25	768.4	66.6	19.2	76	s.			0-1		10 n		ssw.	0	0	misty	M. Larocque, Director.
Nice	30.01	762.2	30.04	763.1	68.0	20.0	54	se.			2		5	nw.	se.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	30.02	762.6	30.13	765.2	66.2	19.0	73	ne.	13.0	5.8			10		nnw.	0.106	2.7		Dr. Fines.
Pic-du-Midi, Plantade	22.73	577.3			41.0	5.0							10	ne.	nw.	0.059	1.5	rainy	Gen'l de Nansouty Dir.
Privas, Normal School					65.3	18.5	85	n.			2		0			0	0	clear	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.33	643.4			44.6	7.0	81	ne.			2	0	5 k		n.	0.004	0.1	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.20	767.1	30.23	767.9	69.3	20.7	80	s.			1		8		sw.	0	0	¾ covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	30.02	762.6	30.23	767.9	66.2	19.0	77	sw.			1		10		sw.	0	0	covered	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.13	765.3	30.22	767.5	62.6	17	80	sse.			1		10			0	0	covered	M. Platrier, Director.
Saint Lô, Normal School	30.04	763.1	30.20	767.1	63.1	17.3	72	w.			2		10		w.	0	0	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	30.08	764.1	30.25	768.3	63.0	17.2	77	e.			1		9		se.	0.016	0.4		M. Renou, Director.
Toulouse, Observatory	29.52	749.8	30.25	768.3	65.8	18.8	77	nne.			1		8		nw.	0.835	21.2	very cloudy	M Bailland, Director.
Tours																			M. de Tastes.
Versailles, Observatory	29.75	755.6	30.24	768.1	66.9	19.4	58	s.			1					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.97	761.1	30.26	768.5	63.1	17.3	75	se.			1		6		sse.	inap.	inap.		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.50	749.4	30.38	771.6	56.1	13.4	50	sse.			3	0	2 k		se.	0	0		Prof. Dr. Hoh.
Berlin	30.33	770.3	30.50	774.7	54.0	12.2	48	e.			1		0			0	0		Prof. Dr. Arndt.
Breslau	29.97	761.2	30.51	774.9	47.1	8.4	48	e.			2		0			0	0		Royal University Obs'y.
Carlsruhe	29.90	759.5	30.34	770.6	52.7	11.5	69	ne.			3		10	e.		0	0		Albert Senz.
Cassel	29.64	752.8	30.35	771.0	55.0	12.8	61	se.			1		5	s.		0	0		Dr. H. Möhl.
Frankfort on the Main	30.00	762.1	30.38	771.6	52.3	11.3	61	ene.			1		9			0	0		Physical Society.
Friedrichshafen	28.84	732.5	30.29	769.4	52.2	11.2	76	ne.			5		10	ene.		0	0		Wilhelm, Chief Tel.
Hamburg	30.41	772.3	30.50	774.7	51.6	10.9	49	ese.			4		0			0	0		E. Preller.
Kiel	30.48	774.1	30.49	774.5	50.7	10.4	60	ese.			2		0			0	0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	30.03	762.7	30.46	773.6	50.0	10.0	58	ne.			4		0			0	0		H. Leppig, Asst.
Magdeburg	30.28	769.2	30.48	774.2	53.8	12.1	56	e.			1	0	0						Dr. Assmann.
Memel	30.50	774.6	30.54	775.8	50.0	10.0	76	w.			4		10 k						Issermann.
Munich	28.49	723.6	30.37	771.5	48.0	8.9	75	ne.			2		10	e.		0.232	5.9		Central Station.
Neufahrwasser	30.58	776.8	30.60	777.2	50.0	10.0	50	ene.			2		1			0	0		A. Lothes.
Neustadt, Palatinate	29.82	757.4	30.35	770.9	50.4	10.2	76	ne.			2		10			0	0		Dicknether.
Stuttgart	29.34	745.3	30.24	768.2	55.4	13.0	66	e.			1		7	e.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.83	732.3	30.35	771.0	51.0	10.9	66	e.			2		8	e.		0	0		Fischer.
Wustrow	30.53	775.4	30.55	776.0	53.4	11.9	56	se.			2	0	2 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.54	750.3	29.91	759.7	87.3	30.7		s.			2.5		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.70	754.3	29.75	755.6	85.1	29.5	75	wsw.	16.0	7.2			0			0	0	blue sky	
Deesa	29.25	742.9	29.71	754.7	90.3	32.4	50	n.	4.9	2.2			2	nne.	nne.	0	0	d. clouds	
Bombay	29.78	756.3	29.82	757.3	82.5	28.1	69	w.	9.0	4.0			1	wnw.		0	0	d. clouds	
Poona, Yarrowda.	27.93	709.5	29.81	757.1	72.3	22.4	79	wsw.	18.0	8.0			5		wnw.	0	0	d. clouds	
Belgaum	27.28	692.9	29.83	757.6	73.4	23.0	72	wsw.	7.0	3.1			1		w.	0	0	d. clouds	
Lahore	28.92	734.7	29.64	753.0	93.1	33.9	34	n.	0.5	0.2			0			0	0	blue sky	
Roorkee	28.76	730.6	29.64	752.9	88.8	31.6	61	calm	1.7	0.8			0			0	0		
Agra	29.12	739.7	29.68	753.7	91.2	32.9	48	w.	1.7	0.8			1			0	0		
Nagpur	28.63	727.2	29.67	753.6	78.9	26.1	80	s.	4.1	1.8			10		n.	0.28	7.1	overcast	
Jubbulpore	28.35	720.0	29.69	754.0	84.0	28.9	72	calm	1.7	0.8			4	s.		0	0	d. clouds	
Lucknow	29.32	744.6	29.69	754.1	84.2	29.0	81	calm	0.8	0.4			5		wsw.	0	0	d. clouds	
Allahabad	29.34	745.3	29.65	753.2	84.7	29.3	87	calm	1.7	0.8			5	w.		0.33	8.4	d. clouds	
Patna	29.48	748.8	29.66	753.4	86.6	30.3	76	e.	3.3	1.5			4	e.	e.	0	0	d. clouds	
Hazaribagh	27.68	703.1	29.68	753.7	79.3	26.3	84	calm	7.9	3.5			8		e.	0	0		
Cuttack	29.62	752.3	29.70	754.3	88.3	31.3	68	calm	0.3	0.1			3			0.05	1.3	d. clouds	
Calcutta, Alipore	29.68	753.8	29.70	754.3	83.9	28.8	74	ssw.	7.0	3.1			0			0	0	blue sky	
Dhubri	29.59	751.5	29.71	754.6	81.7	27.6	82	calm	0.8	0.4			9		sw.	0.07	1.8	gloomy	
Chittagong	29.66	753.4	29.75	755.7	81.7	27.6	86	w.	2.4	1.1			4			0	0	blue sky	
Sibsagar	29.40	746.6	29.73	755.1	80.2	26.8	93	sw.	4.5	2.0			10	w.	w.	0.43	10.9	d. clouds	
Jeypore	28.28	718.3	29.68	753.9	92.7	33.7	36	nnw.	2.4	1.1			3		nnw	0.05	1.3	d. clouds	
Zanzibar, Africa			29.96	761.0	81.6	27.6	66	se.	4	1.8			7		se.	0	0	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.71	754.7	30.12	765.0	62.6	17.0	54	e.	1.8	0.8			10			0	0		Prof. Giovanni Clodig.
Milan	29.58	751.4	30.10	764.4	68.0	20.0	56	se.	3.1	1.4			4	ne.		0	0		Prof. Schiaparelli.
Padua	30.00	761.9	30.11	764.7	65.5	18.6	57	ese.	7.4	3.3			7	n.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.16	740.6	30.06	763.4	67.5	19.7	53	s.	1.8	0.8			1			0	0		Prof. P. F. Denza.
Genoa	29.87	758.7	30.07	763.7	70.2	21.2	55	s.	2.5	1.1			2			0	0		Prof. G. M. Garibaldi.
Mondovi	28.18	715.8	30.08	764.1	62.4	16.9	52	w.			4		2	nw.		0	0		Prof. D. C. Bruno.
Pesaro	30.00	762.1	30.05	763.3	66.6	19.2	60	ne.	8.7	3.9			9	ne.		0	0		Prof. Luigi Guidi.
Florence	29.77	756.2	30.02	762.6	70.2	21.2	40	ne.			2		10	nw.		0	0		Prof. Costantino Pitter.
Leghorn	29.97	761.2	30.06	763.4	70.5	21.4	45	nne.	1.3	0.6			4			0	0		Prof. P. Monte.
Rome	29.78	756.4	29.95	760.8	72.7	22.6	28	nnw.	3.8	1.7			4			0	0		Prof. P. S. Ferrari.
Lecce	29.63	752.5	29.87	758.8	70.2	21.2	64	sw.	8.1	3.6			10	sw.		0.465	11.8		Prof. C. de Giorgi.
Cosenza	29.07	738.4	29.95	760.6	64.4	18.0	62	sse.	3.1	1.4			9	se.		0.535	13.6		Prof. D. Conti.
Cagliari	29.81	757.1	30.00	761.9	73.8	23.2	37	nw.			4		2	nw.		0.169	4.3		Prof. A. Pacinotti.
Palermo	29.77	756.2	30.02	762.4	72.0	22.2	42	w.	9.8	4.4			6	ese.		0.091	2.3		Prof. G. Ciacciatore.
Syracuse	29.87	758.7	29.91	759.8	76.3	24.6	47	w.	4.3	1.9			10	w.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.42	747.2	29.93	760.2	64.0	17.8	88	n.	0.7	0.3			10	nne.		0.047	1.2		Prof. F. Brioschi.
Stelvio	22.30	566.3			38.1	3.4	44	ne.			2	0	4 ks	ne.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.31	566.6			40.1	4.5	72	e.			2	2 ck	0	n.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.86	758.4	29.87	758.7	70.7	21.5	74	nne.	6.8	3.0		0	0			0.370	9.4	clear	K. Sasaki.
Kioto	29.76	755.9	29.93	760.2	65.1	18.4	93	nw.	1.9	0.8		ck	3 s			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.67	753.6	29.86	758.4	73.0	22.8	80	ne.	3.7	1.6			10 s			0.985	25.0	overcast	S. Takehayashi.
Niigata	29.89	759.2	29.92	759.9	63.4	17.4	96	e.	1.4	0.6		ck	8 ks			0.005	0.1	cloudy	
Nobiru	29.95	760.7	29.97	761.2	60.7	15.9	87	n.	7.6	3.4		ck	8 s			0.025	0.6	cloudy	
Supporo	29.90	759.4	29.97	761.2	56.1	13.4	88	sse.	1.2	0.5			2			0	0		
Tokei Obs'y, Yeddo	29.89	759.2	29.96	761.0	65.1	18.4	90	ne.	4.4	2.0			10 s			0.005	0.1	cloudy	The Staff.
Wakayama	29.86	758.4	29.91	759.7	71.7	22.1	76	nne.	4.6	2.1		0	4 s			0.263	6.7	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation o C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.96	761.0	30.14	765.6	73.6	23.1	58	e.	19.0	8.5		0	1			0.01	0.3	squally	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.66	601.0	29.88	759.0	55.4	13.0	72	calm	0	0		0	0			0	0	fine	Vicente Fernandez.
Leon	24.41	620.0	30.09	764.3	58.9	14.9	85	n.			1	0	0			0	0	fine	Prof. M. Leal.
Mazatlan	29.62	752.4	29.88	758.9	80.5	26.9	93	e.				1 cs	4 n	calm	w.	0	0	½ cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.09	586.5	30.12	765.2	52.0	11.1	80	calm	0	0		3 ck	0			0	0	clear	The Staff.
Morelia	24.20	614.6	30.28	769.2	59.0	15.0	63	s.			2	2	2	s.	s.	0	0	foggy	M. Tena, M. D.
Pabellon, Aguascalientes	23.94	607.9	29.89	759.1	54.1	12.3	83	wsw.			1	1 c	0			0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	594.9	30.28	769.2	50.2	10.1	70	calm	0	0		0	4		e.	0	0		Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.56	573.2	30.16	766.0	53.6	12.0	56	ene.	0.9	0.4		0	0			0	0	fine	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.30	769.5	30.30	769.5	54.7	12.6		se.			4					0	0		
Groningen	30.33	770.3	30.38	771.7	52.9	11.6		ese.			4					0	0		
Helder	30.32	770.2	30.32	770.2	49.6	9.8		ese.			4					0	0		
Hellevoetsluis	30.29	769.3	30.29	769.3	53.6	12.0	87	se.			4					0	0		
Utrecht	30.30	769.5	30.34	770.7	53.4	11.9	74	se.			4		5			0.004	0.1	cloudy	H. van der Brink

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.34	770.6	30.40	772.2	52.9	11.6	67	ssw.	12.3	5.5			1			0	0		
Christiania	30.32	770.1	30.47	774.0	44.2	6.8	85	nw.	0	0			2			0	0		
Gjæsvær	29.79	756.6	29.81	757.2	39.2	4.0		wnw.			8		10						
Lodingen	30.16	766.1	30.21	767.3	46.9	8.3	78	wsw.			6		8			0.098	2.5	raining	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.16	766.0	30.31	769.8	65.5	18.6	63	ese.	4.9	2.2			3			0	0		Dr. J. A. Sampaio.
Campo Major	29.18	741.2	30.14	765.5	83.1	28.4	32	ese.	4.3	1.9			2			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.15	765.9	30.24	768.1	75.2	24.0	61	sw.	6.3	2.8			2			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.87	758.7	30.22	767.7	74.3	23.5	56	ne.	9.4	4.2			1			0	0		The Staff.
Ponta Delgada, Azores	30.28	769.1	30.35	770.9	74.8	23.8	69	nne.	6.9	3.1			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.79	731.2	29.97	761.1	39.2	4.0	85	wsw.	13	6			9 k						Capt. Lasarew.
Archangel	29.79	756.6	29.81	757.1	43.3	6.3	96	w.	22	10			10						Capt. Sselliwerstow.
Astrakhan	30.22	767.6	30.14	765.5	39.9	4.4	92	ne.	11	5			10 n			blank	blank		Capt. Wisganow.
Barnaul ‡	29.28	743.8	29.78	756.3	56.7	13.7	68	w.	11	5			10						Meteorological Obs'y.
Dorpat	30.12	765.0	30.37	771.3	51.4	10.8	67	wsw.	7	3			10 k						Observatory.
Ekaterinburg	28.47	723.0	29.45	748.0	29.7	— 1.3	69	wsw.	27	12			10					snowing	Meteorological Obs'y.
Kasan	29.56	750.8	29.84	757.9	32.9	0.5	59	nw.	16	7		0	2 k						Observatory.
Kertch	30.22	767.5	30.24	768.0	48.4	9.1	84	ne.	16	7			10 n			0	0		Lagorio & Sastyrek.
Kieff	29.74	755.4	30.39	771.9	46.8	8.2	39	n.	4	2		0	0						Observatory.
Lugan	30.03	762.7	30.23	767.9	49.6	9.9	33	n.	13	6			0						Meteorological Obs'y.
Moscow	29.64	752.9	30.13	765.2	45.1	7.3	51	n.	7.8	3.5		0	8 ks						Meteorological Obs'y.
Nikolaiev	30.31	769.9	30.38	771.7	46.4	8.0	56	ne.	22	10		3 cs	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.81	757.2	29.90	759.4	49.1	9.5	87	calm			0	7 cs	0			0	0		Lieut. Iwanow.
Pekin, China	29.83	757.7	29.97	761.3	66.7	19.3	66	s.				0	0			0	0		Physical Observatory.
St. Petersburg	30.21	767.3	30.22	767.7	47.5	8.6	66	nw.	13	6			10n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.49	723.6	30.00	762.0	73.8	23.2	38	calm	0	0			0						Teich, A. M.
Tiflis	28.55	725.1	29.89	759.2	80.2	26.8	28	nw.	18	8		0	1 ks						Physical Observatory.
Warsaw	30.10	764.4	30.53	775.4	48.2	9.0	46	ene.	4	2		0	0						Astronomical Obs'y.
Wilna	30.10	764.5	30.53	775.5	48.2	9.0	52	w.	2	1			9						Berg, Assistant.
Yeniseisk	29.58	751.4	29.87	758.6	50.9	10.5	48	e.	4	2			9						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.08	764.0	54.9	12.7	87	se.			1		10 n					raining	Andrew Gibb.
Monach Lt. House, Hebrides			29.89	759.2	56	13.3	94	s.			4		10			0.6	15.	raining	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	30.00	762.0	30.10	764.6	71.2	21.8	63	e.	2.7	1.1			6			0	0		Antonio Rave, Director.
Bilbao, Met. Obs'y	30.21	767.4	30.27	768.8	69.1	20.6	86	nw.	1.8	0.8			10			1.823	46.3	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.32	694.0			66.2	19.0	78	w.	4.0	1.8			5			0	0	cloudy	Domingo Martin.
Madrid, Royal Obs'y	28.02	711.6	30.16	766.1	77.9	25.5	44	se.	2.0	0.9		0	5			0	0	cloudy	The Staff.
Murcia, Met. Obs'y ‡	29.99	761.7	30.13	765.3	87.4	30.8	39	s.	1.8	0.8		0	1			0	0	almost clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.32	744.7	30.19	766.7	72.7	22.6	69	sw.	0	0			2			0	0	almost clear	R. Gil Vallanueva, Dir
Sub-Series.																			
Havana, Cuba, W. I.	29.95	760.6	30.01	762.3	76.7	24.8	88	e.	2.2	1.0		9 c,cs	2 k;s	sw.	se.	0.106	2.7	cloudy	Benito Vines, S. J.
Manilla, Philippine Islands	29.73	755.1	29.78	756.4	82.8	28.2	84	sw.	26.4	12.0		0	8 kn		w.	0.28	7.0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.05	763.2	30.14	765.6	84.0	28.9	28	e.	15.5	6.9		3	4	ese.	e.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.93	760.3	30.02	762.6	80.2	26.8	91	se.	4.5	2.0		2 k	3 kn	se.	se.	0.008	0.2	cloudy	E. Cadea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.59	751.5	29.72	754.9	82.1	27.8	79	n.	3.9	1.7		6 cs	4 ks		nnw.	0	0	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.07	763.8	30.11	764.8	50.7	10.4	58	nw.			2		0			0	0		
Umea	30.19	766.8	30.24	768.1	54.3	12.4	54	nw.			2		1			0	0		
Hernosand	30.28	769.0	30.33	770.3	57.0	13.9	52	w.			2		0			0	0		
Stockholm	30.22	767.6	30.40	772.1	54.7	12.6	63	sw.			2		0			0	0		
Wisby	30.37	771.3	30.43	772.8	50.7	10.4	72	wnw.			6		0			0	0		
Sub-Series.																			
Upsala	30.27	768.9	30.36	771.1	57.6	14.2	56	wnw.	7.2	3.2			0			0.008	0.2		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.76	730.6	30.17	766.4	59.7	15.4	68	nnw.			3		3			0	0	cloudy	The Observatory.
Zurich ‡	28.64	727.4	30.28	769.2	51.4	10.8	80	e.			5		7			0	0	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.07	763.7	73.0	22.8	69	nne.	19	8.5			4		n.	0.163	4.2		The Observatory.
Valona			30.01	762.3	66.9	19.4		w.			1		10			0.08	2.	covered	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.91	759.7	82.9	28.3	66	nne.			3	0	0			0	0		Prof. C. V. A. van Dyck.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Barometer. Corrected for instru-m'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
UNITED STATES SERIES. By authority of the Secretary of War. Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.																			
Albany, New York	29.99	761.7	30.07	763.8	67	19.4	84	w.	2	0.9			sk; 10s		w.	0.12	3.0	cloudy	
Alpena, Michigan	29.12	739.6	29.79	756.7	62	16.7	100	se.	12	5.4			10 s			2.33	59.2	cloudy	
Atlanta, Georgia	29.00	736.6	30.18	766.6	69.2	20.7	93	e.	7	3.1			fg.			0	0	dense fog	
Atlantic City, New Jersey	30.12	765.0	30.12	765.0	72	22.2	90	sw.	5	2.2		0	0			0	0	clear	
Augusta, Georgia	30.02	762.5	30.20	767.1	72.3	22.4	84	calm	0	0		0	hz.			0	0	clear	
Baltimore, Maryland	30.09	764 3	30.14	765.5	70	21.1	84	calm	0	0			fg.		calm	0	0	dense fog	
Barnegat, New Jersey	30.08	764.0	30.10	764.5	72.0	22.2	90	sw.	8	3.6		0	0			0	0	clear	
Bismarck, Dakota	27.63	701.8	29.46	748.3	52	11.1	93	n.	8	3.6			10 s		calm	0.30	7.6	cloudy	
Boise City, Idaho	27.15	689.6	29.99	761.7	49.5	9.7	80	n.	2	0.9			10 s		w.	0.04	1.0	cloudy	
Boston, Massachusetts	29.91	759.7	30.07	763.8	63.3	17.4	91	e.	6	2.7			fg.			0.40	10.2	dense fog	
Brackettville, Texas	28.75	730.2	29.77	756.1	71	21.7	84	e.	9	4.0		0	0			0	0	clear	
Brownsville, Texas	29.87	758.7	29.91	759.7	75	23.9	90	calm	0	0		0	hz.			0	0	dense haze	
Buffalo, New York	29.28	743.7	30.00	762.0	70.2	21.2	78	s.	6	2.7		0	9 s		sw.	0.17	4.3	cloudy	
Burlington, Vermont	29.79	756.7	30.08	764.0	58.0	14.4	93	w.	2	0.9			10 s		w.	0.03	0.8	cloudy	
Cairo, Illinois	29.61	752.1	30.01	762.2	72.8	22.7	80	s.	12	5.4		0	0			0	0	clear	
Campo, California	27.41	696.2	29.98	761.5	37.4	3.0	92	s.	2	0.9		0	0			0.02	0.5	clear	
Camp Thomas, Arizona	27.26	692.4			48	8.9	86	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.18	766.6	30.20	767.1	72	22.2	82	sw.	14	6.3		0	0			0	0	clear	
Cape May, New Jersey	30.10	764.5	30.12	765.0	72.5	22.5	90	sw.	17	7.6		0	0			0	0	clear	
Castroville, Texas	29.16	740.7	29.83	757.7	77	25.0	82	se.	7	3.1			10 s		se.	0	0	cloudy	
Cedar Keys, Florida	30.08	764.0	30.10	764.5	75	23.9	85	ne.	9	4.0		0	0			0	0	clear	
Champaign, Illinois	29.04	737.6	29.80	756.9	68.3	20.2	78	s.	15	6.7		0	0			0	0	clear	
Charleston, S. Carolina	30.11	764.8	30.17	766.3	77	25.0	90	ne.	4	1.8		0	hz.			0	0	clear	
Charlotte, N. Carolina	29 33	745.0	30.21	767.3	69	20.6	90	s.	1	0.4		5 k	hz.	calm	calm	0	0	light haze	
Chattanooga, Tennessee	29.36	745.7	30.19	766.8	65.0	18.3	93	ne.	3	1.3		2 ck	fg.	sw.	calm	0	0	clear	
Cheyenne, Wyoming	23.84	605.5	29.81	757.2	45.5	7.5	24	nw.	28	12.5		0	1 s			0	0	clear	
Chicago, Illinois	29.05	737.9	29.76	755.9	71.5	21.9	67	sw.	17	7.6		0	0			0.01	0.3	clear	
Chincoteague, Virginia	30.15	765.8	30.17	766.3	73	22.8	84	sw.	20	8.9		0	sk.		calm	0	0	clear	
Cincinnati, Ohio	29.41	747.0	30.07	763.8	72.5	22.5	76	s.	5	2.2		0	hz.			0	0	clear	
Cleveland, Ohio	29.29	744.0	30.03	762.7	71.6	22.0	66	s.	10	4.5		0	0			inap.	inap.	clear	
Coleman City, Texas																			
Columbus, Ohio	29.21	741.9	30.07	763.8	66	18.9	84	s.	5	2.2		0	0			0.05	1.3	clear	
Concho, Texas	28.00	711.2	29.94	760.5	71	21.7	84	s.	14	6.3		3 ck	0	s.		0	0	fair	
Corsicana, Texas	29.51	749.5	29.98	761.5	77	25.0	69	se.	8	3.6		0	6 s		se.	0	0	fair	
Davenport, Iowa	29.00	736.6	29.06	753.4	73	22.8	59	sw.	20	8.9		5 k	0	sw.		0	0	fair	
Dayton, Washington T'y	28.03	711.9	29.84	757.9	51.0	10.6	80	sw.	12	5.4		0	0			0.32	8.1	clear	
Deadwood, Dakota	25.03	635.8	29.73	755.1	48	8.9	68	sw.	8	3.6		0	0			inap.	inap.	clear	
Decatur, Texas	28.72	729.5	29.82	757.4	75	23.9	56	s.	12	5.4		0	5 s		s.	0	0	fair	
Delaware Breakwater, Del.	30.11	764.8	30.13	765.3	72	22.2	90	sw.	19	8.5		0	hz.			0	0	clear	
Denison, Texas	29.11	739.4	29.92	760.0	73	22.8	87	s.	12	5.4			10 s		s.	0	0	cloudy	
Denver, Colorado	24.60	624.8	29.82	757.4	53.0	11.7	24	nw.	8	3.6		4 ck	0	w.		0	0	fair	
Des Moines, Iowa	28.64	727.4	29.55	750.6	74	23.3	71	sw.	18	8.0			10 s		sw.	inap.	inap.	cloudy	
Detroit, Michigan	29.23	742 4	29.95	760.7	73.2	22.9	71	s.	14	6.3		2 ck	0	w.		0.01	0.3	clear	
Dodge City, Kansas	27.13	689.1	29.72	754.9	52.2	11.2	76	nw.	4	1.8		0	0			0	0	clear	
Dubuque, Iowa	28.89	733.8	29.01	752.1	71.3	21.8	66	s.	6	2.7			10 s		s.	0.04	1.0	threatening	
Duluth, Minnesota	28.61	726.7	29.32	744.7	59	15.0	93	ne.	9	4.0			10 s		ne.	0.77	19.6	cloudy	
Eagle Pass, Texas	29.13	739.9	29.96	761.0	74.0	23.3	82	se.	7	3.1		0	0			0	0	clear	
Eagle Rock, Idaho	25.17	639 3	30.02	762.5	43	6.1	63	sw.	28	12.5		0	8 ks		sw.	0	0	fair	
Eastport, Maine	30.00	762.0	30.08	764.0	55	12.8	90	n.	6	2.7			10 s		n.	0.15	3.8	cloudy	
El Paso, Texas	26.22	666.0	29.98	761.5	59.2	15.1	60	w.	7	3.1		0	0			0	0	clear	
Erie, Pennsylvania	29.28	743.7	30.01	762.2	71	21.7	71	s.	11	4.9		0	3 s			0.08	2.0	clear	
Escanaba, Michigan	28.92	734.6	29.58	751.3	61	16.1	93	se.	4	1.8			10 s		calm	0.99	25.1	cloudy	
Florence, Arizona	28.57	725.7	30.17	766.3	55.2	12.9	64	calm	0	0		0	0			0	0	clear	
Fort Apache, Arizona	25.05	636 3	29.96	761.0	41	5.0	86	e.	2	0.9		0	0			0	0	clear	
Fort Assinnaboine, Montana	26.62	676.1	29.44	747.8	52	11.1	50	sw.	18	8.0		0	9 s		sw.	0	0	cloudy	
Fort Bennett, Dakota	27.86	707.6	29.40	746.7	54	12.2	86	w.	8	3.6			8 s		w.	0.01	0.3	cloudy	
Fort Benton, Montana	26.74	679.2	29.00	751.8	43	6.1	68	w.	24	10.7		5 k	0	nw.		0	0	fair	
Fort Buford, Dakota	27.56	700.0	29.57	751.1	46	7.8	85	sw.	4	1.8		0	0			0	0	clear	
Fort Custer, Montana	26.43	671.3	29.07	753.6	46	7.8	70	sw.	4	1.8			10 s		calm	0.10	2.5	cloudy	
Fort Davis, Texas	24.90	632 4	29.80	758.4	70	21.1	73	s.	4	1.8		0	0			0	0	clear	
Fort Elliott, Texas	27.08	687.8	30.27	768.8	65	18.3	70	w.	8	3.6		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.28	743.7	29.83	757.7	78.0	25.6	67	s.	17	7.6		3 k	0	sw.		0	0	fair	
Fort Grant, Arizona					55	12.8	45	ne.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.60	726 4	29.80	756.9	76.4	24.7	74	se.	10	4.5			10 s		se.	0	0	cloudy	
Fort Keogh, Montana	27.05	687.1	29.59	751.6	48	8.9	71	sw.	8	3.6		8 cs	0	sw.		0.02	0.5	cloudy	
Fort Macon, North Carolina	30.18	766.6	30.19	766.8	75	23.9	82	se.	5	2.2		hz.	0	calm		0	0	dense haze	
Fort McKavett, Texas	27.70	703.6	29.54	750.3	70	21.1	80	s.	10	4.5		0	0			0	0	clear	
Fort Missoula, Montana	26.35	669.3	29.87	758.7	47	8.3	77	sw.	2	0.9			10 ks			0.01	0.3	threatening	
Fort St. Michaels	29.84	757.9	29.88	758.9	43	6.1	100	s.	10	4.5			10 n			0.23	5.8	light rain	
Fort Shaw, Montana	25.93	658.6	29.53	750.0	48	8.9	93	w.	16	7.2		0	0			0	0	clear	
Fort Sill, Indian Territory	28.60	726.4	29.85	758.2	75.3	24.1	76	s.	17	7.6		0	0			0	0	clear	
Fort Stevenson, Dakota	27.60	701.0	29.47	748.5	49	9.4	93	calm	0	0			10 s		calm	0.62	15.7	cloudy	
Fort Verde, Arizona					48	8.9	56	w.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.20	716.3	29.70	754.4	76	21.1	90	sw.	12	5.4		5 k	0	sw.		0	0	fair	
Galveston, Texas	29.95	761.0	30.00	762.0	79	26.1	82	s.	7	3.1		2 cs	1 ks	s.		0	0	fair	
Grand Haven, Michigan	29.09	738.9	29.76	755.9	70.5	21.4	82	se.	20	8.9		6 k	0	se.		0.04	1.0	fair	
Hatteras, North Carolina	30.20	767.1	30.22	767.6	76	24.4	85	se.	2	0.9		0	0			0	0	clear	
Helena, Montana	25.41	645.4	29.80	756.9	58	14.4	35	s.	6	2.7		0	0			0.05	1.3	clear	
Henrietta, Texas	28.84	732.5	29.69	754.1	78	25.6	73	se.	13	5.8		4 k	0	s.		0	0	fair	
Huron, Dakota	27 99	710.9	29.38	746.2	51	10.6	90	sw.	9	4.0		0	2 ks		sw.	0.11	2.8	threatening	
Indianapolis, Indiana	29.17	740.9	29.97	761.2	71	21.7	76	sw.	9	4.0		0	hz.		calm	0	0	clear	
Indianola, Texas	29.95	760.7	29.98	761.5	78.3	25.7	88	s.	4	1.8		0	1 ks		calm	0	0	clear	
Jacksboro, Texas	28.72	729 5	29.79	756.7	73	22.8	76	s.	8	3.6		2 ck	0	w.		0	0	clear	
Jacksonville, Florida	30.05	763.5	30.10	764.5	76	24.4	90	ne.	2	0.9		0	0			0.11	2.8	clear	
Keokuk, Iowa	29.04	737.6	29.70	754.4	74.8	23.8	59	s.	22	9.8		4 k	0	s.		0	0	fair	
Key West, Florida	30.00	762.0	30.04	763.0	80.0	26.7	86	e.	4	1.8		8 cs	2 k	sw.	e.	0.30	7.6	cloudy	
Kittyhawk, North Carolina	30.20	767.1	30.22	767.6	73	22.8	90	s.	4	1.8		0	hz.			0	0	clear	
Knoxville, Tennessee	29.78	741.2	30.22	767.6	63	17.2	92	calm	0	0		0	sk.		calm	0	0	clear	
La Crosse, Wisconsin	28.70	729.0	29.47	748.5	72	22.2	66	s.	20	8.9		0	4 s			0.46	11.7	fair	
La Mesilla, New Mexico	26.11	663.2	30.20	768.6	51.2	10.7	80	calm	0	0		0	0			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	28.77	730.7	29.67	753.6	76	24.4	64	s.	20	8.9		4 k	0	sw.		inap.	inap.	fair	
Lewiston, Idaho	28.88	733.5	29.73	755.1	58	14.4	53	w.	12	5.4		0	2 s		w.	0.16	4.1	clear	
Little Rock, Arkansas	29.64	752.8	29.96	761.0	73	22.8	76	s.	6	2.7		0	hz.			0	0	clear	
Los Angeles, California	29.62	752.3	30.00	762.0	56.0	13.3	74	s.	4	1.8		0	0			0	0	clear	
Louisville, Kentucky	29.46	748.3	30.03	762.7	73.0	22.8	76	s.	6	2.7		0	0			0	0	clear	
Lynchburg, Virginia	29.49	749.0	30.18	766.6	69.2	20.7	78	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	28.60	726.4	29.63	752.6	69	20.6	90	s.	22	9.8		3 cs	3 ks	w.	w.	0.06	1.5	fair	
Marquette, Michigan	28.90	734.0	29.63	752.6	60	15.6	100	calm	0	0			10 s		s.	1.05	26.7	cloudy	
Mason, Texas	28.32	719.3	30.00	762.0	73.2	22.9	76	s.	6	2.7		0	0			0	0	clear	
Memphis, Tennessee	29 70	754.4	30.04	763.0	74	23.3	68	s.	4	1.8		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—CONTINUED.																			
Milwaukee, Wisconsin	28.93	734.8	29.69	754.1	68	20.0	78	s.	16	7.2	.....	5 ck	o	sw.	.....	0.03	0.8	fair	
Mobile, Alabama	30.00	762.0	30.07	763.8	74.0	23.3	90	ne.	3	1.3	.....	3 cs	o	se.	.....	o	o	clear	
Montgomery, Alabama	29.89	759.2	30.12	765.0	71	21.7	90	e.	3	1.3	.....	o	o	.....	.....	o	o	clear	
Moorhead, Minnesota	28.36	720.3	29.37	746.0	56	13.3	93	n.	8	3.6	.....	.....	10 s	.....	.....	0.16	4.1	cloudy	
Morgantown, W. Virginia	29.14	740.1	30.10	764.5	63.0	17.2	90	calm	o	o	.....	o	fg	.....	.....	0.10	2.5	clear	
Mt. Washington, N. H.	23.91	607.3	30.11	764.8	45.0	7.2	100	nw.	30	13.4	.....	.....	fg	.....	nw.	1.72	43.7	dense fog	
Nashville, Tennessee	29.54	750.3	30.08	764.0	71.0	21.7	83	se.	4	1.8	.....	o	o	.....	.....	o	o	clear	
New Haven, Connecticut	29.96	761.0	30.08	764.0	65	18.3	90	sw.	3	1.3	.....	1 c	sk.	.....	.....	0.01	0.3	dense smoke	
New London, Connecticut	30.04	763 0	30.09	764.3	71	21.7	82	calm	o	o	.....	o	o	.....	.....	0.03	0.8	clear	
New Orleans, Louisiana	29.98	761.5	30.04	763.0	76.0	24.4	90	e.	1	0.4	.....	hz	o	.....	.....	inap.	inap.	clear	
Newport, Rhode Island	30.03	762.7	30.08	764.0	66.0	18.9	93	sw.	1	0.4	.....	1 k	sk	calm	.....	inap.	inap	smoky	
New River, N. Carolina	.....	.....	.....	.....	79	26.1	69	calm	.....	.....	o	o	o	.....	.....	o	o	clear	
New Shoreham, Rhode I'd	30.05	763.3	30.08	764.0	66.5	19.2	90	sw.	8	3.6	.....	o	o	.....	.....	o	o	clear	
New York, New York	29.93	760.2	30.11	764.8	67	19.4	90	sw.	3	1.3	.....	4 cs	o	w.	.....	o	o	fair	
Norfolk, Virginia	30.17	766.3	30.20	767.1	71	21.7	84	sw.	4	1.8	.....	o	hz	.....	.....	o	o	clear	
North Platte, Nebraska	26.79	680.5	29.73	755.1	51.4	10.8	59	w.	20	8.9	.....	o	o	.....	.....	0.06	1.5	clear	
Olympia, Washington T'y	29.79	756.7	29.83	757.7	54.0	12.2	86	s.	7	3.1	.....	o	4 s	.....	calm	0.83	21.1	fair	
Omaha, Nebraska	28.41	721.6	29.60	751.8	65.1	18.4	73	sw.	4	1.8	.....	o	1 s	.....	sw.	inap.	inap.	clear	
Oswego, New York	29.69	754.1	30.02	762.5	64.8	18.2	90	n.	2	0.9	.....	.....	10 s	.....	w.	0.12	3.0	cloudy	
Pensacola, Florida	30.04	763.0	30.07	763.8	75	23.9	91	e.	5	2.2	.....	o	o	.....	.....	o	o	clear	
Philadelphia, Pa	30.06	763.5	30.12	765 0	69	20.6	93	w.	7	3.1	.....	o	fg	.....	.....	0.05	1.3	clear	
Phœnix, Arizona	28.83	732.3	30.64	778.2	55	12.8	55	calm	o	o	.....	o	o	.....	.....	o	o	clear	
Pike's Peak, Colorado	17.66	448.6	29.87	758.7	18	— 7.8	70	sw.	56	25.0	.....	1 cs	o	.....	.....	o	o	clear	
Pioche, Nevada	24.11	612.4	30.13	765.3	42	5.6	35	calm	o	o	.....	o	o	.....	.....	o	o	clear	
Pittsburg, Pennsylvania	29.30	744.2	30.12	765.0	70	21.1	76	s.	4	1.8	.....	o	o	.....	.....	0.14	3.6	clear	
Port Eads, Louisiana	30.02	762.5	30.03	762.7	78.4	25.8	84	e.	11	4.9	.....	o	2 k	.....	e.	o	o	fair	
Port Huron, Michigan	29.22	742.2	29.91	759.7	69.6	20.9	81	s.	14	6.3	.....	2 cs	o	calm	.....	0.10	2.5	clear	
Portland, Maine	30.03	762.7	30.08	764.0	58.5	14.7	93	n.	6	2.7	.....	.....	10s; fg	.....	calm	0.60	15.2	cloudy	
Portland, Oregon	29.86	758.4	29.92	760.0	55.7	13.2	91	sw.	10	4.5	.....	o	3 s	.....	nw.	0.78	19.8	fair	
Portsmouth, N. Carolina	.....	.....	.....	.....	77	25.0	76	s.	3	1.3	.....	hz	hz	calm	calm	o	o	light haze	
Prescott, Arizona	24.78	629.4	29.97	761.2	40	4.4	76	s.	2	0.9	.....	o	o	.....	.....	o	o	clear	
Punta Rassa, Florida	30.03	762.7	30.04	763.0	76	24.4	85	ne.	8	3.6	.....	10 cs	o	calm	.....	0.31	7.9	cloudy	
Red Bluff, California	29.75	755.6	30.09	764.3	58.5	14.7	85	calm	o	o	.....	o	o	.....	.....	o	o	clear	
Rio Grande City, Texas	29.74	755.4	29.94	760.5	73	22.8	85	calm	o	o	.....	o	o	.....	.....	o	o	clear	
Rochester, New York	29.36	745.7	30.00	762.0	63	17.2	93	s.	4	1.8	.....	.....	10 n	.....	w.	0.28	7.1	light rain	
Roseburg, Oregon	29.52	749.8	30.10	764.5	56.2	13.4	83	sw.	3	1.3	.....	.....	10 s	.....	.....	inap.	inap.	cloudy	
Sacramento, California	30.04	763.0	30.12	765.0	52.9	11.6	80	se.	4	1.8	.....	o	o	.....	.....	o	o	clear	
St. Louis, Missouri	29.27	743.4	29.88	758.9	71.4	21.9	71	s.	10	4.5	.....	o	o	.....	.....	o	o	clear	
St. Paul, Minnesota	28.46	722.9	29.34	745.2	65.6	18.7	93	sw.	15	6.7	.....	.....	10 s	.....	sw.	1.56	39.6	cloudy	
Salt Lake City, Utah	25.62	650.7	29.95	760.7	49	9.4	52	e.	3	1.3	.....	.....	10 s	.....	calm	0.31	7.9	cloudy	
San Antonio, Texas	29.25	742.9	29.95	760.7	74.8	23.8	90	se.	4	1.8	.....	.....	10 ks	.....	s.	o	o	cloudy	
San Diego, California	29.87	758.7	29.94	760.5	53.0	11.7	80	n.	4	1.8	.....	o	o	.....	.....	0.01	0.3	clear	
Sandusky, Ohio	29.30	744.2	29.99	761.7	70	21.1	76	sw.	13	5.8	.....	o	o	.....	.....	0.03	0.8	clear	
Sandy Hook, New Jersey	30.08	764.0	30.10	764.5	72.0	22.2	68	w.	4	1.8	.....	2 k	o	w.	.....	o	o	clear	
San Francisco, California	30.06	763.5	30.12	765.0	57	13.9	90	w.	2	0.9	.....	o	o	.....	.....	o	o	clear	
Santa Fé, New Mexico	23 26	590.8	30.06	763.5	41	5.0	48	nw.	3	1.3	.....	o	o	.....	.....	o	o	clear	
Savannah, Georgia	30.05	763.3	30.14	765.5	76	24.4	97	n.	1	0.4	.....	4 k	fg	.....	.....	0.09	2.3	fair	
Shreveport, Louisiana	29.77	756.1	30.00	762.0	73	22.8	90	s.	6	2.7	.....	.....	10 ks	.....	sw.	o	o	cloudy	
Silver City, New Mexico	24.35	618.5	29.92	760.0	54	12.2	72	calm	o	o	.....	o	2 s	.....	calm	o	o	clear	
Sitka, Alaska	29.33	745.0	29.40	746.7	45.1	7.3	84	ne.	6	2.7	.....	.....	10 ks	.....	calm	0.09	2.3	cloudy	
Smithville, North Carolina	30.15	765.8	30.19	766.8	78	25.6	77	se.	6	2.7	.....	o	hz	.....	.....	o	o	clear	
Spokane Falls, Wash. Ter.	27.63	701.8	29.65	753.1	49	9.4	80	sw.	12	5.4	.....	.....	10 ks	.....	sw.	0.31	7.9	cloudy	
Springfield, Illinois	29.14	740.1	29.83	757.7	72.0	22.2	71	s.	16	7.2	.....	o	o	.....	.....	o	o	clear	
Springfield, Massachusetts	29.95	760.7	30.07	763.8	67.2	19.6	93	s.	1	0.4	.....	8 ck	hz	w.	.....	0.35	8.9	cloudy	
Stockton, Texas	26.94	684.3	30.01	762.2	65.7	18.7	78	se.	4	1.8	.....	o	o	.....	.....	o	o	clear	
St. Vincent, Minnesota	28.49	723.6	29.38	746.2	52	11.1	100	nw.	3	1.3	.....	.....	10 n	.....	calm	0.20	5.1	light rain	
Thatcher's Island, Mass	30.07	763.8	30.12	765.0	58.2	14.6	100	ne.	7	3.1	.....	.....	10 n	.....	ne.	0.11	2.8	light rain	
Toledo, Ohio	29.25	742.9	29.95	760.7	71	21.7	76	se.	9	4.0	.....	o	o	.....	.....	o	o	clear	
Tucson, Arizona	27.46	697.5	29.82	757.4	55	12.8	69	sw.	3	1.3	.....	o	o	.....	.....	o	o	clear	
Umatilla, Oregon	29.45	748.0	29.86	758.4	57.5	14.2	66	sw.	20	8.9	.....	o	4 ks	.....	sw.	0.19	4.8	fair	
Uvalde, Texas	28 97	735.8	29.76	755 9	72	22.2	90	se.	3	1.3	.....	.....	10 s	.....	s.	o	o	cloudy	
Vicksburg, Mississippi	29.81	757.2	30.07	763.8	71	21.7	94	se.	20	8.9	.....	.....	fg	.....	calm	o	o	dense fog	
Visalia, California	29.68	753 9	30.04	763.0	49	9.4	86	calm	o	o	.....	o	o	.....	.....	o	o	clear	
Washington, D. C.	30.04	763.0	30.15	765.8	71.0	21.7	84	sw.	1	0.4	.....	o	fg	.....	.....	inap.	inap.	clear	
Wickenburg, Arizona	.....	.....	.....	.....	51	10.6	86	calm	.....	.....	o	o	o	.....	.....	o	o	clear	
Wilmington, N. Carolina	30.14	765.5	30.20	767.1	74	23.3	76	calm	o	o	.....	o	sk	.....	calm	o	o	dense smoke	
Winnemucca, Nevada	25.65	651.5	29.98	761.5	49	9.4	50	s.	12	5.4	.....	o	o	.....	.....	o	o	clear	
Wood's Holl, Mass	30.03	762.7	30.07	763.8	67	19.4	93	calm	o	o	.....	o	hz.	.....	.....	0.01	0.3	clear	
Yankton, Dakota	28.20	716.3	29.50	749.3	59	15.0	81	sw.	14	6.3	.....	o	o	.....	.....	0.17	4.3	clear	
Yuma, Arizona	29.74	755.4	29.88	758.9	61.2	16.2	78	calm	o	o	.....	o	o	.....	.....	o	o	clear	
SUB-SERIES.																			
Bridgetown, Barbados, W. I. ‡	30.00	762.0	30.02	762.5	83	28.3	91	e.	3	1.3	.....	2 k	5 ks	e.	e.	o	o	fair	J. A. Racker.
Bogota, U. S. Columbia	22.06	560.3	.....	.....	52.5	11.4	69	calm	o	o	.....	5 cs; k	2 s	w.	.....	o	o	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.89	759.2	29.89	759.2	80	26.7	90	e.	.....	.....	.....	.....	10 k	.....	.....	0.028	0.7	rainy	B. Bigar.
Havana, Cuba, W. I.	29.98	761.5	30.04	763.0	78	25.6	88	calm	o	o	.....	.....	10 ks	.....	calm	0.11	2.8	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.97	761.2	29.98	761.5	77.0	25.0	89	calm	o	o	.....	o	7 s	.....	e.	o	o	fair	Robert Johnstone.
Navassa, W. I.	29.87	758.7	29.95	760.7	82	27.8	83	e.	9	4.0	.....	8cs; hz	2 k; hz	e.	e.	0.18	4.6	hazy	F. M. Everett.
Paramaribo, S. A.	30.00	762.0	30.00	762.0	80	26.7	78	se.	.....	.....	2	o	4 k	.....	e.	o	o	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.42	747.3	29.98	761.5	79	26.1	89	s.	.....	.....	.....	7 c	3 k	calm	calm	o	o	.....	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	73.4	23	.....	calm	.....	.....	o	8 ck	1 ks	se.	se.	0.43	11.	.....	Earl Flint.
Santiago de Cuba, W. I.	29.96	761.0	29.99	761.7	80	26.7	78	n.	2.4	1.1	.....	4 c	o	.....	.....	o	o	fair	Robert Mason.
St. Thomas, W. I. ‡	30.02	762.5	30.03	762.7	82	27.8	79	e.	8	3.6	.....	.....	8 ks	.....	e.	0.01	0.3	cloudy	G. O. Gyllich.
York Factory, B. A.	30.14	765.5	30.19	766.8	36.0	2.2	95	nw.	19	8.5	.....	2 k	5 s	n.	n.	0.01	0.3	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Thursday Island, Torres St	30.02	762.5	75.2	24.0	75	e.			3		4							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibraltar, Mediterranean	30.18	766.6	72	22.2	80	ene.			3		4	ene.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.06	763.5	72	22.2		nne.			2		7	nne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, Aden, Arabia	29.75	755.6	87	30.6	72	sw.			2		0							blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 33° 44′, W. 66° 52′	30.23	767.8	76	24.4	90	ne.			1-2		3					1	ese.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	30.02	762.5	73	22.8	76	nnw.			1		3	wsw.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 12′, E. 20° 25′	29.82	757.4	77	25.0		wnw.			2		6	wnw.				2	wnw.	showery	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.19	766.8	70	21.1		se.			2-4		4	ese.						squally	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.17	766.3	74.5	23.6	72	nne.			1		2					2	nne.	d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.09	764.3	52.5	11.4	82	wnw.			1-2		3	wnw.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.70	754.4	86	30.0		se.			1		0					1	se.	blue sky	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.80	756.9	85	29.4		sw.			1		3							d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, N. 1° 58′, E. 73° 45′	29.85	758.2	83	28.3	79	nw.			4		6	wnw.				2	wnw.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19	29.99	761.7	73	22.8		wnw.			4		2					3-4	nw.	squally	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake
H. M. S. Fawn, S. 23° 19′, E. 51° 47′	30.10	764.5	76.5	24.7	69	ne.			2-3		2					2	e.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 14° 03′, W. 78° 32′	29.89	759.2	86	30.0	83	e.			3-4		6					4		thnd'r storm	Comm. R. N. Custance.
H. M. S. Flying Fish, Yessashi, Yezo, Japan	29.98	761.5	66	18.9	78	calm			0		6	se.						misty	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 19° 44′, W. 155° 04′	30.02	762.5	69	20.6	84	w.			1		3							d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	30.12	765.0	52	11.1	86	ene.			6		0							blue sky	Capt. L. F. Jones
H. M. S. Griffon, N. 18° 25′, W. 77° 08′	29.91	759.7	80	26.7	95	calm			0		10							raining	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 2° 20′, E. 164° 00′	29.90	759.4	86	30.0	68	ene.			1		2	ene.						d. clouds	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 35° 26′ E. 139° 29′	29.83	757.7	68	20.0		nne.			1		7	ne.						d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel, Canton, China *†	29.85	758.2	84	28.9							4	calm						d. clouds	Capt. W. M. Lang.
H. M. S. Kingfisher, Payta, Peru, S. A.	30.02	762.5	64	17.8		calm			0		1	calm				1	w.	blue sky	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 23° 00′, E. 57° 20′	30.13	765.3	72	22.2		ene.			4		2	ene.				3	ene.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 25° 17′, W. 26° 29′	30.26	768.6	80	26.7	61	nnw.			2		2					1	wnw.	d. clouds	Capt. C. F. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 03′, E. 109° 55′	29.76	755.9	82.6	28.1	78	e.			1-2		0							misty	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Minotour																			Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.10	764.5	74	23.3	76	n.			2		3	nnw.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, S. 31° 36′, W. 72° 40′	30.10	764.5	55	12.8	87	ssw.			2		6					2	ssw.	d. clouds	Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	29.91	759.7	58.5	14.7	97	s.			1		10							d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 20° 06′, W. 70° 13′	30.06	763.5	59	15.0	94	ne.			1		10					1	w.	overcast	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 40° 25′. W. 61° 55′	30.10	764.5	73	22.8	85	wsw.			3		3	wsw.				3	wsw.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 11° 51′, E. 51° 14′	29.82	757.4	84.3	29.1	75	var.			0–1		1							blue sky	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 13° 46′, E. 48° 15′	29.63	752.6	80	26.7	78	nnw.			1–2									blue sky	Comm. W. Byles.
H. M. S. Serapis, N. 5° 40′, W. 12° 25′	30.07	763.8	79	26.1	95	ssw.			3		7	s.				2	ssw.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 17° 30′, W. 24° 45′	30.08	764.0	82	27.8	67	ne.			4		3	ne.				3	nne.	d. clouds	Capt. T. H. Boyse.
H. M. S. Tenedos, N. 46° 10′, W. 62° 31′	30.07	763.8	55	12.8	93	nne.			2		8							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S Thunderer, N. 36° 07′, W. 5° 12′	30.19	766.8	72.5	22.5	90	ene.			3		7					3	ene.	d. clouds	Capt. P. H. Colomb.
H. M. S Triumph, Callao Bay, Peru	29.96	761 0	60	15.6	88	calm			0		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne,																			Capt. J. E. Stokes.
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.93	760.2	80	26.7		nw.			1		5							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, N. 24° 41′, E. 64° 36′	29.77	756.1	83.5	28.6	79	wsw.			3–4		0					5	w.	blue sky	Capt. T. P. Nesham.
H M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, S. 11° 46′, E. 12° 47′	30.08	763.9	71.6	22.0	84	wnw.			3		2					2	w.	blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.15	765.9	81.0	27.2	86	ne.			3		7					3		gloomy	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.82	757.4	82.4	28.0	67	n.			3		3							d. clouds	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

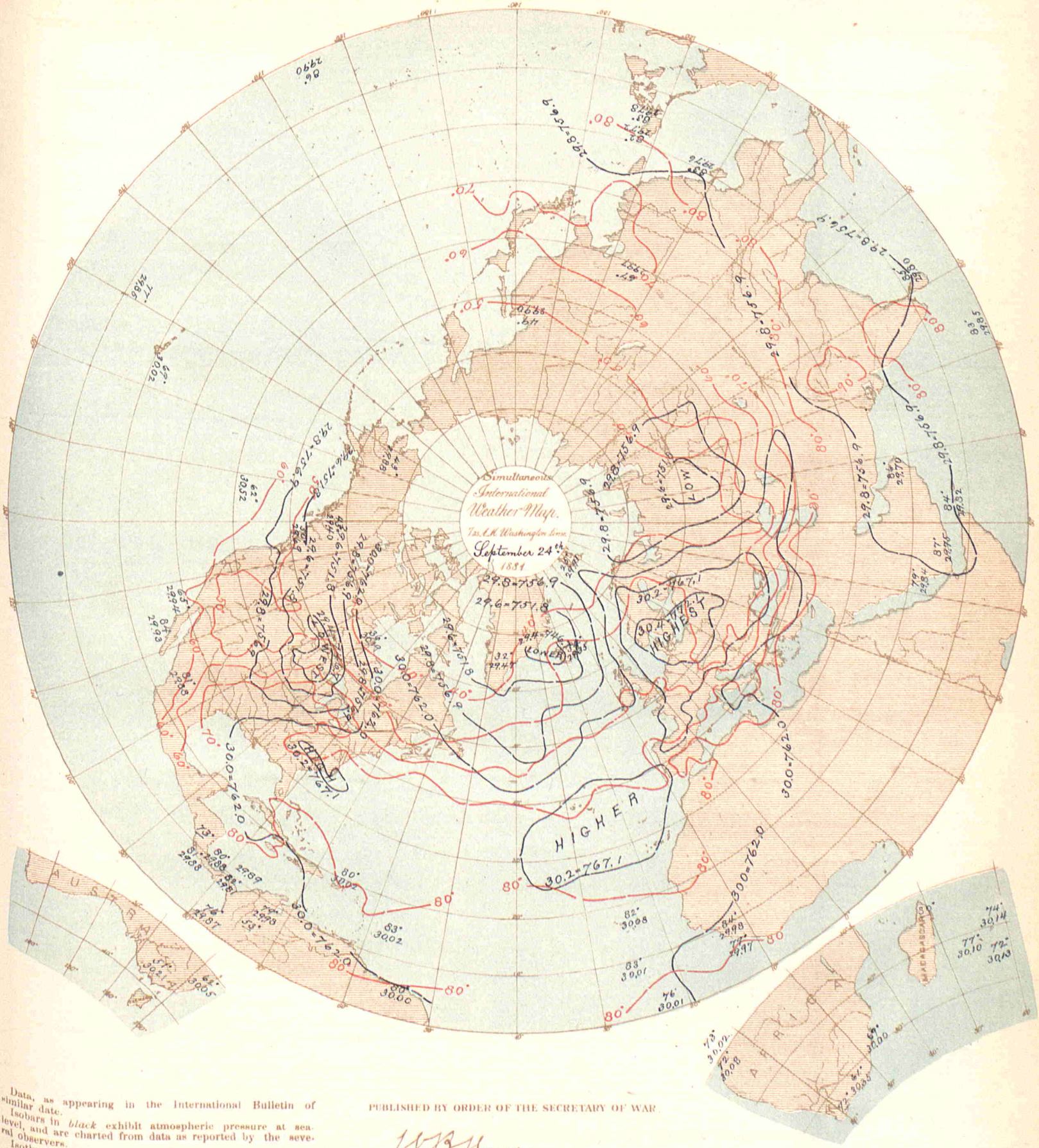
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.14	765.5	78	25.6	86	ne.	4	1.8			5		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.10	764.5	61	16.1	94	se.	6	2.7		10 c	0	ne		0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.75	755.6	66	18.9	89	e.			2		10		ne.	sl't	sl't			cloudy	
Adams, N. 4° 50′, W. 79° 30′	29.66	753.4	81	27.2	87	sw.			3		8					sm'h		cloudy	
Alaska, Callao, Peru	29.89	759 2	60	15.6	100	calm			0		8		s.			sm'h		cloudy	
Alert, Yokohama, Japan *	29.74	755.4	69	20.6	85	ne.			3		10		calm			sm'h		cloudy	
Alliance, N. 78° 14′, E. 6° 25′	29.91	759.7	25	— 3.9	100	nnw.			2		8			snow	snow	sm'h		cloudy	
Ashuelot, Kobe, Japan	29.92	760.0	73	22.8	76	calm			0		2		calm					clear	
Colorado, New York, N. Y	30.08	764.0	70	21.1	85	wsw.	1	0.4			2			0	0			hazy	
Constitution, N. 41° 22′, W. 71° 12′	30.03	762.7	64	17.8	?	w.	4	1.8			2							clear	
Franklin, Norfolk, Va	30.11	764.8	70	21.1	100	sw.	6	2.7			0			0	0			clear	
Galena, Leghorn, Italy	30.04	763.0	72	22.2	58	wnw.			1		5		nw.			sm'h		fair	
Independence, N. Yard, Mare I'd, Cal	29.89	759.2	56	13.3	81	nnw.	10.8	4.8			0							clear	
Kearsarge, New York, N. Y	30.09	764.3	70	21.1	85	ssw.			2		0					sm'h		hazy	
Lackawanna, San Francisco, Cal †	30.30	769.6	58	14.4	100	e.			2		0							clear	
Lancaster, New York, N. Y	30.09	764.3	73	22.8	81	calm	0	0			0							blue sky	
Marion, Maldonado, Uruguay *	29.91	759.7	56	13.3		ne.			4		10		n.			sm'h		cloudy	
Michigan, Cleveland, Ohio	29.96	761.0	75	23.9	64	sw.			4		0							clear	
Minnesota, Newport, R. I	30.06	763.5	76	24.4	91	wsw.			1		5			0	0	sm'h		fair	
Monocacy, Yokohama, Japan	29.96	761.0	69	20.6	90	ne.			2		10		calm					cloudy	
Nipsic, Genoa, Italy	30.04	763.0	71	21.7	62	se.			2		2					sm'h		d. clouds	
Onward, Callao, Peru †	29.95	760.7	60	15.6	94	calm			0		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.80	756.9	82	27.8	75	ne.			1		2		ne.					fair	
Passaic, Washington, D. C	30.15	765.8	73	22.8	95	sw.			2		0							clear	
Pensacola, N. 0° 54′, W. 80° 43′	29.87	758.7	76	24.4	82	ssw.			3		10			0	0	sm'h		cloudy	
Portsmouth, New London, Conn	30.08	764.0	67	19.4	95	calm			0		0					sm'h		hazy	
Powhatan, Aspinwall, Panama	29.88	758.9	80	26.7	96	sse.			2		8		n.			sm'h	w.	cloudy	
Quinnebaug, Marseilles, France	30.05	763.3	66	18.9	54	nnw.			3		0					sm'h		clear	
Ranger, Mare Island, Cal *	30.05	763.3	59	15.0	76	calm			0		0			0.02	0.5	sm'h		clear	
Richmond, N. 8° 24′, W. 84° 09′	29.88	758.9	81	27.2	96	ese.			2		10			0	0	sm'h		cloudy	
Saratoga, Wickford, R. I	30.05	763.3	65	18.3	100	wsw.			1		0			light	light	sm'h		clear	
Shenandoah, Maldonado, Uruguay *	30.16	766.1	56	13.3	81	nne.			3		2					sm'h		fair	
St. Louis, League Island, Pa	29.86	758.4	71	21.7	95	sw.	3	1.3			0			0	0			clear	
Swatara, Chefoo, China †	29.98	761.5	68	20.0	90	se.			3		10		se.					raining	
Tennessee, New York, N. Y	30.10	764.5	70	21.1	100	wsw.	4	1.8			0			0	0			fair	
Trenton, N. 22° 10′, W. 36° 45′ *	30.18	766.6	83	28.3	79	ese.			3-4		2			0	0	sm'h		fair	
Vandalia, New York, N. Y	30.06	763.5	69	20.6	90	sw.			2		2		nnw.					fair	
Wabash, Boston, Mass	29.98	761.5	64	17.8	94	ene.	2	0.9			2		e.	0	0			foggy	
Wyoming, Port Royal, S. C	30.14	765.5	76	24.4	91	ne.	8	3.6			5		ne.	0	0			fair	
Yantic, New York, N. Y *	30.04	763.0	69	20.6	90	nw.			1		2							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland †*	30.10	764.5				e.	3		10		e.					raining	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	
AMERICAN S. S. CO.																	
Peter Wright & Sons, agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, N. 48° 17′, W. 33° 10′	29.79	756.7	59	15.0	94	ssw.	6		10		wsw.	0	0	hv'y	w.	overcast	
S. S. Indiana, Capt. R. W. Sargent,																	Couffman & Morse.
S. S. Ohio, Capt H. Morrison, N. 51° 52′, W. 22° 10′ *†...	30.11	764.8	53	11.7	86	nw.	6		8		ne.			long h'vy	nnw.	cloudy	C. W. Walker, 2d Off.
S. S. Pennsylvania, Capt. G. H. Dodge, N. 39° 55′, W. 61° 06′ †	30.17	766.3	73	22.8	81	w.	4		8		w.			mod.	w.	cloudy	C. Rodman, 3d Off.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, E. J. Moloney,																	
S. S. Cipero, Capt. W. N. Lalley, N. 14° 56′, W. 67° 03′	30.04	763.0	81.7	27.6	88	se.	2		10					1	ese; ne.	thnd'r storm	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 48° 48′, W. 18° 35′	30.06	763.5	61.5	16.4	80	s.	4		7							d. clouds	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, S. 0° 04′, W. 22° 21′	30.11	764.8	76	24.4	79	se.	5		3							d. clouds	
Bkt. Hope, Capt. J. Campbell.. ‡ N. 36° 13′, W. 35° 10′	30.35	770.9	72.5	22.5	90	e.	4		10							overcast	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 44° 15′, E. 40° 24′	29.97	761.2	41	5.0	83	wsw.	6		8							showery	
Bk. Mertola, Capt. E. W. Turner, N. 37° 19′, W. 10° 26′	30.23	767.8	67.5	19.7	94	nne.	6		5							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant, S. 43° 06′, E. 34° 05	30.15	765.8	45.5	7.5	80	ssw.	5		4							d. clouds	
Queen of Cambria, Capt. M. Parry, N. 29° 29′, W. 19° 29′	30.23	767.8	76	24.4	68	ne.	5		7							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow, N. 16° 13′, E. 41° 16′	29.84	757.9	78.5	25.8	78	nw.	4		8							misty	
Sierra Estrella, Capt. P. Murdock,																	
Bk. Shun Lee, Capt. J. N. Gray, N. 19° 15′, W. 36° 00′ ‡..	30.15	765.8	79.0	26.1	86	ene.	6		3							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, Yokohama, Japan	29.86	758.4	67.0	19.4	92	n.	3		10							overcast	R. Ladd, 1st Officer.
S. S. Thames, Capt. Luckhurst																	
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, agent San Francisco.																	
S. S. Newbern, Capt. E. Rogers N. 28° 50′, W. 115° 43′ †	29.94	760.5	65	18.3	84	nw.	5		2		nw.	0	0	sharp	wnw.	clear	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., agents, New York.																	
S. S. Galia, Capt. W. H. P. Hains N. 42° 05′, W. 53° 37′	30.17	766.3	68	20.0		sw.	2		0					mod.	wnw.	clear	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.																	
S. S. Braunschweig, Capt. C. Pohle,																	E. Schmidt, 3d Officer.
S. S. Hermann, Capt. H. Baur,																	
S. S. Koln, Capt. T. Jünest, N. 48° 07′, W. 41° 22′	29.81	757.2	59.0	15.0	79	wsw.	6		10		wsw.	sh's	sh's	h'vy	wsw; nw.	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer N. 47° 48′, W. 32° 44′	29.86	758.4	60.5	15.8	74	ssw.	6		8		w.	1 h'r	1 h'r	long	nw; wsw.	fair	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 49° 56′, W. 8° 19′	30.04	763.0	64.0	17.8	?	nw.	3		10		nw.	0	0	long	wnw.	hazy	Englehart & von Goesset.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, Hong Kong, China †...	29.97	761.2	86	30.0	84	calm	0		2		ne.	0	0	sm'h		clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 41° 55′ W. 138° 51′ *†.	30.52	775.2	62	16.7	88	w.	4		6?		wnw.			mod.	nnw.	overcast ?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 42° 38′, W. 133° 45′	30.31	769.9	61	16.1	82	wnw.	5		6		wnw.			sli't	wnw.	fair	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Otterendorp, agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann.. N. 40° 05′, W. 124° 22′ *†.	30.10	764.5	59	15.0	82	nw.	4		2		nw.			light	wnw.	fair	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann Portland, Oregon †	29.89	759.2	56	13.3	94	s.	1		8		se.					cloudy	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Erancisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, San Francisco, Cal.....†..	30.09	764.3	54	12.2	100	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. N. Ingalls.
S. S. Dakota, Capt. ——, Victoria, B. C.....†	29.92	760.0	60	15.6	94	sw.	2	.....	6	.....	sw.	rain	rain	sm'h	.....	cloudy.....	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal.....†...	30.12	765.0	57	13.9	94	sw.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 33° 43′. W. 119° 44′.....†.	30.02	762.5	65	18.3	89	nw.	3	.....	0	.....	.....	0	0	sm'h	.....	pleasant.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal.....†...	30.18	766.6	54	12.2	87	sw.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, N. 40° 26′, W. 124° 30′.....†.	30.07	763.8	57	13.9	?	calm	0	.....	10	.....	.....	.....	.....	.....	.....	foggy.....	G. Debney.
S. S. Victoria, H. M. Hayward, San Francisco, Cal.....†..	30.18	766.5	56	13.3	87	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——, N. 12° 38′, W. 162° 02′.....	29.85	758.2	77	25.0	86	nne.	4	.....	8	.....	ne.	.....	.....	r'gh	ne.	cloudy.....	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†..	30.05	763.3	62	16.7	94	s.	5	.....	10	.....	.....	rain	rain	.....	.....	overcast.....	W. H. Hawes, 2d Off. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Thos. Martensen.
S. S. City of Peking, Capt. G. G. Barry, N. 35° 41′, E. 142° 43′.....*†..	29.96	761.0	71	21.7	80	nnw.	5	.....	6	.....	nnw.	0	0	mod.	n.	cloudy.....	.....
S. S. City of Rio de Janeiro, Capt. —— N. 24° 10′, W. 111° 54′.....†...	29.93	760.2	84	28.9	100	nnw.	2	.....	5	.....	nnw.	0	0	sm'h	s.	fine.....	E. L. Saik.
S. S. City of Sydney, Capt. H. C. Dearborn,..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Ritchie, 2d Off.
S. S. City of Tokio, Com. J. Maury Yokohama, Japan.....†..	30.03	762.7	68	20.0	84	ne.	2	.....	10	.....	ne.	0	0	.....	.....	cloudy.....	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle N. 23° 29′, W. 110° 33′.....†	29.97	761.2	77	25.0	91	nnw.	4	.....	2	.....	calm	0	0	mod.	nnw.	hazy.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, Panama, Panama.....†.	29.81	757.2	82	27.8	87	calm.	0	.....	5?	.....	nw.	1 h'r	1 h'r	.....	.....	clear?.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	30.06	763.5	58	14.4	100	ssw.	6	.....	10	.....	ssw.	.....	.....	.....	.....	squally.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 47° 12′, W. 35° 54′.....†..	30.25	768.3	60	15.6	.....	wnw.	3	.....	2	.....	wnw.	0	0	mod.	nw.	fine.....	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 45° 46′, W. 39° 45′.....†..	30.02	762.5	58	14.4	82	wnw.	6	.....	10	.....	wnw.	0.2	5.	h'vy	wnw.	cloudy.....	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, Eng.....†..	30.02	762.5	60	15.6	100	s.	2	.....	10	.....	sw.	8 h'r	8 h'r	.....	.....	cloudy.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 51° 23′, W. 14° 50′.....†..	30.14	765.5	59	15.0	.....	wsw.	3	.....	2	.....	wsw.	10 h'r	10 h'r	long	w.	fair.....	.....
S. S. Celtic, Capt. B. Gleadell,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 50° 01′, W. 24° 12′.....†.	30.08	764.0	60	15.6	88	wsw.	4	.....	2	.....	n.	12 h'r	sh'rs	mod.	w.	showery.....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 41° 29′, W. 62° 03′.....†..	30.10	764.5	72	22.2	90	sw.	4	.....	5	.....	s.	0	0	mod.	wsw.	d. clouds.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass.....†	30.09	764.3	66	18.9	100	wsw.	3	0	2s	.....	.....	0.03	0.8	.....	.....	clear.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler, Lt. Com. Nichols, N. 50° 29′, W. 128° 04′.....*†..	29.69	754.1	50	10.0	.....	nne.	1	.....	3	.....	e.	.....	.....	sm'h	.....	showery.....	.....
S. Iron Cross, Capt. Randall, N. 8° 05′, W. 26° 00′.....*	30.01	762.2	83.2	28.4	97	wnw.	1	.....	5	.....	wnw.	sli't	sl't	long	n.	d. clouds.....	W. Randall.
S. Pawashick, Capt. E. Fry, N. 41° 45′, W. 31° 47′.....*†..	30.01	762.2	65	18.3	84	w.	3	.....	2	.....	wsw.	.....	.....	mod.	w.	clear.....	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal.....†.	30.27	768.8	82	27.8	75	se.	3	.....	0	.....	.....	0	0	.....	.....	clear.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 25, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.12	765.0	79.3	26.3	78	n.			3		1			0	0	very fair	Raynard.
Algiers ‡			30.16	766.0	74.5	23.6	77	n.			3		0			0	0	clear	Nicolas.
La Calle ‡			30.13	765.3	75.9	24.4	67	n.			3		3			0.787	20.0	pretty fair	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			30.11	764.9	77.0	25.0	34	n.			1		0			0	0	clear	Dumas.
Tebessa ‡			30.11	764.7	88.9	31.6	10	nne.			2		7			0	0	very cloudy	Derché.
Geriville ‡					82.8	28.2	11	sw.			2		0			0	0	clear	Lonchamp.
Laghouat ‡			30.11	764.8	77.4	25.2	29	se.			2		0			0	0	clear	Herbin.
Biskra ‡			30.12	765.0	83.8	28.8	43						5			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.22	767.6	30.31	769.9	45.9	7.7	85	se.	6	2.7			1			0.02	0.5	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.65	753.0	30.21	767.4	46.8	8.2	73	ne.			4		10			0.028	0.7	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.58	751.4	30.37	771.3	48.6	9.2	79	ene.	15.4	6.9			0			0	0		Dr. Wiersbicki.
Eperies	29.35	745.5	30.24	768.2	50.7	10.4	48	n.			3	7 cs	0			0	0		Julius Mikolik.
Gratz ‡	28.98	736.2	30.25	768.3	51.6	10.9	79	s.			1		10			0.138	3.5		Andreas Rospini.
Hermannstadt	28.80	731.4	30.27	768.9	43.0	6.1	69	e.			4		10			0.295	7.5	rain & snow	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.89	733.8	30.26	768.6	47.1	8.4	81	ne.			1		2			0	0	clear	The Staff.
Lemberg	29.34	745.1	30.34	770.7	48.0	8.9	53	se.			3		5			0	0		Dr. T. Stanecki.
Pola	29.99	761.7	30.10	764.6	56.5	13.6	54	ene.			3		9			0	0		I. R. Hydrographic Office.
Szathmar	29.77	756.1	30.24	768.0	53.6	12.0	44	e.			3		10			0.146	3.7		Beicht Peter, S. J.
Szegedin	29.91	759.8	30.20	767.1	48.7	9.3	96	calm			0		10			0	0		Karl Stancel.
Trieste	29.99	761.8	30.10	764.4	56.8	13.8	53	ene.			4		8			0	0	cloudy	Secco.
Vienna	29.57	751.1	30.30	769.7	48.6	9.2	61	n.			2		2			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Mnesseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 28, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.82	757.4	29.92	760.0	56.6	13.7	84	wnw.	2	0.9			9			0.010	0.3	overcast	W. Boswell.
Armagh, Observatory	29.75	755.6	29.98	761.5	56.9	13.8	81	s.	10	4.5									S. Call.
Bidston, Liverpool Obs'y			30.03	762.7	59.7	15.4	75	w.	9	4.0			6					d. clouds	John Hartnup.
Bolton, Sharples	29.49	749.0	30.02	762.5	58.0	14.4	75	wnw.	6	2.7			8					d. clouds	Thomas Mackereth.
Bradford, Yorkshire																0.03	0.8		J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.01	762.2	68.0	20.0	74	w.			0.2		8					overcast	John McLaren.
Chatham, School M. E.	29.93	760.2	30.06	763.5	64.5	18.1	94	sw.			1		7			blank	blank	d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.91	759.7	30.14	765.5	62.5	16.9	74	wsw.			3		2					d. clouds	The Staff.
Fort Napier, Natal	27.88	708.1	30.10	764.5	56.1	13.4	68	e.			3		7						Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.74	755.4	29.98	761.5	85.0	29.4	83	calm			0		5					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			29.99	761.7	58	14.4	87	w.			4		8					showery	J. O'Donaghue.
Gibraltar, Mediterranean	30.09	764.3	30.14	765.5	74.6	23.7	85	e.			4		5					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	29.68	753.9	29.88	758.9	57.0	13.9	74	s.			6		10			blank	blank	overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.87	758.7	30.04	763.0	66.0	18.9	75	wsw.			1		7					d. clouds	The Staff.
Guernsey	29.90	759.4	30.12	765.0	61	16.1	77	wnw.			2		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.01	762.2	30.05	763.3	66.1	18.9	70	wsw.	8	3.6			6					d. clouds	The Staff.
Leicester, Museum	29.78	756.4	30.04	763.0	63.8	17.7	69	nw.			1		8					d. clouds	J. C. Smith.
Malta, Mediterranean	29.83	757.7	29.90	759.4	76.0	24.4	56	nw.			1		8			0	0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.03	762.7	30.08	764.0	83.5	28.6	81	ne.			1		5					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.53	750.0	30.04	763.0	62.2	16.8	73	wsw.			1		5					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.82	757.4	30.05	763.3	64.6	18.1	67	wnw.			2		7			blank	blank	d. clouds	The Staff.
Plymouth	30.04	763.0	30.12	765.0	61.8	16.6	85	sw.			2		2					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.99	761.7	54.2	12.3	81	w.	8	3.6			0					blue sky	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.82	757.4	29.88	758.9	77.0	25.0	61	nne.			2		8					misty	Serg't W. H. Lyne.
Sheffield	29.74	755.4	30.02	762.5	60.8	16.0	76	sw.			1		6			0.06	1.5	misty	W. F. Cooper.
Silloth Rectory	29.96	761.0	29.99	761.7	59.7	15.4	77	w.			3		4			0.200	5.1	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.05	763.3	59.0	15.0	70	w.	12	5.4			6					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.84	757.9	30.07	763.5	68.5	20.3	68	w.			3		6					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.12	765.0	30.13	765.3	64	17.8	73	nw.			4		6					d. clouds	W. Newcombe.
Valencia, Observatory	29.92	760.0	29.95	760.7	60.1	15.6	82	s.	35	15.6			8			blank	blank	d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.10	764.5	30.14	765.5	55	12.8	86	s.	8	3.6		5 cs	5 s		w.	0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	29.99	761.7	30.06	763.5	53	11.7	90	s.	6	2.7			10 s		s.	0	0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.74	755.4	29.76	755.9	59	15.0	90	s.	35	15.6			10 n		sw.	0.20	5.1	threatening	J. McWilliams.
Fort Garry, Manitoba*	28.52	724.4	29.34	745.2	43	6.1	93	nw.	3	1.3		2 k	5 ks	nw.	nw.	0.370	9.4	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.06	763.5	30.19	766.8	55	12.8	93	e.	1	0.4		8 k	0	w.		0	0	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.49	749.0	29.81	757.2	72	22.2	76	sw.	13	5.8		2 ck	5 ks	sw.	sw.	0.07	1.8	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.59	751.6	29.78	756.4	67	19.4	84	sw.	18	8.0		0	sk.			0.06	1.5	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.04	737.6	29.70	754.4	68	20.0	84	sw.	20	8.9		0	0			0.11	2.8	clear	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.20	741.7	29.85	758.2	73	22.8	90	sw.	19	8.5		10 k	0	sw.		0.01	0.3	fair	H. Morgan.
Port Stanley, Ontario	29.24	742.7	29.85	758.2	71	21.7	90	sw.	16	7.2		5 k?	0	sw.		0.02	0.5	cloudy ?	M. Payne.
Quebec, Quebec*	29.51	749.5	29.82	757.4	58	14.4	96	calm			0	0	5 s		sw.	0.12	3.0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.23	742.4	29.68	753.9	59	15.0	96	e.	2	0.9		8 k	0	w.		0.28	7.1	fair	W. H. McIntyre.
Sangeen, Ontario*	29.06	738.1	29.74	755.4	67	19.4	87	sw.	28	12.5		0	0			0.10	2.5	clear	K. Stewart.
St. Andrews, N. B.	30.02	762.5	30.08	764.0	55	12.8	99	se.	1	0.4			fg.			0.08	2.0	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.16	766.1	30.21	767.3	42	5.6	100	calm	0	0		5 c	0	w.		0	0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.46	748.3	29.83	757.7	71	21.7	81	sw.	10	4.5		2 cs	5 ks	w.	w.	0	0	fair	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.09	764.3	30.16	766.1	59	15.0	96	s.	6	2.7			10 s			0.03	0.8	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.04	763.0	30.30	769.6	49	9.4	78	ne.				0	5 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.11	764.8	30.14	765.5	64.0	17.8	83	se.	16.2	7.2		0	1 s			0	0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.21	741.9			80.7	27.1	38	w.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.82	757.4	29.84	758.0	68.0	20.0	81	nnw.	8.9	4.0		0	8			0	0	almost cov'd	M. Marc Dechevrens, S. J.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.34	770.5	30.38	771.7	51.3	10.7	56	s.	16	7			0						Oversergent Fischer
Fanöe	30.22	767 5	30.24	768.0	56.5	13.6	59	sse.			6		1						Overloerer Lauridsen
Godthaab, Greenland	29.41	746.9	29.45	748.0	32.4	0.2	76	ene.			2		9						S. Kleinschmidt.
Stykkisholm, Iceland	29.30	744.2	29.34	745.3	51.4	10.8	83	se.			4		10					raining	A. O. Thorlacius.
Thorshavn	29.74	755.5	29.78	756.4	51.8	11.0	92	s.	13	6			10					foggy	Overloerer Bergh.
Vestervig	30.14	765.5	30.23	767.8	55.2	12.9	55	se.			4		2						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.60	751.8	30.24	768.0	62.2	16.8	77	w.			1		8			0	0	very cloudy.	M. Labroue, Director.
Alençon Normal School	29.62	752.4	30.17	766.4	66.2	19	90	s.			3		kn	s.	w.	0	0		M. Nicot, Director.
Arras, Engineer School	29.91	759.7	30.17	766.2	60.3	15.7	73	sse.					k		sse.				M. Klein, Commandant.
Avignon, Normal School	30.02	762.6	30.10	764.6	68.4	20.2	54	n.			2		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.66	753.3	30.21	767.4	60.6	15.9	64	s.			1	0	5 kn			0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.91	759 7	30.17	766.4	65.5	18.6	77	ese.			1		8		nw.	0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.32	744.8	30.22	767.5	55.8	13.2	77	s.			1		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.95	760.7	30.21	767.2	69.1	20.6	61	ssw.			1		8		ssw.	0.004	0.1	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.62	752.4	30.17	766.2	69.1	20.6	51	w.			1		5		w.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	29.94	760.5	30.18	766.6	66.2	19.0	63	wnw.			1		4		wnw.	0.244	6.2		M. de Rermaree, Dir.
Caen, Normal School	30.04	762.9	30.11	764.8	62.1	16.7	100	w.			1		8		w.	0	0	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					63.7	17.6	59	w.			3		10		w.	0	0	covered	M. Jadot, Director.
Charleville, Normal School	29.70	754.3	30.21	767.3	61.2	16.2	47	s.			1		0			0	0	clear	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.83	732.3	30.16	766.0	66.6	19.2	64	n.			1		5			0	0	½ covered	M. Alluard, Director.
Cluny, Normal School	29.39	746.4	30.24	768.0	61.9	16.6	67	n.			1		1		w.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.37	745.9	30.23	767.9	53.2	11.8	63	e.			1		2	e.	e.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.57	700.2	30.06	763.5	62.2	16.8	52	s.			1	0	5 k		n.	0	0	½ covered	M. Jeanginard, Director.
Gréasque, du. Rhone	29.05	737.9	30.19	766 9	70.2	21.2	37	n.			1		2		sw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.41	746.9	30.17	766.2	63.3	17.4	62	wnw.			1		k		ne.	0	0		M. Ablard, Director.
Guéret, Normal School	28.63	727.3	30.17	766.4	67.1	19.5	48	n.			1	ck	0			0	0		M. Rivoire, Director.
Lamballe, Normal School	29.89	759.2	30.16	766.0	65.3	18.5	85	nw.			1				nw.	0.24	6.		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.09	764.3	30.19	766 9	69.8	21.0	65	wnw.			1		mist		calm	0.035	0.9	misty	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.17	740.8	30.23	767.8	57.6	14.2	76	ene.			1		fg		n	0	0	foggy	M. André, Director.
Mans, Normal School	29.89	759.2	30.19	766.9	66.2	19	63	sw.			1		8		sw.	0	0	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.84	757.9	30.10	764.6	68.7	20.4	64	w.			1		4		w.	0	0		M. Stephan, Director.
Montlouis l'Institutateur	24.97	634.2	30.21	767.2	62.2	16.8	44	n.	3.8	1.7			4		sw.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.02	762.6	30.05	763.3	74.8	23.8	42	w.			2		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.45	748.1	30.22	767.5	55.4	13	70	w.			1	1 ck	0	nw.		0	0	clear	M. Hasse.
Nantes, Observatory	30.04	763.0	30.21	767.2	68.7	20.4	84	sw.			1–2		10	sw.	sw.	0	0	covered	M. Larocque, Director.
Nice	30.08	763.9	30.11	764.8	68.0	20.0	65	se.			2	1	1	se.	se.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	30.02	762.6	30.13	765.2	72.9	22.7	26	n.	15.0	6.7			1		nw.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.74	577.6			52.3	11.3							1		nw.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					66.6	19.2	72	calm			0		2			0	0	slightly cl'dy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.34	643.6			46.4	8.0	92	n.			1		8			0.004	0.1	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.19	766.9	30.22	767.7	67.5	19.7	90	ssw.			1		10		w.	0	0	covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.99	761.7	30.20	767.1	65.8	18.8	94	s.			1		8		sw.	0	0	very cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.07	763.7	30.15	765.9	64.4	18	88	se.			1		5			0	0	cloudy	M. Platrier, Director.
Saint Lô, Normal School	29.99	761.7	30.15	765.7	63.1	17.3	95	se.			1		8		se.	0.063	1.6	very cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	30.02	762.5	30.19	766.7	65.7	18.7	66	s.			1		2	nw.	nw.	0	0		M. Renou, Director.
Toulouse, Observatory	29.53	750.0	30.26	768.5	68.5	20.3	61	nw.			1		1	nw.		0	0	clear	M Bailland, Director.
Tours																			M. de Tastes.
Versailles, Observatory	29.69	754.0	30.18	766.5	66.2	19.0	70	sw.			2					0.028	0.7		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.90	759.5	30.19	766.9	65.8	18.8	73	sse.			1		9	sw.	sw.	inap.	inap.		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.43	747.4	30.30	769.5	59.0	15.0	30	e.			2	0	0			0	0		Prof. Dr. Hoh.
Berlin	30.19	766.9	30.37	771.3	57.6	14.2	41	e.			1		0			0	0		Prof. Dr. Arndt.
Breslau	29.86	758.5	30.40	772.2	50.9	10.5	43	e.			2		0			0	0		Royal University Obs'y.
Carlsruhe	29.80	756 9	30.23	767.8	57.0	13.9	63	ne.			2		2	n.		0	0		Albert Senz.
Cassel	29.53	750.1	30.25	768.4	61.2	16.2	47	ese.			1		2	e.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.91	759.6	30.28	769.0	55.9	13.3	48	se.			1		2			0	0		Physical Society.
Friedrichshafen	28.81	731.8	30.27	768.9	50.0	10.0	77	sw.			3		6	nw.		0	0		Wilhelm, Chief Tel.
Hamburg	30.22	767.7	30.32	770.1	57.2	14.0	39	se.			3		1			0	0		E. Preller.
Kiel	30.30	769.5	30.31	769.9	53.4	11.9	51	se.			1		0			0	0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.91	759.8	30.34	770.7	52.7	11.5	54	ene.			2		0			0	0		H. Leppig, Asst.
Magdeburg	30.14	765.5	30.33	770.4	57.7	14.3	44	ese.			2	0	0			0	0		Dr. Assmann.
Memel	30.43	772.8	30.47	774.0	51.1	10.6	70	nw.			4		10 k			0	0		Issermann.
Munich	28.44	722.4	30.32	770.2	44.8	7.1	75	se.			2		5	ne.					Central Station.
Neufahrwasser	30.43	773.0	30.45	773.4	50.9	10.5	59	e.			1		0			0.004	0.1		A. Lothes.
Neustadt, Palatinate	29.73	755.1	30.20	768.6	56.5	13.6	52	e.			3		1			0	0		Dicknether.
Stuttgart	29.28	743.8	30.18	766.6	55.8	13.2	51	n.			1		2	n.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.76	730.5	30.28	769.0	53.1	11.7	47	e.			2		9	se.		0	0		Fischer.
Wustrow	30.35	770.8	30.37	771.4	50.1	13.4	59	se.			3	0	3s			0	0		Brandes & Reimer.

GREEK SERIES.

Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Athens	29.54	750.3	29.92	760.0	72.0	22.2		s.			1.0		10					raining	Schmidt & Wourlisch.

INDIAN SERIES.

Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Kurrachee	29.70	754.3	29.75	755.6	83.8	28.8	70	sw.	22.0	9.8			0			0	0	blue sky	
Deesa	29.26	743.2	29.72	755.0	89.3	31.8	57	w.	6.3	2.8			3	sw.	sw.	0	0	d. clouds	
Bombay	29.77	756.2	29.81	757.2	82.6	28.1	74	w.	9.0	4.0			6		w.	0	0	d. clouds	
Poona, Yarrowda.	27.94	709.8	29.90	759.5	77.0	25.0	66	w.	20.0	8.9			5		w.	0	0	d. clouds	
Belgaum	27.29	693.1	29.84	757.9	73.2	22.9	78	wsw.	9.0	4.0			2		w.	0	0	d. clouds	
Lahore	28.89	733.7	29.61	752.0	93.7	34.3	29	calm	0.7	0.3			0			0	0	blue sky	
Roorkee	28.74	730.0	29.62	752.3	89.2	31.8	55	nw.	1.3	0.6			0			0	0		
Agra	29.10	739.0	29.64	752.9	91.2	32.9	52	w.	2.5	1.1			0			0	0		
Nagpur	28.62	727.0	29.66	753.4	78.5	25.8	87	ne.	3.1	1.4			10		e.	0.29	7.4	showery	
Jubbulpore	28.36	720.3	29.69	754.1	86.6	30.3	64	calm	1.8	0.8			4	e.		0	0	d. clouds	
Lucknow	29.26	743.1	29.62	752.5	90.1	32.3	55	calm	1.2	0.5			0			0	0	blue sky	
Allahabad	29.33	745.1	29.64	752.9	85.7	29.8	88	calm	0.4	0.2			9			0	0	d. clouds	
Patna	29.48	748.7	29.66	753.2	85.8	29.9	82	ne.	2.4	1.1			8	ne.	ne.	0	0	d. clouds	
Hazaribagh	27.67	702.8	29.67	753.6	77.8	25.4	82	n.	5.7	2.6			10	s.	n.	0.50	12.7	thund'r st'm	
Cuttack	29.59	751.6	29.67	753.6	85.2	29.6	77	calm	0.2	0.1			5			0	0	d. clouds	
Calcutta, Alipore	29.66	753.4	29.68	754.0	83.8	28.8	83	wsw.	5.0	2.2			5			0	0	d. clouds	
Dhubri	29.59	751.5	29.71	754.6	77.1	25.1	94	ne.	2.0	0.9			0			0.29	7.4	blue sky	
Chittagong	29.63	752.5	29.72	754.8	83.7	28.7	80	w.	1.5	0.7			2			0	0	blue sky	
Sibsagar	29.45	748.1	29.79	756.6	80.1	26.7	87	sw.	3.5	1.6			10	w.	w.	1.23	31.2	d. clouds	
Jeypore	28.25	717.6	29.65	753.2	92.9	33.8	30	n.	4.1	1.8			0			0	0	blue sky	
Zanzibar, Africa			29.93	760.2	85.2	29.6	46	se.	5	2.2			1			0	0	blue sky	

ITALIAN SERIES.

By authority of the Minister of Agriculture, Industry and Commerce.
Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Udine	29.72	755.0	30.13	765.3	57.9	14.4	58	e.	1.8	0.8			5			0	0		Prof. Giovanni Clodig.
Milan	29.63	752.6	30.14	765.6	63.5	17.5	51	se.	2.5	1.1			6	nw.		0	0		Prof. Schiaparelli.
Padua	30.03	762.7	30.14	765.5	62.4	16.9	44	ne.	3.8	1.7			5	e.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.21	741.8	30.10	764.6	61.3	16.3	66	nw.	1.8	0.8			9	e.		0	0		Prof. P. F. Denza.
Genoa	29.91	759.8	30.11	764.8	67.6	19.8	41	n.	3.8	1.7			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.23	717.0	30.13	765.3	56.5	13.6	70	wnw.			4		3	nw.		0	0		Prof. D. C. Bruno.
Pesaro	30.05	763.2	30.10	764.4	60.1	15.6	55	ne.	19.2	8.6			6	ne.		0	0		Prof. Luigi Guidi.
Florence	29.84	757.8	30.09	764.2	63.3	17.4	44	ne.			4		8	ne.		0	0		Prof. Costantino Pitter.
Leghorn	30.02	762.4	30.10	764.6	66.4	19.1	63	ene.	6.9	3.1			3			0	0		Prof. P. Monte.
Rome	29.79	756.7	29.97	761.1	69.4	20.8	37	n.	8.7	3.9			1			0	0		Prof. P. S. Ferrari.
Lecce	29.67	753.7	29.92	760.0	67.8	19.9	53	nnw.	21.7	9.7			9	nw.		0	0		Prof. C. de Giorgi.
Cosenza	29.06	738.0	29.93	760.2	63.7	17.6	68	wsw.	2.5	1.1			9	sw.		0.134	3.4		Prof. D. Conti.
Cagliari	29.82	757.5	30.01	762.3	74.8	23.8	27	nw.			4		3	w.		0	0		Prof. A. Pacinotti.
Palermo	29.71	754.6	29.95	760.8	67.8	19.9	61	nw.	6.3	2.8			7	nw.		0.669	7.0		Prof. G. Cacciatore.
Syracuse	29.82	757.5	29.87	758.6	72.0	22.0	65	nne.	14.3	6.4			7	w.		0	0		Prof. Vincenzo Gulliano
Sub-Series.																			
Naples, S. R	29.41	747.1	29.92	760.0	67.5	19.7	52	e.	0.7	0.3			5	e.		0.142	3.6		Prof. F. Brioschi.
Stelvio	22.32	566.9			39.2	4.0	28	s.			2	0	0			0	0	clear	Prof. P. F. Denza.
Valdobbia	22.31	566.7			45.0	7.2	40	n.			2	1 0	0	n.		0	0	clear	Prof. P. F. Denza.

JAPANESE SERIES.

Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Hiroshima, I. M. Obs'y.†	29.87	758.7	29.89	759.2	66.2	19.0	95	ne.	5.4	2.4			10 n			2.110	53.6	light rain	K. Sasaki.
Kioto	29.84	757.9	30.01	762.2	69.7	20.9	81	nne.	1.8	0.8			10s;ks			0.630	16.0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.63	752.6	29.83	757.7	72.8	22.7	93	e.	6.1	2.7			10 n			2.000	50.8	raining	S. Takehayashi.
Niigata	30.01	762.2	30.04	763.0	68.3	20.2	68	se.	12.6	5.6		10 ck	0			0.040	1.0	cloudy	
Nobiru	30.15	765.8	30.17	766.3	60.8	16.0	89	ne.	3.4	1.5		0	8 s			0.005	0.1	cloudy	
Supporo	30.03	762.7	30.09	764.3	59.7	15.4	85	sse.	4.2	1.9			2			0	0		
Tokei Obs'y, Yeddo	30.09	764.3	30.15	765.8	64.2	17.9	96	nne.	3.0	1.3		0	7 s			0.120	3.0	fair	The Staff.
Wakayama	29.91	759.7	29.96	761.0	70.5	21.4	95	s.	0.4	0.2		9 ck	0			0.407	10.3	cloudy	Y. Kuwamuca.

MAURITIUS SERIES.

Furnished by the co-operation o C. Meldrum, Secretary of the Meteorological Society of Mauritius.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Mauritius Obs'y, Mauritius	29.89	759.2	30.08	764.0	74.8	23.8	52	e.	14.0	6.3		0	1		e.	0	0	fine	A. N. Figon.

MEXICAN SERIES.

By authority of the Secretary of Public Works.
Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Guadalajara																			Prof. L. Perez.
Guanajuato	23.67	601.2	29.89	759.2	58.1	14.5	65	calm	0	0		1 s	1 k	w.	w.	0	0	clear	Vicente Fernandez.
Leon	24.41	620.0	30.07	763.8	60.5	15.8	80	nw.			1	1 c	0			0	0	clear	Prof. M. Leal.
Mazatlan	29.63	752.7	29.89	759.2	80.5	26.9	82	n.	0.9	0.4		1 cs	2 ks		ese.	0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.09	586.5	30.12	765.0	53.1	11.7	80	calm	0	0		0	1 k			0	0	fine	The Staff.
Morelia	24.19	614.5	30.28	769.1	58.1	14.5	62	sw.			3	0	0			0	0	fine	M. Tena, M. D.
Pabellon, Aguascalientes	23.94	608.1	29.91	759.7	54.5	12.5	80	calm			0	1 c	0			0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.7	30.16	766.0	54.1	12.3	67	calm	0	0		0	0			0	0	very fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.57	573.2	30.16	766.1	53.6	12.0	57	ene.	1.7	0.8		0	0			0	0	fine	J. A. Bonilla, M. E.

NETHERLANDS SERIES.

Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Flushing	30.17	766.3	30.17	766.3	61.7	16.5		s.			3					0	0		
Groningen	30.15	765.9	30.21	767.3	56.7	13.7		s.			2					0	0		
Helder	30.15	765.8	30.15	765.8	52.9	11.6		ese.			4					0.268	6.8		
Hellevoetsluis	30.15	765.9	30.15	765.9	59.4	15.2	78	se.			3					0	0		
Utrecht	30.14	765.6	30.19	766.8	57.9	14.4	65	sse.			3		2			0.016	0.4	slightly cl'dy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.02	762.6	30.09	764.2	54.7	12.6	57	s.	8.5	3.8			4			0.169	4.3		
Christiania	30.10	764.6	30.25	768.4	54.5	12.5	63	s.	9	4			1			0	0		
Gjæsvær	30.09	764.3	30.11	764.9	43.7	6.5		e.			2		8						
Lodingen	30.05	763.2	30.10	764.4	46.8	8.2	95	sw.			4		10			0.331	8.4	raining	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.12	765.1	30.27	768.9	66.9	19.4	67	ese.	11.2	5.0			3			0	0		Dr. J. A. Sampaio.
Campo Major	29.11	739.5	30.06	763.5	88.2	31.2	27	ese.	3.8	1.7			0			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.06	763.5	30.15	765.7	75.7	24.3	60	sw.	4.3	1.9			7			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.78	756.5	30.13	765.3	79.3	26.3	52	nne.	6.9	3.1			1			0	0		The Staff.
Ponta Delgada, Azores	30.22	767.5	30.29	769.3	72.7	22.6	72	ese.	3.8	1.7			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.68	728.4	29.78	756.3	38.1	3.4	53	w.	18	8		0	5 ks						Capt. Lasarew.
Archangel	29.79	756.7	29.81	757.2	36.5	2.5	77	nw.	22	10			10					light clouds	Capt. Sseliwerstow.
Astrakhan	30.41	772.4	30.33	770.3	48.9	9.4	44	nw.	2	1		0	0						Capt. Wisganow.
Barnaul ‡	29.35	745.5	29.86	758.4	41.5	5.3	89	calm	0	0			10					raining	Meteorological Obs'y.
Dorpat	30.00	761.9	30.24	768.1	54.1	12.3	65	wnw.	7	3		10 ck	0						Observatory.
Ekaterinburg	28.51	724.2	29.49	749.0	33.6	0.9	67	sw.	31	14			10						Meteorological Obs'y.
Kasan	29.40	746.7	29.67	753.7	40.8	4.9	81	wsw.	18	8			10 n						Observatory.
Kertch	30.19	766.9	30.21	767.4	52.5	11.4	60	ne.	18	8		0	2 s			0	0		Lagorio & Sastyres.
Kieff	29.70	754.4	30.35	771.0	48.6	9.2	47	n.	7	3		0	4 ks						Observatory.
Lugan	30.10	764.5	30.30	769.7	55.2	12.9	34	wnw.	9	4			0						Meteorological Obs'y.
Moscow	29.44	747.7	29.91	759.8	49.6	9.8	64	e.	7.8	3.5		0	7 ks						Meteorological Obs'y.
Nikolaiev	30.32	770.1	30.39	771.9	51.3	10.7	50	ne.	22	10		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor																			Lieut. Iwanow.
Pekin, China	29.83	757.6	29.97	761.2	65.5	18.6	30	nw.	11	5		0	6 ks			0.276	7.0		Physical Observatory.
St. Petersburg	30.05	763.3	30.07	763.7	51.1	10.6	75	wnw.	16	7		4 c	0					light clouds	Central Physical Obs'y.
Tashkend, Laboratory	28.38	720.9	29.90	759.4	70.6	21.6	67	calm	0	0			0						Teich, A. M.
Tiflis	28.71	729.3	30.10	764.4	70.3	21.3	69	wnw.	4	2			9 n					light rain	Physical Observatory.
Warsaw	29.98	761.5	30.41	772.5	50.2	10.1	46	ese	2	1		0	0						Astronomical Obs'y.
Wilna	29.97	761.1	30.39	772.0	51.8	11.0	60	wnw.	4	2			10						Berg, Assistant.
Yeniseisk	29.67	753.7	29.97	761.2	37.9	3.3	68	w.	7	3			10						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.96	761.0	60.0	15.6	63	w.			2	0	2 k			0.02	0.5	light clouds	Andrew Gibb.
Monach Lt. House, Hebrides			29.81	757.2	57	13.9	94	ssw.			4		10			0.4	10.	overcast	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	30.02	762.4	30.12	765.0	74.1	23.4	64	wsw.	4.7	2.1			1 k			0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.17	766.3	30.22	767.7	71.6	22.0	64	se.	1.3	0.6		2	4	sw.		0.008	0.2	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.27	692.6			71.2	21.8	65	n.	4.5	2.0			1			0	0	almost clear	Domingo Martin.
Madrid, Royal Obs'y	27.97	710.4	30.11	764.7	78.6	25.9	42	n.	1.8	0.8		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	30.00	761.9	30.14	765.5	85.1	29.5	47	sse.	3.1	1.4		2	4	e.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.28	743.8	30.16	766.1	67.3	19.6	84	n.	11.2	5.0			7			0	0	cloudy	R. Gil Vallanueva, Dir
Sub-Series.																			
Havana, Cuba, W. I.	29.97	761.3	30.04	763.0	78.6	25.9	90	ese.	2.9	1.3		6ck;cs	k;s	nw.	ese.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.77	756.2	29.82	757.5	82.3	27.9	81	sse.	4.4	2.0		7 ck	0	sw.		0	0	very cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.99	761.7	30.08	764.1	82.9	28.3	33	e.	22.5	10.1		0	4		se.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I.	29.95	760.6	30.04	762.9	82.4	28.0	89	se.	4.5	2.0		2 k	2 k		se.	0.165	4.2		E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.69	754.0	29.82	757.4	80.6	27.0	81	nw.	1.2	0.5			10 ks		sse.	inap.	inap.	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.10	764.5	30.14	765.5	50.4	10.2	65	n.			2		5			0	0		
Umea	30.15	765.7	30.20	767.0	55.8	13.2	57	calm			0		8			0	0		
Hernosand	30.18	766.5	30.23	767.8	55.2	12.9	61	ssw.			2		0			0	0		
Stockholm	30.11	764.8	30.29	769.3	53.6	12.0	67	wsw.			2		3			0	0		
Wisby	30.32	770.2	30.38	771.7	50.0	10.0	76	w.			6		5			0	0		
Sub-Series.																			
Upsala	30.18	766.5	30.26	768.7	55.4	13.0	65	wsw.	6.5	2.9			3	se.		0.012	0.3		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.79	731.2	30.21	767.2	57.2	14.0	61	n.			2		2			0	0	clear	The Observatory.
Zurich ‡	28.61	726.6	30.25	768.4	51.8	11.0	75	ne.			2		5			0.004	0.1	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.95	760.7	70.9	21.6	66	ene.	17	7.5			9		sw.	0	0		The Observatory.
Valona			30.00	761.9	66.6	19.2		nw.			1		2			0.91	23.	slightly cld.y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.79	756.6	89.1	31.7	60	w.			1	0	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	29.94	760.5	30.02	762.5	72.8	22.7	71	s.	10	4.5		0	8 k		s.	inap.	inap.	fair	
Alpena, Michigan	29.10	739.1	29.76	755.9	62.8	17.1	84	sw.	6	2.7		0	0			0.45	11.4	clear	
Atlanta, Georgia	29.02	737.1	30.20	767.1	68.0	20.0	97	e.	5	2.2			fg.			0	0	dense fog	
Atlantic City, New Jersey	30.16	766.1	30.16	766.1	72.2	22.3	90	s.	8	3.6		0	0			0	0	clear	
Augusta, Georgia	30.02	762.5	30.22	767.6	76.0	24.4	85	se.	2	0.9			10 s			0	0	cloudy	
Baltimore, Maryland	30.10	764.5	30.15	765.8	71	21.7	82	sw.	5	2.2		0	hz.		calm	0	0	clear	
Barnegat, New Jersey	30.11	764.8	30.13	765.3	76.2	24.6	82	sw.	10	4.5		0	0			0	0	clear	
Bismarck, Dakota	27.84	707.1	29.67	753.6	47	8.3	58	w.	20	8.9		0	0			inap.	inap.	clear	
Boise City, Idaho	27.19	690.6	30.03	762.7	43.0	6.1	93	w.	4	1.8			10 s		w.	0.08	2.0	cloudy	
Boston, Massachusetts	29.93	760.2	30.09	764.3	62.0	16.7	100	s.	3	1.3			fg.			0.01	0.3	dense fog	
Brackettville, Texas	28.77	730.7	29.77	756.1	76	24.4	85	se.	10	4.5			10 s		se.	0	0	cloudy	
Brownsville, Texas	29.85	758.2	29.89	759.2	76	24.4	97	calm	0	0		hz.	0			0	0	dense haze	
Buffalo, New York	29.20	741.7	29.92	760.0	74.9	23.8	62	sw.	10	4.5			10 ks		sw.	0	0	cloudy	
Burlington, Vermont	29.62	752.3	29.90	759.4	70.0	21.1	79	s.	17	7.6		0	0			0.01	0.3	clear	
Cairo, Illinois	29.66	753.4	30.06	763.5	71.7	22.1	85	s.	4	1.8		0	0			0	0	clear	
Campo, California	27.37	695.2	29.94	760.5	39.6	4.2	82	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.25	692.1			47	8.3	93	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.21	767.3	30.23	767.8	71	21.7	84	sw.	12	5.4		0	0			0	0	clear	
Cape May, New Jersey	30.12	765.0	30.15	765.8	74	23.3	82	sw.	23	10.3		0	0			0	0	clear	
Castroville, Texas	29.15	740.4	29.82	757.4	79	26.1	77	s.	4	1.8			10 s		s.	0	0	threatening.	
Cedar Keys, Florida	30.14	765.5	30.16	766.1	75	23.9	82	ne.	11	4.9		9 ck	0	e.		inap.	inap.	cloudy	
Champaign, Illinois	29.13	739.9	29.89	759.2	70.0	21.1	84	sw.	12	5.4			10 s		sw.	0.06	1.5	cloudy	
Charleston, S. Carolina	30.14	765.5	30.20	767.1	79	26.1	91	calm	0	0		0	6 s		sw.	0	0	fair	
Charlotte, N. Carolina	29.32	744.7	30.19	766.8	74.3	23.5	85	sw.	1	0.4		hz.	2 k	calm	calm	0	0	fair	
Chattanooga, Tennessee	29.35	745.5	30.18	766.6	69.8	21.0	94	se.	2	0.9		2 ck	fg.	sw.	calm	0	0	clear	
Cheyenne, Wyoming	23.99	609.3	29.96	761.0	42.3	5.7	40	sw.	5	2.2		0	0			0	0	clear	
Chicago, Illinois	29.14	740.1	29.85	758.2	67.5	19.7	83	sw.	10	4.5		0	0			0.76	19.3	clear	
Chincoteague, Virginia	30.18	766.6	30.20	767.1	73	22.8	84	sw.	18	8.0		0	0			0	0	clear	
Cincinnati, Ohio	29.41	747.0	30.07	763.8	75	23.9	76	s.	5	2.2		0	0			0	0	clear	
Cleveland, Ohio	29.25	742.9	29.99	761.7	75	23.9	68	sw.	21	9.4			10 s		w.	0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.20	741.7	30.06	763.5	72	22.2	76	sw.	6	2.7		0	0			0	0	clear	
Concho, Texas	28.03	711.9	29.97	761.2	71	21.7	90	s.	18	8.0			10 s		s.	0	0	cloudy	
Corsicana, Texas	29.52	749.8	29.99	761.7	78	25.6	72	s.	8	3.6		0	8 ks		s.	0	0	cloudy	
Davenport, Iowa	29.20	741.7	29.86	758.4	63	17.2	73	sw.	8	3.6		0	0			0.04	1.0	clear	
Dayton, Washington T'y	28.20	716.3	30.01	762.2	47.5	8.6	86	sw.	8	3.6		0	4 n		s.	0.16	4.1	light rain	
Deadwood, Dakota	25.15	638.8	29.85	758.2	42	5.6	71	calm	0	0		3 ck	0	calm		0.32	8.1	clear	
Decatur, Texas	28.85	732.8	29.98	761.5	73	22.8	59	s.	10	4.5		0	0			0	0	clear	
Delaware Breakwater, Del.	30.13	765.3	30.15	765.8	72	22.2	84	s.	21	9.4			hz.			0	0	clear	
Denison, Texas	29.15	740.4	29.96	761.0	77	25.0	85	s.	8	3.6		0	8 s		s.	0	0	fair	
Denver, Colorado	24.70	627.4	29.92	760.0	46	7.8	43	s.	5	2.2		0	0			0	0	clear	
Des Moines, Iowa	28.96	735.6	29.87	758.7	55	12.8	69	sw.	2	0.9		0	0			0	0	clear	
Detroit, Michigan	29.21	741.9	29.93	760.2	74.8	23.8	71	sw.	8	3.6		9 cs;k	0	w.		inap.	inap.	cloudy	
Dodge City, Kansas	27.25	692.1	29.84	757.9	52.7	11.5	60	ne.	12	5.4		0	0			0	0	clear	
Dubuque, Iowa	29.09	738.9	29.81	757.2	61.2	16.2	60	w.	5	2.2		0	4 s		calm	0.09	2.3	fair	
Duluth, Minnesota	28.84	732.5	29.54	750.3	56	13.3	80	sw.	8	3.6		0	0			0.05	1.3	clear	
Eagle Pass, Texas	29.14	740.1	29.96	761.0	73.6	23.1	82	se.	6	2.7		0	0			0	0	clear	
Eagle Rock, Idaho	25.16	639.1	30.01	762.2	47	8.3	61	sw.	30	13.4			10 ks		sw.	0	0	cloudy	
Eastport, Maine	30.04	763.0	30.11	764.8	55.5	13.1	96	s.	10	4.5			fg.			0.02	0.5	dense fog	
El Paso, Texas	26.22	666.0	29.97	761.2	62.3	16.8	41	calm	0	0		0	0			0	0	clear	
Erie, Pennsylvania	29.21	741.9	29.94	760.5	76	24.4	64	sw.	16	7.2		8 k	0	sw.		0	0	cloudy	
Escanaba, Michigan	28.99	736.3	29.65	753.1	57.5	14.2	91	s.	7	3.1		0	3 s		calm	0.01	0.3	clear	
Florence, Arizona	28.43	722.1	30.03	762.7	54	12.2	64	w.	1	0.4		0	0			0	0	clear	
Fort Apache, Arizona	25.03	635.8	29.94	760.5	40	4.4	86	e.	3	1.3		0	0			0	0	clear	
Fort Assinnaboine, Montana	26.90	683.2	29.71	754.6	39	3.9	65	sw.	18	8.0		0	0			inap.	inap.	clear	
Fort Bennett, Dakota	28.20	716.3	29.74	755.4	52	11.1	55	w.	10	4.5		0	3 s		w.	0.15	3.8	fair	
Fort Benton, Montana	26.97	685.0	29.83	757.7	40	4.4	59	sw.	4	1.8		0	0			0	0	clear	
Fort Buford, Dakota	27.69	703.3	29.70	754.4	46	7.8	63	nw.	20	8.9		0	0			0	0	clear	
Fort Custer, Montana	26.63	676.4	29.87	758.7	47	8.3	52	calm	0	0			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.05	636.3	30.01	762.2	71	21.7	76	s.	9	4.0		0	0			0	0	clear	
Fort Elliott, Texas	27.11	688.6	30.30	769.6	53	11.7	69	calm	0	0		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.35	745.5	29.90	759.4	77.5	25.3	65	s.	7	3.1		3 k	0	sw.		0	0	fair	
Fort Grant, Arizona					55	12.8	55	ne.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.62	726.9	29.83	757.7	75.3	24.1	74	se.	9	4.0		0	0			0	0	clear	
Fort Keogh, Montana	27.26	692.4	29.80	756.9	43	6.1	52	w.	8	3.6		2 cs	0			0	0	clear	
Fort Macon, North Carolina	30.22	767.6	30.23	767.8	76	24.4	85	se.	3	1.3		hz.	3 k;hz	calm	calm	0	0	light haze	
Fort McKavett, Texas																			
Fort Missoula, Montana	26.58	675.1	30.10	764.5	42	5.6	83	sw.	2	0.9		0	5 s			0.17	4.3	fair	
Fort St. Michaels	30.08	764.0	30.11	764.8	44	6.7	92	sw.	11	4.9		0	5 ks		w.	0.10	2.5	fair	
Fort Shaw, Montana	26.16	664.5	29.76	755.9	40	4.4	67	nw.	8	3.6		0	0			0	0	clear	
Fort Sill, Indian Territory	28.65	727.7	29.90	759.4	73.5	23.1	65	s.	9	4.0		0	0			0	0	clear	
Fort Stevenson, Dakota	27.78	705.6	29.64	752.8	45	7.2	76	w.	12	5.4		0	0			0	0	clear	
Fort Verde, Arizona					47.3	8.5	71	sw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.23	717.0	29.83	757.7	72	22.2	90	s.	6	2.7		7 k	0	s.		0	0	fair	
Galveston, Texas	29.94	760.5	29.98	761.5	80	26.7	91	se.	3	1.3		hz.	0			0.04	1.0	clear	
Grand Haven, Michigan	29.14	740.1	29.81	757.2	66.0	18.9	90	s.	12	5.4		0	0			0.41	10.4	clear	
Hatteras, North Carolina	30.22	767.6	30.24	768.1	73	22.8	97	calm	0	0		hz.	hz.			0	0	dense haze	
Helena, Montana	25.59	650.0	29.98	761.5	45	7.2	100	s.	8	3.6		0	7 s		calm	inap.	inap.	cloudy	
Henrietta, Texas	28.90	734.0	29.74	755.4	85	29.4	57	s.	10	4.5		0	0			0	0	clear	
Huron, Dakota	28.40	721.3	29.78	756.4	45	7.2	83	sw.	13	5.8		0	0			0.18	4.6	clear	
Indianapolis, Indiana	29.19	741.4	29.99	761.7	75	23.9	71	sw.	8	3.6		2 k	5 s	sw.	sw.	inap.	inap.	fair	
Indianola, Texas	29.93	760.2	29.96	761.0	78.8	26.0	91	se.	5	2.2		0	2 k		calm	0	0	clear	
Jacksboro, Texas	28.77	730.7	29.85	758.2	74	23.3	76	s.	8	3.6		0	0			0	0	clear	
Jacksonville, Florida	30.13	765.3	30.17	766.3	75	23.9	90	se.	4	1.8		4 cs	0	w.		0.15	3.8	fair	
Keokuk, Iowa	29.22	742.2	29.88	758.9	69.6	20.9	93	sw.	7	3.1		0	0			0	0	clear	
Key West, Florida	30.04	763.0	30.07	763.8	79.5	26.4	88	e.	13	5.8			10 n		e.	0.97	24.6	light rain	
Kittyhawk, North Carolina	30.23	767.8	30.25	768.3	73	22.8	90	sw.	3	1.3		0	0			0	0	clear	
Knoxville, Tennessee	29.18	741.2	30.22	767.6	64.8	18.2	91	ne.	2	0.9		0	1 s		calm	0	0	clear	
La Crosse, Wisconsin	28.99	736.3	29.76	755.9	59	15.0	75	s.	4	1.8		0	0			0.11	2.8	clear	
La Mesilla, New Mexico	26.09	662.7	30.24	768.1	45.8	7.7	76	calm	0	0		0	0			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	28.97	735.8	29.87	758.7	58	14.4	64	calm	0	0		0	0			0	0	clear	
Lewiston, Idaho	29.09	738.9	29.94	760.5	49	9.4	70	sw.	1	0.4			10 s		calm	0.22	5.6	cloudy	
Little Rock, Arkansas	29.68	753.9	30.00	762.0	73	22.8	82	s.	8	3.6		0	0			0	0	clear	
Los Angeles, California	29.55	750.6	29.93	760.2	59.2	15.1	75	sw.	5	2.2		0	0			0	0	clear	
Louisville, Kentucky	29.48	748.8	30.05	763.3	75.0	23.9	85	s.	6	2.7		0	0			0	0	clear	
Lynchburg, Virginia	29.49	749.0	30.18	766.6	70.6	21.4	76	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	28.76	730.5	29.79	756.7	59	15.0	65	sw.	10	4.5		0	0			0.43	10.9	clear	
Marquette, Michigan	28.85	732.8	29.58	751.3	60	15.6	75	sw.	14	6.3		0	2 k		sw.	0.16	4.1	clear	
Mason, Texas	28.31	719.1	29.99	761.7	75	23.9	76	s.	10	4.5		0	7 ks		s.	0	0	cloudy	
Memphis, Tennessee	29.73	755.1	30.07	763.8	72	22.2	66	se.	4	1.8		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Velocity.		Force	Clouds. Amount and kind.		Direction,		Rain-fall, or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.04	737.6	29.80	756.9	62	16.7	73	sw.	9	4.0	.....	0	0	.....	.....	0.08	2.0	clear	
Mobile, Alabama	30.01	762.2	30.08	764.0	77.0	25.0	90	e.	4	1.8	.....	.....	10 ks	.....	se.	0.24	6.1	cloudy	
Montgomery, Alabama	29.92	760.0	30.15	765.8	73.1	22.8	90	se.	5	2.2	.....	7 k	3 ks	se.	se.	0	0	cloudy	
Moorhead, Minnesota	28.70	729.0	29.72	754.9	48	8.9	77	w.	16	7.2	.....	0	0	.....	.....	0	0	clear	
Morgantown, W. Virginia	29.12	739.6	30.07	763.8	69.5	20.8	74	sw.	6	2.7	.....	1 k	0	w.	.....	0	0	clear	
Mt. Washington, N. H.	23.93	607.8	30.13	765.3	50.8	10.4	95	w.	48	21.5	.....	3 k	7 s	w.	w.	0.16	4.1	clear	
Nashville, Tennessee	29.55	750.6	30.09	764.3	74.0	23.3	82	s.	3	1.3	.....	0	0	.....	.....	0	0	clear	
New Haven, Connecticut	29.97	761.2	30.08	764.0	72	22.2	84	s.	4	1.8	.....	0	sk.	.....	.....	0	0	dense smoke	
New London, Connecticut	30.08	764.0	30.13	765.3	69	20.6	90	calm	0	0	.....	0	fg	.....	.....	0	0	clear	
New Orleans, Louisiana	29.97	761.2	30.03	762.7	77.0	25.0	90	calm	0	0	.....	hz	0	.....	.....	0	0	clear	
Newport, Rhode Island	30.06	763.5	30.11	764.8	67.4	19.7	95	sw.	6	2.7	.....	.....	fg	.....	.....	0.02	0.5	dense fog	
New River, N. Carolina	.....	.....	.....	.....	78	25.6	82	calm	.....	.....	0	0	0	.....	.....	0	0	clear	
New Shoreham, Rhode I'd	30.09	764.3	30.12	765.0	68.5	20.3	93	sw.	16	7.2	.....	0	fg	.....	calm	0	0	clear	
New York, New York	29.94	760.5	30.12	765.0	69	20.6	93	s.	6	2.7	.....	0	0	.....	.....	0	0	clear	
Norfolk, Virginia	30.19	766.8	30.22	767.6	70	21.1	90	sw.	5	2.2	.....	hz	0	.....	.....	0	0	clear	
North Platte, Nebraska	27.00	685.8	29.94	760.5	42.4	5.8	76	nw.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Olympia, Washington T'y	29.96	761.0	30.00	762.0	52.0	11.1	80	sw.	12	5.4	.....	0	0	.....	.....	0.01	0.3	clear	
Omaha, Nebraska	28.72	729.5	29.91	759.7	52	11.1	64	n.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Oswego, New York	29.56	750.8	29.89	759.2	74.0	23.3	66	s.	13	5.8	.....	3 ck	2 s	sw.	s.	0.10	2.5	fair	
Pensacola, Florida	30.07	763.8	30.10	764.5	79	26.1	82	s.	8	3.6	.....	.....	10 s	.....	s.	0.04	1.0	cloudy	
Philadelphia, Pa	30.08	764.0	30.14	765.5	73	22.8	82	sw.	12	5.4	.....	0	fg	.....	.....	0	0	clear	
Phœnix, Arizona	28.79	731.3	30.59	777.0	55	12.8	62	e.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Pike's Peak, Colorado	17.83	452.9	30.04	763.0	27	— 2.8	59	sw.	32	14.3	.....	0	0	.....	.....	0	0	clear	
Pioche, Nevada	24.08	611.6	30.10	764.5	47	8.3	42	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Pittsburg, Pennsylvania	29.27	743.4	30.09	764.3	74	23.3	68	sw.	9	4.0	.....	2 k	0	sw.	.....	0	0	clear	
Port Eads, Louisiana	30.03	762.7	30.04	763.0	78.6	25.9	88	se.	9	4.0	.....	0	9 s	.....	se.	0.11	2.8	threatening	
Port Huron, Michigan	29.20	741.7	29.89	759.2	71.0	21.1	79	sw.	8	3.6	.....	4 cs	0	sw.	.....	0.02	0.5	fair	
Portland, Maine	30.02	762.5	30.08	764.0	59.5	15.3	93	se.	4	1.8	.....	.....	fg	.....	.....	0.02	0.5	dense fog	
Portland, Oregon	30.00	762.0	30.07	763.8	53.0	11.7	90	calm	0	0	.....	0	9 k	.....	nw.	0.06	1.5	cloudy	
Portsmouth, N. Carolina	.....	.....	.....	.....	78	25.6	76	s.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Prescott, Arizona	24.77	629.1	29.96	761.0	43	6.1	76	s.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Punta Rassa, Florida	30.07	763.8	30.08	764.0	77	25.0	85	ne.	8	3.6	.....	9 ck	0	e.	.....	0.40	10.2	cloudy	
Red Bluff, California	29.66	753.4	30.00	762.0	62.0	16.7	67	nw.	6	2.7	.....	0	0	.....	.....	0	0	clear	
Rio Grande City, Texas	29.70	754.4	29.90	759.4	75	23.9	90	calm	0	0	.....	3 k	0	s.	.....	0	0	clear	
Rochester, New York	29.27	743.4	29.91	759.7	75	23.9	60	sw.	12	5.4	.....	2 k	0	sw.	.....	0.02	0.5	clear	
Roseburg, Oregon	29.54	750.3	30.12	765.0	56.3	13.5	82	s.	3	1.3	.....	.....	10 ks	.....	.....	inap.	inap.	cloudy	
Sacramento, California	29.93	760.2	30.01	762.2	56.8	13.8	80	se.	4	1.8	.....	0	0	.....	.....	0	0	clear	
St. Louis, Missouri	29.37	746.0	29.98	761.5	71.2	21.8	100	sw.	8	3.6	.....	.....	10 n	.....	.....	0.54	13.7	thud'rstorm	
St. Paul, Minnesota	28.82	732.0	29.70	754.4	56.0	13.3	69	sw.	16	7.2	.....	0	0	.....	.....	0	0	clear	
Salt Lake City, Utah	25.57	649.5	29.90	759.4	49	9.4	40	calm	0	0	.....	0	0	.....	.....	0	0	clear	
San Antonio, Texas	29.26	743.2	29.96	761.0	76.0	24.4	90	se.	3	1.3	.....	.....	10 ks	.....	s.	0	0	cloudy	
San Diego, California	29.79	756.7	29.86	758.4	56.2	13.4	86	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Sandusky, Ohio	29.26	743.2	29.95	760.7	75	23.9	71	sw.	19	8.5	.....	.....	10 s	.....	.....	0	0	cloudy	
Sandy Hook, New Jersey	30.08	764.0	30.11	764.8	73.0	22.8	84	w.	15	6.7	.....	0	0	.....	.....	0	0	clear	
San Francisco, California	29.94	760.5	30.00	762.0	58	14.4	86	w.	6	2.7	.....	0	0	.....	.....	0	0	clear	
Santa Fé, New Mexico	23.27	591.0	30.07	763.8	44	6.7	51	n.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Savannah, Georgia	30.10	764.5	30.19	766.8	76	24.4	97	calm	0	0	.....	0	fg	.....	.....	0.04	1.0	clear	
Shreveport, Louisiana	29.79	756.7	30.02	762.5	72	22.2	94	calm	0	0	.....	.....	10 s	.....	sw.	0	0	cloudy	
Silver City, New Mexico	24.29	617.0	29.86	758.4	45	7.2	65	nw.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Sitka, Alaska	29.80	756.9	29.97	761.2	44.2	6.8	84	ne.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Smithville, North Carolina	30.18	766.6	30.22	767.6	79	26.1	88	calm	0	0	.....	0	hz	.....	.....	0	0	clear	
Spokane Falls, Wash. Ter.	27.86	707.6	29.88	758.9	43	6.1	76	sw.	7	3.1	.....	4 k	0	sw.	.....	0	0	fair	
Springfield, Illinois	29.26	743.2	29.95	760.7	71.8	22.1	84	s.	7	3.1	.....	.....	8 s	.....	sw.	0.23	5.8	cloudy	
Springfield, Massachusetts	29.94	760.5	30.00	763.5	66.7	19.3	93	s.	4	1.8	.....	.....	fg	.....	.....	0	0	foggy	
Stockton, Texas	26.93	684.0	30.00	762.0	61.6	16.4	84	s.	4	1.8	.....	0	0	.....	.....	0	0	clear	
St. Vincent, Minnesota	28.53	724.6	29.42	747.3	48	8.9	77	w.	12	5.4	.....	0	0	.....	.....	0.08	2.0	clear	
Thatcher's Island, Mass	30.04	763.0	30.10	764.5	61.8	16.6	100	s.	4	1.8	.....	.....	fg	.....	.....	0.03	0.8	dense fog	
Toledo, Ohio	29.21	741.9	29.91	759.7	75	23.9	76	se.	16	7.2	.....	.....	10 s	.....	sw.	0	0	threatening	
Tucson, Arizona	27.44	697.0	29.80	756.9	55	12.8	69	s.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Umatilla, Oregon	29.62	752.3	30.03	762.7	52.2	11.2	66	w.	16	7.2	.....	0	4 s	.....	w.	0	0	fair	
Uvalde, Texas	28.98	736.1	29.77	756.1	76	24.4	90	se.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Vicksburg, Mississippi	29.80	756.9	30.06	763.5	71	21.7	90	se.	6	2.7	.....	4 cs	0	calm	.....	0	0	fair	
Visalia, California	29.57	751.1	29.93	760.2	53	11.7	76	se.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Washington, D. C.	30.04	763.0	30.15	765.8	72.0	22.2	82	s.	4	1.8	.....	0	hz	.....	.....	0	0	clear	
Wickenburg, Arizona	.....	.....	.....	.....	52	11.1	86	calm	.....	.....	0	0	0	.....	.....	0	0	clear	
Wilmington, N. Carolina	30.16	766.1	30.22	767.6	77	25.0	82	calm	0	0	.....	5 k	2 ks	calm	calm	0	0	fair	
Winnemucca, Nevada	25.64	651.2	29.97	761.2	41	5.0	82	sw.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Wood's Holl, Mass	30.08	764.0	30.12	765.0	67	19.4	93	sw.	16	7.2	.....	0	hz	.....	.....	0	0	dense haze	
Yankton, Dakota	28.56	725.4	29.87	758.7	50	10.0	86	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Yuma, Arizona	29.69	754.1	29.83	757.7	59.8	15.4	81	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I. ‡	29.97	761.2	29.99	761.7	81	27.2	96	ne.	4	1.8	.....	10 k	10 ks	e.	e.	0.05	1.3		J. A. Racker.
Bogota, U. S. Columbia	22.05	560.1	.....	.....	54.5	12.5	69	e.	5	2.2	.....	2 k	2 n	n.	.....	c	0	fair	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.89	759.2	29.89	759.2	80	26.7	87	e.	.....	.....	.....	8 k	0	.....	.....	0	0	hazy	B. Bigar.
Havana, Cuba, W. I.	30.01	762.2	30.06	763.5	80	26.7	88	calm	0	0	.....	7 cs	2 ks	calm	calm	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.98	761.5	29.99	761.7	76.7	24.8	86	calm	0	0	.....	2 cs	8 s	.....	e.	0.14	3.6	cloudy	Robert Johnstone.
Navassa, W. I.	29.86	758.4	29.94	760.5	81	27.2	78	ne.	15	6.7	.....	.....	10	.....	e.	0.32	8.1	cloudy	F. M. Everett.
Paramaribo, S. A.	30.01	762.2	30.01	762.2	81	27.2	78	se.	.....	.....	3	3 c	4 k	e.	e.	0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.44	747.8	30.00	762.0	74	23.3	94	calm	.....	.....	0	.....	10 ks	.....	calm	1.12	28.4	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	75.2	24.	.....	ne.	.....	.....	1	6 ck	0	ne.	.....	0	0		Earl Flint.
Santiago de Cuba, W. I.	29.98	761.5	30.01	762.2	81	27.2	78	n.	3.6	1.6	.....	8 cs	0	.....	.....	0.07	1.8	cloudy	Robert Mason.
St. Thomas, W. I. ‡	30.02	762.5	30.03	762.7	81	27.2	79	e.	6	2.7	.....	1 c	2 ks	ne.	e.	0.34	8.6	clear	G. O. Gyllich.
York Factory, B. A.	30.04	763.0	30.09	764.3	36.0	2.2	95	n.	28	12.5	.....	.....	10 n	.....	n.	.....	.....	raining	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, Thursday Island, Torres St	30.06	763.5	74.8	23.8	69	ese.			4		2							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibralter, Mediterranean	30.19	766.8	73	22.8	81	ne.			2		3	ne.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.97	761.2	68	20.0		ne.			3		4	ne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, Aden, Arabia	29.80	756.9	84	28.9	71	e.			2		0							blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 34° 27′, W. 67° 33′	30.28	769.1	77	25.0	90	n.			1		1							blue sky	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.96	761.0	72.5	22.5	73	nnw.			2		5	wnw.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A. T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 10′, E. 20° 30′	29.83	757.7	76	24.4		nw.			3		5	wnw.				1	wnw.	showery	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.10	764.5	70	21.1		se.			1-3		4	ese.						squally	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.18	766.6	76	24.4	76	nne.			1-2		3	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.20	767.1	49.5	9.7	85	ne.			1		8	n.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.65	753.1	85	29.4		se.			1		1	se.				1	se.	blue sky	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.74	755.4	85	29.4		n.			2		10							overcast	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, N. 3° 18′, E. 76° 01′	29.83	757.7	83	28.3	79	nw.			4		5	nw.				1	nw.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 35° 48′, E. 10° 19′	29.94	760.5	72	22.2		nnw.			3		1					3	n.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 02′, E. 49° 49′	30.06	763.5	74.5	23.6	83	nnw.			4		3					3	nnw.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 14° 42′, W. 78° 34′	29.91	759.7	86	30.0	88	ne.			2-3		5	e.				3		showery	Comm. R. N. Custance.
H M. S. Flying Fish, Yessashi, Yezo, Japan	30.10	764.5	64	17.8	83	calm			0		6							misty	Capt. R. F. Moskyn.
H. M. S. Gannet, N. 19° 44′, W. 155° 04′	30.10	764.5	68	20.0	79	wsw.			3		1	s.				2	ne.	d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	29.54	750.3	63	17.2	94	nne.			3		10							showery	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 25′, W. 77° 08′	29.95	760.7	81	27.2	87	se.			1		10					5	ne.	raining	Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, N. 3° 00′, E. 163° 45′	29.86	758.4	86	30.0	61	ene.			2		1	ene.				2	ene.	blue sky	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 35° 26′, E. 139° 38′	30.14	765.5	68	20.0		calm			0		7							d. clouds	Capt. R. E. Tracey.
H. M. S. Kestrel, Canton, China *†	29.82	757.4	81	27.2							6	calm						d. clouds	Capt. W. M. Lang.
H. M. S. Kingfisher, S. 3° 16′, W. 80° 24′	30.01	762.2	73	22.8		ne.			1		2	calm						d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 23° 30′, E. 55° 40′	30.03	762.7	74	23.3		nne.			2		2	calm				2	ene.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 26° 23′, W. 25° 29′	30.22	767.6	68	20.0	90	ssw.			1		9					5	cf'd	showery	Lt. C. F. Oldham.
H. M. S. Lily																			
H. M. S. London																			
H. M. S. Magpie, N. 20° 03′, E. 109° 55′	29.81	757.2	81.3	27.4	75	w.			1		10					1-2	nnw.	misty	Lt. A. Carpenter.
H. M. S. Midge																			
H. M. S. Malabar																			Capt. H. H. Rawson.
H. M. S. Minotaur																			Capt. J. G. Mead.
H. M. S. Modeste																			
H. M. S. Monarch, Sfax, Tunis	30.06	763.5	76	24.4	81	nw.			3		7	nne.						d. clouds	Capt. C. G. Tryon.
H. M S. Mutine																			Capt. F. Edwards

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	30.10	764.5	56.5	13.6	97	calm			0		7							d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican, S. 23° 20′, W. 70° 44′	30.02	762.5	59	15.0	100	se.			2		10					3	ssw.	misty	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 38° 03′, W. 62° 08′	30.13	765.3	75	23.9	85	nw.			5		3	nw.				3	nw.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 11° 51′, E. 51° 14′	29.78	756.4	86.3	30.2	83	var.			0–1		0							blue sky	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 13° 46′, E. 48° 15′	29.50	749.3	80	26.7	78	nnw.			1–2									blue sky	Comm. W. Byles.
H. M. S. Serapis, N. 2° 28′, W. 8° 55′	30.01	762.2	77	25.0	86	s.			3		6	ssw.				2	ssw.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, Port Grand, Cape Verd Ids	29.98	761.5	86	30.0	72	ne.			3		2	ne.						d. clouds	Capt. T. H. Royse.
H. M. S. Tenedos, N. 46° 10′, W. 62° 31′	30.15	765.8	53	11.7	100	s.			2		9							d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer, N. 36° 51′, W. 0° 35′	30.18	766.6	75	23.9	79	ene.			3		1					3	ene.	blue sky	Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	29.99	761.7	60	15.6	88	nnw.			1		10	calm						drizzling	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.98	761.5	80	26.7		ne.			1		6							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C
H. M. S. Woodlark, N. 24° 41′, E. 62° 37′	29.75	755.6	82.5	28.1	87	sw.			2–3		2	sw.				5	sw.	d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			

GERMAN NAVAL SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

PORTUGUESE NAVAL SERIES.

Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.

Bengo, S. 11° 46′, E. 12° 47′	29.99	761.7	72.5	22.5	87	wnw.			4		3					2	wnw.	blue sky	Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, Brava, Cape Verd Id's	29.97	761.2	81.1	27.3	93	ene.			2		3			¼ h'r	¼ h'r	2		showery	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	30.00?	762.0?	80.6	27.0	60	nnw.			3									blue sky	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.

H. M Corvette Saga																			Capt. M. von Krusenstiern
H. M Frigate Vanadis																			Com. Th. Ulner.

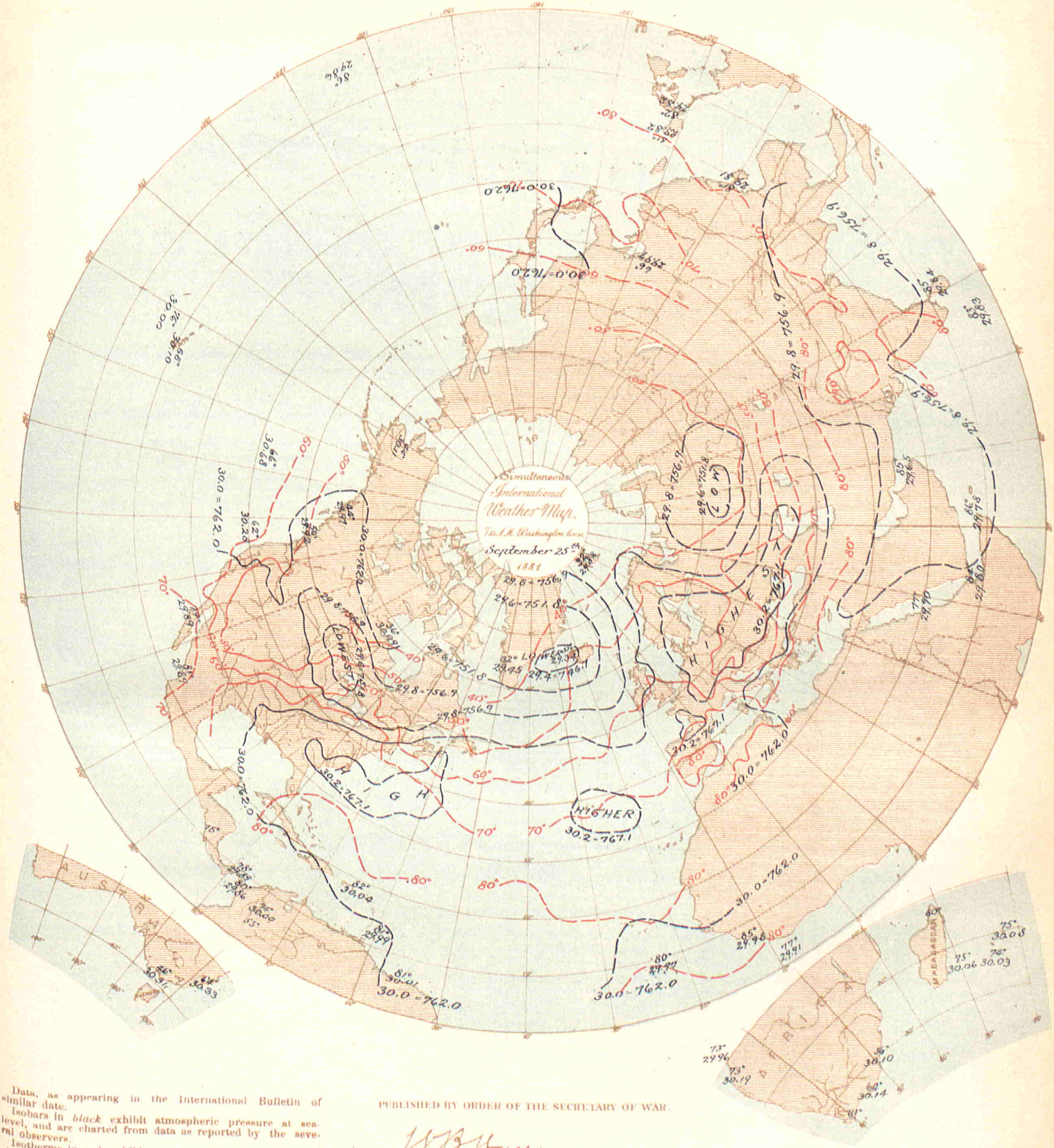
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	30.16	766.1	79	26.1	78	s.	12	5.4			10		s.	1.25	31.7			cloudy	
N. Yard, Portsmouth, N. H.	30.03	762.7	61	16.1	88	calm	0	0		10 c	0			0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.93	760.2	65.5	18.6	92	calm			0		0			0.11	2.8			hazy	
Adams, N. 2° 20′, W. 79° 50′	29.72	754.9	78	25.6	91	ssw.			4		2?		calm			mod.	sw.	cloudy?	
Alaska, Callao, Peru	29.95	760.7	60	15.6	94	nw.			1		5		s.			sm'h		fair	
Alert, Yokohama, Japan *	29.97	761.2	70	21.1	85	nne.			2		8		nne.			sm'h		cloudy	
Alliance, N. 77° 55′, E. 5° 52′	29.82	757.4	32	0.0	90	se.			4		10			snow	snow	sm'h		foggy	
Ashuelot, Kobe, Japan	29.96	761.0	72	22.2	85	ne.			4		2?		e.					overcast?	
Colorado, New York, N. Y.	30.11	764.8	74	23.3	86	sw.	10	4.5			0			0	0			hazy	
Constitution, Newport, R. I.	30.06	763.5	65	18.3	?	sw.	9	4.0			10							foggy	
Franklin, Norfolk, Va.	30.14	765.5	70	21.1	100	sw.	6	2.7			0			0	0			clear	
Galena, Leghorn, Italy	30.04	763.0	69	20.6	56	nnw.			1-2		2		sw.			sm'h		clear	
Independence, N. Yard, Mare I'd, Cal.	29.85	758.2	60	15.6	82	calm	0	0			0							clear	
Kearsarge, New York, N. Y.	30.11	764.8	72	22.2	85	sw.	3	1.3			0					sm'h		clear	
Lackawanna, San Francisco, Cal. †	30.21	767.3	61	16.1	94	sw.			1		0							clear	
Lancaster, New York, N. Y.	30.27	768.8	74	23.3	81	sw.	12	5.4			0							blue sky	
Marion, Maldonado, Uruguay *	29.44	747.8	62	16.7		ne.			3		10		calm			mod.	ne.	rainy	
Michigan, Cleveland, Ohio	29.91	759.7	75	23.9	77	sw.			2		10							cloudy	
Minnesota, Newport, R. I.	30.12	765.0	69	20.6	90	sw.			2		10		sw.			sm'h		foggy	
Monocacy, Yokohama, Japan	30.17	766.3	68	20.0	90	n.			2		10		calm					cloudy	
Nipsic, Genoa, Italy	30.10	764.5	69	20.6	54	nnw.			1		2		n.			sm'h		d. clouds	
Onward, Callao, Peru †	29.97	761.2	60	15.6	88	nw.			1		10		s.			long	w.	cloudy	
Palos, Hong Kong, China	29.81	757.2	82	27.8	63	n.			1		0							clear	
Passaic, Washington, D. C.	30.07	763.8	73	22.8	95	sw.			1		0							clear	
Pensacola, S. 1° 06′, W. 81° 06′	29.89	759.2	75	23.9	81	ssw.			3		10			0	0	mod.	sw.	cloudy	
Portsmouth, New London, Conn.	30.11	764.8	68	20.0	100	sw.			2		2		sw.			sm'h		hazy	
Powhatan, Aspinwall, Panama	29.89	759.2	78	25.6	86	w.			1		8		sw.			long	nw.	cloudy	
Quinnebaug, Marseilles, France	30.12	765.0	66	18.9	74	w.			1		2		calm			sm'h		fair	
Ranger, Mare Island, Cal. *	29.93	760.2	62	16.7	77	sw.			0-1		0			0	0	sm'h		clear	
Richmond, N. 7° 15′, W. 81° 25′	29.88	758.9	82	27.8	91	nnw.			3		8		n.	0.01	0.3	sm'h		cloudy	
Saratoga, Narragansett Bay, R. I.	30.07	763.8	67	19.4	100	ssw.			1-2		10		ssw.	light	light	sm'h		foggy	
Shenandoah, Maldonado, Uruguay *	29.63	752.6	64	17.8	94	nne.			1		10					sm'h		cloudy	
St. Louis, League Island, Pa.	29.83	757.7	72	22.2	90	ssw.	8	3.6			0			0	0			clear	
Swatara, Chefoo, China †	29.93	760.2	72	22.2	76	e.			3		2		sw.			mod	ne.	fair	
Tennessee, New York, N. Y.	30.13	765.3	74	23.3	100	ssw.	5	2.2			0			0	0			clear	
Trenton, N. 22° 15′, W. 38° 25′ *	30.13	765.3	85	29.4	76	e.			3		2			0	0	sm'h		fair	
Vandalia, New York, N. Y.	30.10	764.5	71	21.7	90	sw.			2		2		calm					fair	
Wabash, Boston, Mass.	30.12	765.0	64	17.8	100	calm	0	0			10		calm	0	0			foggy	
Wyoming, Port Royal, S. C.	30.17	766.3	78	25.6	91	calm	0	0			5		sw.	0.35	8.9			fair	
Yantic, New York, N. Y. *	30.07	763.8	73	22.8	90	sw.			3		2							hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland *†..	30.01	762.2	.....	.....	.....	sw.	3	.....	5?	.....	sw.	.....	.....	.....	.....	clear?	N. McLean.
S. S. Circassian, Capt. W. H. Smith	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Gapon, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 49° 20′, W. 25° 25′	30.03	762.7	57	13.9	87	ssw.	6	.....	2	.....	w.	.....	.....	mod.	w.	clear	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 51° 12′, W. 28° 01′ *†	30.11	764 8	*54	12.2	93	sw.	1	.....	2?	.....	nw.	.....	.....	long he'vy	nw.	cloudy?	.....
S. S. Pennsylvania, Capt G. H. Dodge, N. 39° 16′ W. 66° 38′ ..†..	30.22	767.6	75	23.9	95	wsw.	4	.....	8	.....	w.	.....	.....	sm'h	w.	cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. British Merchant, Capt. E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Cipero, Capt. W. N. Lailey, N. 15° 49′, W. 70° 26′	29.97	761.2	83.1	28.4	81	e.	4	.....	5	.....	.....	.....	.....	3	e.	d. clouds	.....
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan, N. 49° 30′, W. 13° 50′	29.93	760.2	59.0	15.0	91	sw.	6	.....	10	.....	.....	.....	.....	.....	.....	raining	.....
Bk. Glaramara, Capt. R. Morton,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bg. Hermine, Capt. S. G. Jones, S. 2° 29′, W. 24° 05	30.05	763.3	77	25.5	75	se.	5	.....	0	.....	.....	.....	.....	.....	.....	blue sky	.....
Bkt. Hope, Capt. Jas. Campbelle ‡ N. 38° 05′, W. 33° 42′	30.16	766.1	69.8	21.0	93	sse.	6	.....	10	.....	.....	.....	.....	.....	.....	overcast	.....
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, S. 44° 18′, E. 45° 48′	30.32	770.1	38.8	3.8	71	s.	4	.....	6	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bk. Mertola, Capt. E. W. Turner, N. 38°, 22′ W. 12° 06′	30.21	767.3	67.9	19.9	97	ne.	5	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	.....
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pleione, Capt. C. H. Renant,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Queen of Cambria, Capt. M. Parry N. 27° 11′, W. 20° 45′	30.07	763.8	76.4	24.7	74	nne.	5	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Rosetta, Capt. A. E. Barlow N. 19° 59′, E. 38° 46′	29.90	759.4	76.5	24.7	88	nw.	4	.....	0	.....	.....	.....	.....	.....	.....	blue sky	.....
Sierra Estrella, Capt. P. Murdoch,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 22° 00′, W. 36° 36′	30.13	765.3	78.7	25.9	78	ene.	4-5	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Strathleven, Capt. C. W. Pearson, Yokohama, Japan	29.96	761.0	65.0	18.3	97	nnw.	4	.....	10	.....	.....	.....	.....	.....	.....	raining	.....
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, N. 31° 46′, W. 117° 07′ †..	29.90	759.4	66	18.9	?	nw.	2	.....	6?	.....	nw.	0	0	light	nw.	clear?	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains.. N. 43° 40′, W. 46° 12′	30.03	762.7	61	16.1	.....	ene.	5	.....	10	.....	.....	12h'r	12h'r	mod.	ne.	raining	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Hermann, Capt. H. Baur	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N. 46° 51′, W. 45° 48′	30.11	764.8	53.0	11.7	93	nnw.	3	.....	8	.....	nnw.	8 h'r	h'vy	mod.	wnw	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer.. N. 48° 29′, W. 26° 02′	30.05	763.3	59.0	15.0	65	wnw.	4	.....	2	.....	nw.	4 h'r	4 h'r	long	nw.	fair	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche.. N. 50° 33′, W. 13° 53′	29.90	759.4	63.0	17.2	87	wsw.	5	.....	5?	.....	nw.	3 h'r	3 h'r	long	w.	cloudy?	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Hong Kong †..	29.96	761.0	87	30.6	88	calm	0	.....	0	.....	.....	0	0	sm'h	.....	.....	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 42° 29′, W. 143° 46′ *†..	30.68	779.3	66	18.9	89	nw.	4	.....	10	.....	w.	.....	.....	mod.	nw.	overcast	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 40° 30′, W. 128° 20′	30.28	769.1	62	16.7	88	nw.	4	.....	8	.....	nw.	.....	.....	sli't	nw.	fair	.....
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann N. 43° 24′, W. 124° 33 *†..	30.26	768.6	59	15.0	76	nw.	3	.....	2	.....	nw.	.....	.....	he'vy	wnw.	fair	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon, Capt. Pollmann Portland, Oregon †..	30.09	764.3	55	12.8	93	calm	0	.....	0?	.....	.....	.....	.....	.....	.....	cloudy?	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, San Francisco, Cal.....†..	29.99	761.7	56	13.3	87	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. N. Ingalls.
S. S. Dakota, Capt. ——— Puget Sound.....†..	30.05	763.3	59	15.0	100	sw.	2	.....	7	.....	sw.	0	0	sm'h	.....	cloudy.....	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal.....†...	30.00	762.0	58	14.4	88	w.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 34° 34′ W. 120° 42′.....†.	29.92	760.0	65	18.3	89	nw.	6	.....	0	.....	.....	0	0	long	nw.	clear.....	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal.....†	30.02	762.5	52	11.1	93	sw.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, N. 45° 20′, W. 124° 10′.....†.	30.07	763.8	55	12.8	93	calm	0	.....	5	.....	sw.	.....	.....	.....	.....	raining.....	G. Debney.
S. S. Victoria, Capt. H. M. Haywa.d, San Francisco, Cal.....†..	30.02	762.5	56	13.3	87	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——— N. 16° 56′, W. 159° 45′.....	30.00	762.0	76	24.4	86	ne.	3	.....	0	.....	.....	.....	.....	mod.	ne.	clear.....	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†..	30.33	770.4	64	17.8	78	s.	3	.....	10	.....	.....	0	0	.....	.....	cloudy.....	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry.. Yokohama, Japan.....*†..	30.25	768.3	66	18.9	94	wsw.	2	.....	10	.....	w.	light	light	sm'h	.....	rainy.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Cap.——— N. 27° 23′, W. 114° 54′.....†	29.89	759.2	79	26.1	100	nnw.	2	.....	10	.....	nnw.	0	0	sm'h	s.	fine.....	.....
S. S. City of Sidney, Capt. H. C. Dearborn,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. L. Salk.
S. S. City of Tokio, Com. J. Maury Yokohama, Japan.....†..	30.25	768.3	65	18.3	78	ne.	1	.....	10	.....	.....	0.5	13.	.....	.....	rainy.....	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, Mazatlan, Mexico.....†	29.92	760.0	83	28.3	100	nne.	3	.....	4	.....	calm	0	0	small	nne.	clear.....	R. R. Searle.
S. S. Grenada. Capt. M. Connolly Panama, Panama.....†..	29.86	758.4	80	26.7	87	nw.	1	.....	8	.....	n.	2 h'rs	2 h'rs	.....	.....	fair.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	30.31	769.9	59	15.0	76	sw.	1	.....	10	.....	sw.	.....	.....	.....	.....	squally.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 48° 04′, W. 29° 23′.....†.	30.38	771.6	59	15.0	.....	wnw.	1	.....	0	.....	.....	0	0	mod.	w.	fine.....	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 44° 15′, W. 45° 46′.....†..	30.12	765.0	59	15.0	76	nne.	4	.....	10	.....	ne.	0.1	3.	light	nne.	cloudy.....	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, England.....†..	30.05	763.3	59	15.0	?	ne.	3	.....	8	.....	ne.	0	0	.....	.....	fair.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry. N. 51° 15′, W. 22° 43′.....†.	29.95	760.7	57	13.9	.....	w.	4	.....	2	.....	w.	4 h'r	4 h'r	mod.	wnw.	fair.....	.....
S. S. Celtic, Capt. B. Gleadell,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Republic. Capt. P. J. Irving N. 42° 29′, W. 54° 26′.....†..	30.17	766.3	62	16.7	83	nne.	6	.....	8	.....	ne.	shr's	sh'rs	mod.	ne.	d. clouds.....	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass.....†..	30.12	765.0	68	20.0	100	sw.	5	0	2 s	.....	.....	0	0	.....	.....	clear.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler, Lt. Com. Nichols, N. 50° 29′, W 128° 04′.....*†..	29.92	760.0	50	10.0	.....	calm	0	.....	8	.....	sw.	.....	.....	sm'h	.....	showery.....	.....
S. Iron Cross, Capt. Randall, N. 9° 18′, W. 25° 48′.....*..	29.97	761.2	79.5	26.4	97	ssw.	4-5	.....	9	.....	var.	mod.	mod.	long	n;sse.	d. clouds.....	W. Randall.
S. Pawashick. Capt. E. Fry. N. 41° 26′, W. 28° 17′.....*†..	30.10	764.5	66	18.9	94	ssw.	3	.....	8	.....	ssw.	.....	.....	sm'h	wnw.	cloudy.....	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam. Capt. Jos. Hand, Lisbon, Portugal.....†..	30.14	765.5	86	30.0	68	nnw.	3	.....	0	.....	.....	0	0	.....	.....	clear.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer. U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 26, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.14	765.5	77.9	25.5	84	w.			2		0			0	0	clear	Raynard.
Algiers ‡			30.18	766.5	74.8	23.8	71	ne.			3		0			0	0	clear	Nicolas.
La Calle ‡			30.16	766.1	78.4	25.8	88	nw.			1		4?			0.354	9.0	covered ?	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			30.15	765.7	85.6	29.8	29	s.			1		0			0	0	clear	Dumas.
Tebessa ‡			30.13	765.3	68.0	20.0	40	n.			5		4			inap.	inap	cloudy	Derché.
Geriville ‡					77.4	25.2	11	ssw.			1		0			0	0	clear	Lonchamp.
Laghouat ‡			30.15	765.9	79.9	26.6	29	s.			3		1			0	0	very fair	Herbin.
Biskra ‡			30.15	765.9	83.5	28.6	32	se.			1		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.09	764.3	30.18	766.6	56.7	13.7	67	ne.	13	5.8			6			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.66	753.4	30.22	767.6	51.8	11.0	71	ne.			2		10			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.51	749.5	30.29	769.4	50.0	10.0	56	ene.	15.0	6.7			7			0	0		Dr. Wiersbicki.
Eperies	29.30	744.1	30.18	766.6	52.7	11.5	54	n.			2	6 cs	0			0	0		Julius Mikolik.
Gratz ‡	28.95	735.4	30.21	767.2	56.5	13.6	63	sw.			2		3			0.004	0.1		Andreas Rospini.
Hermannstadt	28.73	729.8	30.19	766.9	48.0	8.9	77	ese.			3		10			0.071	1.8	raining	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.85	732.9	30.21	767.4	48.7	9.3	80	ne.			1		0			0	0	clear	The Staff.
Lemberg	29.24	742.6	30.23	767.9	51.6	10.9	56	sw.			1		3			0	0		Dr. T. Stanecki.
Pola	30.02	762.4	30.13	765.3	59.9	15.5	55	ene.			5		1			0	0		I. R. Hydrographic Office.
Szathmar	29.70	754.3	30.16	766.1	57.0	13.9	51	n.			1		7			0	0		Beicht Peter, S. J.
Szegedin	29.91	759.8	30.20	767.0	52.2	11.2	85	calm			0		10			0	0		Karl Stancel.
Trieste	30.03	762.7	30.13	765.3	61.2	16.2	38	e.			3		0			0	0	clear	Secco.
Vienna	29.52	749.8	30.24	768.2	52.2	11.2	61	nne.			2		0			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 29, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Aberdeen	29.81	757.2	29.91	759.7	60.0	15.6	50	nnw.	7	4.1			5			0	0	blue sky	W. Boswell.
Armagh, Observatory	29.83	757.7	30.06	763.5	58.5	14.7	67	sw.	8	3.6			5					d. clouds	S. Cull.
Bidston, Liverpool Obs'y			30.09	764.3	58.0	14.4	77	w.	21	9.4			3					blue sky	John Hartnup.
Bolton, Sharples	29.53	750.0	30.07	763.8	56.7	13.7	74	w.	21	9.4			6					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29.65	753.1	30.04	763.0	58.0	14.4	67	nw.			3		4			0.14	3.6	d. clouds	[A.S. J.McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.06	763.5	61.0	16.1	82	w.			0.4		3					d. clouds	John McLaren.
Chatham, School M. E.	29.99	761.7	30.12	765.0	57.4	14.1	96	sw.			1		10					raining	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.97	761.2	30.19	766.8	60.8	16.0	70	wnw.			1		5					d. clouds	The Staff.
Fort Napier, Natal	27.66	702.6	29.88	758.9	72.0	22.2	42	ne.			2		0					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.71	754.6	29.94	760.5	84.0	28.9	83	s.			1		4					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.02	762.5	56	13.3	87	w.			3		8					showery	J. O'Donaghue.
Gibraltar, Mediterranean	30.11	764.8	30.16	766.1	72.6	22.6	92	e.			3		9					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	29.77	756.1	29.97	761.2	57.9	14.4	79	wsw.			5		5			blank	blank	d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.91	759.7	30.08	764.0	63.2	17.3	83	ssw.			1		8					d. clouds	The Staff.
Guernsey	29.94	760.5	30.15	765.8	62	16.7	74	wnw.			2		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.06	763.5	30.09	764.3	61.1	16.2	81	w.	6	2.7			6					threatening	The Staff.
Leicester, Museum	29.82	757.4	30.07	763.8	61.5	16.4	58	nw.			1		1					blue sky	J. C. Smith.
Malta, Mediterranean	29.91	759.7	29.98	761.5	75.0	23.9	56	nw.			3		5			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.99	761.7	30.03	762.7	85.0	29.4	77	e.			3		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.58	751.3	30.10	764.5	60.6	15.9	68	w.			2		5					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.87	758.7	30.10	764.5	61.3	16.3	60	nnw.			4		2					blue sky	The Staff.
Plymouth	30.09	764.3	30.16	766.1	60.4	15.8	80	nw.			2		4					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.85	758.2	56	13.3	80	wsw.	14	6.3			2					blue sky	Rev. C. Clouston, L.L.D.
Scutari Cemetery, Turkey	29.74	755.4	29.80	756.9	77.8	25.4	58	ne.			2		6					d. clouds	Serg't W. H. Lyne.
Sheffield	29.79	756.7	30.07	763.8	61.8	16.6	69	w.			2		2			0.47	11.9	d. clouds	W. F. Cooper.
Silloth Rectory	30.00	762.0	30.03	762.7	60.4	15.8	74	w.			3		3			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.08	764.0	58.3	14.6	74	w.	16	7.2			8					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.89	759.2	30.11	764.8	64.0	17.8	75	nw.			2		4					d. clouds	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	30.18	766.6	30.19	766.8	68	20.0	64	nw.			3		4					d. clouds	W. Newcombe.
Valencia, Observatory	30.09	764.3	30.12	765.0	58.9	14.9	76	sw.	19	8.5			7					d. clouds	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.73	755.1	29.77	756.1	63	17.2	90	sw.	9	4.0		0	0			0	0	clear	H. J. Cundall, C. E.
Chatham, N. B.*	29.67	753.6	29.73	755.1	63	17.2	90	sw.	6	2.7		0	0			0	0	clear	G. A. Blair.
Chicoutimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.62	752.3	29.64	752.8	57	13.9	80	w.	35	15.6		0	0			Inap.	Inap.	clear	J. McWilliams.
Fort Garry, Manitoba*	28.96	735.6	29.79	756.7	39	3.9	89	w.	2	0.9		2 c	sk.	sw.		0.040	1.0	smoky	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.76	755.9	29.89	759.2	64	17.8	97	w.	6	2.7			10 n		w.	0.104	2.6	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.65	753.1	29.97	761.2	67	19.4	93	sw.	5	2.2		10 cs	0	calm		0	0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.70	754.4	29.90	759.4	65	18.3	87	w.	12	5.4		8 c	0	nw.		0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.28	743.7	29.96	761.0	55	12.8	93	w.	1	0.4		2 cs	0	w.		0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.31	744.5	29.98	761.5	69	20.6	100	calm	0	0		8 ck	0	sw.		0.13	3.3	fair	H. Morgan.
Port Stanley, Ontario	29.35	745.5	29.97	761.2	68	20.0	93	w.	8	3.6			10 n		w.	Inap.	inap.	cloudy	M. Payne.
Quebec, Quebec*	29.49	749.0	29.80	756.9	62	16.7		w.			5	0	0			0.36	9.1	clear	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.48	748.8	29.94	760.5	49	9.4	89	w.	1	0.4		0	fg.			0	0	foggy	W. H. McIntyre.
Sangeen, Ontario*	29.27	743.4	29.97	761.2	56	13.3	93	s.	2	0.9			10 ks			0	0	cloudy	K. Stewart.
St. Andrews, N. B.	29.81	757.2	29.86	758.4	56	13.3	97	calm	0	0		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.73	755.1	29.78	756.4	63	17.2	93	sw.	19	8.5		0	8 ks		w.	0	0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.62	752.3	30.00	762.0	65	18.3	81	w.	6	2.7			10 ks		w.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.89	759.2	29.95	760.7	60	15.6	96	sw.	2	0.9		0	fg.			0	0	light fog	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.82	757.4	30.06	763.5	56	13.3	94	s.				2 c	5 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Cape St. Francis Lt. House†	29.82	757.4	29.85	758.2	64.0	17.8	82	w.	22.5	10.1		0	1 s			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.06	738.1			70.3	21.3	48	wnw.			6	0	0			0	0	fine	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.97	761.3	30.00	761.9	65.1	18.4	96	w.	1.8	0.8			0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.14	765.6	30.19	766.8	52.7	11.5	65	sse.	25	11			3						Oversergent Fischer
Fanöe	30.03	762.8	30.05	763.3	52.7	11.5	98	s.			4		10					raining	Overloerer Lauridsen
Godthaab, Greenland	29.35	745.4	29.39	746.5	31.8	—0.1	87	n.			2		4						S. Kleinschmidt.
Stykkisholm, Iceland	29.10	739.2	29.15	740.3	50.0	10.0	80	se.			6		10					raining	A. O. Thorlacius.
Thorshavn,	29.57	751.0	29.60	751.9	54.0	12.2	86	sw.	16	8			7					raining	Overloerer Bergh.
Vestervig	29.93	760.1	30.02	762.4	51.1	10.6	93	se.			4		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.60	751.7	30.23	767.9	67.6	19.8	72	nw.			1	2 ck	0			0	0	slightly cl'dy	M. Labroue, Director.
Alençon Normal School	29.69	754.2	30.24	768.2	61.9	16.6	83	sw.			3		kn	n.	w.	0.12	3.		M. Nicot, Director.
Arras, Engineer School	29.86	758.4	30.11	764.9	60.4	15.8	80	w.				c	k;n		w.				M. Klein, Commandant.
Avignon, Normal School	30.10	764.4	30.17	766.4	71.8	22.1	53	n.			1					0	0		M. Giraud, Director.
Bar-sur-Seine	29.66	753.3	30.21	767.4	61.2	16.2	63	ne.			1	0	5 kn		nnw.	0.020	0.5	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.93	760.2	30.20	767.0	61.2	16.2	71	wnw.			1		2		w.	0.31	8.	slightly cl'dy	M. Frère Eugène Marie.
Besançon, Normal School	29.33	745.0	30.22	767.7	56.5	13.6	89	ssw.			1		10			0	0	covered	M. Gobin, Director.
Bordeaux, Observatory	29.98	761.6	30.24	768.1	67.1	19.5	70	nw.			1		8		w.	0.008	0.2	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.65	753.1	30.20	767.1	66.2	19	43	nw.			1		1		nw.	0.004	0.1	clear	M. Postel, Director.
Brest, Naval Observatory	29.97	761.3	30.22	767.5	70.9	21.6	69	wnw.			1		9		wnw.	0	0		M. de Kermaree, Dir.
Caen, Normal School	30.09	764.3	30.17	766.2	64.4	18	74	w.			1		5		w.	0	0	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					61.5	16.4	59	ene.			2		10		w.	0	0	covered	M. Jadot, Director.
Charleville, Normal School.	29.66	753.3	30.17	766.3	63.3	17.4	57	ssw.			1		8			0.102	2.6	¾ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.85	732.7	30.18	766.5	65.7	18.7	73	n.			1		8			0	0	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.39	746.6	30.23	767.8	61.2	16.2	91	s.			1		4		s.	0	0		M. de Villemontée, Dir.
Commercy, Normal School.	29.35	745.4	30.21	767.4	54.0	12.2	90	e.			1		5	e.	e.	0.08	2.	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.58	700.6	30.05	763.3	67.3	19.6	56	s.			1	c	0			0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	29.10	739.1	30.24	768.1	71.2	21.8	49	nw.			1		2		nw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.43	747.4	30.19	766.7	63.0	17.2	70	nw.			2		k			0	0		M. Ablard, Director.
Guéret, Normal School	28.67	728.2	30.25	768.3	59.9	15.5	76	nw.			1	c	0	sw.		0	0		M. Rivoire, Director.
Lamballe, Normal School	29.92	760.0	30.19	766.8	60.8	16	94	w.			2		10		w.	0.08	2.	raining	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.15	765.9	30.26	768.5	65.3	18.5	85	wsw.			2		10			0	0	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.17	740.9	30.22	767.6	62.8	17.1	67	nne.			1		fg			0	0	foggy	M. André, Director.
Mans, Normal School	29.97	761.1	30.27	768.9	60.8	16	84	sw.			1		5		w.	0.110	2.8	cloudy	M. Piboen, Director.
Marseille, Observatory	29.86	758.4	30.13	765.2	69.1	20.6	71	w.			1		4		w.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	25.04	636.0	30.28	769.0	57.7	14.3	64	e.	3.8	1.7			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.07	763.7	30.17	766.4	76.6	24.8	55	se.			2		0			0	0	clear	M. Pourie, Director.
Nancy, Normal School	29.40	746.8	30.16	766.1	55.8	13.2	90	wnw.			1		10 n		nw.	0	0	covered	M. Hasse.
Nantes, Observatory	30.11	764.8	30.27	768.9	68.0	20	69	nw.			0-1	0	9 kn;n	wnw.	wnw.	0	0		M. Larocque, Director.
Nice	30.11	764.9	30.15	765.7	67.3	19.6	65	sw.			2	1	1	sw.	sw.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	30.06	763.5	30.16	766.1	75.4	24.1	41	nw.	16.8	7.5			9	nw.	w.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.76	578.0			52.3	11.3							1		sw.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					66.6	19.2	77	calm			0		0			0	0	clear	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.37	644.4			47.3	8.5	100	nw.			3		10			0.122	3.1	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.23	767.8	30.26	768.6	69.1	20.6	80	calm			0		2		w.	0	0	¼ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	30.14	765.5	30.35	771.0	66.2	19	64	wnw.			1		10		nw.	0.071	1.8	covered	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.10	764.6	30.19	766.8	62.6	17	77	w.			1		2			0.374	9.5	slightly cl'dy	M. Platrier, Director.
Saint Lô, Normal School	30.03	762.8	30.19	766.8	60.3	15.7	85	w.			4		10		w.	0.08	2.	raining	M. Delaplanche, Dir.
Saint Maur, Observatory	30.06	763 4	30.22	767.6	61.2	16.2	69	w.			1		8		w.	0.079	2.0		M. Renou, Director.
Toulouse, Observatory	29.56	750.9	30.29	769.4	69.3	20.7	68	nnw.			1		5	nw.		0	0	cloudy	M Bailland, Director.
Tours	30.03	762.8	30.23	767 8	63.1	17.3	70	nw.			1		5	calm	wnw.	0.079	2.0	½ covered	M. de Tastes.
Versailles, Observatory	29.72	754.9	30.21	767.4	60.4	15.8	69	w.			1					0.094	2.4		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.93	760.2	30.22	767.6	60.6	15.9	74	wsw.			1		6		wsw.	0.126	3.2		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.35	745.6	30.22	767.6	61.7	16.5	40	wsw.			2	0	5 ks		sw.	0	0		Prof. Dr. Hoh.
Berlin	30.04	763.0	30.21	767.4	61.3	16.3	36	se.			1		2			0	0		Prof. Dr. Arndt.
Breslau	29.77	756.2	30.31	769.8	52.9	11.6	48	se.			2		2			0	0		Royal University Obs'y.
Carlsruhe	29.75	755.6	30.17	766.4	59.7	15.4	69	sw.			1		10	sw.		0.055	1.4		Albert Senz.
Cassel	29.43	747.4	30.15	765.7	54.3	12.4	72	ssw.			2		8	s.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.82	757.4	30.19	766.7	57.4	14.1	66	sw.			1		9			0	0		Physical Society.
Friedrichshafen	28.78	731.0	30.23	767.8	52.3	11.3	80	sw.			2		8	sw.		0.016	0.4		Wilhelm, Chief Tel.
Hamburg	30.07	763.8	30.17	766.2	56.1	13.4	62	se.			2		8			0	0		E. Preller.
Kiel	30.12	765.0	30.13	765.4	55.2	12.9	63	s.			1		8			0	0		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.78	756.4	30.20	767.1	59.4	15.2	51	sse.			3		7	nw.		0	0		H. Leppig, Asst.
Magdeburg	29.98	761.0	30.17	766.4	57.7	14.3	58	sse.			2	9 cs	0	nw.		0	0	foggy	Dr. Assmann.
Memel	30.34	770.6	30.39	771.8	48.0	8.9	85	wnw.			2	8 cs	0						Issermann.
Munich	28.38	720.9	30.20	768.6	52.0	11.1	64	calm			0		1			0	0		Central Station.
Neufahrwasser	30.31	769.9	30.33	770.3	56.1	13.4	58	sse.			1		0			0	0		A. Lothes.
Neustadt, Palatinate	29.03	752.5	30.15	765.9	58.1	14.5	73	s.			1		10	s.		0.118	3.0		Dicknether.
Stuttgart	29.21	741.9	30.08	763.9	59.0	15.0	63	e.			1		3	1.		0.059	1.5		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.71	729.1	30.22	767.6	53.2	11.8	56	sw.			4		5	w.		0	0		Fischer.
Wustrow	30.18	766.6	30.21	767.2	57.7	14.3	67	se.			3	0	8 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.44	747.8	29.82	757.7	77.0	25.0		sw.			1.0		0					clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.71	754.7	29.76	756.0	83.6	28.7	72	wsw.	25.0	11.2			0					blue sky	
Deesa	29.29	744.0	29.76	755.8	87.3	30.7	65	w.	6.7	3.0			4	wsw.	wsw.	0	0	d. clouds	
Bombay	29.78	756.4	29.82	757.4	80.1	26.7	84	wnw.	13.0	5.8			10		nw.	0	0	overcast	
Poona, Yarrowda.	27.95	709.8	29.81	757.3	75.1	23.9	90	wnw.	11.0	4.9			8		w.	0.02	0.5	drizzling	
Belgaum	27.27	692.6	29.81	757.1	74.6	23.7	78	w.	10.0	4.5			8	e.	nw.	0	0	d. clouds	
Lahore	28.90	734.0	29.62	752.3	93.1	33.9	37	sw.	1.1	0.5			0			0	0	blue sky	
Roorkee	28.76	730.4	29.64	752.7	88.8	31.6	51	calm	0.7	0.3			0			0	0		
Agra	29.07	738.4	29.62	752.3	92.2	33.4	52	w.	3.1	1.4			0			0	0		
Nagpur	28.69	728.8	29.74	755.4	78.0	25.6	84	calm	4.2	1.9			9		ne.	0	0	gloomy	
Jubbulpore	28.40	721.2	29.74	755.5	81.0	27.2	77	calm	2.7	1.2			10			0.06	1.5	overcast	
Lucknow	29.27	743.5	29.64	752.8	92.1	33.4	47	wnw.	2.5	1.1			0			0	0	blue sky	
Allahabad	29.35	745.4	29.66	753.2	86.2	30.1	74	calm	0.3	0.1			7			0	0	d. clouds	
Patna	29.52	749.7	29.70	754.3	81.6	27.6	85	e.	3.8	1.7			10	e.	e.	0.21	5.3	overcast	
Hazaribagh	27.67	702.8	29.66	753.5	78.8	26.0	82	s.	6.2	2.8			10		se.	0.80	20.3	thund'rst'm.	
Cuttack	29.65	753.1	29.73	755.2	85.0	29.4	78	w.	0.5	0.2			2			0	0	d. clouds	
Calcutta, Alipore	29.71	754.6	29.73	755.2	83.4	28.6	76	ssw.	3.0	1.3			3			0	0	d. clouds	
Dhubri	29.61	752.1	29.73	755.2	76.1	24.5	96	calm	4.4	2.0			6		w.	0.54	13.7	d. clouds	
Chittagong	29.69	754.0	29.78	756.3	83.5	28.6	86	calm	1.8	0.8			5			0	0	blue sky	
Sibsagar	29.42	747.3	29.75	755.7	82.2	27.9	84	ene.	3.2	1.4			10	sw.	sw.	0.05	1.3	overcast	
Jeypore	28.29	718.6	29.69	754.2	93.7	34.3	32	nw.	4.9	2.2			2		nw.	0	0	d. clouds	
Zanzibar, Africa			29.95	760.7	83.7	28.7	53	se.	5	2.2			2			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.77	756.1	30.17	766.4	60.4	15.8	53	calm	0	0			0			0	0		Prof. Giovanni Clodig.
Milan	29.66	753.4	30.17	766.4	63.7	17.6	51	ne.	3.1	1.4			6	w.		0	0		Prof. Schiaparelli.
Padua	30.08	763.9	30.19	766.7	61.5	16.4	55	nnw.	1.8	0.8			3	wsw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.24	742.6	30.13	765.4	65.3	18.5	53	sse.	2.5	1.1			3	nne.		0	0		Prof. P. F. Denza.
Genoa	29.95	760.8	30.15	765.8	68.5	20.3	38	nw.	3.1	1.4			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.24	717.4	30.15	765.7	59.9	15.5	54	wnw.			2		0			0	0		Prof. D. C. Bruno.
Pesaro	30.10	764.5	30.15	765.7	61.0	16.1	50	ne.	17.4	7.8			4	ne.		0	0		Prof. Luigi Guidi.
Florence	29.88	758.9	30.13	765.3	64.4	18.0	42	nne.			2		2	n.		0	0		Prof. Costantino Pitter.
Leghorn	30.05	763.3	30.14	765.5	66.4	19.1	51	w.	3.8	1.7			2			0	0		Prof. P. Monte.
Rome	29.86	758.4	30.03	762.8	67.8	19.9	34	n.	15.0	6.7			0			0	0		Prof. P. S. Ferrari.
Lecce	29.69	754.1	29.94	760.4	67.6	19.8	54	nw.	29.8	13.3			5	nw.		0.079	2.0		Prof. C. de Giorgi.
Cosenza	29.09	738.8	29.96	761.0	64.8	18.2	48	ssw.	3.1	1.4			5	sw.		0	0		Prof. D. Conti.
Cagliari	29.90	759.5	30.09	764.3	74.1	23.4	30	nw.			2		0			0	0		Prof. A. Pacinotti.
Palermo	29.80	756.9	30.04	763.1	66.7	19.3	50	nnw.	18.1	8.1			9	nnw.		0.260	6.6		Prof. G. Ciacciatore.
Syracuse	29.89	759.1	29.93	760.2	70.2	21.2	58	ne.	4.9	2.2			6	w.		0.122	3.1		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.48	748.7	29.99	761.7	64.8	18.2	56	e.	0	0			3	ne.		0	0		Prof. F. Brioschi.
Stelvio	22.32	566.8			42.6	5.9	29	ene.			1	0	0			0	0	clear	Prof. P. F. Denza.
Valdobbia	22.35	567.8			44.6	7.0	40	n.			2	1 cs	0	n.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.59	751.6	29.60	751.8	80.0	26.7	69	sw.	30.3	13.5		8 ck	0	sw.		0.225	5.7	cloudy	K. Sasaki.
Kioto	29.63	752.6	29.79	756.6	77.8	25.4	73	s.	3.7	1.6			10s;ks			0.030	0.8	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.63	752.6	29.83	757.7	74.0	23.3	74	w.	19.6	8.8			10 s		w.	0.850	21.6	overcast	S. Takehayashi.
Niigata	29.81	757.2	29.84	757.9	73.5	23.1	69	se.	15.9	7.1		ck	3 s			0	0	fair	
Nobiru	30.03	762.7	30.04	763.0	68.3	20.2	92	sse.	21.1	9.4			10 s			0.005	0.1	cloudy	
Supporo	29.95	760.7	30.01	762.2	60.3	15.7	87	ese.	8.4	3.8			4			0	0		
Tokei Obs'y, Yeddo	29.98	761.5	30.05	763.3	66.1	18.9	98	n.	3.0	1.3			10 n			0.810	20.6	raining	The Staff.
Wakayama	29.73	755.1	29.78	756.4	80.7	27.1	82	ssw.	31.0	13.9			10 n;s			0.143	3.6	raining	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation o C. Meldrum, Secretary of the Meteoro.ogical Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.97	761.2	30.16	766.0	75.0	23.9	57	e.	16.5	7.4		0	3		ese.	0	0	squally	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.62	600.0	29.84	758.0	56.3	13.5	73	calm	0	0		0	1 k		e.	0	0	clear	Vicente Fernandez.
Leon	24.37	619.0	30.04	763.0	59.0	15.0	82	s.			3	4 c	0	w.		0	0	clear	Prof. M. Leal.
Mazatlan	29.55	750.5	29.80	757.0	78.8	26.0	84	nnw.	1.6	0.8		1 cs	1 k	calm		0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.05	585.4	30.02	762.5	58.1	14.5	82	calm	0	0		3 c	2 k			0	0	½ cloudy	The Staff.
Morelia	24.09	612.0	30.16	766.0	57.6	14.2	58	sw.			3	0	2		s.	0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.91	607.1	29.91	759.6	57.2	14.0	71	ssw.			1	1 c	1 s	sw.		0	0	clear	M. V. de Leon, M. D.
Puebla, Catholic Institute	23.49	596.6	30.20	767.1	51.8	11.0	70	calm	0	0		0	7		e.	0.004	0.1	cloudy	Prof. P. Spinn.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.53	572.4	30.09	764.4	55.8	13.2	62	ene.	1.7	0.8		c	0			0	0	cloudy	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.14	765.5	30.14	765.5	62.8	17.1		wsw.			3					0.362	9.2		
Groningen	30.04	763.1	30.10	764.5	56.5	13.6		s.			1					c	0		
Helder	30.07	763.7	30.07	763.7	59.5	15.3		sw.			1					0.020	0.5		
Hellevoetsluis	30.10	764.6	30.10	764.6	61.9	16.6	83	wsw.			4					0.299	7.6		
Utrecht	30.07	763.7	30.11	764.9	64.2	17.9	80	sw.			1		5			0.213	5.4	cloudy	H. van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.87	758.8	29.94	760.4	52.5	11.4	88	s.	12.5	5.6			10			0.457	11.6	raining	
Christiania	29.99	761.8	30.14	765.6	50.7	10.4	78	se.	4	2			10			0.063	1.6		
Gjæsvær	29.98	761.5	30.00	762.1	46.0	7.8		s			4		7						
Lodingen	29.89	759.3	29.94	760.5	52.9	11.6	59	ne.			1		5			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.89	759.1	30.03	762.8	68.9	20.5	94	sse	9.8	4.4			7			0.157	4.0		Dr. J. A. Sampaio.
Campo Major	29.12	739.7	30.08	764.0	83.8	28.8	35	ese.	2.5	1.1			8			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.02	762.4	30.10	764.5	76.8	24.9	58	sw.	3.1	1.4			1			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.77	756.1	30.11	764.9	77.5	25.3	58	calm	0.7	0.3			6			0	0		The Staff.
Ponta Delgada, Azores	30.06	763.5	30.13	765.3	73.8	23.2	76	se.	8.7	3.9			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.82	732.1	29.91	759.8	42.4	5.8	55	sw.	31	14			10 k						Capt. Lasarew.
Archangel	30.27	768.9	30.29	769.4	37.2	2.9	61	n.	4	2			10						Capt. Sseliwerstow.
Astrakhan	30.19	766.7	30.10	764.6	57.9	14.4	44	w.	9	4		0	1 s						Capt. Wisganow.
Barnaul ‡	29.52	749.8	29.99	761.8	40.5	4.7	67	sw.	2	1			9						Meteorological Obs'y.
Dorpat	30.09	764.2	30.34	770.5	54.1	12.3	63	ssw.	2	1		0	2 k						Observatory.
Ekaterinburg	28.57	725.7	29.54	750.4	37.8	3.2	80	wnw.	4	2			10						Meteorological Obs'y.
Kasan	29.57	751.1	29.85	758.2	34.5	1.4	74	nnw.	9	4			10						Observatory.
Kertch	30.01	762.3	30.03	762.8	55.0	12.8	70	ne.	18	8		0	7 n			0	0		Lagorio & Sastyrex.
Kieff	29.58	751.2	30.22	767.6	52.5	11.4	46	nne.	4	2		ck;cs	8 ks						Observatory.
Lugan	29.93	760.3	30.13	765.4	56.5	13.6	39	nnw.	9	4			2						Meteorological Obs'y.
Moscow	29.62	752.4	30.11	764.8	43.0	6.1	38	n.	10.1	4.5		0	5 ks						Meteorological Obs'y.
Nikolaiev	30.15	765.7	30.22	767.5	48.7	9.3	61	ne.	18	8			9 n;s						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	29.84	757.9	29.93	760.1	40.5	4.7	59	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.77	756.1	29.91	759.7	56.5	13.6	72	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.33	770.4	30.35	770.8	46.6	8.1	58	e.	4	2		ck;cs	2 ks						Central Physical Obs'y.
Tashkend, Laboratory	28.56	725.4	30.10	764.5	65.5	18.6	52	calm	0	0			4						Teich, A. M.
Tiflis	28.67	728.2	30.04	763.1	73.9	23.3	51	calm	0	0		0	0						Physical Observatory.
Warsaw	29.90	759.5	30.33	770.4	51.8	11.0	54	ese.	2	1		1 0	0						Astronomical Obs'y.
Wilna	29.96	760.9	30.39	771.8	49.3	9.6	65	wnw.	2	1			10						Berg, Assistant.
Yeniseisk	29.72	754.8	30.01	762.3	38.1	3.4	67	w.	4	2			10						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.98	761.5	60.9	16.1	61	w.			4	0	6 k			0.03	0.8	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.88	758.9	57	13.9	94	wsw.			3		10			0.2	5.	cloudy	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	30.01	762.2	30.11	764.9	72.1	22.3	73	ese.	3.8	1.7			6			0	0		Antonio Rave, Director.
Bilbao, Met. Obs'y	30.19	766.9	30.25	768.3	72.3	22.4	72	nw.	1.8	0.8		2	3	se.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.29	693.1			68.0	20.0	70	n.	6.0	2.7			1			0	0	almost clear	Domingo Martin.
Madrid, Royal Obs'y	27.96	710.2	30.08	764.1	83.1	28.4	41	s.	3.1	1.4		0	3			0	0		The Staff.
Murcia, Met. Obs'y ‡	29.98	761.5	30.13	765.2	81.3	27.4	56	ene.	2.2	1.0		3	4	nne.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.24	742.7	30.11	764.7	73.0	22.8	61	ne.	11.2	5.0			1			0	0	almost clear	R. Gil Vallanueva, Dir
Sub-Series.																			
Havana, Cuba, W. I.	29.91	759.8	29.98	761.4	79.3	26.3	85	e.	6.3	2.8		4 c;cs	1 ks	n.		0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.86	758.4	29.91	759.7	84.1	28.9	88	ese.	2.2	1.0		8 ck	0	sw.		0	0	very cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.01	762.3	30.11	764.7	82.0	27.8	40	e.	23.4	10.5		3	4	e.	e.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.87	758.9	29.97	761.2	77.7	25.4	98	s.	0	0		3 cs	4 kn			0.945	24.0	cloudy	E. Cadea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.79	756.7	29.93	760.1	79.5	26.4	84	nw.	0.6	0.3			9 ks		wnw.	inap.	inap.	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.24	768.2	30.28	769.2	45.7	7.6	72	s.			4		8			0	0		
Umea	30.12	765.1	30.17	766.4	47.8	8.8	92	s.			2		10			0	0		
Hernosand	30.10	764.5	30.15	765.8	53.4	11.9	64	s.			2		0			0	0		
Stockholm	30.08	763.9	30.25	768.4	54.7	12.6	63	ssw.			2		0			0	0		
Wisby	30.27	768.9	30.37	771.4	50.7	10.4	74	wnw.			6		0			0	0		
Sub-Series.																			
Upsala	30.11	764.8	30.20	767.0	55.0	12.8	63	sw.	11.9	5.3			0			0.008	0.2		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.80	731.4	30.21	767.2	58.1	14.5	66	n.			1		0			0	0	clear	The Observatory.
Zurich ‡	28.58	725.9	30.21	767.4	54.7	12.6	77	w.			1		4			0.358	9.1	lightly cl'dy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.85	758.2	72.3	22.4	69	ne.	14	6.5			10		ne.	0.142	3.6		The Observatory.
Valona			30.00	761.9	65.7	18.7		nw.			1		2			0	0	slightly cl'dy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.85	758.3	88.3	31.3	62	sw.			3	0	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Albany, New York	29.94	760.5	30.02	762.5	73.2	22.9	82	sw.	3	1.3		7 c	0			0.03	0.8	fair	
Alpena, Michigan	29.34	745.2	30.01	762.2	55	12.8	74	w.	4	1.8		10 cs	0	w.		0	0	cloudy	
Atlanta, Georgia	28.99	736.3	30.17	766.3	70.5	21.4	92	e.	6	2.7			10 s		calm	0.15	3.8	cloudy	
Atlantic City, New Jersey	30.09	764.3	30.10	764.5	73.8	23.2	90	sw.	5	2.2		0	0			0	0	clear	
Augusta, Georgia	30.01	762.2	30.20	767.1	75.0	23.9	100	e.	1	0.4			10s;fg		e.	inap.	inap.	cloudy	
Baltimore, Maryland	30.06	763.5	30.10	764.5	73	22.8	76	s.	3	1.3		0	hz.		calm	0	0	clear	
Barnegat, New Jersey	30.06	763.5	30.08	764.0	73.8	23.2	90	sw.	9	4.0		0	0			0	0	clear	
Bismarck, Dakota	27.99	710.9	29.82	757.4	38	3.3	92	calm	0	0			10 s		w.	0	0	cloudy	
Boise City, Idaho	27.30	693.4	30.14	765.5	32.0	0.0	88	w.	1	0.4		0	2 s		w.	0.04	1.0	fair	
Boston, Massachusetts	29.85	758.2	30.01	762.2	71.0	21.7	82	w.	8	3.6		1 c	0	w.		0	0	clear	
Brackettville, Texas	28.68	728.5	29.67	753.6	76	24.4	85	e.	10	4.5			10 s		se.	0	0	cloudy	
Brownsville, Texas	29.76	755.9	29.80	756.9	79	26.1	91	calm.	0	0		hz.	0			0	0	dense haze	
Buffalo, New York	29.31	744.5	30.03	762.7	70	21.1	82	s.	3	1.3			10 s		sw.	0.06	1.5	cloudy	
Burlington, Vermont	29.67	753.6	29.96	761.0	70.3	21.3	78	s.	5	2.2		3 cs	0	w.		inap.	inap.	fair	
Cairo, Illinois	29.62	752.3	30.02	762.5	73.8	23.2	84	s.	7	3.1			10 ks		s.	0	0	cloudy	
Campo, California	27.31	693.7	29.88	758.9	39.2	4.0	92	se.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.17	690.1			48	8.9	93	s.			1	0	0			0	0	clear	
Cape Henry, Virginia	30.14	765.5	30.16	766.1	74	23.3	90	sw.	12	5.4		3 ck	1 s		nw.	0	0	fair	
Cape May, New Jersey	30.07	763.8	30.10	764.5	75	23.9	85	sw.	10	4.5		0	0			0	0	clear	
Castroville, Texas	29.07	738.4	29.73	755.1	80	26.7	79	s.	4	1.8			10 s		s.	0	0	cloudy	
Cedar Keys, Florida	30.09	764.3	30.11	764.8	78	25.6	88	ne.	7	3.1		4 ck	0			0	0	fair	
Champaign, Illinois	29.12	739.6	29.88	758.9	69.5	20.8	86	se.	12	5.4		0	c			inap.	inap.	clear	
Charleston, S. Carolina	30.11	764.8	30.17	766.3	79	26.1	91	calm	0	0		0	6 s		se.	0.23	5.8	fair	
Charlotte, N. Carolina	29.28	743.7	30.16	766.1	73.0	22.8	90	s.	3	1.3		4 k	0	calm		0	0	cloudy	
Chattanooga, Tennessee	29.33	745.0	30.16	766.1	71.0	21.7	94	calm	0	0			9 s;fg		s.calm	0.40	10.2	cloudy	
Cheyenne, Wyoming	23.93	607.8	29.90	759.4	38.2	3.4	58	n.	15	6.7		0	0			0	0	clear	
Chicago, Illinois	29.22	742.2	29.93	760.2	71.6	22.0	80	sw.	7	3.1			10 s			0.08	2.0	cloudy	
Chincoteague, Virginia	30.13	765.3	30.15	765.8	74	23.3	100	sw.	10	4.5		3 cs	0	calm		0	0	cloudy	
Cincinnati, Ohio	29.44	747.8	30.10	764.5	74	23.3	82	s.	2	0.9		10 cs	0			0	0	cloudy	
Cleveland, Ohio	29.33	745.0	30.07	763.8	72.1	22.3	66	s.	4	1.8		7 k	0	w.		0.05	1.3	fair	
Coleman City, Texas																			
Columbus, Ohio	29.22	742.2	30.08	764.0	70	21.1	78	s.	3	1.3		6 k	0	w.		0	0	fair	
Concho, Texas	27.97	710.4	29.91	759.7	74	23.3	88	s.	16	7.2		0	9 s		s.	0	0	cloudy	
Corsicana, Texas	29.45	748.0	29.92	760.0	78	25.6	74	s.	4	1.8		0	hz.			0	0	light haze	
Davenport, Iowa	29.16	740.7	29.82	757.4	69	20.6	90	e.	6	2.7		4 ck	0	se.		0.30	7.6	fair	
Dayton, Washington T'y	28.38	720.8	30.19	766.8	44.0	6.7	86	w.	4	1.8		0	5 s		w.	0.15	3.8	fair	
Deadwood, Dakota	25.26	641.6	29.96	761.0	38	3.3	82	calm	0	0			10 ks		calm	0.15	3.8	cloudy	
Decatur, Texas	28.69	728.7	29.80	756.9	75	23.9	52	s.	12	5.4		0	3 s		s.	0	0	fair	
Delaware Breakwater, Del.	30.09	764.3	30.11	764.8	73	22.8	97	s.	14	6.3		2 ck	hz.	sw.		0	0	fair	
Denison, Texas	29.06	738.1	29.87	758.7	79	26.1	77	s.	8	3.6			10 s		s.	0	0	cloudy	
Denver, Colorado	24.66	626.4	29.88	758.9	43.6	6.4	59	s.	4	1.8		0	0			0	0	clear	
Des Moines, Iowa	28.80	731.5	29.71	754.6	68	20.0	90	se.	2	0.9		0	1 s			0.01	0.3	clear	
Detroit, Michigan	29.30	744.2	30.02	762.5	72.0	22.2	76	sw.	6	2.7			10 s		w.	0.01	0.3	threatening.	
Dodge City, Kansas	27.08	687.8	29.67	753.6	58.9	14.9	84	sw.	3	1.3		0	0			0	0	clear	
Dubuque, Iowa	29.09	738.9	29.81	757.2	68	20.0	90	se.	4	1.8			10 n		se.	1.32	33.5	heavy rain	
Duluth, Minnesota	29.20	741.7	29.91	759.7	53	11.7	66	nw.	3	1.3		0	2 s		nw.	0	0	clear	
Eagle Pass, Texas	29.06	738.1	29.89	759.2	76.3	24.6	85	se.	6	2.7		0	0			0	0	clear	
Eagle Rock, Idaho	25.29	642.4	30.14	765.5	26	— 3.3	70	calm	0	0		0	0			0	0	clear	
Eastport, Maine	29.81	757.2	29.88	758.9	63	17.2	90	sw.	7	3.1		2 c	0	sw.		0.06	1.5	clear	
El Paso, Texas	26.14	663.9	29.89	759.2	63.3	17.4	45	nw.	2	0.9		0	0			0	0	clear	
Erie, Pennsylvania	29.30	744.2	30.03	762.7	73	22.8	71	sw.	8	3.6		6 k	0	sw.		0	0	fair	
Escanaba, Michigan	29.29	744.0	29.95	760.7	53	11.7	72	n.	5	2.2			10 s		calm	0	0	cloudy	
Florence, Arizona	28.35	720.1	29.95	760.7	56.8	13.8	53	w.	2	0.9		0	0			0	0	clear	
Fort Apache, Arizona	24.96	634.0	29.87	758.7	40	4.4	86	e.	4	1.8		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.04	686.8	29.85	758.2	39	3.9	65	w.	20	8.9			10 s		w.	0	0	cloudy	
Fort Bennett, Dakota	28.25	717.5	29.79	756.7	48	8.9	93	nw.	3	1.3			10 s		w.	0.13	3.3	cloudy	
Fort Benton, Montana	27.13	689.1	29.99	761.7	37	2.8	72	sw.	16	7.2		9 k	0	sw.		0	0	cloudy	
Fort Buford, Dakota	27.84	707.1	29.85	758.2	31	— 0.6	74	nw.	3	1.3		0	0			0	0	clear	
Fort Custer, Montana	26.74	679.2	29.98	761.5	36	2.2	66	nw.	8	3.6		0	0			0	0	clear	
Fort Davis, Texas	25.01	635.2	29.97	761.2	66	18.9	70	sw.	3	1.3		0	0			0	0	clear	
Fort Elliott, Texas	27.16	689.9	30.35	770.9	66	18.9	68	se.	16	7.2		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.27	743.4	29.82	757.4	76.5	24.7	68	se.	8	3.6		hz;2 k	0			0	0	fair	
Fort Grant, Arizona					54	12.2	64	n.	3	1.3		0	0			0	0	clear	
Fort Griffin, Texas	28.53	724.6	29.73	755.1	75.5	24.2	52	se.	8	3.6		0	0			0	0	clear	
Fort Keogh, Montana	27.37	695.2	29.91	759.7	40	4.4	67	w.	8	3.6		0	0			0	0	clear	
Fort Macon, North Carolina	30.19	766.8	30.20	767.1	79	26.1	82	s.	3	1.3		2 ck	3 k	s.	sw.	0	0	fair	
Fort McKavett, Texas																			
Fort Missoula, Montana	26.73	678.9	30.25	768.3	34	1.1	100	se.	1	0.4		0	0			0.22	5.6	clear	
Fort St. Michaels	29.78	756.4	29.82	757.4	39	3.9	82	e.	18	8.0		0	0			0	0	clear	
Fort Shaw, Montana	26.31	668.3	29.91	759.7	32	0.0	88	w.	4	1.8		0	1 s		w.	inap.	inap.	clear	
Fort Sill, Indian Territory	28.56	725.4	29.81	757.2	73.5	23.1	83	s.	11	4.9		0	0			0	0	clear	
Fort Stevenson, Dakota	27.96	710.2	29.82	757.4	41	5.0	89	calm	0	0			10 s		calm	0	0	cloudy	
Fort Verde, Arizona					50.0	10.0	59	n.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.14	714.7	29.62	752.3	73	22.8	90	sw.	8	3.6			10 ks		sw.	0	0	cloudy	
Galveston, Texas	29.88	758.9	29.92	760.0	80	26.7	87	calm	0	0		hz.	0			0	0	clear	
Grand Haven, Michigan	29.26	743.2	29.93	760.2	65.5	18.6	92	e.	1	0.4			10 s		calm	0	0	cloudy	
Hatteras, North Carolina	30.18	766.6	30.20	767.1	77	25.0	90	calm	0	0		3 k	hz.			0	0	fair	
Helena, Montana	25.76	654.3	30.15	765.8	41	5.0	59	s.	7	3.1		0	3 s		calm	0	0	fair	
Henrietta, Texas	28.78	731.0	29.63	752.6	81	27.2	68	s.	5	2.2		0	0			0	0	clear	
Huron, Dakota	28.35	720.1	29.74	755.4	50	10.0	77	ne.	17	7.6		0	5 k			0	0	fair	
Indianapolis, Indiana	29.21	741.9	30.01	762.2	72	22.2	79	s.	5	2.2		2 ck	0	sw.		0	0	clear	
Indianola, Texas	29.84	757.9	29.87	758.7	78.5	25.8	91	se.	5	2.2		0	1 k		s.	0	0	clear	
Jacksboro, Texas	28.65	727.7	29.71	754.6	74	23.3	68	s.	12	5.4		0	1 s		s.	0	0	clear	
Jacksonville, Florida	30.09	764.3	30.13	765.3	78	25.6	88	e.	4	1.8		1 k	0			0.02	0.5	clear	
Keokuk, Iowa	29.14	740.1	29.80	756.9	74.0	23.3	71	s.	12	5.4		0	0			0	0	clear	
Key West, Florida	29.09	761.7	30.02	762.5	80.8	27.1	88	e.	9	4.0		6 c	4 k;ks		e.	0.73	18.5	cloudy	
Kittyhawk, North Carolina	30.17	766.3	30.19	766.8	75	23.9	97	sw.	9	4.0		0	5 ks		sw.	0	0	fair	
Knoxville, Tennessee	29.16	740.7	30.20	767.1	69.8	21.0	91	calm	0	0		4 c	2 s	sw.	calm	0	0	fair	
La Crosse, Wisconsin	28.68	736.1	29.76	755.9	62	16.7	87	se.	8	3.6			10 s		se.	0	0	cloudy	
La Mesilla, New Mexico	26.02	660.9	30.16	766.1	48.8	9.3	71	calm	0	0		0	1 s			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	28.86	733.0	29.76	755.9	75	23.9	69	s.	10	4.5		2 k	0	s.		inap.	inap.	clear	
Lewiston, Idaho	29.28	743.7	30.13	765.3	43	6.1	100	se.	1	0.4			10 n		calm	0.08	2.0	light rain	
Little Rock, Arkansas	29.62	752.3	29.94	760.5	73	22.8	84	se.	4	1.8		0	5 ks		s.	0	0	fair	
Los Angeles, California	29.54	750.3	29.92	760.0	58.1	14.5	93	se.	4	1.8			fg.		calm	0	0	dense fog	
Louisville, Kentucky	29.48	748.8	30.04	763.0	74.6	23.7	82	s.	5	2.2		0	4 s			0	0	fair	
Lynchburg, Virginia	29.44	747.8	30.14	765.5	71.8	22.1	82	calm	0	0		1 c	fg.	sw.		0	0	clear	
Madison, Wisconsin	28.85	732.8	29.88	758.9	64	17.8	93	e.	3	1.3			10 n		calm	0.60	15.2	light rain	
Marquette, Michigan	29.23	742.4	29.96	761.0	50	10.0	64	w.	8	3.6			10 s		calm	0	0	cloudy	
Mason, Texas	28.24	717.3	29.90	759.4	77	25.0	73	se.	9	4.0			10 s		se.	0	0	cloudy	
Memphis, Tennessee	29.68	753.9	30.02	762.5	74	23.3	84	se.	1	0.4			10 s		s.	0	0	threatening	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.12	739.6	29.88	758.9	63	17.2	93	n.	24	10.7	.....	.....	10 n	.....	.....	0.24	6.1	heavy rain	
Mobile, Alabama	29.96	761.0	30.03	762.7	76.2	24.6	94	e.	4	1.8	.....	.....	10 s	.....	s.	2.69	68.3	cloudy	
Montgomery, Alabama	29.87	758.7	30.10	764.5	74	23.3	94	e.	2	0.9	.....	0	9 s	.....	.....	0.97	24.6	cloudy	
Moorhead, Minnesota	28.84	732.5	29.85	758.2	50	10.0	100	calm	0	0	.....	.....	10 n	.....	.....	0.37	9.4	light rain	
Morgantown, W. Virginia	29.12	739.6	30.09	764.3	65.0	18.3	90	calm	0	0	.....	1 ck	sk	w.	.....	0	0	clear	
Mt. Washington, N. H.	23.86	606.0	30.06	763.5	48.0	8.9	100	nw.	56	25.0	.....	.....	fg	.....	nw.	0.28	7.1	dense fog	
Nashville, Tennessee	29.53	750.0	30.07	763.8	74.5	23.6	78	se.	5	2.2	.....	.....	10 ks	.....	se.	0	0	cloudy	
New Haven, Connecticut	29.93	760.2	30.05	763.3	72	22.2	90	sw.	2	0.9	.....	fg	sk	.....	.....	0	0	dense smoke	
New London, Connecticut	30.01	762.2	30.06	763.5	72	22.2	90	w.	3	1.3	.....	0	fg	.....	.....	0	0	clear	
New Orleans, Louisiana	29.94	760.5	30.00	762.0	76.2	24.6	90	e.	3	1.3	.....	.....	10 n	.....	.....	0.39	9.9	light rain	
Newport, Rhode Island	30.01	762.2	30.06	763.5	68.0	20.0	93	sw.	9	4.0	.....	.....	10 s	.....	calm	0	0	cloudy	
New River, N. Carolina	.....	.....	.....	.....	77	25.0	90	calm	.....	.....	0	2 ck	0	.....	.....	0	0	clear	
New Shoreham, Rhode I'd.	30.03	762.7	30.06	763.5	68.0	20.0	93	sw.	16	7.2	.....	.....	fg	.....	calm	0	0	dense fog	
New York, New York	29.90	759.4	30.08	764.0	70	21.1	93	sw.	8	3.6	.....	0	fg	.....	.....	0	0	clear	
Norfolk, Virginia	30.13	765.3	30.16	766.1	74	23.3	90	sw.	5	2.2	.....	.....	10 s	.....	se.	0	0	cloudy	
North Platte, Nebraska	26.86	682.2	29.80	756.9	44.4	6.9	83	n.	9	4.0	.....	0	0	.....	.....	0	0	clear	
Olympia, Washington T'y	30.11	764.8	30.15	765.8	43.0	6.1	93	s.	2	0.9	.....	0	1 s	.....	calm	0.11	2.8	clear	
Omaha, Nebraska	28.53	724.6	29.72	754.9	67.6	19.8	74	sw.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Oswego, New York	29.67	753.6	30.00	762.0	69.0	20.6	90	s.	2	0.9	.....	5 cs	0	sw.	.....	0	0	fair	
Pensacola, Florida	30.03	762.7	30.06	763.5	79	26.1	91	se.	6	2.7	.....	.....	10 n	.....	calm	0.65	16.5	light rain	
Philadelphia, Pa.	30.04	763.0	30.10	764.5	71	21.7	94	w.	9	4.0	.....	0	fg	.....	.....	0	0	clear	
Phœnix, Arizona	28.68	728.5	30.46	773.7	58	14.4	53	e.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Pike's Peak, Colorado	17.74	450.6	29.95	760.7	26	— 3.3	59	sw.	20	8.9	.....	0	0	.....	.....	0	0	clear	
Pioche, Nevada	23.91	607.3	29.93	760.2	47	8.3	47	nw.	6	2.7	.....	0	0	.....	.....	0	0	clear	
Pittsburg, Pennsylvania	29.29	744.0	30.11	764.8	72	22.2	76	s.	4	1.8	.....	2 ck	0	sw.	.....	0	0	clear	
Port Eads, Louisiana	30.00	762.0	30.01	762.2	77.9	25.5	80	se.	19	8.5	.....	.....	10 n	.....	calm	1.70	43.2	light rain	
Port Huron, Michigan	29.32	744.7	30.01	762.2	66.2	19.0	88	ne.	3	1.3	.....	9 cs	sk	sw.	calm	0	0	cloudy	
Portland, Maine	29.89	759.2	29.94	760.5	69	20.6	84	sw.	12	5.4	.....	2 ck	3 s	w.	calm	0	0	fair	
Portland, Oregon	30.12	765.0	30.19	766.8	48.8	9.3	90	calm	0	0	.....	0	3 s	.....	n.	0.01	0.3	fair	
Portsmouth, N. Carolina	.....	.....	.....	.....	78	25.6	64	s.	2	0.9	.....	1 k	0	calm	.....	0	0	clear	
Prescott, Arizona	24.70	627.4	29.89	759.2	43	6.1	76	s.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Punta Rassa, Florida	30.01	762.2	30.02	762.5	80	26.7	82	e.	8	3.6	.....	5 c	0	n.	.....	0	0	fair	
Red Bluff, California	29.57	751.1	29.91	759.7	61.5	16.4	34	n.	19	8.5	.....	0	0	.....	.....	0	0	clear	
Rio Grande City, Texas	29.62	752.3	29.82	757.4	78	25.6	88	calm	0	0	.....	.....	8 s	.....	se.	0	0	cloudy	
Rochester, New York	29.39	746.5	30.03	762.7	69	20.6	78	sw.	7	3.1	.....	3 ck	6 s	w.	calm	0	0	cloudy	
Roseburg, Oregon	29.66	753.4	30.24	768.1	43.9	6.6	96	calm	0	0	.....	.....	10 s	.....	.....	0	0	cloudy	
Sacramento, California	29.82	757.4	29.90	759.4	57.8	14.3	48	n.	6	2.7	.....	0	0	.....	.....	0	0	clear	
St. Louis, Missouri	29.33	745.0	29.94	760.5	69.2	20.7	90	s.	10	4.5	.....	0	0	.....	.....	0.19	4.8	clear	
St. Paul, Minnesota	28.90	734.0	29.78	756.4	54.2	12.3	74	ne.	12	5.4	.....	8 ck	0	w.	.....	0	0	fair	
Salt Lake City, Utah	25.62	650.7	29.95	760.7	46	7.8	44	calm	0	0	.....	4 k	0	w.	.....	0	0	fair	
San Antonio, Texas	29.16	740.7	29.86	758.4	76.5	24.7	90	se.	4	1.8	.....	.....	10 k	.....	se.	0	0	cloudy	
San Diego, California	29.75	755.6	29.82	757.4	63.5	17.5	84	e.	3	1.3	.....	.....	10 s	.....	.....	0	0	cloudy	
Sandusky, Ohio	29.35	745.5	30.04	763.0	70.2	21.2	79	nw.	12	5.4	.....	5 k	3 s	sw.	calm	0.04	1.0	clearing	
Sandy Hook, New Jersey	30.03	762.7	30.06	763.5	77.3	25.2	76	w.	7	3.1	.....	0	0	.....	.....	0	0	clear	
San Francisco, California	29.84	757.9	29.90	759.4	57	13.9	83	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Santa Fé, New Mexico	23.18	588.8	29.98	761.5	41	5.0	54	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Savannah, Georgia	30.07	763.8	30.16	766.1	78.5	25.8	89	se.	2	0.9	.....	4 ck	2 k	.....	.....	0.04	1.0	fair	
Shreveport, Louisiana	29.69	754.1	29.92	760.0	73.4	23.0	84	s.	5	2.2	.....	.....	9 ks	.....	calm	0	0	cloudy	
Silver City, New Mexico	24.22	615.2	29.79	756.7	49	9.4	61	sw.	8	3.6	.....	0	0	.....	.....	0	0	clear	
Sitka, Alaska	30.02	762.5	30.09	764.3	47.1	8.4	85	ne.	3	1.3	.....	5 k	0	ne.	.....	0	0	fair	
Smithville, North Carolina	30.15	765.8	30.19	766.8	79	26.1	88	calm	0	0	.....	4 k	hz.	sw.	.....	0	0	fair	
Spokane Falls, Wash. Ter.	28.04	712.2	30.06	763.5	32	0.0	88	nw.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Springfield, Illinois	29.22	742.2	29.91	759.7	69.9	21.1	81	s.	10	4.5	.....	0	0	.....	.....	0.66	16.8	clear	
Springfield, Massachusetts	29.90	759.4	30.02	762.5	72.0	22.2	84	s.	1	0.4	.....	2 k	fg	.....	.....	0	0	clear	
Stockton, Texas	26.83	681.5	29.90	759.4	66.0	18.9	78	s.	6	2.7	.....	0	0	.....	.....	0	0	clear	
St. Vincent, Minnesota	28.92	734.6	29.81	757.2	39	3.9	92	s.	4	1.8	.....	0	1 s	.....	calm	0	0	clear	
Thatcher's Island, Mass.	29.95	760.7	30.00	762.0	63.6	17.6	90	sw.	8	3.6	.....	2 ck	sk	sw.	.....	0	0	clear	
Toledo, Ohio	29.31	744.5	30.01	762.2	71	21.7	84	nw.	4	1.8	.....	.....	10 ks	.....	w.	0.03	0.8	cloudy	
Tucson, Arizona	27.37	695.2	29.73	755.1	57	13.9	83	se.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Umatilla, Oregon	29.79	756.7	30.20	767.1	48.5	9.2	85	nw.	6	2.7	.....	.....	10 s	.....	w	0	0	cloudy	
Uvalde, Texas	28.89	733.8	29.67	753.6	78	25.6	82	se.	4	1.8	.....	.....	1c ks	.....	s.	0	0	cloudy	
Vicksburg, Mississippi	29.73	755.1	29.99	761.7	73	22.8	97	se.	5	2.2	.....	4 k	5 s	calm	calm	0	0	cloudy	
Visalia, California	29.45	748.0	29.81	757.2	52	11.1	86	nw.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Washington, D. C.	30.01	762.2	30.12	765.0	74.0	23.3	85	calm	0	0	.....	0	fg	.....	.....	0	0	clear	
Wickenburg, Arizona	.....	.....	.....	.....	51	10.6	80	calm	.....	.....	0	0	0	.....	.....	0	0	clear	
Wilmington, N. Carolina	30.13	765.3	30.19	766.8	78	25.6	82	calm	0	0	.....	2 k	2 ks	sw.	calm	0	0	fair	
Winnemucca, Nevada	25.65	651.5	29.98	761.5	34	1.1	71	ne.	6	2.7	.....	0	0	.....	.....	0	0	clear	
Wood's Holl, Mass.	30.02	762.5	30.05	763.3	68	20.0	93	sw.	14	6.3	.....	3 ck	hz	w.	.....	0	0	fair	
Yankton, Dakota	28.40	721.3	29.71	754.6	58	14.4	54	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Yuma, Arizona	29.60	751.8	29.74	755.4	63.5	17.5	70	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	29.93	760.2	29.95	760.7	81	27.2	96	e.	3	1.3	.....	2 k	5 ks	e.	e.	0	0	cloudy	J. A. Racker.
Bogota, U. S. Columbia	22.02	559.3	.....	.....	51.0	10.6	70	w.	1	0.4	.....	2 k; cs	2 s	w.	.....	0	0	fair	Joaquin Gomez.
Guadeloupe, W. I.‡	29.86	758.4	29.86	758.4	81	27.2	87	e.	.....	.....	.....	0	5 ks	.....	ese.	0.2	5.	.....	B. Bigar.
Havana, Cuba, W. I.	29.95	760.7	30.00	762.0	80	26.7	88	calm	0	0	.....	7 cs	2 ks	calm	calm	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.93	760.2	29.94	760.5	75.9	24.4	89	calm	0	0	.....	.....	10 s	.....	e.	0	0	cloudy	Robert Johnstone.
Navassa, W. I.	29.87	758.7	29.95	760.7	82	27.8	79	ne.	5	2.2	.....	8 cs; k	2 k; hz	ne.	e.	0.12	3.0	hazy	F. M. Everett.
Paramaribo, S. A.	29.94	760.5	29.94	760.5	80	26.7	82	se.	.....	.....	3	5 ck	3 s	e.	.....	0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.43	747.5	29.99	761.7	76	24.4	94	calm	.....	.....	0	.....	10 ks	.....	ne.	0.19	4.8	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	75.6	24.2	.....	sw.	.....	.....	1	2 ck	0	se.	.....	0.49	12.5	.....	Earl Flint.
Santiago de Cuba, W. I.	29.96	761.0	29.98	761.5	79	26.1	82	calm	0	0	.....	9 cs	2 ks	.....	e.	0.61	15.5	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.96	761.0	29.97	761.2	82	27.8	79	e.	4	1.8	.....	2 c	1 ks	nw.	e.	0.13	3.3	clear	G. O. Gyllich.
York Factory, B. A.	29.98	761.5	30.03	762.7	31.0	— 0.6	95	e.	16	7.2	.....	.....	10 s	.....	e.	0.10	2.5	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, West Island, Torres St	30.11	764.8	76.5	24.7	71	ese.			4-6		4							squally	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibraltar, Mediterranean	30.19	766.8	73	22.8	82	ene.			2		8	ene.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 47° 08′, E. 29° 03′	29.88	758.9	70	21.1		nne.			1-2		8	nne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, Aden, Arabia	29.76	755.9	88	31.1	62	e.			1		0							blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 36° 02′, W. 67° 30′	30.24	768.1	77	25.0	90	calm			0		2					1	wsw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 8° 48′, E. 13° 14′	29.92	760.0	76	24.4	81	nnw.			1		4	wnw.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 10′, E. 20° 30′	29.89	759.2	70	21.1		nw.			3		5	nw.				2	nw.	showery	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.09	764.3	69	20.6		se.			1-3		5	ene.						d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.17	766.3	76	24.4	74	nne.			1		1							blue sky	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	29.76	755.9	57	13.9	90	ssw.			3-5		10	sw.						squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 23° 38′, E. 58° 38′	29.66	753.4	84	28.9		ne.			1-2		1	ne.				1	n.	blue sky	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.68	753.9	85	29.4		w.			1		10							overcast	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, N. 4° 30′, E. 78° 06′	29.84	757.9	83	28.3	79	nw.			3		8	nw.				3	w.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19	30.01	762.2	73	22.8		nnw.			4		2					4	n.	d. clouds	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 51′, E. 47° 22′	30.06	763.5	72	22.2	85	nne.			4		10					3	nne.	overcast	Capt. P. Aldrich.
H. M. S. Flamingo, N. 15° 30′, W. 78° 54′	29.82	757.4	84	28.9	96	ese.			4-6		6					7		squally	Comm. R. N. Custance.
H. M. S. Flying Fish, Yessashi, Yezo, Japan	29.95	760.7	69	20.6	79	e.			2-3		10					2	se.	misty	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 19° 00′, W. 156° 00′	30.06	763.5	78	25.6	69	var.			2-3		2					2	nw.	d. clouds.	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	29.95	760.7	56	13.3	87	ssw.			1		0							blue sky	Capt. L. F. Jones
H. M. S. Griffon, N. 18° 25′, W. 77° 08′	29.93	760.2	77	25.0	95	calm			0		8					5	e.	thnd'r storm	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 4° 00′, E. 163° 30′	29.90	759.4	80	26.7	82	e.			2		2	e.				2	ese.	d. clouds	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 35° 26′ E. 139° 38′	30.09	764.3	65	18.3		calm			0		5							raining	Capt. E. H. Seymour.
H. M. S. Kestrel, Canton, China *†	29.92	760.0	82	27.8							4	calm						d. clouds	Capt. W. M. Lang.
H. M. S. Kingfisher, S. 2° 43′, W. 79° 52′	29.96	761.0	72	22.2		nw.			2		7	calm							Comm. R. H. Thornton.
H. M. S. Lapwing, S. 24° 00′, E. 54° 20′	30.13	765.3	75	23.9		ene.			1		1	ene.						blue sky	Comm. F. H. Haygorth.
H. M. S. Lark, S. 28° 21′, W. 25° 58′	30.33	770.4	66	18.9	73	ese.			5		9					5-6	ssw.	squally	Capt. C. F. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.89	759.2	81	27.2	63	ne.			1		0					1-2	nne.	misty	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Minotour, N. 47° 30′. W. 60° 55′	30.16	766.1	61.5	16.4	91	ssw.			1		7	ssw.				3	wsw.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch, Sfax, Tunis	30.16	76 .1	75	23.9	81	nnw.			2		4	nnw.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.05	763.3	50	10.0	86	calm			0		0							blue sky	Capt. F. Edwards.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	29.83	757.7	64.5	18.1	97	wsw.			1		10	sse.						misty	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 25° 12′, W. 70° 36′	30.04	763.0	56	13.3	100	s.			1		10					4	ssw.	misty	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 36° 10′, W. 63° 17′	30.20	767.1	77	25.0	82	n.			0–1		3					1	n.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 12° 05′, E. 49° 32′	29.78	756.4	86.3	30.2	83	var.			0–1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 13° 24′, E. 48° 17′	29.65	753.1	83	28.3	64	wsw.			1–2									blue sky	Comm. W. Byles.
H. M. S. Serapis, S. 0° 38′, W. 5° 35′	30.00	762.0	75	23.9	90	s.			2		0					1	ssw.	blue sky	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 15° 30′, W. 24° 20′	29.97	761.2	82	27.8	80	e.			2–4		2	nne.				1	ene.	d. clouds	Capt. T. H. Boyse.
H. M. S. Tenedos, N. 46° 10′, W. 62° 31′	29.76	755 9	69	20.6	84	wsw.			3–5		0							squally	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S Thunderer, N. 37° 16′, E. 4° 08′	30.23	767.8	78	25.6	57	ene.			2		2					3	ene.	blue sky	Capt. P. H. Colomb.
H. M. S Triumph, Callao Bay, Peru	30.00	762 0	60	15.6	88	calm			0		10	calm						drizzling	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.97	761.2	78	25.6		se.			1		8							raining	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, N. 25° 02′, E. 60° 12′	29.78	756.4	81.5	27.5	91	ssw.			1–2		2	s.				3	s.	d. clouds	Capt. T. P. Nesham.
H M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela India	29.97	761.1	75.9	24.4	74	wnw.			3		10					1		overcast	Carlos Candid dos Reis. A. M. da Sitra.
Quanza, Brava, Cape Verd Ids	29.95	760.6	81.7	27.6	93	nw.			1		6			⅛ h'r	½ h'r	1		showery	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.91	759.8	79.5	26.4	64													blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

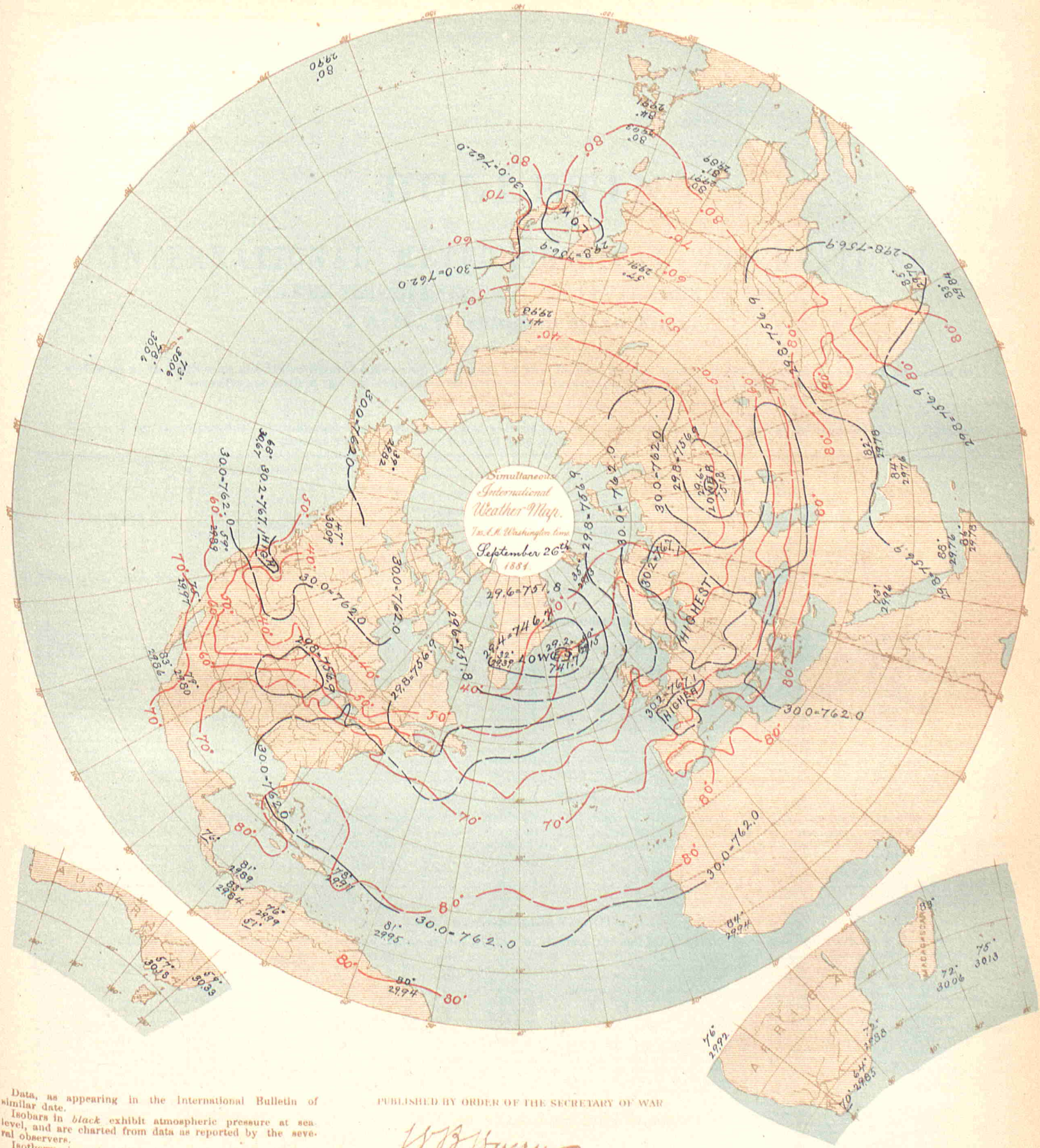
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	30.11	764.8	82	27.8	83	se.	10	4.5			10		se.	0.27	6.9			cloudy	
N. Yard, Portsmouth, N. H.	29.97	761.2	67	19.4	95	sw.	2	0.9		2 c	0			0	0			foggy	
Naval Hospital, Yokohama, Japan	29.92	760.0	66	18.9	97	calm			0		10		n.	0.45	11.4			raining	
Adams, S. 0° 35′, W. 81° 00′	29.72	754.9	74	23.3	90	ssw.			3		10					sm'h		cloudy	
Alaska, Callao, Peru	29.95	760.7	60	15.6	100	calm			0		5		s.			sm'h		fair	
Alert, Yokohama, Japan *	29.94	760.5	68	20.0	95	calm			0		10		calm			sm'h		rainy	
Alliance, N. 77° 48′, E. 5° 57′	29.73	755.1	35	1.7	100	sse.			2		10			light	light	sm'h		foggy	
Ashuelot, Kobe, Japan	29.82	757.4	78	25.6	82	s.			6		1?		s.					overcast ?	
Colorado, New York, N. Y.	30.03	762.7	73	22.8	90	sw.	2	0.9			0			0	0			hazy	
Constitution, Newport, R. I.	30.00	762.0	67	19.4	100	sw.	2	0.9			8		sw.					misty	
Franklin, Norfolk, Va.	30.09	764.3	74	23.3	?	sw.	6	2.7			10		sw.	0	0			cloudy	
Galena, Leghorn, Italy	30.14	765.5	69	20.6	61	nw.			1		2					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal.	29.84	757.9	58	14.4	76	calm	0	0			0							clear	
Kearsarge, New York, N. Y. *†	30.17	766.3	74	23.3	86	sw.			1		0					sm'h		hazy	
Lackawanna, San Francisco, Cal. †	30.10	764.5	60	15.6	100	s.			1		0							clear	
Lancaster, New York, N. Y.	30.03	762.7	79	26.1	78	se.	3	1.3			5		se.					d. clouds	
Marion, Maldonado, Uruguay *	29.74	755.4	54	12.2		sw.			2		2					sm'h		fair	
Michigan, Cleveland, Ohio	30.00	762.0	73	22.8	67	sw.			1		10		sw.					cloudy	
Minnesota, Newport, R. I.	30.04	763.0	69	20.6	80	sw.			3		10					sm'h	sw.	overcast	
Monocacy, Yokohama, Japan	30.12	765.0	68	20.0	79	wnw.			1		10		calm					rainy	
Nipsic, Genoa, Italy	30.13	765.3	70	21.1	54	nnw.			1		2					sm'h		d. clouds	
Onward, Callao, Peru †	29.97	761.2	59	15.0	100	calm			0		10		nw.			long	w.	misty	
Palos, Hong Kong, China	29.93	760.2	80	26.7	60	se.			1		2		s;e					fair	
Passaic, Washington, D. C.	30.06	763.5	77	25.0	95	sw.			1		2							clear	
Pensacola, S. 3° 11′, W. 81° 13′	29.98	761.5	68	20.0	84	sw.			3		2			0	0	mod.	sw.	fair	
Portsmouth, New London, Conn.	30.04	763.0	70	21.1	100	sw.			2		2		sw.			sm'h		hazy	
Powhatan, Aspinwall, Panama	29.89	759.2	81	27.2	87	se.			1		5?		s.			sm'h	n.	cloudy?	
Quinnebaug, Marseilles, France	30.14	765.5	65	18.3	78	wsw.			1		2		calm			sm'h		hazy	
Ranger, Mare Island, Cal. *	29.83	757.7	62	16.7	77	calm			0		0			0	0	sm'h		clear	
Richmond, N. 7° 32′, W. 79° 45′	29.86	758.4	80	26.7	96	sw.			2		10		sw.	1.17	29.7	sm'h		threatening.	
Saratoga, Newport, R. I.	30.03	762.7	66	18.9	100	sw.					10			0	0	sm'h		cloudy	
Shenandoah, Maldonado, Uruguay *	30.02	762.5	58	14.4	70	sse.			2		0					sm'h		clear	
St. Louis, League Island, Pa.	29.85	758.2	73	22.8	90	sw.	6	2.7			2		calm	0	0			clear	
Swatara, Chefoo, China †	29.84	757.9	68	20.0	70	w.			1		0							clear	
Tennessee, New York, N. Y.	30.08	764.0	74	23.3	?	ssw.	3	1.3			0			0	0			hazy	
Trenton, N. 22° 15′, W. 39° 40′ *	30.04	763.0	83	28.3	75	e.			2		2			0	0	sm'h		fair	
Vandalia, New York, N. Y.	30.04	763.0	72	22.2	95	sw.			2		2		calm					fair	
Wabash, Boston, Mass.	29.93	760.2	72	22.2	80	wsw.	5	2.2			10		sw.	0.18	4.6			fair	
Wyoming, Port Royal, S. C.	30.13	765.3	79	26.1	91	se.	5	2.2			5		se.	0	0			fair	
Yantic, New York, N. Y. *	29.98	761.5	72	22.2	95	sw.			1		0							hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland †*	30.06	763.5				wsw.	2		5		w.					fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson,																	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 50° 46′, W. 17° 29′	30.12	765.0	58	14.4	94	w.	4		10		wnw.			mod.	w.	overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent,																	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 50° 18′, W. 34° 20′ *†	30.01	762.2	55	12.8	87	sw.	1		2		nw.			long sm'h	nne.	fine	
S. S. Pennsylvania, Capt. G. H. Dodge, N. 38° 51′, W. 72° 51′ †	30.12	765.0	75	23.9	95	wsw.	3		8		w.			sm'h	w.	cloudy	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, S. 14° 30′, W. 29° 50′	29.95	760.7	80	26.7	78	ese.	5		2							blue sky	
S. British Merchant, Capt. E. J. Moloney, ‡																	
S. S. Cipero, Capt. W. N. Lailey, N. 16° 48′ W. 73° 52′	29.93	760.2	84	28.9	83	e.	4		4					4	e.	d. clouds	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 50° 03′, W. 11° 13′	30.16	766.1	60.0	15.6	76	wsw.	3		8							d. clouds	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, S. 4° 57′, W. 25° 44′	30.01	762.2	76.9	24.9	73	se.	5		8							d. clouds	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 43° 49′, E. 49° 47′	30.45	773.4	40	4.4	82	w.	4		2							d. clouds	
Bk. Mertola, Capt. E. W. Turner N. 39° 36′, W. 14° 28′	30.19	766.8	66.5	19.2	92	ne.	5		5							d. clouds	
Naind, Capt. J. Smith,																	
S. Pielone, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry N. 25° 06′, W. 21° 52′	30.15	765.8	79.0	26.1	74	ene.	4		6							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow, N. 24° 04′, E. 36° 13′	29.96	761.0	73	22.8	46	calm	0		6							d. clouds	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, N. 23° 47′, W. 37° 31′ †	30.06	763.5	79.0	26.1	78	ene.	3		1							blue sky	
S. S. Strathleven, Capt. C. W. Pearson Yokohama, Japan	30.02	762.5	67.5	19.7	95	nnw.	3		10							raining	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA, AND MEXICAN S.S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers N. 34° 21′, W. 120° 01′ †	29.84	757.9	63	17.2	89	calm	0		0			0	0	light	wsw.	clear	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains, N. 45° 30′, W. 38° 26′	30.07	763.8	58	14.4		ne.	2		2		e.	0	0	5	n.	fine	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
Braunschweig, Capt. C. Pohle																	
S. S. Hermann, Capt. H. Baur																	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jungst, N. 45° 15′, W. 51° 36′	30.01	762.2	57.0	13.9	87	ssw.	4-5		10		ssw.	0	0	sm'h	ssw.	cloudy	T. Jüngst.
S. S. Leipsic, Cept. F. Pfeiffer. N. 49° 12′, W. 19° 09′	30.15	765.8	59 0	15.0	70	sse.	3		10		se; w	2 h'r	2 h'r	mod.	wnw.	cloudy	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 50° 52′, W. 19° 12′	30.09	764.3	59.0	15.0	82	wsw.	5		10		sw.	1 h'r	1 h'r	long	wnw.	cloudy	Englehart and von [Goessel
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Hong Kong, China †	30.05	763.3	89	31.7	69	calm	0		0			0	0	sm'h			J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 42° 29′, W. 149° 07′ *†	30.67	779.0	68	20.0	90	w.	4		10		w.			mod.	sw.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 37° 44′, W. 123° 30′	29.97	761.2	53	11.7	86	nw.	3		0					sm'h		fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann Columbia River *†.	30.18	766.6	60	15.6	65	sse.	4		5		sw.					fair	G. Reichmann.
S. S. Columbia, Capt. F. Bolles.																	
S. S. Oregon, Capt. Pollmann, N. 43° 39′, W. 124° 29′ †.	30.25	768.3	59	15.0	94	ssw.	6		8		sw.			sm'h	nw.	cloudy	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 35° 30′, W. 121° 08′ †..	29.82	757.4	55	12.8	93	nw.	3	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	J. N. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound †...	30.17	766.3	57	13.9	87	s.	4	.....	7	.....	s.	rain	rain	sm'h	.....	raining	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal †...	29.90	759.4	54	12.2	93	w.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 36° 20′. W. 121° 53′ †.	29.84	757.9	58	14.4	70	nw.	8	.....	0	.....	.....	0	0	h'vy	nw.	clear.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal †...	29.92	760.0	52	11.1	100	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †..	30.17	766.3	49	9.4	93	calm	0	.....	5?	.....	w.	.....	.....	.....	.....	cloudy ?.....	G. Debney.
S. S. Victoria, H. M. Hayward, San Francisco, Cal †..	29.96	761.0	57	13.9	87	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulkley, Supt. New York.*																	
S. S. Australia, Capt. ——, Honolulu, Sandwich Is'ds.....	30.06	763.5	73	22.8	90	ne.	2	.....	8	.....	ne.	.....	.....	.....	.....	showery.....	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W. †..	30.33	770.4	59	15.0	95	calm.	0	.....	0	.....	.....	0	0	.....	.....	clear.....	W. H. Hawes, 2d Offl. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. City of Peking, Capt. G. G. Barry, Yokohama, Japan *†...	30.16	766.1	67	19.4	95	nnw.	1	.....	10	.....	nw.	light	light	sm'h	.....	rainy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, N. 30° 51′, W. 117° 22′ †...	29.97	761.2	75	23.9	90	nnw.	3	.....	10	.....	nnw.	0	0	long	nw.	fine.....	.....
S. S. City of Sydney, Capt. H. C. Dearborn, N. 36° 32′, W. 125° 19′ †..	29.89	759.2	59	15.0	76	nw.	6	.....	8	.....	nw.	.....	.....	hv'y	nw.	cloudy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury Yokohama, Japan †..	30.11	764.8	67	19.4	74	e.	2	.....	10	.....	.....	1.	25.	.....	.....	rainy.....	A. L. Ritchie, 2d Offl.
S. S. Colima, R. R. Searle San Blas. Mexico †..	29.86	758.4	83	28.3	?	calm	0	.....	4	.....	calm	0	0	small	wsw.	clear.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, Panama, Panama †.	29.84	757.9	83	28.3	83	calm	0	.....	5?	.....	calm	6 h'r	6 h'r	.....	.....	clear?.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.38	771.6	66	18.9	89	ese.	1	.....	0?	.....	.....	.....	.....	.....	.....	overcast?.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 48° 54′, W. 22° 55′ †..	30.34	770.6	60	15.6	.....	ssw.	4	.....	10	.....	sw.	16 h'r	16 h'r	mod.	nw.	rainy....	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, N. 42° 36′, W. 52° 38′ †..	30.18	766.6	58	14.4	76	sw.	4	.....	2	.....	sw.	0	0	light	sw.	clear.....	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, Eng †..	30.08	764.0	60	15.6	94	nw.	3	.....	8	.....	nw.	sh'rs	sh'rs	.....	.....	fair.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 50° 20′, W. 31° 00′ †..	30.11	764.8	55	12.8	.....	w.	1	.....	5	.....	w.	0	0	long	nw.	fine.....	.....
S. S. Celtic, Capt. B. Gleadell,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, Liverpool, Eng †..	30.20	767.1	59	15.0	88	wnw.	3	.....	2	.....	w.	0	0	sm'h	.....	d. clouds,....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 43° 47′, W. 47° 54′ †..	30.06	763.5	60	15.6	88	e.	1	.....	1	.....	ne.	0	0	sl't	ne.	d. clouds.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass †..	30.07	763.8	68	20.0	100	sw.	4	2 c	5 k	.....	.....	0	0	.....	.....	fair.....	.....
Golden Fleece	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall, N. 11° 15′, W. 25° 46′ *..	29.96	761.0	83	28.3	98	wsw.	0-1	.....	5	.....	w.	mod.	mod.	mod.	n;sse.	misty.....	W. Randall.
S. Pawashick, Capt. E. Fry, N. 42° 05′, W. 25° 20′ *†..	29.97	761.2	65	18.3	94	sse.	5	.....	10	.....	.....	.....	.....	mod.	wnw; ssw.	gloomy	E. Fry.
S. S. Proteus, Capt. Pike	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †..	30.14	765.5	84	28.9	68	sw.	4	.....	2	.....	w.	0	0	.....	.....	fair.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer. U. S. A.

Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 27, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.12	765.0	76.6	24.8	69	w.			1		3			0	0	pretty fair	Raynard.
Algiers ‡			30.14	765.5	74.5	23.6	75	ne.			4		0			0	0	clear	Nicolas.
La Calle ‡			30.14	765.5	77.0	25.0	80	nw.			3		3			inap.	inap.	pretty fair	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			30.13	765.4	81.0	27.2	34	n.			1		1			0.283	7.2	very fair	Dumas.
Tebessa ‡			30.14	765.6	69.1	20.6	10	n.			2		4			0	0	cloudy	Derché.
Geriville ‡					80.2	26.8	22	ssw.			2		2			inap.	inap.	fair	Lonchamp.
Laghouat ‡			30.15	765.7	81.7	27.6	26	s.			1		1			0	0	very fair	Herbin.
Biskra ‡			30.15	765.7	87.1	30.6	27	nw.			1		2			0	0	fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.08	764.0	30.17	766.3	54.2	12.3	91	wsw.	7	3.1			10			0.01	0.3	light rain	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.62	752.4	30.17	766.4	57.9	14.4	64	calm			0		7			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.44	747.8	30.22	767.6	50.0	10.0	72	ene.	6.3	2.8			9			0	0		Dr. Wiersbicki.
Eperies	29.25	743.0	30.13	765.3	56.1	13.4	63	calm			0	cs	8 s			0	0		Julius Mikolik.
Gratz ‡	28.92	734.6	30.18	766.5	55.8	13.2	71	se.			2		2			0	0		Andreas Rospini.
Hermannstadt	28.72	729.5	30.18	766.5	49.5	9.7	82	ssw.			2		10			0.114	2.9	rainy	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.82	732.0	30.16	766.0	57.2	14.0	70	sw.			1	0	5 k			0	0	fair	The Staff.
Lemberg	29.23	742.4	30.23	767.9	48.9	9.4	66	se.			2		10			0	0		Dr. T. Stanecki.
Pola	30.03	762.7	30.14	765.5	66.6	19.2	46	ene.			3		0			0	0		I. R. Hydrographic Office.
Szathmar	29.09	754.0	30.15	765.7	58.6	14.8	54	s.			2		9			0.067	1.7		Beicht Peter, S. J.
Szegedin	29.89	759.1	30.17	766.3	53.6	12.0	71	e.			1		10			0	0		Karl Stancel.
Trieste	30.06	763.5	30.16	766.1	65.8	18.8	34	calm			0		0			0	0	clear	Secco.
Vienna	29.47	748.6	30.19	766.8	56.8	13.8	63	ne.			2		7			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed September 30, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r.	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Aberdeen	30.00	762.0	30.10	764.5	57.0	13.9	53	wnw.	5	2.2			3			0.005	0.1	blue sky	W. Boswell.
Armagh, Observatory	29.96	761.0	30.20	767.1	55.4	13.0	83	ssw.	4	1.8			8					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.18	766.6	57.0	13.9	80	wnw.	14	6.3			4					d. clouds	John Hartnup.
Bolton, Sharples	29.61	752.1	30.15	765.8	58.0	14.4	76	w.	12	5.4			6					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29.72	754.9	30.12	765.0	56.1	13.4	67	sw.			1		7			0.01	0.3	raining	J. McLandsborough, F. R. A.S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.14	765.5	60.0	15.6	73	w.			0.2		8					overcast	John McLaren.
Chatham, School M. E.	30.05	763.5	30.20	767.1	58.2	14.6	78	sw.			1		10					misty	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	30.01	762.2	30.24	768.1	61.3	16.3	68	nw.			1		5					d. clouds	The Staff.
Fort Napier, Natal	27.70	703.6	29.92	760.0	72.0	22.2	87	s.			2		2					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.72	754.9	29.95	760.7	85.0	29.4	87	n.			1		3					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.13	765.3	59	15.0	81	w.			2		6					d. clouds	J. O'Donaghue.
Gibraltar, Mediterranean	30.11	764.8	30.16	766.1	73.6	23.1	90	ne.			3		8					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	29.92	760.0	30.12	765.0	56.7	13.7	68	wnw.			3		6					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.00	762.0	30.18	766.6	57.3	14.1	78	w.			1		8					d. clouds	The Staff.
Guernsey	29.97	761.2	30.19	766.8	62	16.7	74	wnw.			2		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.15	765.8	30.19	766.8	58.8	14.9	75	w.	4	1.8			8					d. clouds	The Staff.
Leicester, Muséum	29.90	759.4	30.16	766.1	59.8	15.4	58	n.			1		5					d. clouds	J. C. Smith.
Malta, Mediterranean	30.02	762.5	30.10	764.5	75.0	24.4	52	nw.			2		3			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.98	761.5	30.02	762.5	83.2	28.4	83	e.			2		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.66	753.4	30.18	766.6	58.2	14.5	76	wnw.			1		4					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.96	761.0	30.18	766.6	57.7	14.3	76	nw.			1		4					d. clouds	The Staff.
Plymouth	30.14	765.5	30.22	767.6	59.3	15.2	83	nw.			1		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.05	763.5	54	12.2	79	wsw.	14	6.3			1					blue sky	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.78	756.4	29.85	758.2	59.0	15.0	84	n.			3		10			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	29.87	758.7	30.14	765.5	61.2	16.2	77	sw.			2		4			0.04	1.0	d. clouds	W. F. Cooper.
Silloth Rectory	30.21	767.3	30.24	768.1	61.8	16.6	67	nw.			1		2			0	0	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.17	766.3	57.2	14.0	69	w.	7	3.1			10					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.97	761.2	30.19	766.8	60.5	15.8	76	nw.			1		5					showery	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.22	767.6	30.24	768.1	66	18.9	73	nw.			4		3					d. clouds	W. Newcombe.
Valencia, Observatory	30.15	765.8	30.17	766.3	58.0	14.4	90	sse.	21	9.4			10					gloomy	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r.	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.02	762.5	30.07	763.8	56	13.3	76	nw.	10	4.5		2 k	0			0	0	fair	H. J. Cundall, C. E.
Chatham, N. B.*	30.06	763.5	30.12	765.0	49	9.4	83	w.	1	0.4		0	0			0	0	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.10	764.5	30.13	765.3	49	9.4	86	s.	1	0.4		2 c	2 s			0	0	clear	J. McWilliams.
Fort Garry, Manitoba*	28.92	734.6	29.75	755.6	39	3.9	96	calm	0	0		5 k	5 ks	sw.	sw.	0.040	1.0	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.96	761.0	30.09	764.3	58	14.4	78	nw.	4	1.8		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.58	751.3	29.90	759.4	66	18.9	93	s.	5	2.2			10 ks		s.	0	0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.80	756.9	30.00	762.0	57	13.9	77	ne.	8	3.6		5 ck	5 ks		w.	0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.11	739.4	29.78	756.4	63	17.2	100	s.	8	3.6			10 n		s.	0.66	16.8	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.22	742.2	29.88	758.9	69	20.6	100	s.	17	7.6			10 n		sw.	0.09	2.3	threatening	H. Morgan.
Port Stanley, Ontario	29.25	742.9	29.87	758.7	70	21.1	93	sw.	7	3.1			10 n		sw.	0	0	cloudy	M. Payne.
Quebec, Quebec*	29.75	755.6	30.07	763.8	53	11.7	86	ne.			3	2 k	2 s	n.	n.	0	0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.40	746.7	29.84	757.9	59	15.0	44	e.	9	4.0		8 ck	0			inap.	inap.	cloudy	W. H. McIntyre.
Saugeen, Ontario*	29.07	738.4	29.75	755.6	68	20.0	93	s.	17	7.6			10 ks			0.10	2.5	cloudy	K. Stewart.
St. Andrews, N. B.	30.07	763.8	30.12	765.0	57	13.9	66	n.	3	1.3		2 k	0	nw.		0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.97	761.2	30.02	762.5	58	14.4	75	nw.	6	2.7		0	0			0	0	clear	T. C. Hill, C. E.
Toronto, Ontario*	29.51	749.5	29.88	758.9	69	20.6	90	s.	19	8.5			10 s		s.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.07	763.8	30.14	765.5	56	13.3	86	ne.	2	0.9		2 cs	0	w.		0	0	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.81	757.2	30.06	763.5	41	5.0	91	e.				5 k	5 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r.	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Cape St. Francis Lt. House‡	30.19	766.8	30.22	767.6	64.0	17.8	91	sw.	21.8	9.7		0	7 s			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*‡	29.26	743.2			75	23.9	43	se.			1	0	0			0	0	fine	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r.	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.01	762.2	30.03	762.8	69.1	20.6	89	ssw.	1.3	0.6		9 ck	0			0	0	covered	M. Marc Dechevrens, S.J.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.13	765.2	30.17	766.4	51.4	12.3	72	sse.	18	8			8						Oversergent Fischer
Fanöe	30.09	764.3	30.11	764.8	57.7	14.3	92	wsw.			2		9						Overloerer Lauridsen
Godthaab, Greenland	29.44	747.8	29.48	748.9	29.8	—1.2	71	w.			3		7						S. Kleinschmidt.
Stykkisholm, Iceland	29.41	747.1	29.46	748.2	49.6	9.8	81	sw.			2		5						A. O. Thorlacius.
Thorshavn	29.83	757.6	29.86	758.5	53.4	11.9	81	sw.	16	7			6						Overloerer Bergh.
Vestervig	30.02	762.4	30.11	764.7	56.8	13.8	85	calm			0		5						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.56	750.9	30.20	767.1	72.0	22.2	50	nw.			1	2 c	0			0	0	slightly cl'dy	M. Labroue, Director.
Alençon Normal School	29.70	754.4	30.25	768.4	61.2	16.2	87	w.			2		8 kn	n.	w.	0	0		M. Nicot, Director.
Arras, Engineer School																			M. Klein, Commandant.
Avignon, Normal School	30.10	764.4	30.17	766.4	71.6	22	54	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.67	753.5	30.22	767.6	63.5	17.5	68	wsw.			1	0	8 kn		nw.	0	0	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.94	760.5	30.21	767.2	63.0	17.2	61	wsw.			1		5		wnw.	0	0	cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.33	744.9	30.22	767.6	58.3	14.6	82	ssw.			1		2			0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.94	760.4	30.19	766.9	70.2	21.2	56	sw.			1		8			0.004	0.1	very cloudy.	M. Rayet, Director.
Bourges, Normal School	29.65	753.2	30.21	767.2	65.5	18.6	66	n.			1		1		n.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	30.00	762.0	30.24	768.2	63.7	17.6	76	calm			0		8			0.020	0.5		M. de Kermaree, Dir.
Caen, Normal School	30.12	765.0	30.19	766.9	67.3	19.6	57	w.			1		5		w.	0	0	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					57.2	14.0	71	se.			3		5		se.	0	0	cloudy	M. Jadot, Director.
Charleville, Normal School	29.69	754.2	30.21	767.2	58.3	14.6	80	wsw.			1		fg			0	0	foggy	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.82	732.1	30.15	765.8	66.2	19.2	53	ne.			1		2			0	0	¼ covered	M. Allnard, Director.
Cluny, Normal School	29.39	746.5	30.22	767.7	65.1	18.4	60	n.			1		3	sw.		0.04	1.		M. de Villemontée, Dir.
Commercy, Normal School	29.35	745.4	30.21	767.4	55.0	12.8	70	nw.			1		5	nw.	nw.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.58	700.6	30.05	763.3	67.3	19.6	63	s.			1	ck	0			0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	29.10	739.1	30.24	768.1	69.1	20.6	57	ne.			1		8		nw.	0	0	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.42	747.2	30.18	766.5	63.1	17.3	64	nw.			1		k		w.	0	0		M. Ablard, Director.
Guéret, Normal School	28.63	727.1	30.20	767.0	63.5	17.5	68	e.			1	c	0			0	0		M. Rivoire, Director.
Lamballe, Normal School	29.95	760.8	30.22	767.6	64.8	18.2	69	wnw.			1				wnw.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.15	765.8	30.25	768.4	68.0	20.0	81	ne.			1		10		ne.	0	0	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.17	740.9	30.23	767.8	58.5	14.7	87	ene.			1		8		ne.	0	0	very cloudy	M. André, Director.
Mans, Normal School	29.95	760.6	30.25	768.4	62.1	16.7	77	n.			1		5		w.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.86	758.4	30.13	765.2	68.7	20.4	63	sw.			1.2		5		wnw.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	25.03	635.8	30.27	768.8	59.9	15.5	64	e.	3.8	1.7			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.04	763.0	30.15	765.7	75.2	24	55	sw.			3		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.44	747.8	30.20	767.0	60.1	15.6	73	wnw.			2		10 n			0.051	1.3	covered	M. Hasse.
Nantes, Observatory	30.11	764.7	30.31	769.8	64.2	17.9	77	n.			0-1.		10 n	wnw.	wnw.	0	0	covered	M. Larocque, Director.
Nice	30.10	764.6	30.13	765.4	69.1	20.6	68	s.			2	1	1	s.	s.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	30.03	762.7	30.13	765.3	73.9	23.3	44	s.	7.4	3.3			8	w.		0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.78	578.5			53.2	11.8							1		w.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					64.0	17.8	65	calm			0		2			0	0	slightly cl'dy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.39	644.9			49.8	9.9	75	nw.			1	0	5 k			0.020	0.5	½ covered	M. Allnard, Director.
Rochefort, Naval Obs'y	30.19	766.9	30.22	767.7	69.3	20.7	82	calm			0		10			0	0	covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	30.08	764.1	30.30	769.5	68.0	20	71	wnw.			1		8		nw.	0	0	very cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.19	766.7	30.27	768.9	62.6	17	80	w.			1		5			0	0	cloudy	M. Platrier, Director.
Saint Lô, Normal School	30.06	763.4	30.21	767.4	62.1	16.7	78	nw.			1		5		nw.	0	0	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	30.06	763.6	30.23	767.8	59.5	15.3	76	nw.			1		10		w.	0	0		M. Renou, Director.
Toulouse, Observatory	29.52	749.8	30.25	768.3	70.3	21.3	57	n.			1		2		w.	0	0	slightly cl'dy	M Baillaud, Director.
Tours	30.00	762.1	30.20	767.1	66.6	19.2	64	wnw.			1		8		w.	0	0	¾ covered	M. de Tastes.
Versailles, Observatory	29.73	755.2	30.22	767.7	59.7	15.4	73	nw.			1					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.95	760.8	30.24	768.2	58.5	14.7	84	nw.			1		10		w.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.34	745.1	30.21	767.2	60.1	15.6	66	nnw.			1	0	6 k		nw.	0	0		Prof. Dr. Hoh.
Berlin	29.98	761.6	30.16	766.0	61.3	16.3	46	se.			1		5			0	0		Prof. Dr. Arndt.
Breslau	29.69	754.0	30.22	767.6	54.0	12.2	54	ese.			2		1			0	0		Royal University Obs'y.
Carlsruhe	29.77	756.2	30.20	767.0	60.1	15.6	82	sw.			1		10	nw.		0	0		Albert Senz.
Cassel	29.43	747.4	30.15	765.7	56.8	13.8	86	ssw.			1		10	s.		0	0		Dr. H. Möll.
Frankfort on the Main	29.83	757.6	30.19	766.8	58.1	14.5	79	ssw.			1		10			0.028	0.7		Physical Society.
Friedrichshafen	28.77	730.7	30.20	767.1	57.2	14.0	81	wsw.			1		3	w.		0	0		Wilhelm, Chief Tel.
Hamburg	30.09	764.2	30.18	766.6	54.3	12.4	99	calm			0		0	sw.		0.051	1.3		E. Preller.
Kiel	30.12	765.1	30.14	765.5	54.3	12.4	92	ssw.			2		10			0.004	0.1		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.75	755.7	30.17	766.4	59.4	15.2	64	sw.			2		3	sw.		0	0		H. Leppig, Asst.
Magdeburg	29.97	761.3	30.16	766.1	63.5	17.5	64	s.			1	0	6 k		sw.	0	0	hazy	Dr. Assmann.
Memel	30.35	770.9	30.40	772.1	50.0	10.0	70	s.			3		10 n						Issermann.
Munich	28.38	730.9	30.26	768.6	57.7	14.3	55	nw.			2		6	w.		0	0		Central Station.
Neufahrwasser	30.27	768.9	30.29	769.3	50.8	13.8	49	sse.			3		0			0.004	0.1		A. Lothes
Neustadt, Palatinate	29.64	752.9	30.17	766.4	60.6	15.9	73	w.			2		10	w.		0	0		Dicknether.
Stuttgart	29.26	743.2	30.15	765.9	57.2	14.0	84	n.			1		10			0.200	6.6	gloomy	P. of. Dr. Schoder.
Weissenburg, Bavaria	28.70	729.0	30.21	767.4	55.4	13.0	68	w.			2		10	w.		0	0		Fischer.
Wustrow	30.15	765.8	30.17	766.4	59.7	15.4	65	se.			3	0	5 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.57	751.0	29.97	761.3	75.2	24.0		nw.			1.0		5					½ clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.73	755.1	29.78	756.4	83.2	28.4	72	wsw.	26.0	11.6			0			0	0	blue sky	
Deesa	29.31	744.5	29.78	756.4	87.9	31.1	58	wnw.	7.4	3.3			4		sw.	0	0	d. clouds	
Bombay	29.81	757.1	29.85	758.1	77.1	25.1	97	nne.	5.0	2.2			10		nnw.	0.86	21.8	raining	
Poona, Yarrowda.	27.99	710.9	29.86	758.6	72.6	22.6	91	wnw.	12.0	5.4			9		w.	0.22	5.6	d. clouds	
Belgaum	27.29	693.0	29.84	757.8	72.8	22.7	79	w.	10.0	4.5			9	se.	nw.	0.58	14.7	showery	
Lahore	28.94	735.1	29.66	753.4	93.1	33.9	42	sw.	1.3	0.6			0			0	0	blue sky	
Roorkee	28.78	731.0	29.66	753.4	87.8	31.0	62	w.	1.5	0.7			0			0	0		
Agra	29.13	739.9	29.68	753.9	92.2	33.4	55	w.	4.1	1.8			0			0	0		
Nagpur	28.73	729.7	29.78	756.3	76.7	24.8	90	ssw.	2.8	1.2			10		sw.	1.83	46.5	overcast	
Jubbulpore	28.35	720.2	29.68	754.0	87.3	30.7	48	e.	2.0	0.9			4	w.		0	0	d. clouds	
Lucknow	29.21	742.0	29.58	751.3	91.1	32.8	41	wnw.	2.8	1.2			0			0	0	blue sky	
Allahabad	29.36	745.8	29.67	753.6	84.7	29.3	68	calm	0.7	0.3			2	e.		0	0	d. clouds	
Patna	29.54	750.2	29.71	754.7	87.2	30.7	74	ene.	2.9	1.3			2	ene.	ene.	0	0	d. clouds	
Hazaribagh	27.68	703.1	29.69	754.0	77.3	25.2	78	e.	5.6	2.5			10	w.	e.	0.16	4.1	thnd'r storm	
Cuttack	29.68	753.9	29.76	755.9	85.0	29.4	73	wnw.	0.9	0.4			3			0	0	d. clouds	
Calcutta, Alipore	29.73	755.1	29.75	755.7	83.6	28.7	79	ssw.	7.0	3.1			7	sw.		0.01	0.3	d. clouds	
Dhubri	29.65	753.1	29.77	756.2	77.5	25.3	93	calm	2.4	1.1			8	w.	w.	1.36	34.5	d. clouds	
Chittagong	29.72	754.8	29.81	757.1	82.7	28.2	82	sw.	3.5	1.6			7			0	0	d. clouds	
Sibsagar	29.46	748.4	29.80	756.9	79.1	26.2	91	ne.	4.0	1.8			10	w.	w.	1.01	25.6	d. clouds	
Jeypore	28.31	719.1	29.72	755.0	90.4	32.4	47	nw.	4.5	2.0			6		nw.	0	0	d. clouds	
Zanzibar, Africa			29.99	761.7	85.6	29.8	50	ese.	5	2.2			4			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.76	755.9	30.17	766.2	62.2	16.8	47	calm	0	0			0			0	0		Prof. Giovanni Clodig.
Milan	29.64	752.9	30.15	765.9	66.0	18.9	53	sse.	3.1	1.4			10	w.		0	0		Prof. Schiaparelli.
Padua	30.07	763.8	30.18	766.6	64.2	17.9	51	nne.	1.8	0.8			6	wsw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.27	743.4	30.17	766.2	65.3	18.5	54	se.	1.8	0.8			3	ene.		0	0		Prof. P. F. Denza.
Genoa	29.95	760.7	30.15	765.7	68.5	20.3	49	s.	3.1	1.4			2	w.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.23	717.0	30.13	765.3	61.2	16.2	60	e.			2		2	nw.		0	0		Prof. D. C. Bruno.
Pesaro	30.11	764.7	30.15	765.9	64.0	17.8	58	ne.	13.6	6.1			1	ne.		0	0		Prof. Luigi Guidi.
Florence	29.88	759.0	30.13	765.4	68.4	20.2	34	s.			2		2	nw.		0	0		Prof. Costantino Pitter.
Leghorn	30.09	764.2	30.17	766.4	65.7	18.7	63	n.	0	0			3			0	0		Prof. P. Monte.
Rome	29.92	760.0	30.10	764.4	68.9	20.5	34	n.	0.7	0.3			3			0	0		Prof. P. S. Ferrari.
Lecce	29.76	756.0	30.04	762.9	66.2	19.0	61	nnw.	9.4	4.2			4			0.134	3.4		Prof. C. de Giorgi.
Cosenza	29.18	741.1	30.05	763.3	65.5	18.6	50	wnw.	2.5	1.1			2	nw.		0	0		Prof. D. Conti.
Cagliari	29.94	760.4	30.13	765.2	73.0	22.8	46	s.			4		0			0	0		Prof. A. Pacinotti.
Palermo	29.89	759.2	30.13	765.4	71.2	21.8	49	nw.	15.0	6.7			3	nw.		0.024	0.6		Prof. G. Ciacciatore.
Syracuse	30.01	762.3	30.06	763.4	72.5	22.5	60	e.	2.5	1.1			4	wnw.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.56	750.7	29.91	759.7	67.3	19.6	48	ne.	0	0			10	ne.		0	0		Prof. F. Brioschi.
Stelvio	22.29	566.1			41.5	5.3	36	ne.			1		3 ks	nw.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.35	567.6			44.1	6.7	67	n.			2		1 cs	0	sw.	0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.92	759.9	29.93	760.2	67.6	19.8	87	nne.	5.5	2.5		0	0			0	0	clear	K. Sasaki.
Kioto	29.80	756.9	29.97	761.2	67.6	19.8	86	se.	3.1	1.4		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.83	757.7	30.03	762.7	66.6	19.2	83	calm	0	0		0	0			0	0	clear	S. Takehayashi.
Niigata	29.92	759.9	29.95	760.7	71.9	22.2	74	w.	7.6	3.4		8ck;cs	0	sw.		0	0	cloudy	
Nobiru	29.85	758.2	29.87	758.7	71.1	21.7	63	nw.	9.4	4.2		0	0			0	0	clear	
Supporo	29.83	757.7	29.89	759.2	64.7	18.2	64	s.	23.4	10.5			8			0.115	2.9		
Tokei Obs'y, Yeddo	29.82	757.4	29.89	759.2	73.8	23.2	88	sw.	6.8	3.0		0	1 s			0	0	clear	The Staff.
Wakayama	29.92	759.9	29.97	761.2	70.1	21.2	81	ne.	2.4	1.1		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation o. C. Meldrum, Secretary of the Meteoro.ogical Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.03	762.7	30.22	767.6	74.5	23.6	56	e.	20.0	8.9		0	4		ese.	0	0	squally	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.58	598.6	29.80	756.9	59.7	15.4	80	calm	0	0		3	1 k		ne.	0	0	clear	Vicente Fernandez.
Leon	24.31	617.5	29.93	760.1	62.2	16.8	81	n.			2	4 c	1 k	w.		0	0	½ cloudy	Prof. M. Leal.
Mazatlan	29.51	749.6	29.77	756.0	78.5	25.8	89	nne.	0.9	0.4		4 cs	1 k	se.	ese.	0	0	½ cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.01	584.4	29.97	761.2	57.7	14.3	87	nw.	3.1	1.4		4 ck	5 ks	s.		0.134	3.4	very cloudy	The Staff.
Morelia	23.92	607.6	29.94	760.5	59.0	15.0	56	sw.			2	8	2	s.	sw.	0.669	17.0	raining	M. Tena, M. D.
Pabellon, Aguascallentes	23.86	605.9	29.80	757.0	60.1	15.6	79	nw.			1	1 cs	0			0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.49	596.6	30.20	767.1	51.8	11.0	76	calm	0	0		0	4		w.	0.014	0.4		Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.49	571.3	30.04	763.1	55.2	12.9	82	ene.	5.1	2.3		1 c	1 ns			0	0	clear	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.19	766.9	30.19	766.9	61.5	16.4		s.			2					0.213	5.4		
Groningen	30.11	764.7	30.16	766.1	56.8	13.8		nw.			1					0.634	16.1		
Helder	30.16	766.1	30.16	766.1	58.1	14.5		wsw.			2					0.012	0.3		
Hellevoetsluis	30.17	766.4	30.17	766.4	60.1	15.6	88	se.			1					0.319	8.1		
Utrecht	30.14	765.6	30.19	766.8	59.9	15.5	80	w.			1		10			0.165	4.2	dull	H. van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum' Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.02	762.4	30.08	764.0	55.8	13.2	82	sse.	6.0	2.7			8			0.500	12.7		
Christiania	29.98	761.5	30.13	765.2	51.8	11.0	96	sw.	0	0			10			0.303	7.7	raining	
Gjæsvær	29.90	759.5	29.93	760.1	46.4	8.0		ca'm			0		10						
Lodingen	29.93	760.3	29.98	761.5	52.0	11.1	70	calm			0		8			0.499	12.6		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.81	757.2	29.96	761.0	70.9	21.6	94	s.	18.6	8.3			8			0.236	6.0		Dr. J. A. Sampaio.
Campo Major	29.14	740.2	30.10	764.4	85.3	29.6	36	ssw.	4.3	1.9			6			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.06	763.5	30.15	765.7	74.8	23.8	69	sw.	1.8	0.8			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.80	756.8	30.15	765.7	75.9	24.4	64	s.	6.3	2.8			3			0	0		The Staff.
Ponta Delgada, Azores	30.00	761.9	30.07	763.7	75.9	24.4	75	s.	12.5	5.6			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.60	726.4	29.68	753.8	45.1	7.3	59	sw.	13	6			9 k						Capt. Lasarew.
Archangel	30.39	771.8	30.41	772.3	39.0	3.9	62	w.	4	2			10						Capt. Sseliwerstow.
Astrakhan	30.34	770.6	30.26	768.5	46.8	8.2	36	ne.	13	6		0	0						Capt. Wisganow.
Barnaul ‡	29.40	746.7	29.91	759.6	44.4	6.9	66	calm	0	0			9						Meteorological Obs'y.
Dorpat	30.19	766.8	30.43	773.0	56.3	13.5	62	wsw.	2	1		10 ck	0						Observatory.
Ekaterinburg	28.90	734.1	29.89	759.3	31.8	— 0.1	61	nnw.	9	4			9 n						Meteorological Obs'y.
Kasan	29.94	760.4	30.22	767.6	32.9	0.5	68	nw.	7	3			10						Observatory.
Kertch	29.95	760.8	29.97	761.3	54.3	12.4	73	e.	18	8		0	6 n			0	0		Lagorio & Sastyrez.
Kieff	29.65	753.0	30.30	769.5	50.7	10.4	35	e.	9	4		c;cs	3 ks					light clouds	Observatory.
Lugan	30.08	763.9	30.28	769.1	48.7	9.3	26	ne.	22	10			2					light clouds	Meteorological Obs'y.
Moscow	29.87	758.8	30.37	771.3	37.9	3.3	56	nnw.	7.8	3.5			10 s						Meteorological Obs'y.
Nikolaiev	30.12	765.1	30.19	766.9	45.7	7.6	88	ne.	18	8			10 n					raining	Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.96	760.9	30.04	763.1	39.6	4.2	82	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.76	756.0	29.91	759.6	63.1	17.3	59	calm	0	0		3 cs	0			0	0		Physical Observatory.
St. Petersburg	30.42	772.6	30.43	773.0	45.7	7.6	64	sse.	13	6			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.52	724.3	30.06	763.6	64.8	18.2	66	calm	0	0			0						Teich, A. M.
Tiflis	28.57	725.7	29.91	759.8	80.1	26.7	44	s.	2	1		0	0						Physical Observatory.
Warsaw	29.86	758.4	30.29	769.3	54.7	12.6	49	se.	13	6		0	9 ks						Astronomical Obs'y.
Wilna	29.99	761.8	30.42	772.6	54.7	12.6	59	se.	2	1			10						Berg, Assistant.
Yeniseisk	29.75	755.7	30.05	763.2	40.1	4.5	67	se.	4	2			10						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.13	765.3	59.0	15.0	79	w.			2	0	0			0	0	fine	Andrew Gibb.
Monach Lt. House, Hebrides			30.07	763.8	56	13.3	94	sw.			3		10			0.2	5.	cloudy	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	30.03	762.8	30.13	765.4	75.7	24.3	69	ssw.	4.3	1.9		0	3 k			0	0		Antonio Rave, Director.
Bilbao, Met. Obs'y	30.11	764.9	30.17	766.3	75.9	24.4	53	se.	2.0	0.9		2	3	w.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.26	692.5			75.0	23.9	48	n.	9.4	4.2			2			0	0	light clouds	Domingo Martin.
Madrid, Royal Obs'y	27.96	710.1	30.06	763.6	85.6	29.8	37	se.	3.6	1.6		0	8			0	0	cloudy	The Staff.
Murcia, Met. Obs'y ‡	30.04	762.9	30.18	766.6	82.8	28.2	54	e.	4.0	1.8		0	3			0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.16	740.7	30.02	762.5	77.9	25.5	65	sw.	0	0			9			0	0	almost cov'd	R. Gil Vallanueva, Dir
Sub-Series.																			
Havana, Cuba, W. I.	29.90	759.6	29.97	761.2	76.3	24.6	84	ese.	2.7	1.2		3 c;ck	0	nnw.		0.091	2.3	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.87	758.7	29.92	760.0	82.3	27.9	90	ese.	0	0			10 n		s.	0.60	15.3	raining	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.05	763.2	30.14	765.6	79.3	26.3	44	ese.	10.3	4.6			10		ese.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.88	758.9	29.96	761.0	79.9	26.6	88	s.	0	0		2 k	3 k			0.118	3.0		E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.79	756.6	29.92	760.0	80.5	26.9	83	nw.	2.4	1.1			9 ks		wnw.	0.04	1.0	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.11	764.8	30.15	765.8	47.8	8.8	92	sw.			4		10			0	0		
Umea	30.11	764.9	30.17	766.2	52.9	11.6	79	s.			4		1			0	0		
Hernosand	30.14	765.5	30.19	766.8	48.0	8.9	74	s.			4		10			0	0		
Stockholm	30.10	764.4	30.27	768.9	53.6	12.0	74	s.			2		7			0	0		
Wisby	30.24	768.2	30.30	769.7	54.7	12.6	63	sw.			4		7			0	0		
Sub-Series.																			
Upsala	30.13	765.4	30.22	767.6	54.9	12.7	60	s.	13.9	6.2			2	ssw.		0.004	0.1		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.78	731.1	30.19	766.9	60.1	15.6	67	nne.			2		4			0	0		The Observatory.
Zurich ‡	28.59	726.1	30.21	767.3	59.4	15.2	72	n.			2		5			0.012	0.3	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.87	758.8	59.0	15.0	84	nw.	27	12.0			10		nw.	0	0		The Observatory.
Valona			30.11	764.9	66.6	19.2		nw.			1		2			0	0	slightly cld'y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.94	760.5	88.2	31.2	58	wsw.			2	0	2 s		sw.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	29.97	761.2	30.05	763.3	70	21.1	87	w.	2	0.9			10s;sk		w.	0.01	0.3	cloudy	
Alpena, Michigan	29.08	738.6	29.74	755.4	62.5	16.9	100	se.	4	1.8			10 n		w.	0.38	9.7	heavy rain	
Atlanta, Georgia	28.94	735.1	30.12	765.0	71.0	21.7	94	e.	5	2.2			fg.			0	0	light fog	
Atlantic City, New Jersey	30.09	764.3	30.10	764.5	73.7	23.2	97	s.	8	3.6		0	0			0	0	clear	
Augusta, Georgia	29.97	761.2	30.16	766.1	74.8	23.8	85	calm	0	0		2 cs	2 s	sw.	sw.	0.16	4.1	fair	
Baltimore, Maryland	30.03	762.7	30.08	764.0	74	23.3	90	s.	3	1.3		4 ck	fg.	w.	calm	0	0	fair	
Barnegat, New Jersey	30.06	763.5	30.08	764.0	72.0	22.2	100	sw.	10	4.5			10 s		calm	0	0	cloudy	
Bismarck, Dakota	28.09	713.5	29.92	760.0	42	5.6	76	w.	16	7.2			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.18	690.4	30.02	762.5	37.0	2.8	82	w.	1	0.4		0	0			0	0	clear	
Boston, Massachusetts	29.93	760.2	30.09	764.3	66.8	19.3	91	e.	4	1.8		2 cs	hz.			0.10	2.5	fair	
Brackettville, Texas	28.63	727.2	29.63	752.6	75	23.9	90	e.	8	3.6		0	4 s		se.	0	0	fair	
Brownsville, Texas	29.77	756.1	29.81	757.2	80	26.7	91	s.	10	4.5		0	6 s			0	0	fair	
Buffalo, New York	29.22	742.2	29.94	760.5	70.4	21.3	86	s.	6	2.7			10 n		s.	0.04	1.0	light rain	
Burlington, Vermont	29.71	754.6	30.00	762.0	67.7	19.8	67	s.	1	0.4		8 ck	0	w.		0	0	fair	
Cairo, Illinois	29.57	751.1	29.97	761.2	71.8	22.1	94	s.	9	4.0			10 s		s.	0	0	cloudy	
Campo, California	27.24	691.9	29.81	757.2	35.5	1.9	89	s.	3	1.3		3 c	0	w.		0	0	clear	
Camp Thomas, Arizona	27.02	686.3			50	10.0	85	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.13	765.3	30.15	765.8	74	23.3	85	sw.	14	6.3		1 c	0			0	0	clear	
Cape May, New Jersey	30.07	763.8	30.10	764.5	75	23.9	82	s.	19	8.5		0	0			0	0	clear	
Castroville, Texas	29.02	737.1	29.68	753.9	81	27.2	74	se.	4	1.8			10 s		s.	0.01	0.3	cloudy	
Cedar Keys, Florida	30.06	763.5	30.08	764.0	78	25.6	74	e.	11	4.9		0	4 s		se.	0.10	2.5	fair	
Champaign, Illinois	29.09	738.9	29.85	758.2	66.3	19.1	93	sw.	4	1.8			10 n		sw.	0.08	2.0	light rain	
Charleston, S. Carolina	30.09	764.3	30.15	765.8	79	26.1	88	calm	0	0		0	8 s		se.	0	0	cloudy	
Charlotte, N. Carolina	29.29	744.0	30.17	766.3	72.0	22.2	97	sw.	4	1.8			10 ks		sw.	0.29	7.4	threatening.	
Chattanooga, Tennessee	29.30	744.2	30.13	765.3	67.0	19.4	93	e.	3	1.3			10 n		s.	2.26	57.4	light rain	
Cheyenne, Wyoming	24.05	610.9	30.02	762.5	33.5	0.8	83	calm	0	0			10 s			0.41	10.4	cloudy	
Chicago, Illinois	29.10	739.1	29.81	757.2	67.9	19.9	84	sw.	8	3.6			10 n			0.02	0.5	light rain	
Chincoteague, Virginia	30.10	764.5	30.12	765.0	75	23.9	97	s.	20	8.9		0	0			0.80	20.3	clear	
Cincinnati, Ohio	29.34	745.2	30.00	762.0	73.5	23.1	83	s.	7	3.1			10 s		w.	0.15	3.8	cloudy	
Cleveland, Ohio	29.21	741.9	29.95	760.7	69.5	20.8	90	s.	11	4.9			10 s		s.	0.14	3.6	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.13	739.9	29.99	761.7	68	20.0	93	s.	6	2.7			10 n		sw.	0.28	7.1	light rain	
Concho, Texas	27.89	708.4	29.83	757.7	74	23.3	76	s.	10	4.5			10 s		s.	0	0	cloudy	
Corsicana, Texas	29.38	746.2	29.86	758.4	81	27.2	73	s.	4	1.8		0	8 ks		s.	0	0	cloudy	
Davenport, Iowa	29.18	741.2	29.84	757.9	66	18.9	90	sw.	5	2.2			10 s		sw.	0.99	25.1	cloudy	
Dayton, Washington T'y	28.24	717.3	30.05	763.3	40.5	4.7	82	n.	6	2.7		0	0			0	0	clear	
Deadwood, Dakota	25.39	644.9	30.09	764.3	33	0.6	81	sw.	4	1.8		0	0			0	0	clear	
Decatur, Texas	28.64	727.4	29.74	755.4	75	23.9	85	s.	16	7.2			10 s		se.	0	0	cloudy	
Delaware Breakwater, Del.	30.08	764.0	30.10	764.5	74	23.3	90	se.	16	7.2		3 k	0			0	0	fair	
Denison, Texas	29.05	737.9	29.85	758.4	79	26.1	82	s.	8	3.6			10 s		calm	0	0	cloudy	
Denver, Colorado	24.81	630.2	30.03	762.7	44.0	6.7	67	n.	7	3.1			10 s		nw.	0	0	cloudy	
Des Moines, Iowa	28.89	733.8	29.80	756.9	58	14.4	87	n.	11	4.9			10 s		n.	0.25	6.3	cloudy	
Detroit, Michigan	29.17	740.9	29.89	759.2	73.0	22.8	84	s.	14	6.3			10 s		w.	0.15	3.8	threatening.	
Dodge City, Kansas	27.26	692.4	29.85	758.2	53.8	12.1	70	ne.	22	9.8			10 s			0	0	cloudy	
Dubuque, Iowa	29.07	738.4	29.79	756.7	65.1	18.4	90	s.	2	0.9			10 s		s.	3.10	78.7	threatening.	
Duluth, Minnesota	29.12	739.6	29.83	757.7	53	11.7	80	sw.	3	1.3			10 s		sw.	0.02	0.5	cloudy	
Eagle Pass, Texas	29.01	736.8	29.84	757.9	77.0	25.0	82	se.	4	1.8		0	0			0	0	clear	
Eagle Rock, Idaho	25.30	642.6	30.16	766.1	17	— 8.3	58	n.	4	1.8		6 cs	0	nw.		0	0	fair	
Eastport, Maine	30.06	763.5	30.13	765.3	57	13.9	67	nw.	6	2.7		2 ck	0	nw.		0	0	clear	
El Paso, Texas	26.12	663.4	29.86	758.4	64.9	18.3	36	nw.	6	2.7		0	2 s		w.	0	0	clear	
Erie, Pennsylvania	29.22	742.2	29.95	760.7	70	21.1	90	s.	11	4.9			10 n			0.15	3.8	light rain	
Escanaba, Michigan	29.02	737.1	29.68	753.9	61	16.1	93	s.	7	3.1			10 s		calm	2.01	51.1	cloudy	
Florence, Arizona	28.27	718.0	29.87	758.7	57.2	14.0	60	w.	3	1.3		0	2 s			0	0	clear	
Fort Apache, Arizona	24.91	632.7	29.82	757.4	41	5.0	86	e.	2	0.9		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.22	691.4	30.03	762.7	38	3.3	82	sw.	4	1.8			10 s		sw.	0.45	11.4	cloudy	
Fort Bennett, Dakota	28.42	721.9	29.96	761.0	44	6.7	68	w.	6	2.7		10 cs	0			0	0	cloudy	
Fort Benton, Montana	27.14	689.3	30.00	762.0	36	2.2	92	calm	0	0			10 s		calm	0.13	3.3	cloudy	
Fort Buford, Dakota	28.00	711.2	30.01	762.2	38	3.3	82	nw.	14	6.3			10 s		se.	0.21	5.3	cloudy	
Fort Custer, Montana	26.90	683.2	30.14	765.5	38	3.3	66	nw.	3	1.3			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.00	635.0	29.96	761.0	65	18.3	75	se.	7	3.1		0	0			0	0	clear	
Fort Elliott, Texas	27.12	688.8	30.30	769.6	52	11.1	69	calm	0	0		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.23	742.4	29.78	756.4	77.5	25.3	75	se.	10	4.5		9 cs	0	sw.		0	0	cloudy	
Fort Grant, Arizona					52	11.1	52	ne.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.49	723.6	29.68	753.6	76.3	24.6	74	se.	8	3.6		0	0			0	0	clear	
Fort Keogh, Montana	27.54	699.5	30.08	764.0	39	3.9	92	w.	10	4.5			10 n			0.05	1.3	light rain	
Fort Macon, North Carolina	30.17	766.3	30.18	766.6	78	25.6	88	s.	8	3.6		7 k	0	sw.		0	0	cloudy	
Fort McKavett, Texas																			
Fort Missoula, Montana	26.76	679.7	30.28	769.1	36	2.2	92	s.	2	0.9		9 k	0	s.		0.02	0.5	cloudy	
Fort St. Michaels	29.48	748.8	29.51	749.5	42	5.6	91	s.	18	8.0			10 n			0.23	5.8	light rain	
Fort Shaw, Montana	26.37	669.8	29.97	761.2	37	2.8	92	w.	1	0.4			10 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.54	724.9	29.80	756.9	72.5	22.5	83	s.	12	5.4		2 k	0	s.		inap.	inap.	fair	
Fort Stevenson, Dakota	28.12	714.2	29.99	761.7	46	7.8	76	w.	12	5.4			10 ks		w.	0	0	cloudy	
Fort Verde, Arizona					49.1	9.5	66	w.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.11	714.0	29.60	751.8	72	22.2	97	s.	6	2.7		8 k	0	s.		0	0	fair	
Galveston, Texas	29.85	758.4	29.90	759.4	81.5	27.5	91	s.	10	4.5		2 cs	3 ks		s.	0.05	1.3	fair	
Grand Haven, Michigan	29.07	738.4	29.74	755.4	67.5	19.7	93	se.	12	5.4		0	6 s		sw.	0.90	22.9	fair	
Hatteras, North Carolina	30.17	766.3	30.19	766.8	78	25.6	82	calm	0	0		4 k	0			0	0	fair	
Helena, Montana	25.79	655.1	30.18	766.6	41	5.0	67	s.	8	3.6		0	0			0	0	clear	
Henrietta, Texas	28.87	733.3	29.74	755.4	81	27.2	58	se.	16	7.2		0	4 s		se.	0	0	fair	
Huron, Dakota	28.61	726.7	30.00	762.0	43.2	6.2	93	nw.	8	3.6			10 s			0	0	cloudy	
Indianapolis, Indiana	29.12	739.6	29.92	760.0	72	22.2	84	sw.	5	2.2		0	9s;ks		sw.	0	0	cloudy	
Indianola, Texas	29.81	757.2	29.84	757.9	80.1	26.7	88	s.	11	4.9		5 k	4 ks	s.	calm	0.04	1.0	cloudy	
Jacksboro, Texas	28.64	727.4	29.70	754.4	75	23.9	76	s.	15	6.7		6 ck	0	s.		0	0	fair	
Jacksonville, Florida	30.06	763.5	30.10	764.5	77	25.0	90	e.	4	1.8		1 k	0			0	0	clear	
Keokuk, Iowa	29.15	740.4	29.81	757.2	66.0	18.9	93	se.	4	1.8			10 ks		s.	0.57	14.5	cloudy	
Key West, Florida	29.97	761.2	30.00	762.0	80.7	27.1	79	e.	12	5.4		2 cs	2 ks		e.	0.09	2.3	fair	
Kittyhawk, North Carolina	30.18	766.6	30.20	767.1	76	24.4	90	sw.	7	3.1		2 c	2 k		sw.	0	0	fair	
Knoxville, Tennessee	29.14	740.1	30.18	766.6	66	18.9	97	e.	2	0.9			10 n		calm	0.61	15.5	light rain	
La Crosse, Wisconsin	29.00	736.6	29.78	756.4	59	15.0	87	nw.	8	3.6			10 n			1.79	45.5	light rain	
La Mesilla, New Mexico	26.00	660.4	30.15	765.8	49.0	9.4	71	calm	0	0		3 c	0			0	0	fair	
Laredo, Texas																			
Leavenworth, Kansas	28.93	734.8	29.83	757.7	65	18.3	84	n.	6	2.7			10 s		w.	0.65	16.5	cloudy	
Lewiston, Idaho	29.18	741.2	30.03	762.7	44	6.7	60	se.	1	0.4		0	0			0.02	0.5	clear	
Little Rock, Arkansas	29.59	751.6	29.91	759.7	76	24.4	85	s.	4	1.8			10 ks		s.	0	0	cloudy	
Los Angeles, California	29.49	749.0	29.87	758.7	53.2	11.8	93	e.	3	1.3			fg.		calm	0	0	light fog	
Louisville, Kentucky	29.39	746.5	29.93	761.0	73.0	22.8	84	s.	11	4.9			10 s		s.	0.14	3.6	cloudy	
Lynchburg, Virginia	29.13	747.5	30.12	765.0	75	23.9	79	sw.	2	0.9		3 c	0			0	0	clear	
Madison, Wisconsin	28.75	730.5	29.79	756.7	63	17.2	93	sw.	8	3.6			10 s		calm	1.15	29.2	cloudy	
Marquette, Michigan	28.93	734.8	29.55	753.4	59	15.0	93	e.	2	0.9			10 s		e.	0.14	3.6	cloudy	
Mason, Texas	28.20	716.3	29.87	758.7	74.8	23.8	85	s.	8	3.6			10 s		s.	0	0	cloudy	
Memphis, Tennessee	29.66	753.4	30.00	762.0	73	22.8	90	s.	2	0.9			10 s			inap.	inap.	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.03	737.3	29.79	756.7	65	18.3	93	sw.	10	4.5		2 ck	6 s	sw.	sw.	0.42	10.7	fair	
Mobile, Alabama	29.94	760 5	30.01	762.2	78.0	25.6	97	se.	7	3.1			10 s		s.	3.26	82.8	cloudy	
Montgomery, Alabama	29.85	758.2	30.08	764.0	72	22.2	97	se.	2	0.9			10 s			0.51	13.0	cloudy	
Moorhead, Minnesota	28.86	733.0	29.87	758.7	39	3.9	89	w.	8	3.6		8 cs	0	w.		0.08	2.0	cloudy	
Morgantown, W. Virginia	29.07	738.4	30.02	762.5	70.0	21.1	87	sw.	3	1.3			10 s		s.	inap.	inap.	cloudy	
Mt. Washington, N. H.	24.04	610.6	30.24	768.1	51.0	10.6	73	w.	36	16.1		0	8 ks		w.	0	0	threatening.	
Nashville, Tennessee	29.51	749.5	30.05	763.3	72.2	22.3	84	se.	2	0.9			10 n		sw.	0.23	5.8	light rain	
New Haven, Connecticut	29.96	761.0	30.08	764.0	71	21.7	84	sw.	1	0.4		6 c	sk	w.		0	0	dense smoke	
New London, Connecticut	30.04	763.0	30.09	764.3	71	21.7	90	w.	1	0.4		0	fg			0	0	clear	
New Orleans, Louisiana	29.90	759.4	29.96	761.0	79.0	26.1	91	se.	6	2.7		0	9 s		se.	0.24	6.1	cloudy	
Newport, Rhode Island	30.04	763.0	30.09	764.3	68.0	20.0	97	sw.	1	0.4			fg			0	0	dense fog	
New River, N. Carolina					78	25.6	88	se.			1	4 cs	0	se.		0	0	fair	
New Shoreham, Rhode I'd.	30.05	763.3	30.08	764.0	70.0	21.1	90	sw.	12	5.4		0	fg		sw.	0	0	clear	
New York, New York	29.91	759.7	30.09	764.3	72	22.2	97	s.	6	2.7		4 cs	fg	sw.		0	0	fair	
Norfolk, Virginia	30.13	765.3	30.16	766.1	74	23.3	90	sw.	6	2.7		0	0			0.18	4.6	clear	
North Platte, Nebraska	27.10	688.3	30.04	763.0	48.1	8.9	64	nw.	7	3.1		5 k	5 s	nw.		0	0	cloudy	
Olympia, Washington T'y	29.95	760.7	29.99	761.7	46.0	7.8	93	s.	1	0.4			10 s		calm	0	0	cloudy	
Omaha, Nebraska	28.72	729.5	29.91	759.7	53	11.7	80	n.	12	5.4		0	6 s		sw.	0	0	fair	
Oswego, New York	29.62	752.3	29.95	760.7	71.0	21.7	90	s.	5	2.2			10 s			0.01	0.3	cloudy	
Pensacola, Florida	30.00	762.0	30.03	762.7	79	26.1	91	se.	10	4.5			10 s		se.	0.29	7.4	cloudy	
Philadelphia, Pa	30.04	763.0	30.10	764.5	72	22.2	90	w.	6	2.7			fg			0	0	dense fog	
Phœnix, Arizona	28.61	726.7	30.37	771.4	60	15.6	60	e.	2	0.9		0	0			0	0	clear	
Pike's Peak, Colorado	17.71	449.8	29.92	760.0	21	— 6.1	61	sw.	27	12.1		0	0			0	0	clear	
Pioche, Nevada	23.99	609.3	30.01	762.2	39	3.9	46	nw.	4	1.8		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.24	742.7	30.06	763.5	71.2	21.8	84	s.	6	2.7			10 n		se.	0.14	3.6	light rain	
Port Eads, Louisiana	29.97	761.2	29.98	761.5	78.1	25.6	97	se.	13	5.8		0	9 s		se'	4.14	105.2	cloudy	
Port Huron, Michigan	29.17	740.9	29.86	758.4	68.3	20.2	91	s.	9	4.0			10 ks		s.	0.05	1.3	threatening.	
Portland, Maine	30.06	763.5	30.12	765.0	63.5	17.5	78	calm	0	0		2 ck	fg	w.		0	0	fair	
Portland, Oregon	29.92	760.0	30.00	762.0	49.6	9.8	87	calm	0	0			10 s			0	0	cloudy	
Portsmouth, N. Carolina					78	25.6	69	sw.	6	2.7		9 k	0	s.		0	0	cloudy	
Prescott, Arizona	24.64	625.8	29.83	757.7	44	6.7	80	s.	3	1.3		0	0			0	0	clear	
Punta Rassa, Florida	30.00	762.0	30.01	762.2	79	26.1	88	e.	8	3.6		1 c	0	calm		0	0	clear	
Red Bluff, California	29.40	746.7	29.74	755 4	55.5	13.1	48	calm	0	0		0	0			0	0	clear	
Rio Grande City, Texas	29.60	751.8	29.80	756.9	77	25.0	77	calm	0	0			10 s		calm	0	0	cloudy	
Rochester, New York	29.32	744.7	29.96	761.0	70	21.1	84	sw.	10	4.5			10 n		sw.	0.08	2.0	light rain	
Roseburg, Oregon	29.43	747.5	30.01	762.2	39	3.9	89	calm	0	0		0	0			0	0	clear	
Sacramento, California	29.70	754.4	29.78	756.4	53.3	11.8	66	calm	0	0		0	0			0	0	clear	
St. Louis, Missouri	29.29	744.0	29.90	759.4	72.8	22.7	84	s.	6	2.7		6 c; k	0			0	0	fair	
St. Paul, Minnesota	28.98	736.1	29.86	758.4	49.8	9.9	93	nw.	4	1.8			10 s			0	0	cloudy	
Salt Lake City, Utah	25.62	650.7	29.95	760.7	40	4.4	40	se.	2	0.9		0	0			0	0	clear	
San Antonio, Texas	29.13	739.9	29.83	757.7	77.7	25.4	88	e.	3	1.3			10 ks		se.	0	0	cloudy	
San Diego, California	29.71	754.6	29.78	756.4	62.5	16.9	78	s.	5	2.2			10 s			0	0	cloudy	
Sandusky, Ohio	29.23	742.4	29.92	760.0	71	21.7	84	sw.	12	5.4		5 k	2 s	calm	w.	0.11	2.8	cloudy	
Sandy Hook, New Jersey	30.04	763.0	30.08	764.0	76.0	24.4	84	sw.	7	3.1		4 c	0	calm		0	0	fair	
San Francisco, California	29.72	754.9	29.78	756.4	55	12.8	83	w.	9	4.0		0	0			0	0	clear	
Santa Fé, New Mexico	23.19	589.0	29.99	761.7	43	6.1	51	se.	1	0.4		0	0			0	0	clear	
Savannah, Georgia	30.04	763.0	30.13	765.3	76.3	24.6	89	se.	2	0.9		0	4 k			0.01	0.3	fair	
Shreveport, Louisiana	29.69	754.1	29.92	760.0	75.4	24.1	90	se.	4	1.8			10 s		calm	0	0	cloudy	
Silver City, New Mexico	24.18	614.2	29.75	755.6	46	7.8	58	nw.	2	0.9		0	0			0	0	clear	
Sitka, Alaska	29.97	761.2	30.04	763.0	48.1	8.9	85	ne.	5	2.2			10 ks		calm	0	0	cloudy	
Smithville, North Carolina	30.12	765.0	30.16	766.1	79	26.1	77	sw.	1	0.4		3 k	1 ks	sw.	s.	0	0	fair	
Spokane Falls, Wash. Ter.	27.97	710.4	29.99	761.7	38	3.3	82	w.	1	0.4		2 k	0			0	0	clear	
Springfield, Illinois	29.21	741.9	29.90	759.4	67	19.4	90	se.	10	4.5			10ks;n		sw.	0.14	3.6	light rain	
Springfield, Massachusetts	29.95	760.7	30.07	763.8	69.9	21.1	90	calm	0	0			fg			0.42	10.7	dense fog	
Stockton, Texas	26.80	680.7	29.87	758.7	65.0	18.3	90	s.	4	1.8		0	0			0	0	clear	
St. Vincent, Minnesota	28.89	733.8	29.78	756.4	39	3.9	86	sw.	8	3.6		0	8 s		sw.	0.02	0.5	fair	
Thatcher's Island, Mass.	30.06	763.5	30.11	764.8	66.0	18.9	84	sw.	10	4.5			10 s		se.	0	0	cloudy	
Toledo, Ohio	29.19	741.4	29.89	759.2	72	22.2	84	s.	12	5.4			10 ks		sw.	0.26	6.6	threatening.	
Tucson, Arizona	27.32	693.9	29.68	753.9	58	14.4	55	s.	2	0.9		0	0			0	0	clear	
Umatilla, Oregon	29.63	752 6	30.04	763.0	46.0	7.8	76	se.	4	1.8			10 s		calm	0.01	0.3	cloudy	
Uvalde, Texas	28 85	732.8	29.63	752.6	76	24.4	85	se.	2	0.9			10 ks		s.	0	0	cloudy	
Vicksburg, Mississippi	29.73	755.1	29.99	761.7	73	22.8	97	se.	4	1.8			10 s		calm	1.52	38.6	cloudy	
Visalia, California	29.34	745.2	29.70	754.4	48	8.9	79	nw.	1	0.4		0	0			0	0	clear	
Washington, D. C.	29.96	761.0	30.08	764.0	76.0	24.4	85	s.	3	1.3		1 c	1 ks	w.	w.	0	0	clear	
Wickenburg, Arizona					52	11.1	86	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.10	764 5	30.16	766.1	78	25.6	82	calm	0	0		0	fg		calm	0	0	dense fog	
Winnemucca, Nevada	25.55	649.0	29.88	758.9	32	0.0	38	ne.	12	5.4		0	0			0	0	clear	
Wood's Holl, Mass.	30.06	763.5	30.09	764.3	68	20.0	93	sw.	3	1.3			10 s		calm	0	0	cloudy	
Yankton, Dakota	28.66	728.0	29.97	761.2	50	10.0	71	sw.	4	1.8			10 s			0	0	cloudy	
Yuma, Arizona	29.51	749.5	29.65	753.1	66.5	19.2	81	calm	0	0		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I. ‡	29.88	758.9	29.90	759.4	81	27.2	87	e.	2	0.9		5 k	5 ks	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.03	589.6			50.0	10.0	70	calm	0	0		0	2 s			0	0	fair	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.84	757.9	29.85	758.2	81	27.2	87	se.				8 c	0			0	0		B. Bigar.
Havana, Cuba, W. I.	29.95	760.7	30.00	762.0	79	26.1	82	calm	0	0		6 cs	2 ks	calm	calm	0.13	3.3	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.92	760.0	29.93	760.2	77.0	25.0	84	calm	0	0		10 c	0			0	0		Robert Johnstone.
Navassa, W. I.	29.83	757.7	29.91	759.7	82	27.8	83	e.	10	4.5		5 ks	5 kihz	e.	e.	0	0	hazy	F. M. Everett.
Paramaribo, S. A.	29.97	761.2	29.97	761.2	80	26.7	78	se.			2	3 c	3 s	e.		0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.38	746.2	29.93	760.2	81	27.2	85	calm			0	7 c	3 s	calm	calm	0	0		Francesco J. Cisneros.
Rivas, Nicaragua					74.8	23.8		s.			1	2 ck	0	se.		0	0		Earl Flint.
Santiago de Cuba, W. I.	29.93	760.2	29.96	761.0	80	26.7	78	calm	0	0		5 cs	0			0.87	22.1	fair	Robert Mason.
St. Thomas, W. I. ‡	29.95	760.7	29.96	761.0	82	27.8	79	e.	5	2.2		3 c	2 ks	nw.	e.	0	0		G. O. Gyllich.
York Factory, B. A.	29.89	759.2	29.94	760.5	31.0	— 0.6	95	n.	8	3.6			10 s		n.	0.10	2.5	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, West Island, Torres St.	30.05	763.3	74.8	23.8	72	ese.			4-6		3							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibralter, Mediterranean	30.18	766.6	72	22.2	80	ne.			3		10	ene.						misty	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	29.86	758.4	61	16.1		nw.			3		10							raining	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, Aden, Arabia	29.82	757.4	88	31.1	84	s.			1		0							blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 37° 33′, W. 66° 42′	30.23	767.8	79	26.1	95	wnw.			1-2		8					1	wsw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 10° 47′, E. 12° 49′	29.93	760.2	73	22.8	87	calm			0		10	calm				2	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A, T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 10′, E. 20° 30′	29.85	758.2	70	21.1		nne.			2-3		5	nne.				2	nne.	showery	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.04	763.0	70	21.1		nne.			1		10	ene.						d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.18	766.6	77	25.0	79	nne.			2-3		3	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 48° 50′, W. 53° 00′	29.91	759.7	45	7.2	85	nnw.			3-5		10	n.				3	n.	squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 25° 39′, E. 57° 43′	29.78	756.4	86	30.0		sw.			1		1	sw.				1	s.	blue sky	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.79	756.7	87	30.6		sw.			1		2							d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Galle, Ceylon, India.	29.81	757.2	83	28.3	74	wnw.			4		6	wnw.				1-4	w.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19′	30.06	763.5	71	21.7		se.			2		3					1	sse.	d. clouds	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 58′, E. 45° 06′	30.04	763.0	72.5	22.5	88	ssw.			1		7					3	ene.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 17° 04′, W. 78° 12′	29.91	759.7	87	30.6	84	e.			2-3		3	e.				3	e.	squally	Comm. R. N. Custance.
H. M. S. Flying Fish, Yessashi, Yezo, Japan.	29.75	755.6	62	16.7	88	sw.			6-8		10	ssw.				7	sw.	misty	Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 19° 28′, W. 155° 55′	30.04	763.0	76	24.4	72	n.			1		3							d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, S. 34° 55′, W. 55° 07′	30.12	765.0	56	13.3	87	nne.			2		3	nnw.						blue sky	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 35′, W. 76° 33′	29.93	760.2	81	27.2	82	calm			0		9					6	nne.	raining	Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, N. 5° 00′, E. 163° 30′	29.81	757.2	87	30.6	58	ne.			1		9	calm				1	ne.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 35° 26′, E. 139° 38′	29.99	761.7	77	25.0		s.			1		4							d. clouds	Capt. R. E. Tracey.
H. M. S. Kestrel, Canton, China *†	29.94	760.5	83	28.3							5	calm						d. clouds	Capt. W. M. Lang.
H. M. S. Kingfisher, S. 2° 12′, W. 79° 51′	29.94	760.5	70	21.1		calm			0		7							d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 24° 29′, E. 52° 40′	30.21	767.3	74	23.3		ene.			2		2	ene.				3	ene.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 30° 14′, W. 27° 16′	30.48	774 2	65	18.3	63	e.			3-5		8					3-4	ese.	squally	Lt. C. F. Oldham.
H. M. S. Lily																			
H. M. S. London																			
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.90	759.4	81.3	27.4	81	ne.			1		0					1-2	nne.	misty	Lt. A. Carpenter.
H. M. S. Midge																			
H. M. S. Malabar																			
H. M. S. Minotaur, N. 45° 25′ W. 8° 55′	30.03	762.7	65	18.3	89	ene.			3		10	nne.				3	wnw.	overcast	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.22	767.6	74	23.3	85	sse.			1		1	sse.						blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.10	764.5	53	11.7	90	calm			0		10							misty	Capt. F. Edwards

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	29.99	761.7	60	15.6	94	nnw.			2		0							blue sky.	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican, S. 25° 26′, W. 70° 34′	30.13	765.3	55.5	13.1	100	calm			0		10							overcast	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 33° 59′, W. 64° 07′	30.24	768.1	78	25.6	82	calm			0		2					1	n.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 12° 34′, E. [illegible] 27′	29.81	757.2	88.3	31.3	84	var.			0–1		1							blue sky	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis, S. 4° 04′, W. [illegible]° 49′	30.03	762.7	75	23.9	76	s.			2		0					sm'h		blue sky	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 12° 20′, W. 22° 45′	29.98	761.5	82	27.8	80	e.			2		2	nne.				1	ene.	d. clouds	Capt. T. H. Royse.
H. M. S. Tenedos, N. 46° 05′, W. 62° 11′	30.05	763.3	63	17.2	83	wnw.			3		0							blue sky	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer, N. 37° 28′, E. 8° 38′	30.20	767.1	74	23.3	72	nnw.			3		3					3	nnw.	blue sky	Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	29.99	761.7	60	15.6	94	s.			5		10	calm						drizzling	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.95	760.7	80	26.7		n.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela India	29.96	760.9	78.8	26.0	66	nw.			2		0					1		blue sky	Carlos Candid dos Reis
Quanza, Brava, Cape Verd Id's	29.96	761.0	81.5	27.5	80	nw.			1		3		se.			1	nw.	blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.95	760.7	78.8	26.0	80						10							overcast	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.11	764.8	83	28.3	83	se.	12	5.4			10		se.	0	0			cloudy	
N. Yard, Portsmouth, N. H.	30.10	764.5	66	18.9	79	e.	3	1.3		8 c	0	w.		0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.72	754.9	75.5	24.2	84	sw.			3		1		w.	0	0			clear	
Adams, [S. A. Guayaquil River, Equador,	29.73	755.1	80	26.7	74	s.			2		2?					sm'h		cloudy?	
Alaska, Callao, Peru	29.94	760.5	60	15.6	100	sse.			2		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.74	755.4	78	25.6	78	sw.			3		2		calm			sm'h		clear	
Alliance, N. 75° 36′, E. 4° 30′	29.76	755.9	35	1.7	90	s.			1-2		10			sl't	sl't	sm'h		foggy	
Ashuelot, Kobe, Japan	29.94	760.5	78	25.6	69	e.			1		2		calm					clear	
Colorado, New York, N. Y.	30.07	763.8	75	23.9	90	sse.	3	1.3			2		nw.	0	0			hazy	
Constitution, Newport, R. I.	30.03	762.7	67	19.4	?	ssw.	2	0.9			10							foggy	
Franklin, Norfolk, Va	30.06	763.5	75	23.9	100	sw.	6	2.7			2		calm	0	0			fair	
Galena, Leghorn, Italy	30.14	765.5	69	20.6	61	w.			1-2		2					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal.	29.85	758.2	59	15.0	70	sw.	1.2	0.5			0							clear	
Kearsarge, New York, N. Y. *†	30.17	766.3	77	25.0	82	s.			3		2		sw.			sm'h		hazy	
Lackawanna, San Francisco, Cal. †	29.98	761.5	57	13.9	100	sw.			1		0							clear	
Lancaster, New York, N. Y.	30.06	763.5	78	25.6	82	sw.	8	3.6			2		sw.					misty	
Marion, Maldonado, Uruguay *	29.87	758.7	56	13.3		sse.			1		2		calm			long	sse.	fair	
Michigan, Port Stanley, Ontario	29.83	757.7	71	21.7	90	nw.			4		10		nw.					cloudy	
Minnesota, Newport, R. I.	30.06	763.5	69	20.6	95	sw.			1		0					sm'h		foggy	
Monocacy, Yokohama, Japan	29.89	759.2	77	25.0	86	ssw.			1		2		s.					fair	
Nipsic, Genoa, Italy	30.14	765.5	69	20.6	65	sse.			1		2					sm'h		d. clouds	
Onward, Callao, Peru †	29.98	761.5	59	15.0	100	sse.			4		10		nw.			long	w.	misty	
Palos, Hong Kong, China	29.94	760.5	79	26.1	74	se.			1		5		calm					fair	
Passaic, Washington, D. C.	30.10	764.5	77	25.0	95	sw.			1		8							cloudy	
Pensacola, S. 4° 58′, W. 81° 33′	29.96	761.0	62	16.7	94	sse.			4		10			0	0	mod.		cloudy	
Portsmouth, Off Beaver Tail Light, R. I.	30.07	763.8	65	18.3	100	sw.			2		0					sm'h		foggy	
Powhatan, Aspinwall, Panama	29.88	758.9	79	26.1	86	ese.			1		2		se.					fair	
Quinnebaug, Marseilles, France	30.14	765.5	67	19.4	79	calm			0		2		calm			sm'h		hazy	
Ranger, Mare Island, Cal. *	29.72	754.9	60	15.6	88	sw.			1		0			0	0	sm'h		clear	
Richmond, Panama, Panama	29.87	758.7	79	26.1	95	ne.			2		8		ne.	0.71	18.0			fair	
Saratoga, Newport, R. I.	30.05	763.3	67	19.4	95	sw.			1		10			0	0	sm'h		foggy	
Shenandoah, Maldonado, Uruguay *	30.16	766.1	60	15.6	71	sse.			3		2					sm'h		fair	
St. Louis, League Island, Pa.	29.84	757.9	72	22.2	95	ssw.	1	0.4			10		sw.	0	0			cloudy	
Swatara, Chefoo, China †	29.88	758.9	67	19.4	64	wnw.			3		0							clear	
Tennessee, New York, N. Y.	30.10	764.5	77	25.0	?	wsw.	8	3.6			5			0	0			fair	
Trenton, N. 22° 15′, W. 40° 40′ *	30.05	763.3	86	30.0	72	e.			1		5			0	0	sm'h		fair	
Vandalia, New York, N. Y.	30.05	763.3	74	23.3	90	s.			2		1		sw.					clear	
Wabash, Boston, Mass.	30.08	764.0	71	21.7	90	e.	6	2.7			2		w.	0	0			fair	
Wyoming, Port Royal, S. C.	30.13	765.3	79	26.1	91	calm	0	0			2		se.	0	0			clear	
Yantic, New York, N. Y. *	30.03	762.7	75	23.9	90	ssw.			1		2							fair	

MERCHANT-MARINE SERIES.

Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
ALLAN LINE.																	
A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland †*	30.21	767.3				wsw.	1		10		sw.					hazy	N McLean.
S. S. Circassian, Capt. W. H. Smith																	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	
AMERICAN S. S. CO.																	
Peter Wright & Sons, agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, English Channel	30.21	767.3	59	15.0	94	ssw.	4		5		sw.	sh's	sh's	mod.	s.	fine	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent,																	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, N. 48° 52′, W. 40° 00′ *†	29.72	754.9	56	13.3	94	w.	4		10		nw.			r'gh	nnw.	cloudy	
S. S. Pennsylvania, Capt. G. H. Dodge, Delaware River, Del †.	30.07	763.8	79	26.1	82	sw.	4		2		w.			sm'h		fair	C. Rodman, 3d Off.
BRITISH METEOROLOGICAL OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, E. J. Moloney,																	
S. S. Cipero, Capt. W. N. Lailey, N. 17° 29′, W. 77° 30′	29.91	759.7	81	27.2	91	ne.	2		3					2	ne; e.	d. clouds	
Bk. Conmewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 50° 21′, W. 9° 25′	30.23	767.8	61.3	16.3	79	s.	3		1							blue sky	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, S. 7° 35′, W. 27° 08′	30.13	765.3	78	25.6	82	e.	5		5							d. clouds	
Bkt. Hope, Capt. J. Campbell. ‡ N. 39° 15′, W. 32° 50′	29.85	758.2	68.1	20.1	99	ene.	3		10							overcast	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 43° 17′, E. 54° 45′	30.36	771.1	45.2	7.3	85	nw.	6		10							misty	
Bk. Mertola, Capt. E. W. Turner, N. 40° 20′, W. 15° 00′	30.18	766.6	67.3	19.6	85	n.	1		9							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry, N. 23° 15′, W. 23° 00′	30.06	763.5	80	26.7	78	ene.	3		4							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow, N. 28° 10′, E. 33° 19′	29.84	757.9	69	20.6	52	n.	3		0							blue sky	
Sierra Estrella, Capt. P. Murdock,																	
Bk. Shun Lee, Capt. J. N. Gray, N. 24° 42′, W. 37° 28′ ‡.	30.07	763.8	81.0	27.2	70	sse.	1		3							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, Yokohama, Japan	29.83	757.7	77.5	25.3	91	ssw.	3		3							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, agent San Francisco.																	
S. S. Newbern, Capt. E. Rogers N. 37° 03′, W. 122° 30′ †	29.84	757.9	54	12.2	87	nw.	5		0			0	0	sharp	wsw.	clear	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., agents, New York.																	
S. S. Galia, Capt. W. H. P. Hains N. 48° 52′, W. 30° 15′	29.89	759.2	60	15.6		se.	2		10			0	0	mod.	ne.	misty	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.																	
S. S. Braunschweig, Capt. C. Pohle,																	
S. S. Hermann, Capt. H. Baur,																	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst, N. 43° 51′, W. 56° 20′	29.97	761.2	75.0	23.9	68	w.	2		0			5 h'r	fog.	sm'h	w.	clear	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer N. 49° 36′, W. 12° 31′	30.21	767.3	61.5	16.4	88	s.	3		8		s.	4 h'r	4 h'r	mod.	wnw.	fair	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrorche N. 51° 08′, W. 25° 04′	30.00	762.0	66.0	18.9	68	se.	3		2		s.	4 h'r	4 h'r	mod.	wnw.	fair	Englehart & von Goesset.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, Hong Kong, China †.	30.11	764.8	82	27.8	91	calm	0		0			0	0	sm'h			J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 42° 45′ W. 154° 40′ *†.	30.67	779.0	74	23.3	76	ssw.	4		2		w.			mod.	sw.	clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, San Francisco, Cal.	30.04	763.0	52	11.1	93	nw.	4		3							fine	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Otterendorp, agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann, Portland, Oregon *†.	29.99	761.7	62	16.7	56	ssw.	3		10		s.					cloudy	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann N. 38° 29′, W. 123° 22′ †.	29.83	757.7	55	12.8	93	nw.	6		0					mod.	nw.	clear	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 34° 07′, W. 119° 10′	29.78	756.4	60	15.6	94	ene.	3		10		se.			mod.	w.	cloudy	J. N. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound †	30.03	762.7	57	13.9	87	w.	3		4		w.	0	0	sm'h		clear	
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal. †	29.81	757.2	54	12.2	93	calm	0		0							clear	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson,																	G. H. Harrison.
S. S. Senator. Capt. Wallace, N. 39° 22′, W. 123° 55′	29.90	759.4	53	11.7	93	nw.	4		0					r'gh	nw.	clear	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †	29.98	761.5	50	10.0	86	nnw.	2		5?		w.					cloudy?	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, San Francisco, Cal. †	29.82	757.5	55	12.8	100	calm	0		0							clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——, N. 22° 29′, W. 156° 16′	30.10	764.5	73	22.8	81	ene.	4		5		ene.			mod.	ne.	fine	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W. †	30.09	764.3	64	17.8	83	calm	0		0							clear	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, Yokohama, Japan *†	30.02	762.5	75	23.9	81	nnw.	2		2		nw.			sm'h		clear	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, N. 33° 43′, W. 121° 17′ †	29.95	760.7	67	19.4	64	nnw.	3		10		nnw.	0	0	long	nw.	fine	
S. S. City of Sidney, Capt. H. C. Dearborn, N. 34° 21′ W. 130° 49′ †	30.05	763.3	66	18.9	79	nnw.	6		5?		nnw.			h'vy	nw.	cloudy ?	E. L. Saik.
S. S. City of Tokio, Com. J. Maury Yokohama, Japan †	30.05	763.3	75	23.9	81	ne.	1		10		ne.	0	0			cloudy	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, Manzanillo, Mexico †	29.82	757.4	81	27.2	96	se.	4		10		se.	0.70	17.8	mod.	se.	thnd'r storm	R. R. Searle.
S. S. Grenada, Capt. M. Connolly Panama, Panama †	29.81	757.2	82	27.8	83	nnw.	3		5		nnw.	5 h'r	5 h'r			fair	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.24	768.1	62	16.7	72	e.	1		0							clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 49° 21′, W. 16° 14′ †	30.42	772.7	64	17.8		s.	1		8		s.	0	0	sm'h		fine	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 42° 02′, W. 58° 24′ †	30.14	765.5	68	20.0	79	wnw.	5		2		wnw.	0.05	1.3	mod.	nnw.	hazy	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, England †	30.15	765.8	60	15.6	94	nw.	3		5		nw.	4 hrs	h'vy			fair	R. Horsfall.
S. S. Britannic, Capt. H. Perry. N. 48° 52′, W. 39° 42′ †	29.66	753.4	58	14.4		sw.	6		0			2 h'rs	2 h'rs	sli't	w.	misty	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy,																	
S. S. Republic. Capt. P. J. Irving N. 46° 17′, W. 40° 23′ †	29.78	756.4	63	17.2	94	sw.	5		2		w.	shr's	sh'rs	mod.	wsw.	raining	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass †	30.09	764.3	68	20.0	100	sw.	2		10 n			0	0			cloudy	
Golden Fleece																	
Hassler, Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall, N. 11° 40′. W. 26° 00′ *	29.96	761.0	82	27.8	98	nne.	1		4		ne.	0	0	mod.	nne.	d. clouds	W. Randall.
S. Pawashick. Capt. E. Fry. N. 42° 26′, W. 21° 40′ *†	29.89	759.2	66	18.9	100	s.	5		10		ssw.			mod	sw.	raining	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	30.17	766.3	78	25.6	61	w.	3		0			0	0			clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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BULLETIN

OF

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TAKEN SIMULTANEOUSLY ON SEPTEMBER 28, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.05	763.3	73.4	23.0	79	calm			0		4			0	0	cloudy	Raynard.
Algiers ‡			30.06	763.6	75.6	24.2	83	ne.			2		0			0	0	clear	Nicolas.
La Calle ‡			30.10	764.4	76.6	24.8	79	nne			4		3			inap.	inap.	pretty fair	Fonfrède.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			30.08	763.9	81.0	27.2	58	nw.			1		3			0	0	pretty fair	Dumas.
Tebessa ‡			30.09	764.2	78.1	25.6	26	nnw.			1		4			0	0	cloudy	Derché.
Geriville ‡					81.0	27.2	23	s.			4		4			0	0	cloudy	Lonchamp.
Laghouat ‡			30.09	764.3	83.1	28.4	19	ssw.			2		1			0	0	very fair	Herbin.
Biskra ‡			30.09	764.2	87.8	31.0	22	nw.			1		0			inap.	inap	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.21	767.3	30.30	769.6	48.3	9.1	83	s.	4	1.8			0			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.61	752.2	30.16	766.1	60.4	15.8	63	calm			0		0			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.41	747.0	30.18	766.6	55.0	12.8	68	ene.	7.4	3.3			9			0	0		Dr. Wierzbicki.
Eperies	29.26	743.1	30.13	765.4	55.8	13.2	66	calm			0	cs	8 s			0	0		Julius Mikolik.
Gratz ‡	28.89	733.8	30.13	765.4	59.4	15.2	72	w.			2		3			0	0		Andreas Rospini.
Hermannstadt	28.72	729.5	30.18	766.5	49.3	9.6	78	wnw.			3		10			0.024	0.6	raining	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.79	731.2	30.13	765.3	55.0	12.8	87	sw.			1		10			0.441	11.2	gloomy	The Staff.
Lemberg	29.21	742.0	30.21	767.4	50.0	10.0	48	se.			3		5			0	0		Dr. T. Stanecki.
Pola	30.04	763.1	30.15	765.9	68.4	20.2	60	sse.			1		5			0	0		I. R. Hydrographic Office.
Szathmar	29.69	754.2	30.16	766.0	55.4	13.0	57	e.			1		9			0	0		Beicht Peter, S. J.
Szegedin	29.90	759.4	30.18	766.6	55.4	13.0	64									0	0		Karl Stancel.
Trieste	30.07	763.7	30.17	766.3	67.3	19.6	52	calm			0		8			0	0	cloudy	Secco.
Vienna	29.44	747.8	30.16	766.0	57.0	14.2	74	calm			0		7			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.16	766.1	30.26	768.6	56.6	13.7	68	s.	9	4.0			1			0.010	0.3	blue sky	W. Boswell.
Armagh, Observatory	30.05	763.3	30.28	769.1	58.3	14.6	90	s.	8	3.6			10					overcast	S. Call.
Bidston, Liverpool Obs'y			30.32	770.1	60.2	15.7	65	ese.	10	4.5			2					misty	John Hartnup.
Bolton, Sharples	29.78	756.4	30.32	770.1	60.8	16.0	65	ssw.	6	2.7			5					foggy	Thomas Mackereth.
Bradford, Yorkshire	29.91	759.7	30.31	769.9	59.0	15.0	63	w.			1		2			0	0	blue sky	[A.S. J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.32	770.1	60.4	15.8	75	n.			0.2		2					blue sky	John McLaren.
Chatham, School M. E.	30.20	767.1	30.33	770.4	61.5	16.4	77	n.			1		4					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	30.13	765.3	30.35	770.9	59.4	15.2	78	ese.			1		2					d. clouds	The Staff.
Fort Napier, Natal	27.11	688.6	29.33	745.0	72.3	22 4	63	e.			2		0					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.74	755.4	29.97	761.2	84.0	28.9	83	w.			1		2					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.20	767.1	60	15.6	88	w.			2		10					showery	J. O'Donaghue.
Gibraltar, Mediterranean	30.05	763.3	30.10	764.5	78.4	25.8	82	e.			4		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	30.08	764.0	30.28	769.1	55.7	13.2	83	nw.			2		10 k					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.16	766.1	30.33	770.4	61.0	16.1	68	ne.			1		1					blue sky	The Staff.
Guernsey	30.09	764.3	30.30	769.6	62	16.7	80	nne.			2		0					blue sky	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.30	769.6	30.34	770.6	60.4	15.8	67	n.	7	3.1			2					misty	The Staff.
Leicester, Museum	30.07	763.8	30.32	770.1	60.9	16.1	62	sw.			1								J. C. Smith.
Malta, Mediterranean	30.00	762.0	30.08	764.0	75.0	23.9	59	nw.			2		6			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.98	761.5	30.03	762.7	82.5	28.1	80	e.			3		7					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.82	757.4	30.34	770.6	62.3	16.8	63	ne.			1		0					blue sky	John Mac Email.
Oxford, Radcliffe Obs'y	30.11	764.8	30.34	770.6	62.3	16.8	59	n.			2		0					misty	The Staff.
Plymouth	30.26	768.6	30.33	770.4	61.0	16.1	80	ssw.			1		2					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.21	767.3	55.2	12.9	70	sw.	10	4.5			2					blue sky	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	30.04	763.0	30.10	764.5	57.8	14.3	63	n.			2		9			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	30.06	763.5	30.34	770.6	59.2	15.1	76	calm			0		2			0	0	d. clouds	W. F. Cooper.
Silloth Rectory	30.28	769.1	30.31	769.9	59.0	15.0	81	wsw.			1		10			0	0	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.34	770.6	58.1	14.5	81	se.	2	0.9			7					misty	Rev. S. J. Perry.
Stratfield Turgiss	30.12	765.0	30.34	770.6	62.5	16.9	64	n.			1		0					blue sky	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.31	769.9	30 33	770.4	68	20.0	64	s.			2		4					d. clouds	W. Newcombe.
Valencia, Observatory	30.22	767.6	30.25	768.3	62.1	16.7	80	se.	29	13.0			6			blank	blank	d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.78	756.4	29.83	757.7	63	17.2	93	sw.	10	4.5			10 s			inap.	inap.	cloudy	H. J. Cundall, C. E.
Chatham, N. B. *	29.69	754.1	29.75	755.6	59	15.0	100	s.	7	3.1		2 ck	2 ks	s.	s.	0.10	2.5	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	29.66	753 4	29.68	753.9	48	8.9	100	calm	0	0			fg.			0.74	18.8	light rain	J. McWilliams.
Fort Garry, Manitoba *	29.25	742.9	30.12	765.0	27	— 2.8	96	calm	0	0			fg.			0.190	4.8	dense fog	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.81	757.2	29.93	760.2	63	17.2	97	s.	6	2.7			fg.			0	0	foggy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.56	750.8	29.88	758.9	68	20.0	93	sw.	4	1.8			10 n		sw.	0.13	3.3	light rain	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.62	752.3	29.81	757.2	70	21.1	84	sw.	11	4.9			10 s			0.16	4.1	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.26	743.2	29.93	760.2	59	15.0		w.	9	4.0			10 n		nw.	0.08	2.0	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.29	744.0	29.96	761.0	68	20.0	95	w.	6	2.7		10 k	0	sw.		0.08	2.0	fair	H. Morgan.
Port Stanley, Ontario	29.34	745.2	29.96	761.0	67	19.4	90	w.	8	3.6		5 ck	0	w.		inap.	inap.	fair	M. Payne.
Quebec, Quebec *	29.46	748.3	29.77	756.1	67	19.4	93	w.			3	2 k	2 s	nw.	nw.	0.34	8.6	fair	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.42	747.3	29.87	758.7	58	14.4	78	e.	1	0.4			fg.			0.45	11.4	light rain	W. H. McIntyre.
Sangeen, Ontario *	29.30	744.2	30.00	762.0	57	13.9	93	nw.	15	6.7			10 ks			0.15	3.8	cloudy	K. Stewart.
St. Andrews, N. B.	29.80	756.9	29.85	758.2	57	13.9	96	calm	0	0			fg.			0	0	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	29.85	758.2	29.90	759.4	57	13.9	96	sw.	13	5.8			10 n			0.15	3.8	clearing	T. C. Hill, C. E.
Toronto, Ontario *	29.62	752.3	29.99	761.7	67	19.4	90	sw.	4	1.8		5 ck	0	nw.		0.01	0.3	fair	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	29.89	759.2	29.96	761.0	60	15.6	100	sw.	9	4.0		fg.	fg.			0	0	foggy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.01	762.2	30.27	768.8	41	5.0	91	s.					10					showery	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House ‡	30.09	764.3	30.12	765.0	66.0	18.9	93	e.	7.9	3.5		0	1 s			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester * †	29.27	743.4			76	24.4	46	se.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai.	30.03	762.7	30.05	763.3	67.3	19.6	85	s.	4.0	1.8		0	0			0	0	clear	M. Marc Dechevrens, S. J.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.18	766.6	30.23	767.8	56.1	13.4	76	se.	13	6			9						Oversergent Fischer
Fanöe	30.23	767.9	30.25	768.4	57.2	14.0	79	nnw.			4		9						Overloerer Lauridsen
Godthaab, Greenland	29.69	754.0	29.73	755.1	23.4	—4.8	95	calm			0		3						S. Kleinschmidt.
Stykkisholm, Iceland	29.39	746.6	29.44	747.7	52.5	11.4	86	s.			3		10					running	A. O. Thorlacius.
Thorshavn,	30.01	762.3	30.05	763.2	54.3	12.4	80	sw.	18	8			10						Overloerer Bergh.
Vestervig	30.17	766.3	30.26	768.6	54.9	12.7	83	nw.			2		3						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.56	750.9	30.20	767.1	70.2	21.2	50	nnw.			1	2 c	0			0	0	slightly cl'dy	M. Labroue, Director.
Alençon Normal School	29.76	756.0	30.32	770.0	60.1	15.6	83	n.			2		kn	n.	n.	0	0		M. Nicot, Director.
Arras, Engineer School																			M. Klein, Commandant.
Avignon, Normal School	30.07	763.8	30.15	765.8	65.5	18.6	67	n.			1		10			0	0	covered	M. Giraud, Director.
Bar-sur-Seine	29.70	754.3	30.25	768.4	59.7	15.4	74	ne.			1	0	5 kn		ne.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	30.04	762.9	30.30	769.6	60.3	15.7	64	ne.			1		8		ne.	0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.32	744.7	30.21	767.2	60.8	16	66	ne.			1		5		nnw.	0	0	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.91	759.6	30.17	766.2	70.2	21.2	40	nne.			1		1		ene.	0	0	almost clear	M. Rayet, Director.
Bourges, Normal School	29.07	753.5	30.22	767.5	63.5	17.5	71	n.			1		5		n.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	30.06	763.6	30.31	769.8	68.0	20.0	60	e.			1		4		e.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.22	767.6	30.30	769.5	63.7	17.6	73	ne.			1		1		ne.	0	0	clear	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					56.1	13.4	62	s.			2		0			0	0	clear	M. Jadot, Director.
Charleville, Normal School	29.72	754.8	30.23	767.8	62.2	16.8	63	nnw.			1		5			0	0	½ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.82	731.9	30.15	765.9	63.7	17.6	67	n.			1		8			0	0	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.37	746.1	30.22	767.7	64.4	18	71	n.			4		3		w.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.41	747.0	30.28	769.2	55.0	12.8	66	n.			1		2	n.	n.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.57	700.2	30.04	762.9	66.6	19.2	57	se.			1	5 ck	0			0	0	¼ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	29.06	738.2	30.21	767.2	68.4	20.2	43	n.			2		8		ne.	0	0	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.39	746.5	30.14	765.5	68.0	20	51	nw.			1	ck	0	ne.		0	0		M. Ablard, Director.
Guéret, Normal School	28.65	727.7	30.23	767.8	61.7	16.5	75	e.			2	0	kn		sw.	0	0		M. Rivoire, Director.
Lamballe, Normal School	30.05	763.2	30.32	770.0	63.7	17.6	59	nne.			2				nne.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.23	767.8	30.33	770.4	69.8	21.0	65	e.			1		0			0	0	clear	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.15	740.5	30.21	767.3	60.8	16.0	71	nw.			1		10		nw.	0	0	covered	M. André, Director.
Mans, Normal School	30.03	762.7	30.34	770.5	59.4	15.2	73	ne.			1		5		ne.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.83	757.6	30.09	764.2	69.8	21.0	65	wsw.			1		9		w.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.97	634.2	30.21	767.2	55.4	13.0	57	w.	5.6	2.5			6		w.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.01	762.2	30.11	764.9	72.3	22.4	50	s.			1		2		w.	0	0	slightly cl'dy	M. Pourie, Director.
Nancy, Normal School	29.48	748.9	30.25	768.3	56.8	13.8	71	nw.			1		10 kn		nw.	0	0	covered.	M. Hasse.
Nantes, Observatory	30.15	765.8	30.31	769.9	65.3	18.5	59	ene.			2-3		5 k	ene.	e.	0	0		M. Larocque, Director.
Nice	30.09	764.2	30.12	765.1	65.8	18.8	81	se.			2	1	1	se.	se.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	30.01	762.2	30.11	764.8	68.7	20.4	52	s.	1.8	0.8			9	w.	w.	0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.72	577.3			41.0	5.0							10		se.	0.083	2.1	rainy	Gen'l de Nansouty Dir.
Privas, Normal School					63.3	17.4	79	calm			0		5			0	0	cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.32	643.2			44.4	6.9	93	ne.			2		10			0	0	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.23	767.8	30.26	768.6	68.0	20.0	100	ne.			1		2		n	0	0	¼ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	30.12	765.0	30.34	770.5	64.0	17.8	60	ne.			3		0			0	0	clear	M. Mouilliot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.24	768.1	30.33	770.3	60.8	16	69	w.			1		5			0	0	cloudy	M. Platrier, Director.
Saint Lô, Normal School	30.15	765.8	30.31	769.8	63.1	17.3	72	ne.			2		5		n.	0	0	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	30.13	765.2	30.29	769.4	61.7	16.5	59	ne.			1		1		ne.	0.004	0.1		M. Renou, Director.
Toulouse, Observatory	29.48	748.8	30.21	767.3	65.7	18.7	73	s.			1		5	nw.		0	0	cloudy	M. Baillaud, Director.
Tours	30.07	763.8	30.27	768.8	63.7	17.6	63	e.			1		5		e.	0	0	½ covered	M. de Tastes.
Versailles, Observatory	29.81	757.1	30.30	769.6	61.2	16.2	59	ne.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	30.01	762.2	30.30	769.6	61.0	16.1	55	ne.			2		6		ene.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.34	745.1	30.21	767.2	52.2	11.2	88	nw.			2	0	7 n		nw.	0.256	6.5	raining	Prof. Dr. Hoh.
Berlin	30.00	762.1	30.18	766.5	57.6	14.2	51	ne.			1		5			0	0		Prof. Dr. Arndt.
Breslau	29.66	753.3	30.19	766.9	52.9	11.6	59	nw.			1		7			0	0		Royal University Obs'y.
Carlsruhe	29.78	750.5	30.21	767.4	57.6	14.2	76	n.			1		9	nw.		0	0		Albert Senz.
Cassel	29.47	748.6	30.19	766.9	50.5	13.6	73	nw.			3		7	nw.		0.445	11.3		Dr. H. Möll.
Frankfort on the Main	29.83	757.7	30.19	766.9	60.3	15.7	57	n.			2		4			0.075	1.9		Physical Society.
Friedrichshafen	28.70	730.6	30.20	767.1	56.5	13.6	86	w.			2		10	w.		0.075	1.9		Wilhelm, Chief Tel.
Hamburg	30.14	765.5	30.23	767.9	54.0	12.2	91	nw.			1		10			0.087	2.2		E. Preller.
Kiel	30.19	766.9	30.21	767.3	55.0	12.8	87	calm			0		10			0.177	4.5		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.76	756.0	30.19	766.8	52.5	11.4	96	nw.			2		10	nw.				raining	H. Leppig, Asst.
Magdeburg	29.98	761.6	30.17	766.4	56.1	13.4	88	w.			2		10 s		nnw.	0.102	2.6	sprinkling	Dr. Assmann.
Memel	30.35	770.9	30.40	772.1	50.0	10.0	80	ne.			2		10 ks						Issermann.
Munich	28.35	720.2	30.23	767.8	54.7	12.6	71	w.			2		8	n.		0.079	2.0		Central Station.
Neufahrwasser	30.28	769.1	30.30	769.5	56.3	13.5	56	s.			5		5			0	0		A. Lothes
Neustadt, Palatinate	29.68	753.9	30.21	767.4	55.8	13.2	93	n.			3		10			0	0		Dicknether.
Stuttgart	29.24	742.6	30.13	765.4	54.5	12.5	81	nw.			1		10			0.075	1.9	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.69	728.7	30.21	767.4	51.6	10.9	85	nw.			2		10	nw.		0.220	5.6		Fischer.
Wustrow	30.20	767.0	30.22	767.6	60.1	15.6	63	se.			2	0	5 k			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.70	754.4	30.08	764.1	74.8	23.8		sw.			2.0		5 k					½ clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.68	753.7	29.72	755.0	83.0	28.3	79	sw.	17.0	7.6			4		wsw.	0	0	d. clouds	
Deesa	29.28	743.6	29.74	755.4	87.0	30.6	58	sw.					4		sw.	0	0	d. clouds	
Bombay	29.77	756.0	29.80	757.0	81.8	27.7	83	nw.	17.0	7.6			10		n.	0.02	0.5	overcast	
Poona, Yarrowda.	27.92	709.3	29.78	756.3	78.5	25.8	74	wnw.	15.0	6.7			10		wnw.	0	0	overcast	
Belgaum	27.28	692.8	29.84	757.8	70.7	21.5	95	w.	6.0	2.7			10			1.68	42.7	showery	
Lahore	28.93	734.8	29.64	752.8	99.5	37.5	42	w.	1.8	0.8			0			0	0	blue sky	
Roorkee	28.77	730.8	29.66	753.2	87.4	30.8	57	calm	1.4	0.6			0			0	0		
Agra	29.14	740.2	29.70	754.2	88.2	31.2	59	w.	3.1	1.4			0			0	0		
Nagpur	28.70	729.0	29.74	755.4	80.7	27.1	78	sw.	3.2	1.4			9		ne.	0.05	1.3	gloomy	
Jubbulpore	28.38	720.9	29.72	754.8	85.8	29.9	62	w.	2.0	0.9			0			0	0	blue sky	
Lucknow	29.34	745.1	29.71	754.5	89.1	31.7	50	wnw.	2.4	1.1			0			0	0	blue sky	
Allahabad	29.36	745.8	29.67	753.7	84.7	29.3	72	calm	0.4	0.2			0			0	0	blue sky	
Patna	29.53	749.9	29.70	754.5	87.4	30.8	72	e.	4.2	1.9			2	e.	e.	0	0		
Hazaribagh	27.73	704.4	29.71	754.7	83.8	28.8	58	calm	5.3	2.4			1	e.	w.	0	0	blue sky	
Cuttack	29.68	753.9	29.76	756.0	85.0	29.4	78	wnw.	0.3	0.1			2			0	0	d. clouds	
Calcutta, Alipore	29.73	755.1	29.75	755.7	82.7	28.2	83	s.	4.0	1.8			1			0	0	d. clouds	
Dhubri	29.67	753.7	29.80	756.8	75.7	24.3	95	calm	3.4	1.5			6			1.49	37.8	d. clouds	
Chittagong	29.71	754.7	29.80	757.0	83.6	28.7	80	wsw.	3.1	1.4			4			0	0	blue sky	
Sibsagar	29.48	748.7	29.81	757.2	79.9	26.6	87	ene.	3.1	1.4			5			0	0	d. clouds	
Jeypore	28.29	718.5	29.70	754.4	88.2	31.2	43	nw.	3.4	1.5			3		nw.	0	0	d. clouds	
Zanzibar, Africa			30.00	762.0	84.9	29.4	51	se.	4	1.8			1		se.	0.03	0.8	blue sky	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.74	755.4	30.15	765.7	65.1	18.4	53	calm	0	0			3			0	0		Prof. Giovanni Clodig.
Milan	29.64	752.9	30.15	765.9	68.4	20.2	37	ne.	2.5	1.1			8	w.		0	0		Prof. Schiaparelli.
Padua	30.04	763.0	30.15	765.8	66.0	18.9	51	ese.	4.9	2.2			7	wnw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.24	742.7	30.14	765.5	61.7	16.5	72	s.	1.8	0.8			9	n.		0	0		Prof. P. F. Denza.
Genoa	29.95	760.8	30.15	765.8	66.2	19.0	64	sw.	0.7	0.3			10	sw.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.24	717.4	30.15	765.7	57.6	14.2	75	w'			2		9			0	0		Prof. D. C. Bruno.
Pesaro	30.08	763.9	30.12	765.1	65.1	18.4	52	e.	8.7	3.9			0			0	0		Prof. Luigi Guidi.
Florence	29.85	758.3	30.11	764.7	68.9	20.5	30	nw.			2		2	wnw.		0	0		Prof. Costantino Pitter.
Leghorn	30.05	763.3	30.14	765.5	68.5	20.3	55	wsw.	1.8	0.8			4			0	0		Prof. P. Monte.
Rome	29.95	760.6	30.12	765.0	69.1	20.6	38	nnw.	1.8	0.8			8			0	0		Prof. P. S. Ferrari.
Lecce	29.90	759.5	30.15	765.8	66.4	19.1	51	wnw.	15.4	6.9			4	w.		0	0		Prof. C. de Giorgi.
Cosenza	29.25	743.0	30.13	765.2	68.4	20.2	51	nnw	3.1	1.4			3	nw.		0	0		Prof. D. Conti.
Cagliari	29.91	759.7	30.10	764.5	75.4	24.1	40	wnw.			2		5			0	0		Prof. A. Pacinotti.
Palermo	29.91	759.6	30.15	765.8	71.4	21.9	53	ne.	6.9	3.1			0			0	0		Prof. G. Ciacciatore.
Syracuse	30.08	763.9	30.08	764.0	72.5	22.5	65	s.	9.8	4.4			5	w.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.59	751.6	29.89	759.3	69.1	20.6	67	wnw.	1.8	0.8			10	n.		0	0		Prof. F. Brioschi.
Stelvio	22.24	564.8			38.8	3.8	45	ssw.			2	10 cks	0	nw.		0	0	covered	Prof. P. F. Denza.
Valdobbia	22.30	566.4			39.7	4.3	75	n.			2		10 n			0	0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.98	761.5	29.99	761.7	69.2	20.7	83	ne.	1.9	0.8			10 n			0.010	0.3	raining	K. Sasaki.
Kioto	29.83	757.7	30.00	762.0	70.8	21.6	80	nnw.	1.1	0.5			10 s			0.040	1.0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.86	758.4	30.06	763.5	66.4	19.1	85	calm	0	0			10 n			0.040	1.0	raining	S. Takehayashi.
Niigata	29.99	761.7	30.02	762.5	72.9	22.7	68	ne.	3.6	1.6		ck	10 s			0.240	6.1	cloudy	
Nobiru	30.04	763.0	30.06	763.5	69.8	21.0	90	se.	5.4	2.4			10 s			0.375	9.5	cloudy	
Supporo	29.91	759.7	29.98	761.5	60.3	15.7	87	e.	8.2	3.7			10 s			0.275	7.0		
Tokei Obs'y, Yeddo	29.96	761.0	30.03	762.7	69.6	20.9	89	ne.	3.3	1.5			10 s			0.445	11.3	cloudy	The Staff.
Wakayama	29.96	761.0	30.01	762.2	72.8	22.7	82	calm	0	0		ck	10 s			0.064	1.6	cloudy	Y. Kawamuca.
MAURITIUS SERIES. Furnished by the co-operation o. C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.02	762.5	30.21	767.3	70.1	21.2	84	e.	17.0	7.6			10		ese.	0.01	0.3	drizzling	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.59	599.4	29.82	757.4	61.3	16.3	52	calm	0	0		1 c	2 k	e.	ne.	0.028	0.7	clear	Vicente Fernandez.
Leon	24.31	617.5	29.88	759.0	65.8	18.8	88	s.			1	6 c	3 k	nw.		0.197	5.0	very cloudy	Prof. M. Leal.
Mazatlan	29.49	748.9	29.74	755.4	80.0	26.7	87	ene.	0.9	0.4			10 n		ese.	0	0	threatening.	F. Quijano, U. E.
Mexico, Central Obs'y	23.03	585.0	30.01	762.4	55.8	13.2	88	calm	0	0		3 ck	0			0.071	1.8	foggy	The Staff.
Morelia	23.96	608.5	29.98	761.6	61.3	16.3	49	s.			4	5	3	s.	s.	0.047	1.2	cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.87	606.2	29.76	755.8	65.7	18.7	74	nnw.			1	1 c	8 ks		se.	0	0	very cloudy	M. V. de Leon, M. D.
Puebla, Catholic Institute	23.42	594.8	30.22	767.6	50.9	10.5	46	calm	0	0		0	1		e.	inap.	inap.	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.52	572.1	30.04	763.1	54.0	12.2	79	e.	5.1	2.3		0	9 ns		e.	0	0	very cloudy	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.32	770.1	30.32	770.1	61.3	16.3		nnw.			2					0.157	4.0		
Groningen	30.22	767.5	30.27	768.9	58.1	14.5		n.			1					0.028	0.7		
Helder	30.29	769.4	30.29	769.4	57.6	14.2		ene.			1					0	0		
Hellevoetsluis	30.28	769.2	30.28	769.2	61.5	16.4	76	nnw.			1					0.043	1.1		
Utrecht	30.11	764.8	30.30	769.6	59.5	15.3	69	nne.			1		5			0.008	0.2	cloudy	H van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.18	766.6	30.24	768.2	55.8	13.2	82	calm	0	0			8			0.031	0.8		
Christiania	30.10	764.5	30.25	768.3	52.7	11.5	88	wsw.	0	0			8			0	0		
Gjæsvær	29.88	758.9	29.90	759.5	49.6	9.8		calm			0		10						
Lodingen	29.89	759.3	29.94	760.5	49.3	9.6	84	ssw.			6		10			0.350	8.9		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.86	758.4	30.01	762.2	71.6	22.0	91	sw.	6.3	2.8			4			0.315	8.0		Dr. J. A. Sampaio.
Campo Major	29.12	739.7	30.08	764.0	81.7	27.6	40	wnw.	6.9	3.1			3			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.11	764.7	30.19	766.9	73.9	23.3	72	sse.	6.3	2.8			9			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.82	757.4	30.17	766.4	71.4	21.9	74	sw.	10.5	4.7			1			0	0		The Staff.
Ponta Delgada, Azores	30.00	762.1	30.08	763.9	72.0	22.2	92	ssw.	11.9	5.3			10			0.252	6.4	raining	
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.69	728.8	29.80	757.0	32.2	0.1	100	ne.	18	8			10 k						Capt. Lasarew.
Archangel	30.17	766.2	30.19	766.7	42.6	5.9	81	s.	13	6			10						Capt. Sseliwerstow.
Astrakhan	30.35	770.8	30.26	768.7	42.4	5.8	52	ene.	11	5			10 n						Capt. Wisganow.
Barnaul ‡	29.20	741.7	29.71	754.5	44.1	6.7	76	w.	7	3			9						Meteorological Obs'y.
Dorpat	30.22	767.5	30.47	773.8	52.7	11.5	63	ese	4	2			10 k						Observatory.
Ekaterinburg	29.11	739.5	30.13	765.2	26.2	— 3.2	70	nnw.	9	4			10						Meteorological Obs'y.
Kasan	30.17	766.4	30.46	773.6	35.1	1.7	51	nw.	2	1		0	1						Observatory.
Kertch	29.82	757.4	29.84	757.9	48.7	9.3	99	e.	16	7			10 n			0.354	9.0		Lagorio & Sastyres.
Kieff	29.68	753.9	30.34	770.7	39.4	4.1	54	nne.	11	5			c;cs	9 ks					Observatory.
Lugan	30.03	762.7	30.24	768.0	40.3	4.6	53	ene.	33	15			10			blank	blank		Meteorological Obs'y.
Moscow	29.97	761.3	30.43	773.0	39.2	4.0	48	s.	7.8	3.5		0	3 ks						Meteorological Obs'y.
Nikolaiev	30.11	764.9	30.19	766.7	37.0	2.8	86	ne.	45	20			10 n					raining	Capt. Kurdiakow.
Nikolaievsk, on the Amoor.	29.95	760.6	30.03	762.8	43.3	6.3	79	calm			0	4 ck	0			0	0		Lieut. Iwanow.
Pekin, China	29.82	757.3	29.96	760.9	62.1	16.7	71	calm	0	0		0	4 k						Physical Observatory.
St. Petersburg	30.43	773.0	30.45	773.4	48.0	8.9	72	ssw.	9	4			10 n;k						Central Physical Obs'y.
Tashkend, Laboratory	28.52	724.3	30.07	763.8	62.8	17.1	84	calm	0	0			5						Teich, A. M.
Tiflis	28.51	724.2	29.87	758.8	72.7	22.6	56	se.	4	2			9 ks						Physical Observatory.
Warsaw	29.84	757.8	30.26	768.6	54.1	12.3	48	ese.	13	6		ck	9 ks						Astronomical Obs'y.
Wilna	29.98	761.5	30.41	772.3	54.3	12.4	49	sse.	4	2			3						Berg, Assistant.
Yeniseisk	29.47	748.6	29.76	755.9	45.7	7.6	67	e.	4	2			10						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.29	769.4	55.0	12.8	81	e.			1	0	0			0	0	fine	Andrew Gibb.
Monach Lt. House, Hebrides			30.14	765.5	56	13.3	94	ssw.			3		10					raining	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.98	761.5	30.08	764.1	74.8	23.8	77	ese.	4.0	1.8			9					thund'r st'm	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.12	765.1	30.18	766.5	72.0	22.2	79	se.	1.6	0.7		1	8	nw.		0.272	6.9	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.24	692.0			63.1	17.3	61	n.	8.7	3.9			4			0.886	22.5	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.90	708.6	30.02	762.5	80.8	27.1	39	w.	4.3	1.9		0	8			0	0	cloudy	The Staff.
Murcia, Met. Obs'y ‡	29.96	761.0	30.11	764.7	82.4	28.0	55	ese.	1.8	0.8		5	4	w.		0	0	almost cov'd	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.22	742.1	30.10	764.4	66.6	19.2	87	se.	0	0			10			0.008	0.2	covered	R. Gil Vallanueva, Dir
Sub-Series.																			
Havana, Cuba, W. I.	29.94	760.5	30.01	762.2	77.7	25.4	89	e.	2.0	0.9		3 c;ck	2 k;ks	nw.	ese.	0.142	3.6	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.84	757.9	29.89	759.2	82.8	28.2	88	s.	4.4	2.0		7 ck	0	se.		0.84	21.4	very cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.04	763.1	30.14	765.5	77.9	25.5	60	sw.	7.0	3.1		4	6	sw.	w.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.88	759.0	29.97	761.3	80.2	26.8	88	se.	0	0		2 k	2 k			0.236	6.0		E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.78	756.4	29.91	759.8	80.0	26.7	85	nw.	1.3	0.6		0	4 ks		nw.	0	0		José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.09	764.3	30.13	765.3	50.0	10.0	92	sw.			2		8			0	0		
Umea	30.13	765.2	30.18	766.5	54.0	12.2	76	sw.			2		3			0	0		
Hernosand	30.16	766.0	30.21	767.3	52.7	11.5	82	s.			2		5			0	0		
Stockholm	30.13	765.2	30.30	769.7	52.9	11.6	59	ssw.			2		10			0	0		
Wisby	30.24	768.2	30.30	769.7	54.0	12.2	67	sw.			2		10			0	0		
Sub-Series.																			
Upsala	30.20	767.1	30.29	769.3	50.5	10.3	71	ssw.	11.4	5.1			9		sw.	0.008	0.2		[illegible] Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.76	730.5	30.17	766.2	61.0	16.1	67	n.			1		8			0.012	0.3	covered	The Observatory.
Zurich ‡	28.57	725.7	30.20	767.0	57.7	14.3	80	sw.			1		7			0.047	1.2	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.15	765.9	57.6	14.2	66	nw.	11	5.0			9		nw.	0	0		The Observatory.
Valona			30.20	767.1	68.4	20.2		w.			1		2			0	0	slightly cld,y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.99	761.8	84.9	29.4	50	w.			2	0	1 k		w.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Albany, New York	29.89	759.2	29.97	761.2	73.8	23.2	84	calm	0	0		5 c	5 ks		w.	0.62	15.7	cloudy	
Alpena, Michigan	29.42	747.3	30.09	764.3	50.3	10.2	93	nw.	10	4.5		2 c	0	nw.		0.32	8.1	fair	
Atlanta, Georgia	29.00	736.6	30.18	766.6	68.5	20.3	93	s.	5	2.2			10 s		calm	0.18	4.6	cloudy	
Atlantic City, New Jersey	30.07	763.8	30.08	764.0	73.8	23.2	90	sw.	9	4.0		0	0			0	0	clear	
Augusta, Georgia	30.01	762.2	30.20	767.1	75.0	23.9	85	e.	1	0.4		3 c	hz.			0	0	fair	
Baltimore, Maryland	30.04	763.0	30.09	764.3	76	24.4	76	sw.	8	3.6		8 c	0	w.		0	0	fair	
Barnegat, New Jersey	30.03	762.7	30.05	763.3	74.0	23.3	90	sw.	12	5.4		2 cs	0	calm		0	0	clear	
Bismarck, Dakota	28.23	717.0	30.05	763.5	36	2.2	92	e.	5	2.2		hz.	8 s		calm	0	0	cloudy	
Boise City, Idaho	27.12	688.8	29.96	761.0	31.0	— 0.6	88	nw.	2	0.9		0	0			0	0	clear	
Boston, Massachusetts	29.81	757.2	29.97	761.2	72.3	22.4	91	sw.	11	4.9		8 ck	0	sw.		0	0	fair	
Brackettville, Texas	28.68	728.5	29.08	753.9	79	26.1	77	e	12	5.4			10 s		se.	0	0	cloudy	
Brownsville, Texas	29.80	756.9	29.84	757.9	77	25.0	97	se.	2	0.9		8 cs	0			0.22	5.6	fair	
Buffalo, New York	29.25	742.9	29.97	761.2	70.3	21.3	93	sw.	21	9.4			10 s		sw.	0.38	9.7	cloudy	
Burlington, Vermont	29.60	751.8	29.89	759.2	69.5	20.8	89	s.	7	3.1		4 ck	3 s	w.	sw.	0.05	1.3	fair	
Cairo, Illinois	29.66	753.4	30.06	763.5	67.6	19.8	91	nw.	6	2.7			10 s		calm	1.26	32.0	cloudy	
Campo, California	27.23	691.6	29.80	756.9	46	7.8	76	w.	8	3.6			10 s		w.	0	0	cloudy	
Camp Thomas, Arizona	26.99	685.5			50	10.0	80	calm			0	3 cs	0			0	0	clear	
Cape Henry, Virginia	30.16	766.1	30.18	766.6	74	23.3	85	sw.	17	7.6		0	0			0	0	clear	
Cape May, New Jersey	30.06	763.5	30.08	764.0	75	23.9	76	sw.	20	8.9		0	0			0	0	clear	
Castroville, Texas	29.08	738.6	29.75	755.6	80	26.7	79	se.	4	1.8		0	2 s		s.	0	0	fair	
Cedar Keys, Florida	30.09	764.3	30.11	764.8	78	25.6	88	e.	11	4.9		1 c	0	e.		0.32	8.1	clear	
Champaign, Illinois	29.24	742.7	30.02	762.5	62.0	16.7	93	ne.	14	6.3			10 n		ne.	0.10	2.5	light rain	
Charleston, S. Carolina	30.13	765.3	30.19	766.8	77	25.0	90	n.	4	1.8		0	3 s		se.	0	0	clear	
Charlotte, N. Carolina	29.32	744.7	30.20	767.1	69.8	21.0	90	sw.	1	0.4		5 c	2 k	calm	calm	0	0	fair	
Chattanooga, Tennessee	29.34	745.2	30.17	766.3	70.0	21.1	93	s.	2	0.9			10 s		sw.	0.07	1.8	cloudy	
Cheyenne, Wyoming	23.92	607.6	29.89	759.2	37.1	2.8	66	s.	12	5.4			10 s		s.	0	0	cloudy	
Chicago, Illinois	29.38	746.2	30.09	764.3	58.6	14.8	73	n.	7	3.1			10 k		sw.	0.56	14.2	cloudy	
Chincoteague, Virginia	30.12	765.0	30.14	765.5	74	23.3	85	sw.	25	11.2		0	0			0	0	clear	
Cincinnati, Ohio	29.42	747.3	30.08	764.0	72.5	22.5	87	calm	0	0			10 s			inap.	inap.	cloudy	
Cleveland, Ohio	29.31	744.5	30.05	763.3	68.5	20.3	87	sw.	7	3.1			10 ks		w.	0.03	0.8	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.21	741.9	30.07	763.8	70	21.1	90	s.	3	1.3		5 cs	5 ks	sw.	sw.	0.06	1.5	cloudy	
Concho, Texas	27.94	709.7	29.88	758.9	76	24.4	82	se.	10	4.5		0	6 s		se.	0	0	fair	
Corsicana, Texas	29.49	749.0	29.96	761.0	78	25.6	82	s.	4	1.8		0	0			0	0	clear	
Davenport, Iowa	29.45	748.0	30.11	764.8	54	12.2	67	ne.	4	1.8		1 cs	4 s	w.	calm	0.02	0.5	fair	
Dayton, Washington T'y	28.27	718.0	30.08	764.0	34	1.1	81	n.	1	0.4		0	0			0	0	clear	
Deadwood, Dakota	25.14	638.5	29.84	757.9	45	7.2	71	w.	12	5.4			8 s		w.	0.04	1.0	cloudy	
Decatur, Texas	28.72	729.5	29.83	757.7	78	25.6	65	s.	13	5.8			10 s			0	0	cloudy	
Delaware Breakwater, Del.	30.07	763.8	30.09	764.3	74	23.3	84	sw.	20	8.9		3 c	0	w.		0	0	fair	
Denison, Texas	29.11	739.4	29.92	760.0	77	25.0	85	s.	8	3.6			10 s		s.	0	0	cloudy	
Denver, Colorado	24.53	623.1	29.75	755.6	48.0	8.9	61	se.	16	7.2		0	1 s		calm	0	0	clear	
Des Moines, Iowa	29.21	741.9	30.12	765.0	46	7.8	77	ne.	4	1.8		0	3 s			0	0	clear	
Detroit, Michigan	29.32	744.7	30.04	763.0	69	20.6	84	w.	5	2.2			10 s		nw.	0.55	14.0	threatening.	
Dodge City, Kansas	27.36	694.9	29.95	760.7	54.3	12.4	71	e.	11	4.9			10 s			0	0	cloudy	
Dubuque, Iowa	29.38	746.2	30.10	764.5	49.5	9.7	93	nw.	2	0.9		0	0			0.03	0.8	clear	
Duluth, Minnesota	29.42	747.3	30.13	765.3	42	5.6	82	w.	2	0.9		0	3 s		w.	0	0	clear	
Eagle Pass, Texas	29.07	738.4	29.90	759.4	81.1	27.3	74	se.	12	5.4			10 s		se.	0	0	cloudy	
Eagle Rock, Idaho	25.11	637.8	29.96	761.0	32	0.0	57	n.	5	2.2		0	0			0	0	clear	
Eastport, Maine	29.81	757.2	29.88	758.9	59.5	15.3	90	s.	4	1.8			fg.		s.	0	0	dense fog	
El Paso, Texas	26.06	661.9	29.81	757.2	55.5	13.1	57	calm	0	0		0	0			0	0	clear	
Erie, Pennsylvania	29.28	743.7	30.01	762.2	71	21.7	84	sw.	10	4.5		8 cs	0	w.		0.12	3.0	cloudy	
Escanaba, Michigan	29.43	747.5	30.09	764.3	44	6.7	93	w.	4	1.8		0	0			0	0	clear	
Florence, Arizona	28.17	715.5	29.77	756.1	67	19.4	57	s.	1	0.4		8 ck	0	s.		0	0	cloudy	
Fort Apache, Arizona	24.80	629.9	29.71	754.6	45	7.2	86	s.	1	0.4			10 s		calm	0	0	cloudy	
Fort Assinnaboine, Montana	27.12	688.8	29.92	760.0	34	1.1	88	w.	2	0.9			10 s		calm	0	0	cloudy	
Fort Bennett, Dakota	28.42	721.9	29.96	761.0	44	6.7	76	se.	7	3.1			10 s			0	0	cloudy	
Fort Benton, Montana	27.16	689.9	30.02	762.5	34	1.1	82	n.	5	2.2			10 s		calm	0	0	cloudy	
Fort Buford, Dakota	28.00	711.2	30.01	762.2	39	3.9	82	e.	1	0.4			10 s		se.	0	0	fair	
Fort Custer, Montana	26.65	676.9	29.89	759.2	37	2.8	90	ne.	8	3.6		0	3 s		calm	0	0	clear	
Fort Davis, Texas	24.99	634.7	29.95	760.7	63	17.2	75	sw.	1	0.4		0	0			0	0	dense fog	
Fort Elliott, Texas	27.16	689.9	30.35	770.9	55	12.8	86	ne.	8	3.6			fg.			0	0	threatening.	
Fort Gibson, Indian T'y	29.34	745.2	29.89	759.2	69.5	20.8	89	se.	4	1.8			10 s		se.	0.17	4.3	clear	
Fort Grant, Arizona					59	15.0	35	e.	6	2.7		0	0			0	0	fair	
Fort Griffin, Texas	28.56	725.4	29.76	755.9	77.0	25.0	79	e.	6	2.7		5 ck	0	se.		0	0	fair	
Fort Keogh, Montana	27.33	694.2	29.87	758.7	41	5.0	82	ne.	8	3.6		4 cs	0	ne.		0.02	0.5	cloudy	
Fort Macon, North Carolina	30.19	766.8	30.20	767.1	78	25.6	82	sw.	8	3.6		3 cs	5 ks	s.	s.	0	0	fair	
Fort McKavett, Texas	27.66	702.6	29.47	748.5	75.6	24.2	72	s.	11	4.9		6 k	0	s.		0	0	clear	
Fort Missoula, Montana	26.66	677.2	30.18	766.6	30	— 1.1	100	calm	0	0		0	0			0	0	clear	
Fort St. Michaels	29.45	748.0	29.48	748.8	44	6.7	100	s.	13	5.8			10 n			0.26	6.6	light rain	
Fort Shaw, Montana	26.34	669.0	29.94	760.5	32	0.0	100	w.	3	1.3		0	6 n		calm	inap.	inap.	light snow	
Fort Sill, Indian Territory	28.74	730.0	29.87	758.7	74.7	23.7	89	s.	4	1.8		2 c	2 s	w.		0.07	1.8	fair	
Fort Stevenson, Dakota	28.19	716.0	30.06	763.5	40	4.4	82	se.	8	3.6			10 s		se.	0	0	cloudy	
Fort Verde, Arizona					53.9	12.2	50	w.			2	0	0			0	0	clear	
Fredericksburg, Texas	28.16	715.3	29.64	752.8	74	23.3	87	s.	14	6.3		0	9 ks		sw.	0	0	cloudy	
Galveston, Texas	29.89	759.2	29.93	760.2	81	27.2	87	se.	8	3.6		hz.	0			0	0	clear	
Grand Haven, Michigan	29.42	747.3	30.09	764.3	57.5	14.2	93	nw.	4	1.8		4 ck	6 s	sw.	sw.	0.32	8.1	cloudy	
Hatteras, North Carolina	30.21	767.3	30.23	767.8	79	26.1	69	s.	10	4.5		4 k	hz.	sw.		0	0	fair	
Helena, Montana	25.79	655.1	30.18	766.6	38	3.3	72	sw.	8	3.6		0	0			0	0	clear	
Henrietta, Texas	28.88	733.5	29.74	755.4	81	27.2	67	se.	12	5.4		0	4 s		se.	0	0	fair	
Huron, Dakota	28.68	728.5	30.07	763.8	37.2	2.9	85	se.	4	1.8		10 k	0	w.		0	0	cloudy	
Indianapolis, Indiana	29.24	742.7	30.04	763.0	70	21.1	90	w.	4	1.8			10 ks,n		w.	0.01	0.3	light rain	
Indianola, Texas	29.88	758.9	29.91	759.7	78.8	26.0	91	s.	7	3.1		0	3 k		s.	1.36	34.5	fair	
Jacksboro, Texas	28.71	729.2	29.78	756.4	78	25.5	82	se.	14	6.3		0	8 ks		w.	0	0	cloudy	
Jacksonville, Florida	30.12	765.0	30.16	766.1	75	23.9	90	e.	8	3.6		1 cs	4 s		e.	0.26	6.6	fair	
Keokuk, Iowa	29.41	747.0	30.07	763.8	58.0	14.4	68	ne.	8	3.6			10 s		ne.	0	0	cloudy	
Key West, Florida	29.99	761.7	30.02	762.5	81.5	27.5	85	e.	5	2.2			10 s			0.34	8.6	cloudy	
Kittyhawk, North Carolina	30.20	767.1	30.22	767.6	76	24.4	85	sw.	10	4.5		0	0			0	0	clear	
Knoxville, Tennessee	29.16	740.7	30.20	767.1	68	20.0	100	e.	2	0.9			fg.		calm	0.55	14.0	dense fog	
La Crosse, Wisconsin	29.36	745.7	30.13	765.3	49	9.4	71	w.	2	0.9		0	0			0.01	0.3	clear	
La Mesilla, New Mexico	25.95	659.1	30.10	764.5	46.8	8.2	66	calm	0	0		0	0			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	29.14	740.1	30.04	763.0	59	15.0	70	ne.	6	2.7			10 s			0.02	0.5	cloudy	
Lewiston, Idaho	29.19	741.4	30.04	763.0	38	3.3	73	e.	1	0.4		0	0			0	0	clear	
Little Rock, Arkansas	29.69	754.1	30.01	762.2	70	21.1	94	se.	5	2.2			10 n			0.12	3.0	light rain	
Los Angeles, California	29.46	748.3	29.84	757.9	57.2	14.0	86	se.	1	0.4		0	5 s		calm	0	0	fair	
Louisville, Kentucky	29.47	748.5	30.04	763.0	72.0	22.2	84	calm	0	0			10 n			0.16	4.1	light rain	
Lynchburg, Virginia	29.44	747.8	30.13	765.3	74.6	23.7	76	calm	0	0		9 k	0	sw.		0.34	8.6	cloudy	
Madison, Wisconsin	29.10	739.1	30.13	765.3	49	9.4	77	n.	8	3.6		2 c	0	w.		0.05	1.3	fair	
Marquette, Michigan	29.36	745.5	30.09	764.3	45	7.2	83	w.	7	3.1		0	0			0	0	clear	
Mason, Texas	28.25	717.5	29.91	759.7	78	25.6	77	s.	10	4.5			10 s		s.	0	0	cloudy	
Memphis, Tennessee	29.73	755.1	30.07	763.8	69	20.6	100	calm	0	0			10 s			0.75	19.1	cloudy	

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.35	745.5	30.11	764.8	51	10.6	72	nw.	7	3.1		4 c	hz			0.08	2.0	fair	
Mobile, Alabama	30.02	762.5	30.09	764.3	76.5	24.7	94	e.	6	2.7			10 s			0.01	0.3	cloudy	
Montgomery, Alabama	29.91	759.7	30.14	765.5	71.6	22.0	95	se.	3	1.3		5 k	4 ks	s.	s.	0.26	6.6	cloudy	
Moorhead, Minnesota	29.12	739.6	30.13	765.3	31	— 0.6	100	calm	0	0			fg			inap.	inap.	dense fog	
Morgantown, W. Virginia	29.00	736.6	30.05	763.3	72.0	22.2	82	sw.	3	1.3			10 s		w.	inap.	inap.	cloudy	
Mt. Washington, N. H.	23.83	605.3	30.03	762.7	52.0	11.1	100	nw.	58	25.9			fg		nw.	0.43	10.9	dense fog	
Nashville, Tennessee	29.56	750.8	30.10	764.5	72.4	22.4	88	s.	3	1.3			10 n		s.	0.41	10.4	light rain	
New Haven, Connecticut	29.89	759.2	30.00	762.0	73	22.8	90	sw.	5	2.2		3 c	6 s		sw.	0.02	0.5	cloudy	
New London, Connecticut	29.97	761.2	30.02	762.5	73	22.8	97	nw.	8	3.6		5 k	fg	nw.		0.03	0.8	fair	
New Orleans, Louisiana	29.98	761.5	30.04	763.0	77.1	25.1	97	se.	3	1.3		4 cs	o			1.06	26.9	fair	
Newport, Rhode Island	29.97	761.2	30.02	762.5	68.0	20.0	100	sw.	17	7.6			fg			0	0	dense fog	
New River, N. Carolina					74	23.3	90	calm			0	9 cs	o			0	0	cloudy	
New Shoreham, Rhode I'd.	30.00	762.0	30.03	762.7	69.2	20.7	93	sw.	20	8.9			fg		sw.	0.07	1.8	dense fog	
New York, New York	29.87	758.7	30.05	763.3	73	22.8	90	sw.	8	3.6		6 cs	o	sw.		0.03	0.8	fair	
Norfolk, Virginia	30.15	765.8	30.18	766.0	73	22.8	90	sw.	8	3.6		o	o			0	0	clear	
North Platte, Nebraska	27.07	687.6	30.01	762.2	42.4	5.8	76	e.	12	5.4		6 cs	4 s	w.		0	0	cloudy	
Olympia, Washington T'y	29.98	761.5	30.02	762 5	42.0	5.6	89	e.	1	0.4			10 s		calm	0	0	cloudy	
Omaha, Nebraska	28.94	735.1	30.13	765.3	48.6	9.2	67	n.	3	1.3		o	7 s		sw.	0	0	cloudy	
Oswego, New York	29.60	751.8	29.92	760.0	71.0	21.7	61	s.	6	2.7			10 s		w.	0.03	0.8	cloudy	
Pensacola, Florida	30.06	763 5	30.09	764.3	77	25.0	97	e.	8	3.6		o	3 s		se.	0.20	5.1	fair	
Philadelphia, Pa	30.01	762.2	30.07	763.8	74	23.3	82	w.	11	4.9		2 c	8 s	s.		0	0	cloudy	
Phœnix, Arizona	28.51	724.1	30.25	768.3	62	16.7	60	e.	1	0.4		8 ck	o	s.		0	0	cloudy	
Pike's Peak, Colorado	17.61	447.3	29.82	757.4	22	— 5.6	100	sw.	18	8.0			fg		se.	0	0	dense fog	
Pioche, Nevada	23.77	603.7	29.79	756.7	48	8.9	37	nw.	3	1.3		o	o			0	0	clear	
Pittsburg, Pennsylvania	29.26	743.2	30.08	764.0	71.8	22.1	82	s.	8	3.6			10 s		sw.	0.02	0.5	cloudy	
Port Eads, Louisiana	30.04	763.0	30.05	763.3	79.0	26.1	94	e.	9	4.0		o	1 k;hz		e.; e.	0	0	clear	
Port Huron, Michigan	29.36	745.7	30.06	763.5	57.6	14.2	95	n.	18	8.0			10 n		calm	0.10	2.5	light rain	
Portland, Maine	29.86	758.4	29.90	759.4	66.5	19.2	90	sw.	9	4.0		3 ck	6 s	w.	calm	0.03	0.8	cloudy	
Portland, Oregon	30.01	762.2	30.08	764.0	42.1	5.6	93	calm	0	0			fg			0	0	dense fog	
Portsmouth, N. Carolina					76	24.4	74	sw.	6	2.7		6 k	o	s.		0	0	fair	
Prescott, Arizona	24.50	622 3	29.69	754.1	55	12.8	72	s.	3	1.3		o	o			0	0	clear	
Punta Rassa, Florida	30.03	762.7	30.04	763.0	77	25.0	84	ne.	6	2.7		3 c	o	n.		0.05	1.3	fair	
Red Bluff, California	29.48	748.8	29.82	757.4	60.0	15.6	35	n.	18	8.0		o	o			0	0	clear	
Rio Grande City, Texas	29.61	752.1	29.81	757.2	77	25.0	76	se.	8	3.6			hz			0	0	dense haze.	
Rochester, New York	29.31	744 5	29.95	760.7	70	21.1	84	sw.	7	3.1			10 ks		w.	0.07	1.8	threatening.	
Roseburg, Oregon	29.51	749.5	30.09	764.3	37.5	3.1	94	calm	0	0		o	o			0	0	clear	
Sacramento, California	29.73	755.1	29.81	757.2	51.0	10.6	66	nw.	4	1.8		o	o			0	0	clear	
St. Louis, Missouri	29.44	747.8	30.05	763.3	66.8	19.3	93	nw.	4	1.8			fg			inap.	nap.	dense fog	
St. Paul, Minnesota	29.27	743.4	30.15	765.8	43 2	6.2	93	sw.	2	0.9		o	o			0	0	clear	
Salt Lake City, Utah	25.39	644.9	29.72	754.9	44	6.7	68	nw.	4	1.8			10 n		calm	0.09	2.3	light rain	
San Antonio, Texas	29.20	741.7	29.90	759.4	76.0	24.4	90	se.	3	1.3		o	2 ks		s.	0	0	fair	
San Diego, California	29.70	754.4	29.77	756.1	63.5	17.5	78	s.	5	2.2			10 s			0	0	cloudy	
Sandusky, Ohio	29.35	745.5	30.04	763.0	69	20.6	90	sw.	5	2.2			10 s			0.13	3.3	cloudy	
Sandy Hook, New Jersey	30.00	762.0	30.03	762.7	76.0	24.4	85	sw.	13	5.8		9 k	o	sw.		0.36	9.1	cloudy	
San Francisco, California	29.75	755.6	29.81	757.2	54	12.2	86	w.	4	1.8		o	o			0	0	clear	
Santa Fé, New Mexico	23.13	587 5	29.93	760.2	49	9.4	61	se.	13	5.8			10 s		calm	0	0	cloudy	
Savannah, Georgia	30.09	764.3	30.18	766.6	75	23.9	90	nw.	3	1.3		4 cs	o			0	0	fair	
Shreveport, Louisiana	29.77	756.1	30.00	762.0	74	23.3	97	se.	5	2.2			10 s		calm	0.33	8.4	cloudy	
Silver City, New Mexico	24.12	612.6	29.70	754.4	45	7.2	65	nw.	1	0.4		o	1 s		calm	0	0	clear	
Sitka, Alaska	29.67	753.6	29.74	755.4	49.1	9.5	93	ne.	13	5.8			10 s		calm	1.00	25.4	cloudy	
Smithville, North Carolina	30.17	766.3	30.21	767.3	77	25.0	85	s.	10	4.5		4 k	6 ks	e.	e.	0.15	3.8	cloudy	
Spokane Falls, Wash. Ter.	27.95	709.9	29.97	761.2	35	1.7	100	sw.	3	1.3			fg			0.02	0.5	dense fog	
Springfield, Illinois	29.37	746.0	30.06	763.5	63	17.2	87	ne.	8	3.6			10 s		ne.	0.03	0.8	cloudy	
Springfield, Massachusetts	29.85	758.2	29.98	761.5	72.8	22.7	97	s.	4	1.8		10 k	fg	sw.	s.	0	0	cloudy	
Stockton, Texas	20.81	681.0	29.88	758.9	71.0	21.7	90	se.	24	10.7		o	o			0	0	clear	
St. Vincent, Minnesota	29.24	742.7	30.12	765.0	28	— 2.2	64	calm	0	0			fg.			inap.	inap.	dense fog	
Thatcher's Island, Mass.	29.90	759.4	29.96	761.0	65.0	18.3	100	sw.	11	4.9			fg			0	0	dense fog	
Toledo, Ohio	29.31	744.5	30.01	762.2	69	20.6	93	s.	6	2.7		5 c	fg			0.48	12.2	fair	
Tucson, Arizona	27.23	691.6	29.59	751.6	60	15.6	67	se.	3	1.3		o	o			0	0	clear	
Umatilla, Oregon	29.71	754.6	30.12	765.0	38.0	3.3	75	se.	5	2.2		o	1 s		calm	0	0	clear	
Uvalde, Texas	28.90	734.0	29.68	753.9	78	25.6	88	se.	7	3.1			10 ks		s.	0	0	cloudy	
Vicksburg, Mississippi	29.79	756.7	30.05	763.3	74	23.3	97	se.	3	1.3		o	8 s		s.	0.08	2.0	cloudy	
Visalia, California	29.37	746.0	29.73	755.1	49.3	9.6	74	w.	2	0.9		o	o			0	0	clear	
Washington, D. C.	29.99	761.7	30.10	764.5	75.0	23.9	82	s.	1	0.4		8 ck	o	w.		0	0	cloudy	
Wickenburg, Arizona					55	12.8	86	calm			0	3 cs	o			0	0	clear	
Wilmington, N. Carolina	30.15	765.8	30.21	767.3	75	23.9	85	calm	0	0		o	5ks;fg		calm	inap.	inap.	fair	
Winnemucca, Nevada	25.50	647.7	29.83	757.7	38	3.3	49	n.	6	2.7		o	4 ks		sw.	0	0	fair	
Wood's Holl, Mass.	29.98	761.5	30.02	762.5	69	20.6	97	sw.	24	10.7			fg		sw.	0.01	0.3	dense fog	
Yankton, Dakota	28.80	731.5	30.11	764.8	39	3.9	89	e.	3	1.3		5 cs	o	w.		0	0	fair	
Yuma, Arizona	29.46	748.3	29.60	751.8	68.3	20.2	45	nw.	8	3.6		o	o			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I. ‡	29.92	760.0	29.94	760.5	82	27.8	91	e.	3	1.3		10 k	5 ks	e.	e.	0	0	cloudy	J. A. Racker.
Bogota, U. S. Columbia	22.01	559.0			53.8	12.1	77	se.	1	0.4		5 k	2 s;n	n.	n.	0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.84	757.9	29.84	757.9	80	26.7	95	e.					10 k		ese.	0.3	8.	rainy	B. Bigar.
Havana, Cuba, W. I.	29.98	761.5	30.03	762.7	79	26.1	91	calm	0	0		3 cs	7 ks	calm	ne.	0.02	0.5	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.96	761 0	29.97	761.2	75.0	23.9	84	calm	0	0		10 cs	o			0.08	2.0		Robert Johnstone.
Navassa, W. I.	29.85	758.2	29.93	760.2	81	27.2	87	e.	7	3.1		8 ks	2 k	e.	e.	0	0	cloudy	F. M. Everett.
Paramaribo, S. A.	30.00	762.0	30.00	762.0	80	26.7	74	se.				3 c	2 k	e.	e.	0	0		Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.37	746.0	29.92	760.0	80	26.7	89	calm			0	3 ck	7 ks	calm	n.	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					76.3	24.6		ne.			1		10 ks			0	0		Earl Flint.
Santiago de Cuba, W. I.	29.94	760.5	29.97	761.2	80	26.7	78	n.	1.2	0.5		3 c	o			0.03	0.8	fair	Robert Mason.
St. Thomas, W. I. ‡	29.97	761.2	29.98	761.5	82	27.8	79	e.	7	3.1		o	1 ks		e.	0.11	2.8	hazy	G. O. Gyllich.
York Factory, B. A.	30.02	762.5	30.07	763.8	32.0	0.0	94	sw.	9	4.0		2 k	1 s	s.	s.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, West Island, Torres St.	30.01	762.2	76	24.4	72	ese.			4-6		8							squally	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibraltar, Mediterranean	30.18	766.6	73	22.8	81	ene.			1		3	ene.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.14	765.5	54	12.2		nw.			2		10							showery	Capt. Hon. W. H. Jolliffe.
H. M. S. Arab, Aden, Arabia	29.79	756.7	87	30.6	84	s.			2		0							blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 39° 36′, W. 66° 05′	30.20	767.1	75	23.9	100	wsw.			2-3		3					1	wnw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 13° 48′, E. 12° 23′	29.94	760.5	72	22.2	85	s.			2-3		3	ssw.				3	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 10′, E. 20° 30′	29.82	757.4	70	21.1		nne.			2		4	nne.				2	nne.	showery	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.08	764.0	71	21.7		nne.			1-2		9	ese.						d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.24	768.1	77	25.0	79	nne.			1-2		2	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 04′, W. 53° 34′	30.04	763.0	44	6.7	92	sse.			4-6		10	sse.				1	se.	squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 25° 39′, E. 57° 43′	29.68	753.9	91	32.8		w.			2		5	w.				1	sw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.78	756.4	87	30.6		sw.			2		2							d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, N. 5° 50′, E. 80° 36′	29.81	757.2	83	28.3	74	wnw.			2		5	wnw.				2	sw.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 48′, E. 10° 19	30.05	763.3	72	22.2		ne.			3		1					2	ene.	blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 45′, E. 43° 47′	30.07	763.8	72	22.2	71	wsw.			2		1					2	wsw.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Matsumæ, Yezo, Japan	29.95	760.7	68	20.0	84	ne.			1		8					2	s.	misty	Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 20° 30′, W. 156° 10′	29.99	761.7	77	25.0	69	ene.			5-6		0					2	se.	blue sky	Comm. E. G. Bourke.
H. M. S. Garnet, S. 34° 56′, W. 54° 58′	30.27	768.8	58	14.4	76	s.			3		3							blue sky	Capt. L. F. Jones
H. M. S. Griffon, N. 18° 21′, W. 76° 22′	29.94	760.5	85	29.4	87	e.			1		2	ene.				4	nne.	d. clouds.	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 7° 30′, E. 163° 00′	29.86	758.4	85	29.4	64	ene.			1		4	ene.				3	ne.	d. clouds	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 35° 26′ E. 139° 38′	30.03	762.7	72	22.2		n.			1		6	n.						showery	Capt. E. H. Seymour.
H. M. S. Kestrel, Canton, China *†	29.87	758.7	81	27.2							6	se.						d. clouds	Capt. W. M. Lang.
H. M. S. Kingfisher, Guayaquil, Ecquador	29.95	760.7	70	21.1					1		6	calm						d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 25° 35′, E. 51° 28′	30.18	766.6	71	21.7		ene.			1		5	ene.				3	ese.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 31° 47′, W. 26° 34′	30.25	768.3	66	18.9	68	nne.			3		7					3	ene.	d. clouds	Capt. C. F. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.89	759.2	81.7	27.6	81	e.			1		3					1-2	nne.	misty	Capt. A. Carpenter.
H. M. S. Midge																			Capt. W. N. Lang.
H. M. S. Minotour, N. 43° 28′, W. 9° 50′	30.04	763.0	64.5	18.1	94	ene.			4		10					3	nne.	overcast	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.17	766.3	75	23.9	100	s.			3		0							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.19	766.8	51	10.6	93	calm			0		0							blue sky	Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	29.90	759.4	64	17.8	100	sse.			1									foggy	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 25° 26′, W. 70° 34′	30.16	766.1	56	13.3	96	se.			2		0							misty	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 12° 46′, E. 44° 58′	29.78	756.4	88.3	31.3	75	e.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis, S. 7° 42′, E. 0° 15′	30.04	763.0	74	23.3	76	se.			1		8	sse.				sm'h		d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 9° 05′, W. 20° 52′	29.99	761.7	83	28.3	83	ese.			2		3	ese.				1	sse.	d. clouds	Capt. T. H. Boyse.
H. M. S. Tenedos, N. 44° 30′, W. 62° 35′	29.93	760.2	62	16.7	?	wsw.			3							2	w.	foggy	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer, N. 36° 54′, E. 11° 10′	30.17	766.3	72	22.2	71	se.			1		5					2		d. clouds	Capt. P. H. Colomb.
H. M. S. Triumph, Callao Bay, Peru	29.96	761.0	59	15.0	94	sse.			3		10	calm						drizzling	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.91	759.7	79	26.1		n.			1		3							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.

GERMAN NAVAL SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

PORTUGUESE NAVAL SERIES.

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Bengo, St. Paul de Loando, Benguela India	29.97	761.3	79.2	26.2	69	nw.			3		0					1		blue sky	Carlos Candid dos Reis.
Quanza,																			A. M. da Sitra.
Brava, Cape Verd Ids.	29.96	760.9	82.4	28.0	82	ne.			2		2		sw.			1	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.92	759.9	80.6	27.0	80				1									blue sky	P. I. de Rio Carvallio.

SWEDISH NAVAL SERIES.

Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.

H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.11	764.8	80	26.7	91	ne.	6	2.7			2		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	29.92	760.0	72	22.2	85	sw.	5	2.2		8 c	0	sw.		0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.81	757.2	70	21.1	87	n.			1		10		w.	0.08	2.0			covered	
Adams, [S. A. Guayaquil River, Equador,	29.72	754.9	73	22.8	85	sw.			1		10							cloudy	
Alaska, Callao, Peru	29.89	759.2	59	15.0	100	se.			2		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.90	759.4	72	22.2	90	nnw.			2		10		calm			sm'h		cloudy	
Alliance. N. 74° 00′, E. 3° 30′	29.62	752.3	36	2.2	90	sse.			2		8			light	light	sm'h		foggy	
Ashuelot, Kobe, Japan	30.02	762.5	77	25.0	77	nw.			1		8		ene.					cloudy	
Colorado, New York, N. Y.	30.02	762.5	75	23.9	90	sw.	4	1.8			5		sw.	0	0			fair	
Constitution, Newport, R. I.	29.95	760.7	68	20.0	100	sw.	4	1.8			10							foggy	
Franklin, Norfolk, Va.	30.09	764.3	71	21.7	?	ssw.	8	3.6			0			0	0			clear	
Galena, Leghorn, Italy	30.13	765.3	67	19.4	69	wsw.			1-2		2					sm'h		fair	
Independence, N. Yard, Mare I'd, Cal.	29.68	753.9	55	12.8	80	calm	0	0			0							clear	
Kearsarge, New York, N. Y. *†	30.13	765.3	76	24.4	86	sw.			2		5?		w.			sm'h		clear?	
Lackawanna, San Francisco, Cal. †	29.95	760.7	56	13.3	94	se.			2		0							clear	
Lancaster, New York, N. Y.	30.02	762.5	76	24.4	86	w.	7	3.1			8		w.					d. clouds	
Marion, Montevideo, Uruguay *	29.98	761.5	59	15.0		sse.			2		5?		calm			sm'h		clear?	
Michigan, Port Stanley, Canada	29.95	760.7	68	20.0	95	sw.			4		2		sw.					fair	
Minnesota, Newport, R. I.	30.02	762.5	69	20.6	100	wsw.			3					0	0	sm'h		foggy	
Monocacy, Yokohama, Japan	30.03	762.7	72	22.2	95	nw.			1		10		calm					rainy	
Nipsic, Genoa, Italy	30.13	765.3	69	20.6	70	s.			1		10					sm'h		overcast	
Onward, Callao, Peru †	29.95	760.7	59	15.0	94	sse.			3		10		nw.			long	w.	misty	
Palos, Hong Kong, China	29.94	760.5	80	26.7	70	e.			1		8		calm					fair	
Passaic, Washington, D. C.	30.20	767.1	72	22.2	95	e.			1		2							fair	
Pensacola, S. 6° 16′, W. 81° 16′	29.98	761.5	62	16.7	94	se.			3		10			0	0	mod.	s.	cloudy	
Portsmouth, Newport, R. I.	30.01	762.2	68	20.0	95	sw.			4		10		sw.			sm'h		foggy	
Powhatan, Aspinwall, Panama	29.88	758.9	81	27.2	96	sse.			1		5		nw.			sm'h		fair	
Quinnebaug, Marseilles, France	30.10	764.5	68	20.0	84	w.			1		8		calm			sm'h		fair	
Ranger, Mare Island, Cal. *	29.73	755.1	59	15.0	70	wsw.			1		0			0	0	sm'h		clear	
Richmond, Panama, Panama	29.85	758.2	79	26.1	100	nw.			1		2		nw.	0	0			fair	
Saratoga, Newport, R. I.	30.00	762.0	67	19.4	100	sw.			1-2		10			light	light	sm'h		foggy	
Shenandoah, Maldonado, Uruguay *	30.29	769.4	59	15.0	65	sse.			3		2					sm'h		fair	
St. Louis, League Island, Pa.	29.77	756.1	76	24.4	86	sw.	11.1	5.0			2		sw.	0	0			fair	
Swatara, Chefoo, China †	29.97	761.2	71	21.7	62	sse.			2		0							clear	
Tennessee, New York, N. Y.	30.05	763.3	79	26.1	100	s.	20	8.9			8			light	light			fair	
Trenton, N. 22° 18′, W. 41° 45′ *	30.07	763.8	86	30.0	68	se.			1-2		2			0	0	sm'h		fair	
Vandalia, New York, N. Y.	30.00	762.0	75	23.9	86	wsw.			2		8		sw.					fair	
Wabash, Boston, Mass.	29.97	761.2	73	22.8	90	sw.	6	2.7			8		sw.	0	0			cloudy	
Wyoming, Port Royal, S. C.	30.17	766.3	78	25.6	86	ne.	4	1.8			5		calm	0	0			fair	
Yantic, New York, N. Y. *	29.98	761.5	74	23.3	95	sw.			2		5							fair	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Glasgow, Scotland *†..	30.34	770.6				wsw.	1		8		sw.					cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Liverpool, England	30.37	771.4	66	18.9	94	wnw.	3		2		wnw.					fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent																	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison.																	
S. S. Pennsylvania, Capt G. H. Dodge, Philadelphia, Penn †.	30.03	762.7	85	29.4	79	nw.	3		2		w.					fair	C. Rodman, 3d Officer.
BRITISH METEOROLOGICAL OFFICE.																	
S. Auckland, Capt. A. McDongall																	
S. British Merchant, Capt. E. J. Moloney,																	
S. S. Cipero, Capt. W. N. Lailey, N. 17° 29′, W. 80° 56′	29.93	760.2	83.8	28.8	85	ese.	2		5					1	ese.	d. clouds	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 51° 09′, W. 6° 53′	30.35	770.9	59.5	15.3	88	se.	3		2							blue sky	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, S. 10° 00′, W. 28° 50	30.10	764.5	76.8	24.9	75	sse.	6		7							d. clouds	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 42° 38′, E. 61° 00′	30.13	765.3	56.5	13.6	93	nw.	6		10							showery	
Bk. Mertola, Capt. E. W. Turner, N. 40°, 45′ W. 14° 28′	30.22	767.6	67.0	19.4	90	nne.	2		4							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant, S. 43° 18′, E. 51° 22	30.14	765.5	41	5.0	75	se.	3		5							d. clouds	
Queen of Cambria, Capt. M. Parry N. 21° 21′, W. 24° 08′	30.07	763.8	81	27.2	78	ne.	5		2							blue sky	
S. S. Rosetta, Capt. A. E. Barlow																	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 25° 22′, W. 37° 12′	30.09	764.3	80.6	27.0	70	ssw.	1–2		3							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, Yokohama, Japan	29.94	760.5	71.5	21.9	95	n.	3		10							showery	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers,																	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains.. N. 50° 37′, W. 21° 09′	29.96	761.0	58	14.4		s.	5		10					sm'h		dense mist	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle,																	
S. S. Herman..., Capt. H. Baur																	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N. 42° 19′, W. 61° 39′	30.16	766.1	67.5	19.7	95	sw.	2		10		sw.	0	0	'smh	sw.	light haze	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche.. N. 51° 00′, W. 31° 19′	29.69	754.1	56.5	13.6	78	nw.	6		8		nw.	3 h'r	3 h'r	mod.	nw.	cloudy	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Hong Kong †..	30.09	764.3	80	26.7	87	se.	1		2		e.	0	0	sm'h		clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley N. 42° 43′, W. 160° 05′ *†..	30.71	780.0	72	22.2	90	ssw.	4		6?		w.			mod.	wsw.	cloudy?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, San Francisco, Cal	30.08	764.0	53	11.7	80	nw.	3		2							fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann Portland, Oregon *†..	29.95	760.7	57	13.9	87	ssw.	3		10		s.					cloudy	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann																	O. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 32° 39′, W. 117° 25′ †..	29.79	756.7	65	18.3	89	sw.	3	.....	10	.....	se.	.....	.....	mod.	w.	cloudy	J. N. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound †..	29.99	761.7	58	14.4	94	se.	3	.....	6	.....	se.	rain	rain	sm'h	.....	rainy	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal. †..	29.80	756.9	54	12.2	87	w.	3	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, Eureka, Cal. †..	29.97	761.2	43	6.1	83	ne.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †..	30.05	763.3	42	5.6	83	calm	0	.....	10	.....	s.	.....	.....	.....	.....	cloudy	G. Debney.
S. S. Victoria, H. M. Hayward, N. 38° 54′. W. 123° 12′ †.	29.81	757.2	56	13.3	63	nw.	6	.....	0	.....	.....	.....	.....	h'vy	w.	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulluy, Supt. New York.*																	
S. S. Australia, Capt. ——, N. 25° 12′, W. 152° 00′	30.07	763.8	68	20.0	84	ne.	3	.....	2	.....	ne.	.....	.....	sm'h	ne.	fine.....	U. Bannermann, 2d Offi.
S. S. City of New York, Capt. W. B. Cobb Sydney, N. S. W. †..	30.25	768.3	63	17.2	94	sw.	2	.....	10	.....	.....	h'vy	h'vy	.....	.....	overcast.....	W. H. Hawes, 2d Offi.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, Yokohama, Japan *†..	30.14	765.5	71	21.7	85	nw.	2	.....	10	.....	nw.	.....	.....	sm'h	.....	overcast.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Golden Gate, Cal. †..	29.81	757.2	65	18.3	78	nnw.	3	.....	10	.....	nnw.	0	0	long	nw.	fine	.....
S. S. City of Sydney, Capt. H. C. Dearborn, N. 32° 16′, W. 136° 01′ ..... †	30.06	763.5	65	18.3	78	w.	2	.....	8	.....	n.	.....	.....	mod.	n.	cloudy.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 35° 42′, E. 142° 35′ †..	30.13	765.3	76	24.4	91	e.	1	.....	10	.....	.....	1.5	38.	mod.	ene.	rainy.....	A. L. Ritchie, 2d Offi.
S. S. Colima, R. R. Searle N. 17° 45′, W 102° 59′ †..	29.81	757.2	81	27.2	100	ese.	6	.....	10	.....	e.	1.56	39.6	r'gh	se.	gloomy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, Panama, Panama †.	29.86	758.4	84	28.9	83	sw.	2	.....	8	.....	sw.	3 h'r	3 h'r	.....	.....	cloudy.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.13	765.3	61	16.1	71	ne.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 49° 46′, W. 9° 36′ †..	30.54	775.7	62	16.7	.....	s.	1	.....	5	.....	s.	0	0	sm'h	.....	fine.....	A. Feddersen, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, N. 41° 46′, W. 64° 35′ †..	30.27	768.8	68	20.0	79	sw.	5	.....	3	.....	sw.	0	0	sm'h	.....	clear.....	C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings Queenstown, Ireland †..	30.27	768.8	60	15.6	94	s.	3	.....	2	.....	s.	0	0	.....	.....	fair.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 46° 55′, W. 47° 00′ †..	30.31	769.9	52	11.1	.....	nw.	1	.....	10	.....	nw.	0	0	hv'y	nw.	fair.	.....
S. S. Celtic, Capt. B. Gleadell,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 48° 05′, W. 32° 29′ †..	29.75	755.6	59	15.0	94	nnw.	4	.....	2	.....	nne.	sh'rs	sh'rs	mod.	nw.	d. clouds.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass †.	30.04	763.0	68	20.0	?	wsw.	6	.....	10 n	.....	.....	0	0	.....	.....	cloudy	.....
Golden Fleece	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler. Lt. Com. Nichols,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall, N. 13° 14′, W. 27° 26′ *..	29.98	761.5	83.8	28.8	97	nne.	3-4	.....	4	.....	ne.	mod.	mod.	long	ne.	d. clouds.....	W. Randall.
S. Pawashick, Capt. E. Fry, N. 41° 54′, W. 18° 26′ *†..	30.01	762.2	68	20.0	95	sse.	4	.....	8	.....	ssw.	.....	.....	mod.	sw; nw.	cloudy.....	E. Fry.
S. S. Proteus, Capt. Pike	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †.	30.22	767.6	76	24.4	73	w.	3	.....	0	.....	.....	0	0	.....	.....	clear	J. Green.

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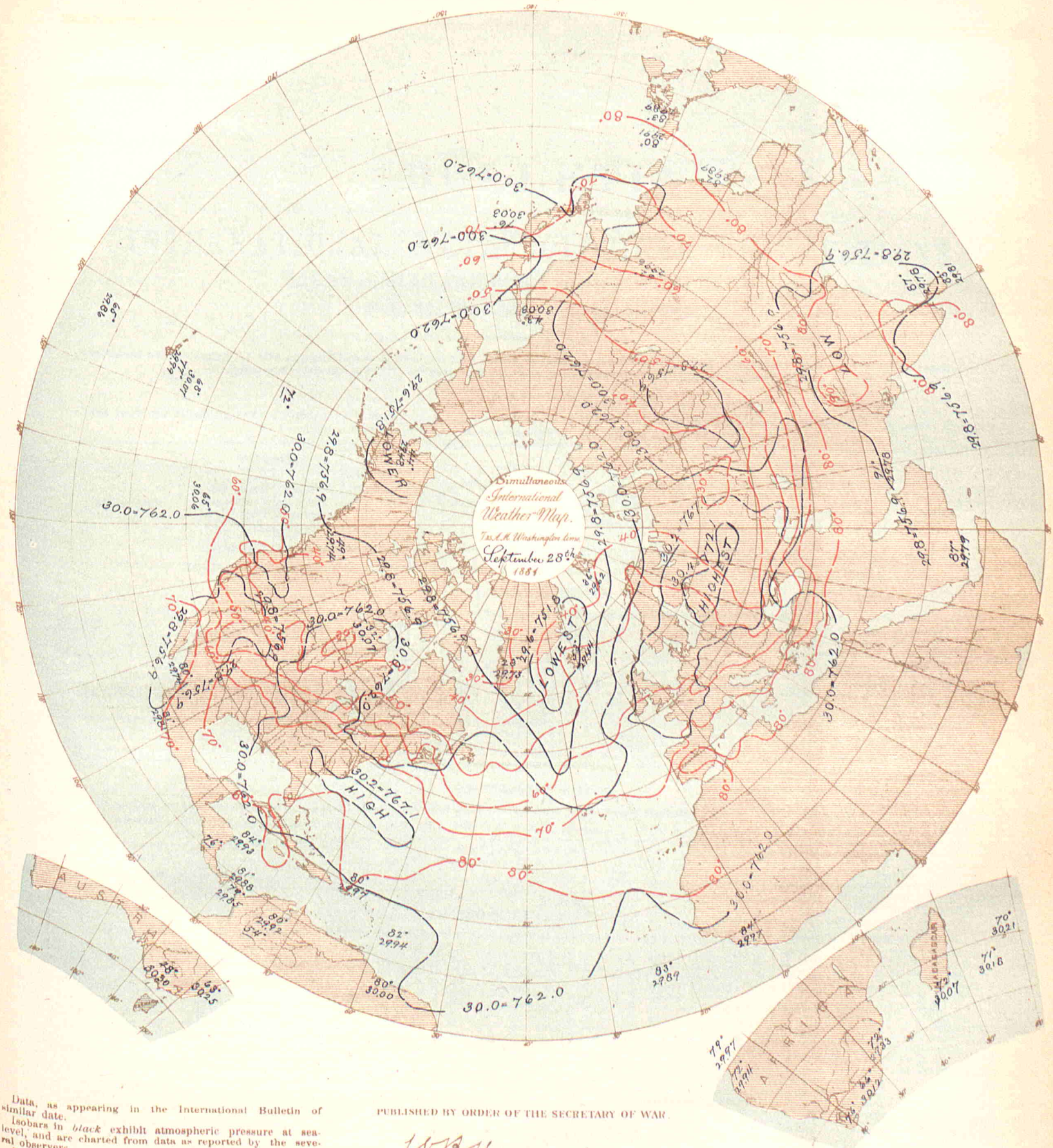
W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer. U. S. A.

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BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 29, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.01	762.3	77.0	25.0	77	w.			1		0			0	0	clear	Raynard.
Algiers ‡			30.04	762.9	75.9	24.4	63	w.			1		8			0.039	1.0	very cloudy	Nicolas.
La Calle ‡			30.04	763.0	76.6	24.8	54	w.			3		6			0.079	2.0	cloudy	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			30.03	762.8	72.0	22.2	77	n.			1		11			0	0	very cloudy?	Dumas.
Tebessa ‡			30.04	763.1	70.9	21.6	67	ssw.			6		9			inap.	inap.	covered	Derché.
Geriville ‡					77.4	25.2	22	sw.			6		5			0.039	1.0	cloudy	Lonchamp.
Laghouat ‡			30.06	763.4	74.1	23.4	36	sw.			2		3			0.039	1.0	pretty fair	Herbin.
Biskra ‡			30.05	763.2	76.6	24.8	43	nw.			1		10			inap.	inap.	covered	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.91	759.7	30.00	762.0	62.3	16.8	57	nne.	11	4.9			0			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.63	752.6	30.18	766.5	60.3	15.7	58	e.			1		4			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.51	749.6	30.30	769.5	50.4	10.2	67	ne.	4.9	2.2			6			0	0		Dr. Wiersbicki.
Eperies	29.29	744.0	30.17	766.3	57.2	14.0	67	calm			0		10 ks			0	0		Julius Mikolik.
Gratz ‡	28.93	734.9	30.19	766.9	54.3	12.4	86	nw.			2		8			0.177	4.5		Andreas Rospini.
Hermannstadt	28.74	730.1	30.19	766.7	55.8	13.2	55	ese.			3		6			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.84	732.6	30.19	766.9	53.1	11.7	93	nw.			1		10			0.193	4.9	gloomy	The Staff.
Lemberg	29.28	743.7	30.30	769.6	43.5	6.4	59	s.			3		8			0	0		Dr. T. Stanecki.
Pola	29.97	761.3	30.08	764.1	63.9	17.7	56	e.			2		10			0	0		I. R. Hydrographic Office.
Szathmar	29.72	755.0	30.19	766.8	58.3	14.6	59	e.			2		8			0	0		Beicht Peter, S. J.
Szegedin	29.91	759.6	30.19	766.7	56.8	13.8	78									0	0		Karl Stancel.
Trieste	30.03	762.7	30.13	765.3	65.5	18.6	62	e.			1		6			0	0	cloudy	Secco.
Vienna	29.51	749.5	30.22	767.7	57.9	14.4	67	n.			1		1			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.05	763.3	30.14	765.5	58.0	14.4	76	s.	19	8.5			4			0.420	10.7	squally	W. Boswell.
Armagh, Observatory	29.92	760.0	30.15	765.8	56.7	13.7	88	s.	22	9.8			10					raining	S. Call.
Bidston, Liverpool Obs'y			30.30	769.6	62.8	17.1	61	se.	15	6.7			4					misty	John Hartnup.
Bolton, Sharples	29.77	756.1	30.33	770.4	61.6	16.4	59	s.	18	8.0								foggy	Thomas Mackereth.
Bradford, Yorkshire	29.91	759.7	30.31	769.9	61.2	16.2	55	sw.			2		2			0.02	0.5	blue sky	J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.36	771.1	60.0	15.6	76	w.			0.2		5					foggy	John McLaren.
Chatham, School M. E.	30.27	768.8	30.40	772.1	58.5	14.7	88	ne.			1		6					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	30.12	765.0	30.34	770.6	60.4	15.8	80	sse.			3		5					d. clouds	The Staff.
Fort Napier, Natal	27.79	705.9	30.01	762.2	67.2	19.6	64	s.			1		6						Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.74	755.4	29.97	761.2	85.0	29.4	83	se.			1		3					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.01	762.2	60	15.6	88	s.			2		10					drizzling	J. O'Donaghue.
Gibraltar, Mediterranean	30.04	763.0	30.09	764.3	78.8	26.0	82	ne.			3		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.98	761.5	30.19	766.8	59.8	15.4	68	ssw.			5		10 k					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.23	767.8	30.40	772.1	60.0	15.6	78	e.			1		3					blue sky	The Staff.
Guernsey	30.13	765.3	30.35	770.9	61	16.1	73	ese.			1		0					blue sky	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.37	771.4	30.40	772.1	59.8	15.4	72	nne.	3	1.3			3					misty	The Staff.
Leicester, Museum	30.10	764.5	30.35	770.9	62.3	16.8	60	s.			1		1					blue sky	J. C. Smith.
Malta, Mediterranean	29.89	759.2	29.97	761.2	78.0	25.6	61	s.			3		8			0.33	8.4	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.98	761.5	30.02	762.5	83.0	28.3	74	e.			3		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.84	757.9	30.36	771.1	62.1	16.7	69	s.			1		0					blue sky	John Mac Email.
Oxford, Radcliffe Obs'y	30.16	766.1	30.39	771.9	58.7	14.8	70	ne.			1		1					misty	The Staff.
Plymouth	30.28	769.1	30.36	771.1	61.3	16.3	73	e.			1		4					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.98	761.5	55.2	12.9	86	s.	21	9.4			10					showery	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	30.10	764.5	30.16	766.1	57.6	14.2	71	n.			2		9					showery	Serg't W. H. Lyne.
Sheffield	30.06	763.5	30.34	770.6	62.3	16.8	68	ssw.			1		1			0	0	blue sky	W. F. Cooper.
Silloth Rectory	30.21	767.3	30.24	768.1	65.0	18.3	54	sw.			4		5			0.040	1.0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.33	770.4	61.0	16.1	66	s.	19	8.5			0					blue sky	Rev. S. J. Perry.
Stratfield Turgiss	30.19	766.8	30.41	772.4	59.5	15.3	78	n.			1		0					blue sky	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.30	769.6	30.32	770.1	64	17.8	68	se.			6		5					d. clouds	W. Newcombe.
Valencia, Observatory	30.07	763.8	30.10	764.5	59.4	15.2	94	sse.	43	19.2			10					raining	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.23	767.8	30.27	768.8	53	11.7	64	n.	14	6.3			10 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B. *	30.27	768.8	30.33	770.4	46	7.8	83	nw.	9	4.0		0	0			0.09	2.3	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	30.38	771.6	30.40	772.1	45	7.2	86	n.	10	4.5		2 cs	0			0.03	0.8	clear	J. McWilliams.
Fort Garry, Manitoba *	28.80	731.5	29.62	752.3	45	7.2	93	se.	6	2.7		5 k	5 n	se.	se.	0.070	1.8	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	30.13	765.3	30.36	771.1	55	12.8	74	n.	11	4.9		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.90	759.4	30.24	768.1	51	10.6	86	ne.	6	2.7		0	0			0.01	0.3	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	30.15	765.8	30.35	770.9	48	8.9	80	ne.	8	3.6		2 c	0	w.		inap.	inap.	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.52	749.8	30.22	767.6	48	8.9	86	s.	16	7.2		2 cs	0	w.		0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.48	748.8	30.16	766.1	57	13.9	94	ne.	16	7.2		10 ck	0	sw.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.49	749.0	30.13	765.3	58	14.4	87	ne.	4	1.8		8 k	0	sw.		0	0	cloudy	M. Payne.
Quebec, Quebec *	30.05	763.3	30.38	771.6	45	7.2	86	n.			3	0	hz.			0.02	0.5	clear	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.84	757.9	30.31	769.9	39	3.9	92	e.	7	3.1			fg.			0	0	dense fog	W. H. McIntyre.
Saugeen, Ontario *	29.42	747.3	30.13	765.3	55	12.8	86	se.	12	5.4			10 ks			0	0	cloudy	K. Stewart.
St. Andrews, N. B.	30.28	769.1	30.33	770.4	49	9.4	70	n.	7	3.1		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	30.14	765.5	30.18	766.6	51	10.6	74	nw.	14	6.3		5 k	0	n.		0	0	fair	T. C. Hill, C. E.
Toronto, Ontario *	29.84	757.9	30.23	767.8	54	12.2	80	ne.	12	5.4		2 k	5 ks	e.	e.	0	0		Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	30.26	768.6	30.32	770.1	53	11.7	80	ne.	4	1.8		0	0			0.01	0.3	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.78	756.4	30.03	762.7	50	10.0	79	e.					10 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	30.30	769.6	30.31	769.9	62.0	16.7	88	e.	7.5	3.4			9 s			0.02	0.5	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester * †	29.40	746.7			70	21.1	53	ese.			1	5	4			0	0	dull	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.07	763.7	30.09	764.3	66.4	19.1	86	ssw.	4.5	2.0		0	0			0	0	clear	M. Marc Dechevrens, S. J.

STATIONS.	Barometer. Corrected for instrumental error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.37	771.3	30.41	772.5	52.0	11.1	81	ne.	4	2			1						Oversergent Fischer
Fanöe	30.39	771.9	30.41	772.4	56.3	13.5	82	sw.			2		9						Overloerer Lauridsen
Godthaab, Greenland	29.55	750.6	29.60	751.7	25.8	—2.9	70	ne.			4		1						S. Kleinschmidt.
Stykkisholm, Iceland	29.14	740.2	29.19	741.3	47.5	8.6	87	s.			8		10					raining	A. O. Thorlacius.
Thorshavn	29.58	751.3	29.61	752.2	55.0	12.8	95	sw.	27	12			10						Overloerer Bergh.
Vestervig	30.32	770.0	30.41	772.3	54.9	12.7	80	ssw.			2		9						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.56	750.7	30.19	766.9	65.1	18.4	46	nne.			1		0			0	0	clear	M. Labroue, Director.
Alençon Normal School	29.82	757.5	30.37	771.5	58.3	14.6	73	n.			3		kn	n.	n.	0	0		M. Nicot, Director.
Arras, Engineer School																			M. Klein, Commandant.
Avignon, Normal School	29.98	761.5	30.06	763.5	64.4	18	62	n.			4		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.74	755.4	30.30	769.6	58.8	14.9	71	e.			1	0	5kn		ene.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	30.12	765.0	30.38	771.7	56.3	13.5	72	nne.			1		5		ne.	0	0	cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.34	745.1	30.23	767.8	57.2	14	67	ne.			1		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.97	761.2	30.23	767.8	65.7	18.7	35	nne.			1		0			0	0	clear	M. Rayet, Director.
Bourges, Normal School	29.71	754.7	30.27	768.8	60.8	16	50	n.			2		5		n.	0	0	cloudy	M. Postel, Director.
Brest, Naval Observatory	30.07	763.8	30.32	770.0	69.8	21.0	73	se.			1		1		se.	0	0		M. de Kermaree, Dir.
Caen, Normal School	30.28	769.2	30.36	771.1	60.4	15.8	78	ssw.			1		0			0	0	clear	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l					63.5	17.5	37	calm			0		0			0	0	clear	M. Jadot, Director.
Charleville, Normal School	29.78	756.4	30.29	769.4	61.5	16.4	77	ne.			2		5			0	0	½ covered	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.86	733.0	30.21	767.3	59.9	15.5	56	n.			1		8		n.	0	0	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.37	745.9	30.20	767.1	61.2	16.2	64	n.			4		2		n.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.45	748.0	30.32	770.2	52.9	11.6	78	ne.			1		5	ne.	ne.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.49	698.2	29.99	761.7	61.2	16.2	49	s.			3	0	5 k		n.	0	0	½ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	28.95	735.3	30.09	764.3	68.0	20.0	50	nw.			1		5		e.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.35	745.6	30.12	765.0	58.5	14.7	60	nnw.			4		kn		ne.	0	0		M. Ablard, Director.
Guéret, Normal School	28.65	727.7	30.23	767.8	57.2	14	71	ne.			4	ck	0	sw.		0	0		M. Rivoire, Director.
Lamballe, Normal School	30.08	764.0	30.34	770.7	64.4	18	66	e.			1		fg		e.	0	0	light fog	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.27	768.9	30.37	771.5	70.7	21.5	78	e.			1		2		e.	0	0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.12	739.6	30.18	766.5	57.2	14.0	5	n.			2		5	n.	n.	0	0	hazy	M. André, Director.
Mans, Normal School	30.07	763.8	30.38	771.7	59.4	15.2	59	e.			1		5		ne.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.72	755.0	29.99	761.7	69.1	20.6	54	ne.			0.1		8		ne.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.92	632.9	30.15	765.9	55.4	13.0	33	w.	5.6	2.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.93	760.1	30.03	762.8	70.2	21.2	41	n.			3		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.50	749.4	30.27	768.9	54.3	12.4	79	nw.			1	0	5kn		nw.	0	0	cloudy	M. Hasse.
Nantes, Observatory	30.20	767.1	30.36	771.2	64.8	18.2	58	ene.			2-3		0			0	0	hazy	M. Larocque, Director.
Nice	29.95	760.6	29.98	761.4	66.2	19.0	64	e.			1		5	e.	e.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	29.94	760.4	30.04	763.0	70.7	21.5	29	nw.	20.6	9.2			0			0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.67	575.7			42.8	6.0							1		w.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					61.7	16.5	55	nw.			4		2			0	0	slightly cl'dy	M. Talliou.
Puy de Dôme Obs'y, Summit	25.31	642.8			37.4	3.0	95	ne.			3	0	5 k			0.028	0.7	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.29	769.4	30.32	770.2	65.5	18.6	98	ne.			1		0			0	0	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	30.20	767.0	30.41	772.5	63.3	17.4	61	ne.			3		0			0	0	clear	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.30	769.6	30.39	771.8	59.0	15	78	w.			1		2			0	0	slightly cl'dy	M. Platrier, Director.
Saint Lô, Normal School	30.25	768.3	30.41	772.3	61.3	16.3	72	e.			2		5		n.	0	0	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	30.20	767.0	30.36	771.2	56.8	13.8	72	nne.			2		6		ne.	0	0		M. Renou, Director.
Toulouse, Observatory	29.49	749.1	30.22	767.6	66.2	19.0	52	nnw.			3		2		w.	0	0	slightly cl'dy	M Bailland, Director.
Tours	30.12	765.0	30.32	770.0	61.5	16.4	63	e.			1		2		e.	0	0	¼ covered	M. de Tastes.
Versailles, Observatory	29.87	758.7	30.36	771.2	56.5	13.6	73	ne.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	30.08	764.1	30.37	771.5	55.0	12.8	74	ne.			2		2		ne.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.43	747.4	30.30	769.5	54.1	12.3	60	nw.			3	0	5 cks		nw.	0.008	0.2		Prof. Dr. Hoh.
Berlin	30.16	766.0	30.33	770.4	58.3	14.6	52	ne.			1		3			0	0		Prof. Dr. Arndt.
Breslau	29.79	756.6	30.32	770.2	50.2	10.1	62	ene.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.86	758.5	30.30	769.5	55.4	13.0	81	ne.			1		10	ne.		0	0		Albert Senz.
Cassel	29.58	751.3	30.26	768.6	57.6	14.2	51	n.			5		5	1.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.95	760.7	30.32	770.0	58.8	14.9	53	nne.			1		4			0.004	0.1		Physical Society.
Friedrichshafen	28.78	731.0	30.22	767.7	54.1	12.3	76	ne.			4		9	ene.		0	0		Wilhelm, Chief Tel.
Hamburg	30.32	770.2	30.42	772.6	55.4	13.0	66	ene.			2		7			0	0		E. Preller.
Kiel	30.37	771.3	30.38	771.7	54.1	12.3	72	n.			1		0			0	0		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.91	759.8	30.34	770.7	52.2	11.2	74	n.			2		8	nne.		0.280	7.1		H. Leppig, Asst.
Magdeburg	30.15	765.8	30.34	770.7	55.2	12.9	59	n.			2	0	7 k		ne.	0.020	0.5		Dr. Assmann.
Memel	30.43	772.8	30.47	774.0	48.7	9.3	83	nnw.			1	0	2 k						Issermann.
Munich	28.40	721.4	30.28	769.1	50.7	10.4	76	ne.			2		10	n.		0.177	4.5	raining	Central Station.
Neufahrwasser	30.42	772.0	30.43	773.0	52.2	11.2	52	ese.			4		10			0	0		A. Lothes
Neustadt, Palatinate	29.77	756.2	30.30	769.7	54.0	12.2	82	nne.			4		10			0	0		Dicknether.
Stuttgart	29.31	744.5	30.21	767.4	53.2	11.8	85	n.			1		10			0	0	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.76	730.4	30.28	769.1	52.0	11.1	82	n.			2		10	n.		0	0		Fischer.
Wustrow	30.39	771.9	30.41	772.5	55.6	13.1	64	se.			1	0	5 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.76	756.0	30.15	765.7	69.1	20.6		ne.			2.5		5					½ clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.67	753.7	29.72	755.0	84.0	28.9	72	sw.	16.0	7.2			1		wsw.	0	0	d. clouds	
Deesa	29.30	744.3	29.77	756.2	87.5	30.8	60	sw.					3		w.	0	0	d. clouds	
Bombay	29.77	756.2	29.81	757.2	82.4	28.0	78	nw.	15.0	6.7			10	ne.	nnw.	0.05	1.3	overcast	
Poona, Yarrowda.	27.93	709.5	29.79	756.6	77.8	25.4	83	wnw.	14.0	6.3			9		w.	0.07	1.5	drizzling	
Belgaum	27.25	692.4	29.82	757.3	71.6	22.0	94	w.	4.0	1.8			10		sw.	0.06	1.5	thund'r st'm.	
Lahore	28.99	736.2	29.71	754.6	91.1	32.8	46	calm	1.3	0.6			0			0	0	blue sky	
Roorkee	28.87	733.4	29.76	755.8	88.8	31.6	75	s.	1.2	0.5			0			0.01	0.3		
Agra	29.17	741.0	29.72	755.0	91.2	32.9	54	w.	1.1	0.5			0			0	0		
Nagpur	28.72	729.6	29.76	756.0	78.9	26.1	88	calm	2.6	1.2			10		ne.	0.56	14.2	overcast	
Jubbulpore	28.45	722.7	29.79	756.7	86.0	30.0	59	e.	2.7	1.2			2			0	0	blue sky	
Lucknow	29.37	745.9	29.74	755.3	86.1	30.1	67	calm	3.2	1.4			5		sw.	0	0	d. clouds	
Allahabad	29.42	747.4	29.73	755.2	85.7	29.8	76	calm	1.6	0.7			0			0	0	blue sky	
Patna	29.57	751.1	29.75	755.7	85.4	29.7	76	ene.	5.4	2.4			4	ene.	ene.	0	0	d. clouds	
Hazaribagh	27.77	705.3	29.76	755.9	81.8	27.7	67	se.	4.3	1.9			5		e.	0	0		
Cuttack	29.68	753.9	29.76	755.9	83.8	28.8	77	calm					6			0	0	d. clouds	
Calcutta, Alipore	29.77	756.1	29.79	756.6	80.1	26.7	85	ese.	6.0	2.7			8			0.17	4.3	d. clouds	
Dhubri	29.65	753.2	29.77	756.2	79.9	26.0	87	calm	0.7	0.3			0			0	0	blue sky	
Chittagong	29.71	754.6	29.80	756.8	82.5	28.1	79	w.	1.9	0.8			9			0	0	d. clouds	
Sibsagar	29.48	748.8	29.82	757.3	78.5	25.8	91	calm	3.5	1.6			4			1.46	37.1	blue sky	
Jeypore	28.33	719.7	29.75	755.5	90.7	32.6	37	w.	3.4	1.5			1			0	0	blue sky	
Zanzibar, Africa			29.97	761.2	85.9	29.9	50	se.	6	2.7			1			0.29	7.4	blue sky	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.75	755.7	30.16	766.0	60.4	15.8	41	e.	1.8	0.8			10			0.055	1.4		Prof. Giovanni Clodig.
Milan	29.62	752.4	30.13	765.4	63.0	17.2	61	se.	6.3	2.8			9	se.		0.390	9.9		Prof. Schiaparelli.
Padua	30.04	762.9	30.15	765.7	56.7	13.7	86	nne.	11.2	5.0			10	ne.		0.382	9.7		Prof. Dott. Lorenzoni.
Moncalieri	29.22	742.3	30.12	765.1	58.8	14.9	76	n.	3.8	1.7			9	nne.		0.035	0.9		Prof. P. F. Denza.
Genoa	29.85	758.1	30.04	763.1	64.0	17.8	54	n.	3.8	1.7			8	n.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.21	716.5	30.11	764.8	49.5	9.7	95	w.			6		10			1.079	27.4		Prof. D. C. Bruno.
Pesaro	29.99	761.8	30.04	763.0	59.0	15.0	90	n.	11.9	5.3			10	e.		0.197	5.0		Prof. Luigi Guidi.
Florence	29.75	755.7	30.00	762.1	60.3	15.7	71	n.			4		10	sse.		0	0		Prof. Costantino Pitter.
Leghorn	29.92	760.0	30.01	762.2	62.6	17.0	78	e.	2.3	1.1			10			0.524	13.3		Prof. P. Monte.
Rome	29.80	756.9	29.97	761.3	63.5	17.5	81	wsw.	3.8	1.7			10			0.165	4.2		Prof. P. S. Ferrari.
Lecce	29.82	757.4	30.07	763.7	68.4	20.2	55	se.	13.6	6.1			7	sw.		0.012	0.3		Prof. C. de Giorgi.
Cosenza	29.17	740.8	30.04	763.0	67.3	19.6	55	ese.	1.8	0.8			7	se.		0.244	6.2		Prof. D. Conti.
Cagliari	29.73	755.2	29.92	760.0	68.0	20.0	65	nw.			2		10			0.020	0.5		Prof. A. Pacinotti.
Palermo	29.74	755.3	29.98	761.5	68.9	20.5	63	w.	3.1	1.4			10			0.039	1.0		Prof. G. Ciacciatore.
Syracuse	29.97	761.3	30.02	762.4	71.1	21.7	73	s.	4.9	2.2			10	sw.		0	0		Prof. Vincenzo Gulliano
Sub-Series.																			
Naples, S. R.	29.49?	749.0?	29.74?	755.4?	62.1	16.7	89	w.	0	0			10			0.150	3.8	raining	Prof. F. Brioschi.
Stelvio	22.26	565.4			29.8	— 1.2	90	ene.			2	10 cks	0	ne.		0	0	covered	Prof. P. F. Denza.
Valdobbia	22.25	565.1			32.9	0.5	83	se.			6		10 n			0	0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.94	760.5	29.96	761.0	69.2	20.7	81	nne.	5.5	2.5		ck	10 s			0	0	overcast	K. Sasaki.
Kioto	29.83	757.7	30.00	762.0	67.4	19.7	84	nw.	0.1	0.04		ck	10 s			0	0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.86	758.4	30.06	763.5	65.2	18.4	80	calm	0	0		0	0			0	0	clear	S. Takehayashi.
Niigata	29.95	760.7	29.98	761.5	65.9	18.8	87	sse.	4.7	2.1		0	3			0.150	3.8	fair	
Nobiru	29.99	761.7	30.00	762.0	65.3	18.5	92	sw.	7.1	3.2			10ks;8			0.205	5.2	cloudy	
Supporo	29.84	757.9	29.91	759.7	57.0	13.9	94	nne.	4.8	2.1			3			0.185	4.7		
Tokei Obs'y, Yeddo	29.95	760.7	30.01	762.2	64.8	18.2	99	ne.	3.5	1.6			10 n			1.110	28.2	raining	The Staff.
Wakayama	29.94	760.5	29.99	761.7	69.3	20.7	85	calm	0	0		ck	10 s			0.035	0.9	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation o C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.97	761.2	30.16	766.0	73.7	23.2	63	e.	19.5	8.7		0	2		sse.	0.38	9.6	squally	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.55	598.3	29.77	756.3	59.0	15.0	69	calm	0	0		0	1 k		s.	0.012	0.3	clear	Vicente Fernandez.
Leon	24.30	617.2	29.88	759.0	64.0	17.8	84	e.			3	5 c	4 k	se.		0.137	3.5	very cloudy	Prof. M. Leal.
Mazatlan	29.38	746.3	29.64	752.7	77.0	25.0	95	nw.	0.9	0.4			10 n		ese.	0.827	21.0	rainy	F. Quijano, C. E.
Mexico, Central Obs'y	22.98	583.8	29.93	760.3	59.0	15.0	81	calm	0	0		1 c	3 k			0	0		The Staff.
Morelia	24.00	609.7	30.05	763.2	61.2	16.2	53	se.			2	0	0			0	0	fine	M. Tena, M. D.
Pabellon, Aguascalientes	23.78	604.0	29.65	753.1	63.1	17.3	90	calm			0	4 c	4 k		s.	0.489	12.4	cloudy	M. V. de Leon, M. D.
Puebla, Catholic Institute	23.32	592.5	29.96	761.1	59.0	15.0	98	calm	0	0		0	0			0.526	13.3	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.45	570.2	30.00	762.0	53.6	12.0		calm	0	0			10 n		sse.	0	0	covered	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.43	772.8	30.43	772.8	60.8	16.0		ene.			2					0.012	0.3		
Groningen	30.33	770.4	30.39	771.8	58.1	14.5		ne.			1					0	0		
Helder	30.42	772.6	30.42	772.6	57.2	14.0		n.			1					0	0		
Hellevoetsluis	30.40	772.2	30.40	772.2	61.0	16.1	73	n.			1					0	0		
Utrecht	30.37	771.3	30.41	772.5	58.8	14.9	70	nne.			1		5			0	0	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.23	767.8	30.29	769.4	55.0	12.8	70	s	19.9	8.9			6			0	0		
Christiania	30.19	766.7	30.34	770.5	49.1	9.5	89	nw.	0	0			10			0.004	0.1		
Gjesvær	29.77	756.2	29.80	756.8	41.7	5.4		ssw.			4		10						
Lodingen	29.89	759.2	29.94	760.4	48.9	9.4	85	ssw.			4		8			0.508	12.9		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.93	760.2	30.08	764.0	68.4	20.2	92	sw.	1.8	0.8			7			0.882	22.4		Dr. J. A. Sampaio.
Campo Major	29.21	741.8	30.17	766.2	81.7	27.6	44	wnw.	2.5	1.1			5			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.11	764.9	30.20	767.1	75.6	24.2	64	se.	0.7	0.3			8			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.80	756.9	30.15	765.9	72.1	22.3	51	nnw.	6.9	3.1			2	nw.		0	0		The Staff.
Ponta Delgada, Azores	30.10	764.5	30.17	766.3	74.5	23.6	86	sse	5.6	2.5			3			0.043	1.1		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.00	736.5	30.14	765.6	20.5	— 6.4	100	nw.	22	10		0	7 k;n						Capt. Lasarew.
Archangel	30.13	765.2	30.15	765.7	44.4	6.9	99	wsw.	9	4			10					raining	Capt. Sselliwerstow.
Astrakhan	30.49	774.4	30.41	772.3	43.9	6.6	62	ene.	22	10			10 n;s						Capt. Wisganow.
Barnaul	29.28	743.4	29.78	756.5	30.9	— 0.6	96	wnw.	11	5			10					snowing	Meteorological Obs'y.
Dorpat	30.20	767.0	30.45	773.3	55.8	13.2	53	ssw.	4	2		6 ck	0						Observatory.
Ekaterinburg	29.33	745.0	30.36	771.2	23.5	— 4.7	72	nw.	9	4			10					light snow	Meteorological Obs'y.
Kasan	30.24	768.0	30.52	775.1	39.9	4.4	47	w.	9	4		0	2						Observatory.
Kertch	30.02	762.6	30.04	763.1	54.0	12.2	89	nw.	2	1			9 n			0	0		Lagorio & Sastyrea.
Kieff	29.70	754.4	30.36	771.2	40.1	4.5	48	ne.	7	3		0;cs;ck	7 ks						Observatory.
Lugan	30.09	764.3	30.30	769.7	37.4	3.0	69	ene.	33	15			10			blank	blank		Meteorological Obs'y.
Moscow	30.00	762.0	30.50	774.6	43.2	6.2	44	s.	4	2		0	0						Meteorological Obs'y.
Nikolaiev	30.16	766.1	30.23	767.9	36.5	2.5	94	nne.	18	8			10 n					raining	Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.98	761.4	30.06	763.6	46.6	8.1	83	nw.			1		10 n			0	0		Lieut. Iwanow.
Pekin, China	29.88	759.0	30.02	762.6	65.7	18.7	74	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.38	771.7	30.40	772.1	51.4	10.8	69	w.	9	4			10 ks						Central Physical Obs'y.
Tashkend, Laboratory	28.54	724.9	30.09	764.2	64.8	18.2	42	n.	13	6			0						Teich, A. M.
Tiflis	28.56	725.5	29.93	760.2	73.8	22.8	55	se.	4	2			10 n					raining	Physical Observatory.
Warsaw	29.95	760.7	30.38	771.7	47.1	8.4	54	ese.	4	2		cs	6 ks					light clouds	Astronomical Obs'y.
Wilna	30.04	763.1	30.47	774.0	48.9	9.4	56	calm	0	0			6					light clouds	Berg, Assistant.
Yeniseisk	29.57	751.0	29.86	758.4	39.2	4.0	77	w.	2	1			3						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.18	766.6	63.0	17.2	57	sw.			2		10 k			0.07	1.8	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.90	759.4	55	12.8	93	ssw.			4	10	0	ssw.		1.0	25.	d. clouds	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.95	760.8	30.06	763.4	69.8	21.	69	sse.	3.4	1.5			2			1.937	49.2		Antonio Rave, Director.
Bilbao, Met. Obs'y	30.19	766.8	30.24	768.2	71.2	21.8	60	n.	0.9	0.4		3	2	e.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.26	692.4			60.8	16.0	84	n.	8.1	3.6			0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.91	708.8	30.05	763.3	75.9	24.4	33	ne.	8.3	3.7		0	0			inap.	inap.	clear	The Staff.
Murcia, Met. Obs'y	29.90	759.4	30.04	763.1	82.4	28.0	47	s.	2.0	0.9		0	3			0.024	0.6		Olayo Diaz, Director.
Santiago, Met. Obs'y	29.24	742.8	30.12	765.1	67.1	19.5	80	nw.	0	0			0			0	0	cloudy	R. Gil Vallanueva, Dir
Sub-Series.																			
Havana, Cuba, W. I.	29.92	760.0	29.99	761.7	76.7	24.8	87	e.	2.7	1.1		3 c;ck	1 k;s	w.	e.	0.138	3.5	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.79	756.7	29.84	758.0	83.0	28.3	81	se.	2.2	1.0		9 c	0	ne.		0	0		Federico Faura, S. J.
San Fernando, Naval Obs'y	30.01	762.3	30.11	764.8	75.6	24.2	66	w.	8.9	4.0		0	0			0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I.	29.86	758.5	29.95	760.8	82.0	27.8	85	se.	5.6	2.5		3 cs	3 k	se.	se.	0.059	1.5	d. clouds	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.77	756.1	29.90	759.5	79.3	26.3	82	nnw.	5.8	2.6			9 ks		n.	0	0	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.04	762.8	30.07	763.8	48.9	9.4	95	sw.			2		10			0	0		
Umea	30.13	765.3	30.18	766.6	55.8	13.2	66	w.			2		10			0	0		
Hernosand	30.15	765.8	30.20	767.1	54.5	12.5	73	ssw.			2		10			0	0		
Stockholm	30.18	766.6	30.36	771.1	54.7	12.6	58	wsw.			2		5			0	0		
Wisby	30.32	770.0	30.37	771.5	52.5	11.4	81	nw.			2		3			0	0		
Sub-Series.																			
Upsala	30.23	767.9	30.32	770.1	54.0	12.2	70	sw.	10.7	4.8			4	n.	wsw.	0	0		S. G. Finemann.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.72	729.5	30.14	765.5	57.2	14.0	61	nne.			6		2			0	0	clear	The Observatory.
Zurich	28.60	726.3	30.23	767.9	53.6	12.0	79	e.			3		6			0.008	0.2	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.22	767.5	56.3	13.5	77	n.	11	5.0			10		nw.	0	0		The Observatory.
Valona			30.10	764.6	72.1	22.3		sw.			1		2			0	0	slightly cl'dy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.97	761.3	81.0	27.2	55	wnw.			2	0	5 k		w.	0.04	1.0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.25	768.3	30.33	770.4	59.5	15.3	70	n.	4	1.8			10 s		s.	0.08	2.0	cloudy	
Alpena, Michigan	29.44	747.8	30.11	764.8	60	15.6	81	se.	13	5.8		10 cs	0	sw.		0	0	cloudy	
Atlanta, Georgia	29.02	737.1	30.20	767.1	68.5	20.3	100	e.	5	2.2			fg.			0	0	light fog	
Atlantic City, New Jersey	30.22	767.6	30.22	767.6	73.2	22.9	84	e.	16	7.2		7 ck	0	sw.		0.20	5.1	fair	
Augusta, Georgia	30.05	763.3	30.24	768.1	74.8	23.8	85	sw.	1	0.4		0	0			0.12	3.0	clear	
Baltimore, Maryland	30.16	766.1	30.21	767.3	75	23.9	82	w.	1	0.4		6 ck	fg.	w.	calm	0	0	fair	
Barnegat, New Jersey	30.22	767.6	30.24	768.1	73.0	22.8	84	e.	12	5.4		2 k	3 k	sw.	sw.	0	0	fair	
Bismarck, Dakota	27.71	703.8	29.54	750.3	46	7.8	93	e.	3	1.3			10 s		calm	0.29	7.4	cloudy	
Boise City, Idaho	27.09	688.1	29.93	760.2	40.0	4.4	92	w.	2	0.9			10 s			0.05	1.3	cloudy	
Boston, Massachusetts	30.20	767.1	30.36	771.1	60.0	15.6	70	ne.	15	6.7		10 ck	0	w.		0	0	cloudy	
Brackettville, Texas	28.60	726.4	29.59	751.6	77	25.0	82	e.	19	8.5			10 s		se.	0	0	cloudy	
Brownsville, Texas	29.71	754.6	29.75	755.6	79	26.1	91	se.	2	0.9		0	6 ks		se.	0	0	fair	
Buffalo, New York	29.45	748.0	30.17	766.3	58.3	14.6	80	ne.	9	4.0			10 s			inap.	inap.	cloudy	
Burlington, Vermont	30.05	763.3	30.34	770.6	50.2	10.1	89	e.	1	0.4		0	0			0.41	10.4	clear	
Cairo, Illinois	29.65	753.1	30.05	763.3	72.8	22.7	92	s.	10	4.5		2 c	0	calm		0.	0	fair	
Campo, California	27.21	691.1	29.78	756.4	35.5	1.9	82	w.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.02	686.3			49	9.4	86	calm			0	hz.	hz.			0	0	fair	
Cape Henry, Virginia	30.23	767.8	30.25	768.3	73	22.8	90	sw.	15	6.7		1 c	1 s			0	0	clear	
Cape May, New Jersey	30.17	766.3	30.20	767.1	76	24.4	85	sw.	7	3.1		6 k	0	sw.		0.02	0.5	fair	
Castroville, Texas	29.00	736.6	29.66	753.4	80	26.7	79	se.	10	4.5			10 s		se.	0	0	cloudy	
Cedar Keys, Florida	30.08	764.0	30.10	764.5	76	24.4	85	ne.	10	4.5		0	0			0	0	clear	
Champaign, Illinois	29.16	740.7	29.93	760.2	68.3	20.2	93	s.	13	5.8			10 s		s.	inap.	inap.	cloudy	
Charleston, S. Carolina	30.14	765.5	30.20	767.1	79	26.1	82	e.	4	1.8		0.	0			0	0	clear	
Charlotte, N. Carolina	29.36	745.7	30.24	768.1	73.0	22.8	84	s.	1	0.4		hz.	hz.			0	0	dense haze	
Chattanooga, Tennessee	29.37	746.0	30.20	767.1	68.0	20.0	97	e.	3	1.3			10s;fg		calm;e	0.24	6.1	cloudy	
Cheyenne, Wyoming	23.07	601.2	29.41	752.8	40.3	4.6	80	n.	8	3.6			10 n			0.02	0.5	light rain	
Chicago, Illinois	29.24	742.7	29.95	760.7	68.1	20.1	90	s.	8	3.6			10 s		s.	0.	0.	cloudy	
Chincoteague, Virginia	30.20	767.1	30.22	767.6	75	23.9	85	sw.	17	7.6		0	0			0	0	clear	
Cincinnati, Ohio	29.48	748.8	30.14	765.5	69.8	21.0	90	se.	3	1.3			fg.			0.14	3.6	dense fog	
Cleveland, Ohio	29.42	747.3	30.16	766.1	67	19.4	91	s.	2	0.9		6 k	fg.	sw.		inap.	inap.	fair	
Coleman City, Texas																			
Columbus, Ohio	29.30	744.2	30.16	766.1	67	19.4	93	se.	5	2.2			10s;fg			0.	0	cloudy	
Concho, Texas	27.83	706.9	29.77	756.1	75	23.9	76	s.	16	7.2			10 s		s.	0.	0.	cloudy	
Corsicana, Texas	29.41	747.0	29.88	758.9	78	25.6	82	s.	8	3.6		0	8 ks		s.	0.	0	cloudy	
Davenport, Iowa	29.18	741.2	29.84	757.9	70	21.1	84	s.	20	8.9		0	9 s		s.	0.	0.	cloudy	
Dayton, Washington T'y	28.13	714.5	29.94	760.5	44	6.7	86	sw.	2	0.9			10 s		sw.	0.11	2.8	cloudy	
Deadwood, Dakota	24.98	634.5	29.68	753.9	36	2.2	92	sw.	4	1.8		0	2 s			0.09	2.3	clear	
Decatur, Texas	28.63	727.2	29.73	755.1	75	23.9	85	se.	20	8.9			10 s		se.	0.08	2.0	cloudy	
Delaware Breakwater, Del.	30.19	766.8	30.21	767.3	75	23.9	69	s.	3	1.3		6 k	hz.	w.		0.	0.	fair	
Denison, Texas	29.03	737.3	29.84	757.9	80	26.7	79	s.	20	8.9		0.	6 s		s.	0.	0	fair	
Denver, Colorado	24.39	619.5	29.61	752.1	44.0	6.7	71	s.	2	0.9		0.	6 s		s.	0.	0	fair	
Des Moines, Iowa	28.78	731.0	29.69	754.1	70	21.1	90	sw.	18	8.0			10 s		sw.	0.23	5.8	cloudy	
Detroit, Michigan	29.41	747.0	30.13	765.3	65.0	18.3	90	e.	5	2.2			10s;fg			0.01	0.3	cloudy	
Dodge City, Kansas	26.96	684.8	29.56	750.8	71.1	21.7	84	s.	22	9.8			10 ks		s.	0.02	0.5	threatening.	
Dubuque, Iowa	29.09	738.9	29.81	757.2	65.8	18.8	90	s.	9	4.0			10 s		calm	0.02	0.5	cloudy	
Duluth, Minnesota	28.99	736.3	29.70	754.4	52	11.1	93	ne.	15	6.7			10 s		ne.	1.04	26.4	cloudy	
Eagle Pass, Texas	28.97	735.8	29.80	756.9	80.1	26.7	74	se.	12	5.4			10 s		se.	0	0	cloudy	
Eagle Rock, Idaho	25.08	637.0	29.93	760.2	35	1.7	69	sw.	16	7.2			10 ks		sw.	0	0	cloudy	
Eastport, Maine	30.27	768.8	30.34	770.6	50	10.0	72	n.	11	4.9		0	0			0.05	1.3	clear	
El Paso, Texas	26.04	661.4	29.79	756.7	58.2	14.6	29	w.	4	1.8		0	0			0	0	clear	
Erie, Pennsylvania	29.42	747.3	30.15	765.8	67	19.4	93	calm	0	0			10s;fg			0.08	2.0	cloudy	
Escanaba, Michigan	29.22	742.2	29.88	758.9	58	14.4	87	se.	12	5.4			10 s		se.	0.16	4.1	cloudy	
Florence, Arizona	28.23	717.0	29.83	757.7	54.3	12.4	64	w.	2	0.9		0	0			0	0	clear	
Fort Apache, Arizona	24.82	630.4	29.73	755.1	39	3.9	82	se.	4	1.8		0	0			inap.	inap.	clear	
Fort Assinnaboine, Montana	26.85	682.0	29.66	753.4	40	4.4	73	w.	6	2.7			10 s		calm	0	0	cloudy	
Fort Bennett, Dakota	27.90	708.6	29.44	747.8	48	8.9	93	se.	1	0.4			10 s		sw.	inap.	inap.	cloudy	
Fort Benton, Montana	26.88	682.7	29.74	755.4	42	5.6	60	w.	8	3.6			10 s		calm	0.02	0.5	cloudy	
Fort Buford, Dakota	27.62	701.5	29.63	752.6	35	1.7	100	nw.	4	1.8			fg.		calm	0.04	1.0	dense fog	
Fort Custer, Montana	26.50	673.1	29.74	755.4	44	6.7	85	n.	6	2.7			10 ks		calm	inap.	inap.	cloudy	
Fort Davis, Texas	24.97	634.2	29.93	760.2	60	15.6	62	ne.	3	1.3		0	0			0	0	clear	
Fort Elliott, Texas	26.94	684.3	30.13	765.3	72	22.2	64	se.	28	12.5			10 n		se.	0.02	0.5	light rain	
Fort Gibson, Indian T'y	29.25	742.9	29.80	756.9	78.0	25.6	71	sw.	16	7.2			10 s		sw.	0.03	0.8	cloudy	
Fort Grant, Arizona					50	10.0	56	n.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.43	722.1	29.61	752.1	78.0	25.6	79	se.	22	9.8			10 s		se.	0	0	cloudy	
Fort Keogh, Montana	27.12	688.8	29.66	753.4	42	5.6	82	nw.	6	2.7		10 cs	0			0	0	cloudy	
Fort Macon, North Carolina	30.24	768.1	30.25	768.3	78	25.6	88	se.	7	3.1		3 cs	2 k	calm	se.	0	0	fair	
Fort McKavett, Texas	27.56	700.0	29.37	746.0	73.2	22.9	85	s.	14	6.3			7 s		sw.	0	0	fair	
Fort Missoula, Montana	26.46	672.1	29.98	761.5	36	2.2	100	nw.	1	0.4			10 n			0.16	4.1	light rain	
Fort St. Michaels	29.74	755.4	29.77	756.1	36	2.2	80	nw.	9	4.0			10 s			0.51	13.0	cloudy	
Fort Shaw, Montana	26.08	662.4	29.68	753.9	38	3.3	64	w.	2	0.9		8 cs	0	calm		inap.	inap.	cloudy	
Fort Sill, Indian Territory	28.48	723.4	29.74	755.4	77.3	25.0	76	s.	29	13.0			10 s		s.	0	0	threatening.	
Fort Stevenson, Dakota	27.70	703.6	29.56	750.8	44	6.7	93	calm	0	0			10 n		calm	0.62	15.7	light rain	
Fort Verde, Arizona					46.2	7.9	56	w.			2	0.	0			0	0	clear	
Fredericksburg, Texas	28.08	713.2	29.55	750.6	74	23.3	90	s.	15	6.7		0	9 ks		sw.	0	0	cloudy	
Galveston, Texas	29.86	758.4	29.90	759.4	80	26.7	87	se.	12	5.4		3 cs	3 ks		se.	0.80	20.3	fair	
Grand Haven, Michigan	29.32	744.7	29.98	761.5	64.0	17.8	93	se.	4	1.8			10 s		calm	0	0	cloudy	
Hatteras, North Carolina	30.24	768.1	30.26	768.6	77	25.0	85	calm	0	0		3 k	2 s			0	0	fair	
Helena, Montana	25.50	647.7	29.89	759.2	36	2.2	92	s.	3	1.3		0	0			0	0	clear	
Henrietta, Texas	28.89	733.8	29.76	755.9	75	23.9	69	se.	21	9.4			10 s		se.	0	0	cloudy	
Huron, Dakota	28.10	713.7	29.50	749.3	53.2	11.8	96	nw.	5	2.2			10 s			0.11	2.8	cloudy	
Indianapolis, Indiana	29.26	743.2	30.06	763.5	70	21.1	87	s.	5	2.2		5 c	hz.	calm	calm	inap.	inap.	fair	
Indianola, Texas	29.81	757.2	29.84	757.9	79.1	26.2	91	s.	11	4.9		2 cs	3 ks	calm	calm	0.05	1.3	fair	
Jacksboro, Texas	28.59	726.2	29.64	752.8	76	24.4	82	se.	24	10.7		2 c	4 ks	w.	s.	0	0	fair	
Jacksonville, Florida	30.09	764.3	30.13	765.3	78	25.6	82	e.	6	2.7		2 k	0	e.		0.03	0.8	clear	
Keokuk, Iowa	29.16	740.7	29.82	757.4	71.4	21.9	90	se.	8	3.6		3 k	0	sw.		0.01	0.3	fair	
Key West, Florida	29.98	761.5	30.01	762.2	78.0	25.6	89	ne.	8	3.6		6 cs	2 ks		e.	0.60	15.2	cloudy	
Kittyhawk, North Carolina	30.26	768.0	30.28	769.1	75	23.9	85	sw.	4	1.8		3 c	0	s.		0	0	clear	
Knoxville, Tennessee	29.20	741.7	30.24	768.1	66	18.9	99	n.	1	0.4			fg.		calm	0	0	dense fog	
La Crosse, Wisconsin	28.91	734.3	29.68	753.9	67	19.4	78	s.	20	8.9			10 s			0.12	3.0	threatening.	
La Mesilla, New Mexico	25.89	657.6	30.04	763.0	50.2	10.1	48	calm	0	0		0	0			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	28.82	732.0	29.72	754.9	74	23.3	76	s.	20	8.9			10 s		s.	0.06	1.5	cloudy	
Lewiston, Idaho	28.98	736.1	29.83	757.7	45	7.2	76	calm	0	0		0	1 s		calm	0.11	2.8	clear	
Little Rock, Arkansas	29.03	752.6	29.95	760.7	73	22.8	97	s.	8	3.6			10 ks			0.05	1.3	cloudy	
Los Angeles, California	29.50	749.3	29.88	758.9	55.2	12.9	80	sw.	2	0.9			10 s		calm	0	0	cloudy	
Louisville, Kentucky	29.51	749.5	30.08	764.0	71.0	21.7	90	se.	6	2.7		3 cs	0			0.12	3.0	clear	
Lynchburg, Virginia	29.52	749.8	30.21	767.3	74.1	23.4	85	calm	0	0			fg.			inap.	inap.	dense fog	
Madison, Wisconsin	28.81	731.8	29.84	757.9	65	18.3	93	s.	12	5.4			10 s		calm	0	0	cloudy	
Marquette, Michigan	29.11	739.4	29.84	757.9	54	12.2	93	s.	19	8.5			10 n		s.	0.17	4.3	light rain	
Mason, Texas	28.17	715.5	29.83	757.7	75	23.9	87	s.	13	5.8			10 s		e.	0	0	cloudy	
Memphis, Tennessee	29.71	754.6	30.05	763.3	75	23.9	85	calm	0	0		0	0			0.01	0.3	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.15	740.4	29.91	759.7	63	17.2	100	s.	11	4.9			fg			0	0	dense fog	
Mobile, Alabama	29.99	761.7	30.06	763.5	76.0	24.4	90	e.	6	2.7		0	0			0	0	clear	
Montgomery, Alabama	29.89	759.2	30.12	765.0	73	22.8	90	e.	6	2.7		0	0			0	0	clear	
Moorhead, Minnesota	28.55	725.2	29.56	750.8	48.1	8.9	93	e.	7	3.1			10 n			0.06	1.5	light rain	
Morgantown, W. Virginia	29.21	741.9	30.17	766.3	71.0	21.7	87	sw.	2	0.9		0	7 s		sw.	0	0	cloudy	
Mt. Washington, N. H.	24.10	612.1	30.30	769.6	39.0	3.9	23	nw.	21	9.4		3 c	3 s	nw.	calm	0.71	18.0	clear	
Nashville, Tennessee	29.58	751.3	30.12	765.0	70.4	21.3	93	se.	2	0.9		0	fg			0.64	16.3	clear	
New Haven, Connecticut	30.19	766.8	30.31	769.9	64	17.8	78	ne.	8	3.6		9 c	0			0.68	17.3	cloudy	
New London, Connecticut	30.29	769.4	30.34	770.6	68	20.0	70	ne.	6	2.7		3 c	0	calm		0.33	8.4	fair	
New Orleans, Louisiana	29.94	760.5	30.00	762.0	78.0	25.6	90	e.	8	3.6		0	hz.			0	0	clear	
Newport, Rhode Island	30.27	768.8	30.32	770.1	63.7	17.6	76	ne.	9	4.0		7 k	0	w.		0.18	4.6	fair	
New River, N. Carolina					80	26.7	74	s.			1	1 cs	0			0	0	clear	
New Shoreham, Rhode I'd	30.27	768.8	30.30	769.6	64.0	17.8	78	ne.	24	10.7		0	0			0	0	clear	
New York, New York	30.10	764.5	30.28	769.1	69	20.6	78	ne.	20	8.9		3 cs	0			0	0	clear	
Norfolk, Virginia	30.21	767.3	30.24	768.1	73.5	23.1	97	sw.	5	2.2		1 c	0			0	0	clear	
North Platte, Nebraska	26.57	674.9	29.51	749.5	56.5	13.6	90	nw.	6	2.7			10 s		nw.	0.01	0.3	cloudy	
Olympia, Washington T'y	29.90	759.4	29.94	760.5	50.0	10.0	93	s.	1	0.4			10 s		calm	0.07	1.8	cloudy	
Omaha, Nebraska	28.44	722.4	29.63	752.6	69	20.6	93	s.	20	8.9			10 n			3.14	79.8	light rain	
Oswego, New York	29.89	759.2	30.22	767.6	58.8	14.9	81	se.	10	4.5		2 c	4 n	w.	w.	0.19	4.8	light rain	
Pensacola, Florida	30.03	762.7	30.06	763.5	76	24.4	97	ne.	6	2.7		0	0			0	0	clear	
Philadelphia, Pa.	30.19	766.8	30.25	768.3	71	21.7	93	e.	10	4.5		2 c	4 ks; hz			0	0	fair	
Phœnix, Arizona	28.59	726.2	30.37	771.4	53	11.7	55	e.	1	0.4		0	0			0	0	clear	
Pike's Peak, Colorado	17.42	442.5	29.63	752.6	19	— 7.2	70	sw.	24	10.7		0	0			0	0	clear	
Pioche, Nevada	23.89	606.8	29.91	759.7	37	2.8	46	nw.	4	1.8		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.38	746.2	30.20	767.1	71	21.7	84	s.	7	3.1		1 c	0	sw.		0.33	8.4	clear	
Port Eads, Louisiana	29.99	761.7	30.00	762.0	79.5	26.4	88	e.	13	5.8		0	1 k; hz		c; e.	0	0	clear	
Port Huron, Michigan	29.44	747.8	30.13	765.3	59.4	15.2	81	se.	4	1.8		7 cs	0	sw.		inap.	inap.	fair	
Portland, Maine	30.34	770.6	30.39	771.9	55.5	13.1	80	ne.	12	5.4		2 ck	0	w.		0	0	clear	
Portland, Oregon	29.89	759.2	29.96	761.0	52.3	11.3	89	se.	6	2.7			10 s		nw.	inap.	inap.	cloudy	
Portsmouth, N. Carolina					78	25.6	74	sw.	3	1.3		0	0			0	0	clear	
Prescott, Arizona	24.56	623.8	29.75	755.6	36	2.2	72	s.	1	0.4		0	0			0	0	clear	
Punta Rassa, Florida	30.02	762.5	30.03	762.7	78	25.6	85	ne.	8	3.6		2 c	1 ks	w.	e.	0.29	7.4	fair	
Red Bluff, California	29.46	748.3	29.80	756.9	60.0	15.6	60	n.	9	4.0		0	0			0	0	clear	
Rio Grande City, Texas	29.55	750.6	29.76	755.9	77	25.0	91	se.	8	3.6		3 c	0	calm		0	0	clear	
Rochester, New York	29.58	751.3	30.22	767.6	56	13.3	86	e.	6	2.7			10 ks		e.	0.01	0.3	threatening	
Roseburg, Oregon	29.47	748.5	30.05	763.3	50	10.0	93	calm	0	0			10 ks			0	0	cloudy	
Sacramento, California	29.72	754.9	29.80	756.9	52.9	11.6	61	calm	0	0		0	0			0	0	clear	
St. Louis, Missouri	29.36	745.7	29.96	761.0	71.0	21.7	97	s.	10	4.5		4 c	5 s		s.	inap.	inap.	cloudy	
St. Paul, Minnesota	28.72	729.5	29.60	751.8	61.2	16.2	93	se.	17	7.6			10 s		se.	0.83	21.1	cloudy	
Salt Lake City, Utah	25.37	644.4	29.70	754.4	47	8.3	52	calm	0	0			1c ks			inap.	inap.	cloudy	
San Antonio, Texas	29.11	739.4	29.81	757.2	77.5	25.3	90	e.	8	3.6			10 s		s.	0	0	cloudy	
San Diego, California	29.67	753.6	29.74	755.4	54.2	12.3	85	ne.	6	2.7		0	0			0	0	clear	
Sandusky, Ohio	29.43	747.5	30.12	765.0	66	18.9	90	sw.	4	1.8		0	7 ks			0.01	0.3	fair	
Sandy Hook, New Jersey	30.22	767.6	30.25	768.3	71.5	21.9	90	e.	22	9.8		3 k	0	e.		0.02	0.5	clear	
San Francisco, California	29.74	755.4	29.80	756.9	55	12.8	83	w.	1	0.4		0	0			0	0	clear	
Santa Fé, New Mexico	23.04	585.2	29.84	757.9	39.5	4.2	64	s.	2	0.9		0	1 s		calm	0	0	clear	
Savannah, Georgia	30.10	764.5	30.18	766.6	76.3	24.6	90	e.	2	0.9		1 k	0	e.		0.03	0.8	clear	
Shreveport, Louisiana	29.70	754.4	29.93	760.2	74.5	23.6	97	se.	5	2.2		3 ck	0	se.		0.04	1.0	fair	
Silver City, New Mexico	24.09	611.9	29.66	753.4	47	8.3	61	nw.	4	1.8		0	0			0	0	clear	
Sitka, Alaska	29.84	757.9	29.91	759.7	52	11.1	79	nw.	2	0.9			10 ks		nw.	0	0	cloudy	
Smithville, North Carolina	30.20	767.1	30.24	768.1	78	25.6	82	s.	5	2.2		0	1 ks		calm	0	0	clear	
Spokane Falls, Wash. Ter.	27.75	704.8	29.77	756.1	42	5.6	92	nw.	1	0.4		0	7 s			0.03	0.8	fair	
Springfield, Illinois	29.26	743.2	29.95	760.7	71	21.7	97	s.	14	6.3			10 s		s.	0	0	cloudy	
Springfield, Massachusetts	30.20	767.1	30.33	770.4	65.4	18.6	73	n.	4	1.8		2 cs	0	w.		0	0	clear	
Stockton, Texas	26.73	678.9	29.80	756.9	74.0	23.3	82	sw.	16	7.2			10 s		calm	0	0	cloudy	
St. Vincent, Minnesota	28.70	730.5	29.64	752.8	44.5	6.9	98	e.	4	1.8			10 n		calm	0.12	3.0	light rain	
Thatcher's Island, Mass.	30.33	770.4	30.39	771.9	57.4	14.1	80	ne.	12	5.4		5 ck	0	ne.		0	0	fair	
Toledo, Ohio	29.38	746.2	30.08	764.0	65	18.3	100	se.	6	2.7			fg			0	0	dense fog	
Tucson, Arizona	27.26	692.4	29.62	752.3	55	12.8	69	se.	4	1.8		0	0			0	0	clear	
Umatilla, Oregon	29.51	749.5	29.92	760.0	48.5	9.2	85	w.	3	1.3		0	0			0.03	0.8	clear	
Uvalde, Texas	28.82	732.0	29.60	751.8	78	25.6	82	se.	6	2.7			10 ks		s.	0	0	cloudy	
Vicksburg, Mississippi	29.75	755.6	30.01	762.2	73	22.8	97	se.	6	2.7		0	9 s		s.	0.01	0.3	cloudy	
Visalia, California	29.41	747.0	29.77	756.1	50	10.0	64	se.	6	2.7		0	0			0	0	clear	
Washington, D. C.	30.10	764.5	30.20	767.1	73.0	22.8	90	se.	1	0.4		2 ck	fg	nw.		0.01	0.3	clear	
Wickenburg, Arizona					49	9.4	70	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.17	766.3	30.23	767.8	77	25.0	76	calm	0	0		hz	sk	calm	calm	0	0	clear	
Winnemucca, Nevada	25.48	647.2	29.81	757.2	40	4.4	65	s.	12	5.4		0	0			0	0	clear	
Wood's Holl, Mass.	30.26	768.6	30.30	769.6	64	17.8	73	ne.	13	5.8		3 ck	2 s	w.	w	0.09	2.3	fair	
Yankton, Dakota	28.21	716.5	29.52	749.8	62	16.7	93	nw.	3	1.3			10 n			0.67	17.0	heavy rain	
Yuma, Arizona	29.55	750.6	29.69	754.1	60.3	15.7	81	se.	3	1.3		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.96	761.0	29.98	761.5	82	27.8	91	e.	3	1.3		5 ck	10 s	e.	e.	0.06	1.5		J. A. Racker.
Bogota, U. S. Columbia	22.00	558.8			55.2	12.9	72	se.	3	1.3			10 n; s		w.	0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.84	757.9	29.84	757.9	82	27.8	90	e.				5 c	0			0.3	8.		B. Bigar.
Havana, Cuba, W. I.	29.96	761.0	30.02	762.5	78	25.6	88	calm	0	0		4 cs	2 ks	calm	calm	0.11	2.8	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.93	760.2	29.94	760.5	75.2	24.0	84	calm	0	0		7 cs	0	e.		0	0	fair	Robert Johnstone.
Navassa, W. I.	29.83	757.7	29.91	759.7	82	27.8	78	ne.	11	4.9		8cs; hz	2 k; hz	e.	e.	0	0	hazy	F. M. Everett.
Paramaribo, S. A.	29.99	761.7	29.99	761.7			76	se.			2	3 c	0	e.		0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.38	746.2	29.94	760.5	75	23.9	94	s.					10 ks		calm	1.09	27.7	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					77.0	25.0		se.			1	0	9 ks		se.	0.71	18.		Earl Flint.
Santiago de Cuba, W. I.	29.92	760.0	29.94	760.5	78	25.6	86	calm	0	0		5 c	2 k			0.79	20.1	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.96	761.0	29.97	761.2	82	27.8	79	e.	9	4.0		0	2 ks		e.	0.09	2.3	clear	G. O. Gyllich.
York Factory, B. A.	29.82	757.4	29.87	758.7	31.0	— 0.6	95	s.	11	4.9		1 c	0	s.		0	0	fair	J. Fortescue & W. Wood

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatros																			
H. M. S. Alert, S. 10° 46′, E. 141° 52′	29.98	761.5	75.5	24.2	69	e.			4-5		0							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibraltar, Mediterranean	30.17	766.3	73.5	23.1	81	calm			0		0							blue sky	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.22	767.6	58	14.4		nw.			2		10							d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, Aden, Arabia	29.78	756.4	87	30.6		s.			1		0							blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche, N. 41° 27′, W. 64° 15′	30.21	767.3	66	18.9	94	ne.			3		9					2	ssw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 06′, E. 12° 05′	29.59	761.7	61	16.1	94	ssw.			2-3		5	ssw.				4	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A. T. Bruce.
H. M. S. Crocodile																			Capt. F. A. Wetherall.
H. M. S. Cruiser																			
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 10′, E. 20° 30′	29.88	758.9	70	21.1		nne.			3		2	nne.				2	nne.	showery	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido, S. 15° 55′ W. 5° 42′	30.06	763.5	72	22.2		ne.			1		2	ene.						d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.27	768.8	77.5	25.3	82	nne.			2-3		3	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 40′, W. 55° 11′	29.91	759.7	45.5	7.5	87	nw.			6-7		3	nw.				5	nw.	squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 25° 39′, E. 57° 43′	29.69	754.1	93	33.9		w.			1		5	sw.				1	sw.	blue sky	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.79	756.7	85	29.4		sw.			1		7							d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, N. 7° 44′, E. 81° 48′	29.75	755.6	83	28.3	79	e.			3		3	e.				2	se.	d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 36° 52′, E. 12° 05′	29.91	759.7	71	21.7		se.			3-4		4					4	sse.	squally	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 35′, E. 41° 48′	30.06	763.5	70.5	21.4	82	sw.			3		6	sw.				2	se.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Off Kosima, Japan	29.91	759.7	68.5	20.3	82	sw.			1		6					2	sw.	d. clouds	Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 20° 51′, W. 156° 37′	30.05	763.3	75	23.9	68	e.			1		0							blue sky	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	30.34	770.6	52	11.1	79	s.			2		6	s.						d. clouds	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 11′, W. 76° 27′	29.93	760.2	81	27.2	82	sse.			1		1	sse.				3	nne.	blue sky	Comm. J. Ingles.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, N. 10° 00′, E. 162° 00′	29.83	757.7	86	30.0	96	ene.			2		3	ene.				1	ene.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 35° 26′, E. 139° 38′	30.02	762.5	67	19.4		nne.			1-2		4	n.						raining	Capt. R. E. Tracey.
H. M. S. Kestrel																			
H. M. S. Kingfisher, Guayaquil, Ecuador	29.92	760.0	71	21.7		calm			0		4	calm						d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 26° 21′, E. 49° 46′	30.06	763.5	71	21.7		sse.			1		10	nnw.				3	nne.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 32° 17′, W. 25° 00′	30.25	768.3	64	17.8	73	nnw.			2-3		8					1	e.	d. clouds	Capt. S. Grove.
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.87	758.7	82.5	28.1	76	ne.			2-3		9					2	ne.	misty	Capt. A. Carpenter.
H. M. S. Minotour, N. 41° 49′, W. 9° 45′	30.14	765.5	67.5	19.7	90	nne.			3		9	nne.				2	nnw.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.97	761.2	81	27.2	.91	sse.			2		6	ene						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo Chili,	30.11	764.8	51	10.6	93	calm			0		10							misty	Capt. F. Edwards.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	30.20	767.1	57	13.9	75	nne.			4		2	nne.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican, S. 25° 30′, W. 70° 44′	30.07	763.8	57.5	14.2	96	s.			2		6					2	ssw.	misty	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Puget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton.
H. M. S. Ready, N. 12° 36′, E. 46° 45′	29.78	756.4	88.3	31.3	75	e.			1		0							blue sky	Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby																			Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S! Sea Gull																			Comm. W. Byles.
H. M. S. Serapis, S. 11° 20′, E. 2° 00′	30.06	763.5	70	21.1	79	s.			1		9	sse.				sm'h		d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 6° 26′, W. 19° 00′	29.96	761.0	80	26.7	86	s.			3		1					1	s.	blue sky	Capt. T. H. Royse.
H. M. S. Tenedos, N. 44° 20′, W. 63° 30′	30.27	768.8	57	13.9	81	n.			5		4					2	ne.	d. clouds	Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer, N. 34° 28′, E. 10° 48′	29.99	761.7	85	29.4	50	ssw.			2		6					3	ssw.	d. clouds	Capt. C. F. Hotham.
H. M. S. Triumph, Callao Bay, Peru	30.02	762.5	59	15.0	94	calm			0		10	calm						drizzling	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.92	760.0	79	26.1		n.			1		4							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A.D.C
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.95	760.8	79.3	26.3	70	nw.			3		0					1		blue sky	Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, Brava, Cape Verd Id's	29.97	761.2	82.0	27.8	74	ne.			2		3		s.			2	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.96	760.9	84.2	29.0	71	ene.			2		1							foggy	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M Corvette Saga																			Capt. M. von Krusenstiern
H. M Frigate Vanadis																			Com. Th. Ulner

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Upper	Lower	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.12	765.0	79	26.1	86	ne.	4	1.8			0			0	0			clear	
N. Yard, Portsmouth, N. H.	30.37	771.4	57	13.9	81	ne.	11	4.9		2 c	0	ne.		0	0			clear	
Naval Hospital, Yokohama, Japan	29.81	757.2	66.5	19.2	94	ne.			2		10		ne.	0.21	5.3			raining	
Adams, [S. A. Guayaquil River, Equador,	29.75	755.6	71	21.7	85	ssw.			2		2					sm'h		fair	
Alaska, Callao, Peru	29.95	760.7	59	15.0	100	calm			0		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.89	759.2	68	20.0	95	ne			3		10		calm			sm'h		rainy	
Alliance, N. 71° 58′, E. 1° 40′	29.90	759.4	41	5.0	91	s.			1		2			0	0	sm'h		fair	
Ashuelot, Kobe, Japan	30.00	762.0	73	22.8	76	calm			0		1?		calm					cloudy?	
Colorado, New York, N. Y.	30.26	768.6	71	21.7	80	ene.	4	1.8			5			0	0			misty	
Constitution, Newport, R. I.	30.24	768.1	64	17.8	83	ne.	14	6.3			10							clear?	
Franklin, Norfolk, Va.	30.17	766.3	74	23.3	?	wsw.	8	3.6			1		wsw.	0	0			clear	
Galena, Leghorn, Italy	29.99	761.7	64	17.8	83	e.			1		8					sm'h		cloudy	
Independence, N. Yard, Mare I'd, Cal.	29.76	755.9	60	15.6	71	sw.	2.4	1.1			0							clear	
Kearsarge, New York, N. Y. *†	30.39	771.9	71	21.7	80	ene.			2		2		ne.			sm'h		hazy	
Lackawanna, San Francisco, Cal. †	30.03	762.7	58	14.4	100	sw.			1		0							clear	
Lancaster, New York, N. Y.	30.21	767.3	71	21.7	85	ne.	12	5.4			2		calm					d. clouds	
Marion, Montevideo, Uruguay *	30.06	763.5	54	12.2		se.			2		2		calm			sm'h		clear	
Michigan, Port Stanley, Canada	30.09	764.3	65	18.3	89	nne.			2		8		nne.					fair	
Minnesota, Newport, R. I.	30.33	770.4	65	18.3	78	ne.			3		10			0	0	sm'h		cloudy	
Monocacy, Yokohama, Japan	30.04	763.0	69	20.6	95	n.			2		10		n.					rainy	
Nipsic, Genoa, Italy	30.03	762.7	68	20.0	56	nne.			3		5		nne.			sm'h		d. clouds	
Onward, Callao, Peru †	29.99	761.7	59	15.0	100	calm			0		10		nnw.			long	w.	misty	
Palos, Hong Kong, China	29.95	760.7	80	26.7	70	e.			3		10		n;e.					overcast	
Passaic, Washington, D. C.	30.22	767.6	77	25.0	86	sw.			1		2							fair	
Pensacola, S. 7° 30′, W. 80° 36′	30.01	762.2	64	17.8	89	se.			3		10			0	0	mod.	se.	cloudy	
Portsmouth, Newport, R. I.	30.30	769.6	64	17.8	78	ne.			4		5					sm'h		fair	
Powhatan, Aspinwall, Panama	29.86	758.4				s.			1		10		s.			light	n.	cloudy	
Quinnebaug, Marseilles, France	29.99	761.7	67	19.4	60	nw.			2		8		n.			sm'h		cloudy	
Ranger, Mare Island, Cal. *	29.74	755.4	60	15.6	71	sw.			1		0			0	0	sm'h		clear	
Richmond, Panama, Panama	29.83	757.7	80	26.7	96	w.			2		10			0	0			hazy	
Saratoga, Newport, R. I.	30.27	768.8	63	17.2	89	ne.			2		2		ne.	h'vy	h'vy	sm'h		fair	
Shenandoah, Maldonado, Uruguay *	30.39	771.9	56	13.3	63	se.			2		0					sm'h		clear	
St. Louis, League Island, Pa.	29.99	761.7	72	22.2	90	ne.	2	0.9			8		ne.	0	0			cloudy	
Swatara, Chefoo, China †	30.06	763.5	71	21.7	71	calm			0		0							clear	
Tennessee, New York, N. Y.	30.28	769.1	73	22.8	95	ne.	15	6.7			8		w.	light	light			clear	
Trenton, N. 22° 20′, W. 42° 45′ *	30.09	764.3	85	29.4	76	e.			2		2			0	0	sm'h		fair	
Vandalia, New York, N. Y.	30.24	768.1	71	21.7	80	ene.			2		5		e.					fair	
Wabash, Boston, Mass.	30.36	771.1	63	17.2	72	ne.	12	5.4			10		nw.	0	0			cloudy	
Wyoming, Port Royal, S. C.	30.14	765.5	77	25.0	86	ne.	5	2.2			5		ne.	0	0			fair	
Yantic, New York, N. Y. *	30.21	767.3	70	21.1	80	ne.			3		5							fair	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 55° 30′, W. 7° 20′ *†	30.08	764.0				sw.	5		10		wsw.			r'gh	w.	raining	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, N. 51° 52′, W. 13° 38′	29.96	761.0	59	15.0		w.	4		10		w.			con.	w; sw	cloudy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Liverpool, Eng	30.30	769.6	65	18.3	94	s.	3		2		s.					fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent,																	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 47° 10′, W. 46° 42′ *†	29.98	761.5	54	12.2	93	n.	3		2		n.			mod.	nnw.	fine	C. Rodman, 3d Officer.
S. S. Pennsylvania, Capt. G. H. Dodge, Philadelphia, Penn †	30.21	767.3	90	32.2	100	nw.	4		2		w.					fair	
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, Capt. E. J. Moloney, ‡																	
S. S. Cipero, Capt. W. N. Lailey, N. 17° 25′ W. 84° 32′	29.88	758.9	83	28.3	83	ese.	3		5					1	ese.	d. clouds	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan, N. 53° 02′, W. 5° 13′	30.27	768.8	60.0	15.6	85	s.	5–6		8							misty	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, S. 12° 09′, W. 30° 36′	30.09	764.3	76.2	24.6	77	sse.	6		8							d. clouds	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 41° 00′, E. 66° 00′	30.02	762.5	55	12.8	93	wnw.	6		10							overcast	
Bk. Mertola, Capt. E. W. Turner N. 41° 01′, W. 14° 17′	30.27	768.8	66.5	19.2	89	nne.	3		4							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry N. 18° 49′, W. 25° 13′	30.05	763.3	81.3	27.4	83	ne.	6		6							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, N. 25° 42′, W. 37° 12′	30.14	765.5	78.7	25.9	75	ssw.	1–2		5							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson Yokohama, Japan	29.94	760.5	67.5	19.7	95	ne.	4		10							raining	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
CALIFORNIA, AND MEXICAN S. S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers																	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains, N. 51° 21′, W. 11° 01′	30.06	763.5	60	15.6		sse.	6		10			rain	rain	sm'h		rainy	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
Braunschweig, Capt. C. Pohle Near N. Hindoo, Netherlands	30.34	770.6	59.5	15.3	85	se.	3		2		se.			sm'h	se.	fair	
S. S. Hermann, Capt. H. Baur																	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jungst, N. 40° 50′, W. 66° 23′	30.27	768.8	66.0	18.9	89	ne.	3		7		ne.	2 h'rs	fg	sm'h	ne.	fair	T. Jüngst.
S. S. Leipsic, Cept. F. Pfeiffer.																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 50° 24′, W. 35° 21′	29.73	755.1	55.0	12.8	87	sse.	7		10		s.	2 h'r	2 h'r	cross	s.	rainy	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Hong Kong, China †	30.11	764.8	84	28.9	75	ese.	4		5		se.	rain	rain	sm'h		fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 42° 41′, W. 165° 42′ *†	30.54	775.7	72	22.2	90	sse.	5		1		w.			r'gh	ssw.	clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. San Francisco, Cal	29.97	761.2	54	12.2	80	nw.	3		2							fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann Portland, Oregon *†	30.03	762.7	61	16.1	?	s.	1		5		s.					fair	G. Reichmann.
S. S. Columbia, Capt. F. Bolles. N. 40° 30′, W. 124° 35′ †	29.97	761.2	52	11.1	93	n.	3		10		n.			small	nnw.	misty	
S. S. Oregon, Capt. Pollmann,																	C. W. Pohl, 2d Officer.

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.				Character.	Direction.		
								Up'er	Lo'er	Upper.	Lower.						
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 33° 42′, W. 118° 14′ †..	29.76	755.9	57	13.9	94	n.	1		2		e.			sm'h		fair	J. N. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound †..	29.99	761.7	57	13.9	100	se.	3		6		se.	rain	rain	sm'h		rainy	
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal †...	29.80	756.9	54	12.2	93	calm	0		0							clear	T. Huntington. G. H. Harrison.
S. S. Orizaba, Capt. C. B. Johnson,																	
S. S. Senator. Capt. Wallace, Eureka, Cal †.	29.94	760.5	46	7.8	84	nw.	2		10							cloudy	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †...	29.93	760.2	53	11.7	93	nne.	2		8		sw.					cloudy	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 40° 55′, W. 124° 34 †...	29.99	761.7	54	12.2	93	n.	4		0					light	w.	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——, N. 27° 53′, W. 147° 42′	30.13	765.3	67	19.4	84	ne.	3		8		ne.			long	ne.	cloudy	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W †..	30.25	768.3	63	17.2	89	nw.	2		2			0	0			clear	W. H. Hawes, 2d Off. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,																	
S. S. City of Peking, Capt. G. G. Barry.. N. 34° 10′, E. 138° 11′ †*..	30.09	764.3	72	22.2	90	nne.	2		10		nw.	light	light	sm'h		rainy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——																	
S. S. City of Sidney, Capt. H. C. Dearborn, N. 30° 02′ W. 141° 11′ †.	30.04	763.0	70	21.1	70	ene.	2		8		ne.			mod.	ne.	drizzling	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 37° 50′, E. 146° 29′ †..	30.01	762.2	72	22.2	85	sw.	4		10		nw.	0	0	mod.	ene.	cloudy	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, Acapulco, Mexico †..	29.82	757.4	79	26.1	100	e.	3		10		e.	0	0	h'vy	sw.	gloomy	R. R. Searle.
S. S. Grenada. Capt. M. Connolly Panama, Panama †..	29.81	757.2	82	27.8	87	sse.	1		10		sse.	4 h'r	4 h'r			light rain	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W	30.32	770.1	62	16.7	77	e.	1		0							clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg,																	
S. S. Rhynland, Capt. W. G. Randall, N. 40° 44′, W. 70° 54′ †..	30.42	772.7	68	20.0	79	ne.	5		2		ene.	0	0	mod.	ne.	clear	A. Fedderson, 2d Off. C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 51° 20′, W. 14° 19′ †.	30.01	762.2	56	13.3	?	wnw.	4		5		nw.	8 h'r	8 h'r	mod.	w.	fair	
S. S. Britannic, Capt. H. Perry. N. 44° 48′, W. 53° 50′ †.	30.11	764.8	58	14.4		n.	4		5		n.	0	0	mod.	nw.	fine	R. Horsfall.
S. S. Celtic, Capt. B. Gleadell,																	
S. S. Germanic, Capt. C. W. Kennedy, Liverpool, England †..	30.41	772.4	65	18.3	94	s.	4		2		s.	0	0			d. clouds	B. Gleadell.
S. S. Republic. Capt. P. J. Irving N. 49° 49′, W. 25° 57′ †..	30.14	765.5	59	15.0	88	n.	3		5		nne.	0	0	mod	n.	d. clouds	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Woods Holl, Mass †..	30.29	769.4	63	17.2	89	ne.	4	2 c	2s			0.13	3.3			fair	
Golden Fleece																	
Hassler, Lt. Com. Nichols, Esquimalt, Vancouver's Id *†.	29.92	760.0	52	11.1		calm	0		10					sm'h		overcast	
S. Iron Cross, Capt. Randall, N. 14° 54′. W. 29° 00′ *..	29.98	761.5	82.3	27.9	98	nne.	5		3		ne.	0	0	mod.	ne.	misty	W. Randall.
S. Pawashick. Capt. E. Fry. N. 41° 03′, W. 16° 21′ *†..	30.11	764 8	68	20.0	92	sw.	2-3		2		wsw.			sm'h	w.	fine	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam. Capt. Jos. Hand, Lisbon, Portugal †..	30.22	767.6	78	25.6	65	se.	2		0			0	0			clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer, U. S. A.

Heliotype Printing Co Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON SEPTEMBER 30, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.97	761.2	77.0	25.0	88	w.			1		0			0	0	clear	Raynard.
Algiers ‡			30.00	761.9	75.2	24.0	59	n.			2		10			inap.	inap.	covered	Nicolas.
La Calle ‡			29.98	761.6	74.5	23.6	64	nnw.			5		6			0.748	19.0	cloudy	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			29.97	761.3	76.1	24.5	53	nne.			1		2			0	0	fair	Dumas.
Tebessa ‡			29.99	761.8	66.6	19.2	37	wnw.			5		5			0	0	cloudy	Derché.
Geriville ‡					75.9	24.4	49	w.			3		2			0	0	fair	Lonchamp.
Laghouat ‡			30.02	762.6	73.8	23.2	40	nw.			4		2			0	0	fair	Herbin.
Biskra ‡			30.01	762.3	83.8	28.8	20	nnw.			2		0			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.92	759.9	30.01	762.2	52.3	11.3	93	calm	0	0			3			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.60	751.8	30.11	764.8	57.2	14.0	63	ne.			2		10			0.402	10.2		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.62	752.4	30.42	772.6	43.0	6.1	62	e.	13.0	5.8			6			0	0		Dr. Wiersbicki.
Eperies	29.41	746.9	30.28	769.0	44.6	7.0	56	n.			3	0	0			0	0		Julius Mikolik.
Gratz ‡	28.95	735.3	30.21	767.2	55.6	13.1	72	e.			4		9			0.098	2.5		Andreas Rospini.
Hermannstadt	28.81	731.7	30.24	768.2	56.3	13.5	57	ese.			3		4			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.86	733.1	30.34	770.5	52.2	11.2	79	ne.			4		0			0	0	clear	The Staff.
Lemberg	29.36	745.7	30.18	766.5	44.2	6.8	63	w.			1		5			0	0		Dr. T. Stanecki.
Pola	29.86	758.4	29.97	761.3	53.4	11.9	72	e.			7		10			0	0		I. R. Hydrographic Office.
Szathmar	29.78	756.5	30.25	768.3	56.8	13.8	66	nw.			3		4			0	0		Beicht Petér, S. J.
Szegedin	29.92	760.0	30.20	767.1	58.1	14.5	65									0	0		Karl Stancel.
Trieste	29.92	760.0	30.02	762.6	59.0	15.0	51	ne.			4		10			0	0	clear	Secco.
Vienna	29.56	750.9	30.29	769.3	54.3	12.4	52	n.			2		0			0	0		I. R. Central Met. Obs'y
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.22	767.6	30.32	770.1	55.0	12.8	87	ne.	9	4.0			9			0	0	overcast	W. Boswell.
Armagh, Observatory	30.08	764.0	30.31	769.9	57.6	14.2	90	sw.	2	0.9			10					overcast	S. Call.
Bidston, Liverpool Obs'y			30.33	770.4	62.0	16.7	68	se.	12	5.4			9					misty	John Hartnup.
Bolton, Sharples	29.81	757.2	30.35	770.9	57.8	14.3	81	sse.					10					overcast	Thomas Mackereth.
Bradford, Yorkshire	29.92	760.0	30.32	770.1	62.0	16.7	57	sw.			1		3			0	0	d. clouds	J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.37	771.4	60.0	15.6	65	sw.			0.2		2					foggy	John McLaren.
Chatham, School M. E.	30.24	768.1	30.37	771.4	61.2	16.2	82	e.			1		6					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	30.12	765.0	30.35	770.9	58.0	14.4	80	ese.			1		10					overcast	The Staff.
Fort Napier, Natal	27.88	708.1	30.10	764.5	63.1	17.3	84	se.			1		6						Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.68	753.9	29.91	759.7	86.0	30.0	88	calm			0		4					d. clouds	Sgt. C. E. Keane.
Galway, Queen's College			30.20	767.1	57	13.9	93	nw.			2		10					drizzling	J. O'Donaghue.
Gibraltar, Mediterranean	29.95	760.7	30.01	762.2	79.9	26.6	80	e.			2		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	30.09	764.3	30.29	769.4	59.2	15.1	87	wsw.			1		10 k					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.21	767.3	30.38	771.6	60.8	16.0	70	ene.			1		2					blue sky	The Staff.
Guernsey	30.12	765.0	30.33	770.4	59.5	15.3	76	ene.			1		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.35	770.9	30.29	771.9	57.1	13.9	81	nne.	4	1.8								foggy	The Staff.
Leicester, Museum	30.11	764.8	30.36	771.1	64.0	17.8	53	se.			1		1					blue sky	J. C. Smith.
Malta, Mediterranean	29.97	761.2	30.04	763.0	75.2	24.0	68	nw.			2		6			0.06	1.5	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.99	761.7	30.03	762.7	83.0	28.3	80	e.			2		8					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.84	757.9	30.36	771.1	61.3	16.3	66	s.			1		3					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	30.15	765.8	30.38	771.6	60.6	15.9	66	sse.			2		5					d. clouds	The Staff.
Plymouth	30.27	768.8	30.34	770.6	57.3	14.1	95	ne.			1		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.30	769.6	54.9	12.7	84	wnw.	6	2.7			5					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	30.16	766.1	30.23	767.8	63.8	17.7	57	nne.			2		5					d. clouds	Serg't W. H. Lyne.
Sheffield	30.07	763.8	30.35	770.9	64.0	17.8	76	sw.			1		4			0	0	d. clouds	W. F. Cooper.
Siloth Rectory	30.27	768.8	30.30	769.6	58.3	14.6	86	ssw.			4		10			0	0	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.36	771.1	59.9	15.5	76	s.	1	0.4			6					misty	Rev. S. J. Perry.
Stratfield Turgiss	30.15	765.8	30.37	771.4	60.8	16.0	66	se.			1		0					blue sky	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.30	769.6	30.33	770.4	66	18.9	73	se.			2		8					gloomy	W. Newcombe.
Valencia, Observatory	30.21	767.3	30.24	768.1	59.5	15.3	76	wnw.	3	1.3			8					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.36	771.1	30.40	772.1	54	12.2	86	s.	9	4.0		8 ck	0			0	0	fair	H. J. Cundall, C. E.
Chatham, N. B.*	30.27	768.8	30.33	770.4	44	6.7	96	se.	1	0.4			10 ks		se.	0	0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.05	763.3	30.07	763.8	55	12.8	83	sw.	20	8.9		2 c	8 s	w.	w.	0	0	cloudy	J. McWilliams.
Fort Garry, Manitoba*	28.60	726.4	29.41	747.0	43	6.1	93	w.	8	3.6		5 k	5 k	w.	w.	0.234	5.9	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.33	770.4	30.46	773.7	53	11.7	93	s.	3	1.3		8 k	0	sw.		0	0	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.71	754.6	30.04	763.0	70	21.1	84	se.	14	6.3		0	0			0	0	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.88	758.9	30.08	764.0	64	17.8	84	s.	16	7.2		2 cs	0			inap.	inap.	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.19	741.4	29.86	758.4	70	21.1	84	se.	22	9.8		2 cs	0	w.		0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.35	745.5	30.01	762.2	71	21.7	95	s.	14	6.3		0	0			0	0	clear	H. Morgan.
Port Stanley, Ontario	29.37	746.0	29.98	761.5	72	22.2	84	s.	6	2.7		2 ck	0	sw.		0	0	clear	M. Payne.
Quebec, Quebec*	29.80	756.9	30.12	765.0	54	12.2	90	ne.			1		10 ks			0	0	hazy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.49	749.0	29.93	760.2	61	16.1	93	e.	1	0.4		5 c	0	nw.		0	0	light fog	W. H. McIntyre.
Saugeen, Ontario*	29.15	740.4	29.83	757.7	75	23.9	71	s.	23	10.3		8 k	0			0	0	cloudy	K. Stewart.
St. Andrews, N. B.	30.31	769.9	30.36	771.1	52	11.1	93	sw.	2	0.9			10 n			0	0	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.41	772.4	30.46	773.7	44	6.7	89	sw.	6	2.7		10 ck	0	nw.		0	0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.63	752.6	30.01	762.2	66	18.9	97	se.	10	4.5		2 cs	fg.			0	0	fair	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.36	771.1	30.42	772.4	57	13.9	90	s.	3	1.3			10 k		w.	0	0	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.28	769.1	30.54	775.7	46	7.8	84	s.					10 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.28	769.1	30.31	769.9	65.0	18.3	88	ene.	8.1	3.6		0	1 k			0	0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.38	746.2			77	25.0	41	se.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.10	764.5	30.12	765.1	66.9	19.4	92	ne.	3.1	1.4		0	3 ks			0	0	almost clear	M. Marc Dechevrens, S. J.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.41	772.4	30.46	773.6	52.7	11.5	65	s.	7	3			1						Oversergent Fischer
Fanöe	30.43	772.8	30.45	773.3	55.2	12.9	73	sw.			2		1						Overloerer Lauridsen
Godthaab, Greenland	29.60	751.7	29.64	752.8	25.0	—3.9	60	ne.			6–7		0						S. Kleinschmidt.
Stykkisholm, Iceland	29.34	745.2	29.38	746.3	47.8	8.8	87	s.			7		10					raining	A. O. Thorlacius.
Thorshavn	30.13	765.2	30.16	766.1	53.2	11.8	78	s.	20	9			7						Overloerer Bergh.
Vestervig	30.33	770.4	30.42	772.7	56.1	13.4	83	sw.			4		1						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.59	751.5	30.22	767.7	63.7	17.6	52	n.			1	c;ck	2 s			0	0		M. Labroue, Director.
Alençon Normal School	29.81	757.2	30.36	771.2	55.4	13	98	ne.			4		kn	n.	n.	0	0		M. Nicot, Director.
Arras, Engineer School																			M. Klein, Commandant.
Avignon, Normal School	29.95	760.8	30.03	762.8	63.3	17.4	59	n.			3		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.68	753.9	30.24	768.2	56.1	13.4	63	e.			1	0	5 kn		ne.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	30.07	763.8	30.34	770.5	56.7	13.7	59	ene.			2		5		ene.	0.008	0.2	cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.29	743.9	30.19	766.8	55.4	13	66	e.			3		2		ne	0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.93	760.3	30.19	766.9	62.1	16.7	54	nne.			1		8			0	0	very cloudy.	M. Rayet, Director.
Bourges, Normal School	29.47?	748.5?	30.02?	762.5?	60.4	15.8	58	n.			4		1		n.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	30.06	763.4	30.30	769.6	68.4	20.2	77	s.			1		10		s.	0.047	1.2		M. de Rermaree, Dir.
Caen, Normal School	30.26	768.6	30.34	770.5	59.4	15.2	76	nne.			1		0			0	0	clear	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l					62.6	17.0	55	ne.			2		0			0	0	clear	M. Jadot, Director.
Charleville, Normal School.	29.77	756.1	30.28	769.1	59.7	15.4	85	nw.			1		0			0	0	clear	M. Grimard, Director.
Clermont-Ferrand Obs'y	28.81	731.7	30.16	766.1	57.6	14.2	61	n.			2		8		n.	0	0	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.31	744.5	30.15	765.7	57.9	14.4	58	n.			4		5		n.	0	0		M. de Villemontée, Dir.
Commercy, Normal School.	29.40	746.7	30.26	768.7	53.2	11.8	63	e.			1		2	e.	e.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.45	697.1	29.95	760.8	57.6	14.2	48	s.			3	5 ck	0	e.		0	0	½ covered	M. Jeangirard, Director.
Gréasque, du. Rhone	28.93	734.7	30.07	763.7	67.8	19.9	49	sw.			2		5		sw.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.32	744.6	30.08	764.1	55.0	12.8	66	nnw.			4	0	kn		ne.	0	0		M. Ablard, Director.
Guéret, Normal School	28.61	726.8	30.18	766.6	58.6	14.8	60	ne.			3		0			0	0	clear	M. Rivoire, Director.
Lamballe, Normal School	30.04	763.0	30.31	769.8	61.7	16.5	71	ne.			2				ne.	0	0		M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.24	768.1	30.34	770.7	67.1	19.5	63	ene.			1		2		calm	0	0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.08	738.6	30.14	765.6	54.3	12.4	6	n.			2		10 n		n.	0	0	covered	M. André, Director.
Mans, Normal School	30.01	762.2	30.32	770.1	57.2	14	67	nne.			1		2		e.	0	0	slightly cl'dy	M. Piboen, Director.
Marseille, Observatory	29.72	754.8	29.98	761.5	66.2	19.0	63	wsw.			2.3		4		w.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.88	631.9	30.11	764.9	51.8	11.0	25	n.	16.8	7.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.93	760.2	30.04	762.9	69.8	21	44	nw.			2		0			0	0	clear	M. Pourie, Director.
Nancy, Normal School	29.48	748.9	30.25	768.3	55.6	13.1	66	n.			1	1 c	0			0	0	clear	M. Hasse.
Nantes, Observatory	30.15	765.9	30.32	770.0	61.5	16.4	66	ene.			1–2	9 ck	0	n.	ene.	0	0	hazy	M. Larocque, Director.
Nice	29.92	759.9	29.95	760.7	66.2	19.0	65	w.			3	1	1	w.	w.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	29.89	759.3	30.00	761.9	69.4	20.8	27	nw.	20.6	9.2			1	nw.		0	0		Dr. Fines.
Pic-du-Midi, Plantade	22.62	574.4			37.0	2.8							1		nw.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					55.4	13	71	calm			0		2			0	0	slightly cl'dy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.25	641.4			36.3	2.4	95	ne.			3		8		ne.	0.028	0.7	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.24	768.1	30.27	768.9	60.8	16.0	91	ne.			2					0	0		Lt. E. Decante, Director.
Roche-sur-Yon, N. School	30.13	765.4	30.35	770.9	60.4	15.8	75	nne.			3		8		ne.	0	0	very cloudy	M. Mouillot, Director.
Rodez, Normal School																			M. Richard, Director.
Rouen, Normal School	30.24	768.0	30.32	770.2	59.9	15.5	78	e.			1		0			0	0	clear	M. Platrier, Director.
Saint Lô, Normal School	30.16	766.0	30.32	770.0	59.9	15.5	67	e.			4		5		e.	0	0	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	30.14	765.5	30.30	769.7	55.8	13.2	70	nne.			2		7		ene.	0	0		M. Renou, Director.
Toulouse, Observatory	29.47	748.5	30.20	767.0	62.2	16.8	47	nw.			3		2	nw.		0	0	slightly cl'dy	M. Baillard, Director.
Tours	30.05	763.3	30.25	768.3	61.3	16.3	58	ne.			2		2		ene.	0	0	¼ covered	M. de Tastes.
Versailles, Observatory	29.82	757.4	30.31	769.9	53.6	12.0	78	ne.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	30.03	762.8	30.32	770.2	54.5	12.5	74	ne.			2		8		nne.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg																			Prof. Dr. Hoh.
Berlin	30.24	768.0	30.41	772.4	55.4	13.0	40	e.			1		0			0	0		Prof. Dr. Arndt.
Breslau	29.89	759.2	30.43	772.9	46.6	8.1	56	e.			2		0			0	0		Royal University Obs'y.
Carlsruhe	29.83	757.6	30.26	768.6	56.3	13.5	68	ne.			1		1	ne.		0	0		Albert Senz.
Cassel	29.61	752.2	30.34	770.5	55.0	12.8	50	n.			6		0	n.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.93	760.1	30.30	769.5	55.8	13.2	50	ene.			1		1			0	0		Physical Society.
Friedrichshafen	28.72	729.5	30.16	766.0	55.0	12.8	75	ne.			8		3	ne.		0	0		Wilhelm, Chief Tel.
Hamburg	30.36	771.2	30.46	773.6	54.0	12.2	66	ese.			4		1			0	0		E. Preller.
Kiel	30.42	772.7	30.44	773.1	52.2	11.2	76	calm			0		1			0.008	0.2		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.97	761.3	30.40	772.2	50.9	10.5	61	e.			4		1	e.		0	0		H. Leppig, Asst.
Magdeburg	30.22	767.7	30.42	772.6	55.2	12.9	50	ne.			3		0			0	0		Dr. Assmann.
Memel	30.48	774.2	30.53	775.4	50.0	10.0	78	sw.			3		0	8 k					Issermann.
Munich	28.39	721.1	30.27	768.8	51.6	10.9	71	ne.			3			8	se.	0.417	10.6		Central Station.
Neufahrwasser	30.51	774.9	30.52	775.3	49.3	9.6	47	ssw.			2		0			0	0		A. Lothes
Neustadt, Palatinate	29.70	754.4	30.23	767.9	57.7	14.3	55	nne.			1		4	ne.		0	0		Dicknether.
Stuttgart	29.28	743.8	30.18	766.6	56.3	13.5	70	n.			1		7	n.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.76	730.4	30.27	768.9	52.9	11.6	69	ne.			4		7	ne.		0	0		Fischer.
Wustrow	30.44	773.1	30.46	773.7	53.8	12.1	69	ene.			2	0	2 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—0	From.	From.	Inch.	Mill.		
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.80	756.8	30.18	766.6	69.3	20.7		ne.			3.0		5					½ clear	Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.75	755.7	29.80	757.0	84.3	29.1	72	sw.	15.0	6.7		2		sw.		0	0	d. clouds	
Deesa	29.30	744.2	29.77	756.1	88.3	31.3	56	w.				1		w.		0	0	d. clouds	
Bombay	29.75	755.7	29.79	756.6	83.4	28.6	84	nw.	18.0	8.0		5		nnw.	nw.	0	0	d. clouds	
Poona, Yarrowda.	27.93	709.3	29.78	756.5	76.8	24.9	81	calm	1.0	0.4		6		w.		0.19	4.8	d. clouds	
Belgaum	27.25	692.1	29.79	756.6	74.3	23.5	90	w.	4.0	1.8		10		w.		0.06	1.5	threatening.	
Lahore	28.99	736.4	29.72	754.8	91.1	32.8	44	nw.	1.1	0.5		0				0	0	blue sky	
Roorkee	28.86	733.0	29.74	755.4	88.8	31.6	55	calm	1.3	0.6		0				0	0		
Agra	29.19	741.3	29.74	755.4	90.2	32.3	54	calm	1.6	0.7		0				0	0		
Nagpur	28.74	730.0	29.79	756.7	75.1	23.9	94	e.	2.4	1.1		10		e.		0.68	17.3	overcast	
Jubbulpore	28.48	723.5	29.84	758.0	77.8	25.4	91	w.	2.7	1.2		10				0.13	3.3	overcast	
Lucknow	29.38	740.3	29.75	755.7	90.1	32.3	52	sw.	1.5	0.7		0				0	0	blue sky	
Allahabad	29.42	747.3	29.73	755.2	85.0	29.4	79	calm	0.5	0.2		3		w.		0	0	d. clouds	
Patna	29.58	751.4	29.76	755.9	86.0	30.0	74	ene.	2.5	1.1		4	ene.	ene.		0	0	d. clouds	
Hazaribagh	27.75	705.1	29.75	755.7	81.3	27.4	71	se.	3.8	1.7		8	nw.	se.		0	0		
Cuttack	29.72	755.0	29.81	757.1	84.6	29.2	79	ssw.	0.3	0.1		2				0	0	d. clouds	
Calcutta, Alipore	29.78	756.5	29.81	757.1	77.8	25.4	95	nne.	2.0	0.9		9				1.59	40.4	d. clouds	
Dhubri	29.67	753.5	29.79	756.6	79.0	26.1	91	calm	0.4	0.2		4	w.	w.		0	0	d. clouds	
Chittagong																			
Sibsagar	29.50	749.2	29.83	757.6	82.3	27.9	78	nw.	2.8	1.2		2				0	0	blue sky	
Jeypore	28.34	719.9	29.75	755.6	92.7	33.7	32	wnw.	2.6	1.2		3		wnw.		0	0	d. clouds	
Zanzibar, Africa			29.99	761.7	85.7	29.8	49	sse.	5	2.2		3				0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.67	753.6	30.08	763.9	60.3	15.7	49	ne.	2.5	1.1		10				0.016	0.4		Prof. Giovanni Clodig.
Milan	29.56	750.8	30.07	763.8	63.0	17.2	52	w.	1.3	0.6		9	e.			0.114	2.9		Prof. Schiaparelli.
Padua	29.95	760.6	30.06	763.4	59.5	15.3	54	ene.	19.9	8.9		10				0.130	3.3		Prof. Dott. Lorenzoni.
Moncalieri	29.17	741.0	30.07	763.8	59.9	15.5	72	nw.	1.3	0.6		9	e.			0.059	1.5		Prof. P. F. Denza.
Genoa	29.80	757.0	30.00	762.0	61.2	16.2	38	n.	4.3	1.9		10	ne.			0.031	0.8		Prof. G. M. Garibaldi.
Mondovi	28.17	715.5	30.07	763.8	51.3	10.7	73	nnw.			4	9				0.240	6.1		Prof. D. O. Bruno.
Pesaro	29.84	757.9	29.89	759.1	56.5	13.6	80	ne.	20.6	9.2		10	ne.			2.087	53.0		Prof. Luigi Guidi.
Florence	29.64	752.8	29.89	759.2	56.8	13.8	63	nne.			4	10	ne.			0.465	11.8		Prof. Costantino Pitter.
Leghorn	29.80	757.0	29.89	759.2	57.9	14.4	65	ne.	7.4	3.3		10				0.539	13.7		Prof. P. Monte.
Rome	29.56	750.9	29.74	755.3	64.4	18.0	71	s.	3.1	1.4		10				1.721	43.7		Prof. P. S. Ferrari.
Lecce	29.59	751.6	29.84	757.9	65.1	18.4	82	se.	37.4	16.7		10	se.			2.217	56.3		Prof. C. de Giorgi.
Cosenza	28.96	735.5	29.83	757.7	65.7	18.7	53	se.	4.3	1.9		10	se.			1.331	33.8		Prof. D. Conti.
Cagliari	29.63	752.5	29.82	757.3	68.7	20.4	46	nw.			6	4	wnw.			0	0		Prof. A. Pacinotti.
Palermo	29.59	751.5	29.83	757.7	71.4	21.9	47	w.	8.1	3.6		5	w.			0.386	9.8		Prof. G. Ciacciatore.
Syracuse	29.78	756.4	29.82	757.5	70.9	21.6	81	sse.	3.1	1.4		8	s.			3.071	78.0		Prof. Vincenzo Gulliano
Sub-Series.																			
Naples, S. R	29.23	742.4	29.75	755.6	68.0	20.0	77	n.	1.3	0.6		8	ne.			2.221	56.4		Prof. F. Brioschi.
Stelvio	22.19	563.5			34.0	1.1	70	e.			2	2 cs	0	e.		0	0	covered	Prof. P. F. Denza.
Valdobbia	22.19	563.7			35.2	1.8	82	ne.			2		10 n			0	0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.95	760.7	29.96	761.0	64.8	18.2	65	ene.	3.7	1.6		0	0			0	0	clear	K. Sasaki.
Kioto	29.82	757.4	30.00	762.0	56.2	13.4	89	nnw.	1.6	0.7		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.85	758.2	30.05	763.3	64.5	18.1	74	calm	0	0		0	0			0	0	clear	S. Takehayashi.
Niigata	29.92	759.9	29.96	761.0	64.9	18.3	72	n.	3.6	1.6		3 ck	0			0.780	19.8	fair	
Nobiru	29.89	759.2	29.91	759.7	60.9	16.1	85	nnw.	4.5	2.0		ck	4 s			0.045	1.1	fair	
Supporo	29.72	754.9	29.78	756.4	52.9	11.6	89	calm	0	0			1			0.215	5.5		
Tokei Obs'y, Yeddo	29.87	758.7	29.93	760.2	63.1	17.3	96	e.	1.8	0.8		2ck;cs	4 s	sw.		0.018	0.5	foggy	The Staff.
Wakayama	29.92	759.9	29.97	761.2	67.0	19.4	72	ne.	4.4	2.0		ck	9 s			0	0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation o C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.95	760.7	30.14	765.6	74.5	23.6	63	ene.	14.0	6.3		0	2			0.01	0.3	fine	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato																			Vicente Fernandez.
Leon	24.33	618.0	29.92	759.9	64.9	18.3	90	sw.			1	3 c	6 k	sw.		0.101	2.6	very cloudy	Prof. M. Leal.
Mazatlan																6.852	174.0		F. Quijano, C. E.
Mexico, Central Obs'y	22.99	585.0	29.94	760.5	58.6	14.8	89	calm	0	0		4 c	4 k			0.087	2.2	cloudy	The Staff.
Morelia	24.00	609.6	30.06	763.5	59.5	15.3	60	se.			2	2	3	s.	se.	0	0	½ cloudy	M. Tena, M. D.
Pabellon, Aguascalientes																			M. V. de Leon, M. D.
Puebla, Catholic Institute	23.36	593.5	29.99	761.7	61.2	16.2	88	calm	0	0		10		n.		0.067	1.7	covered	Prof. P. Spinn.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas	22.45	570.4	30.02	762.4	52.7	11.5		calm	0	0		0	9 ns		sw.	0	0	very cloudy	J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.41	772.4	30.41	772.4	59.4	15.2		ne.			2					0.012	0.3		
Groningen	30.36	771.2	30.42	772.6	55.6	13.1		ene.			1					0	0		
Helder	30.42	772.6	30.42	772.6	54.0	12.2		e.			1					0	0		
Hellevoetsluis	30.39	771.9	30.39	771.9	59.0	15.0	76	e.			2					0.004	0.1		
Utrecht	30.36	771.1	30.41	772.3	59.2	15.1	62	ene'			2		5			0	0	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.81?	757.1?	29.87?	758.7?	54.3	12.4	98	s.	11.0	4.9			10			0.516	13.1	raining	
Christiania	30.11	764.8	30.26	768.5	53.4	11.9	79	wsw.	0	0			9			0	0		
Gjæsvær	29.94	760.4	29.96	761.0	43.2	6.2		calm			0		10						
Lodingen	29.72	755.0	29.77	756.2	46.9	8.3	92	n.			2		10			0.673	17.1	raining	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.85	758.3	30.00	762.1	69.3	20.7	87	wnw.	4.9	2.2			4			0.177	4.5		Dr. J. A. Sampaio.
Campo Major	29.02	737.2	29.97	761.3	82.4	28.0	18	ene.	6.9	3.1			2			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.06	763.4	30.14	765.6	75.9	24.4	52	s.	1.3	0.6			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.71	754.7	30.06	763.5	78.6	25.9	28	ne.	13.0	5.8			0			0	0		The Staff.
Ponta Delgada, Azores	30.00	762.0	30.07	763.8	70.9	21.6	87	ssw.	13.0	5.8			3	e.		0.315	8.0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.26	743.2	30.41	772.3	25.2	— 3.8	100	wnw.	9	4			10 n						Capt. Lasarew.
Archangel	29.90	759.5	29.92	760.0	46.2	7.9	90	w.	9	4			10						Capt. Sseliwerstow.
Astrakhan	30.53	775.4	30.45	773.3	50.0	10.0	69	ese.	11	5			10 n;s						Capt. Wisganow.
Barnaul ‡	29.71	754.6	30.23	767.9	29.5	— 1.4	94	wsw.	7	3			9						Meteorological Obs'y.
Dorpat	30.13	765.2	30.37	771.5	54.1	12.3	69	wsw.	11	5		8 ck	0						Observatory.
Ekaterinburg	29.31	744.5	30.32	770.1	34.3	1.3	89	w.	7	3			10					light snow	Meteorological Obs'y.
Kasan	30.18	766.6	30.46	773.7	41.7	5.4	53	wsw.	9	4		10 cs	0						Observatory.
Kertch	30.20	767.0	30.22	767.5	49.8	9.9	89	nw.	4	2			10 n			0	0		Lagorio & Sastyrea.
Kieff	29.72	754.8	30.37	771.5	45.7	7.6	51	nne.	11	5		c;cs	8 ks						Observatory.
Lugan	30.13	765.2	30.34	770.6	40.5	4.7	84	e.	34	15			10						Meteorological Obs'y.
Moscow	29.93	760.2	30.43	772.9	38.5	3.6	52	s.	4	2		0	0						Meteorological Obs'y.
Nikolaiev	30.23	767.9	30.30	769.7	43.0	6.1	87	nne.	13	6			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	30.02	762.6	30.11	764.8	40.6	4.8	86	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.89	759.3	30.04	762.9	69.8	21.0	56	calm	0	0		0	1 k			0	0		Physical Observatory.
St. Petersburg	30.23	767.8	30.24	768.2	51.8	11.0	77	w.	11	5			10 n;k						Central Physical Obs'y.
Tashkend, Laboratory	28.54	724.9	30.10	764.4	63.0	17.2	56	calm	0	0			4						Teich, A. M.
Tiflis	28.78	731.1	30.19	766.9	63.1	17.3	73	se.	9	4			10 n					light rain	Physical Observatory.
Warsaw	30.05	763.2	30.49	774.5	42.3	5.7	52	ene.	7	3		0	0						Astronomical Obs'y.
Wilna	30.08	764.0	30.51	775.0	47.8	8.8	56	wsw.	2	1			1					light clouds	Berg, Assistant.
Yeniseisk	29.77	756.1	30.07	763.7	29.3	— 1.5	90	nw.	4	2			10					snowing	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.31	769.9	58.2	14.6	91	e.			1		10 ks		w.	0	0	gloomy	Andrew Gibb.
Monach Lt. House, Hebrides			30.17	766.3	56	13.3	94	ssw.			3		10			0.3	8.	showery	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.91	759.8	30.02	762.4	70.3	21.3	63	s.	4.3	1.9			3			0.181	4.6		Antonio Rave, Director.
Bilbao, Met. Obs'y	30.17	766.3	30.22	767.7	67.3	19.6	59	ne.	1.3	0.6		3	2	se.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.24	691.9			56.7	13.7	73	n.	4.7	2.1			2			0	0	light clouds	Domingo Martin.
Madrid, Royal Obs'y	27.85	707.5	30.03	762.8	67.8	19.9	27	w.	2.2	1.0		3	0			0	0	light clouds	The Staff.
Murcia, Met. Obs'y ‡	29.85	758.1	29.99	761.8	82.2	27.9	54	ne.	3.4	1.5		0	5			0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.18	741.1	30.05	763.3	71.4	21.9	32	ne.	4.9	2.2			1			0	0	almost clear	R. Gil Vallanueva, Dir
Sub-Series.																			
Havana, Cuba, W. I.	29.89	759.2	29.96	760.9	76.7	24.8	90	e.	3.6	1.6		3 c;ck	0	w.		0.370	9.4	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.71	754.5	29.76	755.8	79.2	26.2	94	e.	11.0	5.0			10 n		e.	0.58	14.7	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.95	760.7	30.05	763.1	73.0	22.8	74	s.	4.0	1.8		0	2		sw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.95	760.7	30.04	763.0	79.5	26.4	89	se.	0	0		3 ck	2 k			0.551	14.0	d. clouds	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.72	754.9	29.85	758.3	77.5	25.3	89	nw.	3.1	1.4		4 cs	4 kn	e.	se.	0.14	3.6	cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.99	761.8	30.03	762.8	46.4	8.0	92	calm			0		10			0	0		
Umea	30.03	762.7	30.08	764.0	54.3	12.4	79	sw.			2		10			0.106	2.7		
Hernosand	30.03	762.7	30.08	764.0	58.1	14.5	69	s.			2		5			0	0		
Stockholm	30.09	764.2	30.26	768.7	54.3	12.4	68	wsw.			4		1			0	0		
Wisby	30.31	769.8	30.37	771.3	53.6	12.0	72	w.			6		0			0	0		
Sub-Series.																			
Upsala	30.12	765.1	30.21	767.3	55.4	13.0	68	sw.	15.7	7.0			3		wsw.	inap.	inap.		S. G. Finemann.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.69	728.8	30.11	764.9	55.4	13.0	62	nne.			5		9			0	0	covered	The Observatory.
Zurich ‡	28.54	724.9	30.18	766.6	52.5	11.4	77	e.			4		9			0	0	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.28	769.2	57.4	14.1	52	nw.	17	7.5			4		ne.	0	0		The Observatory.
Valona			29.94	760.4	68.9	20.5		se.			4		10			0	0	covered	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.00	762.1	79.2	26.2	51	nw.			1	0	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Albany, New York	30.22	767.6	30.30	769.6	66.5	19.2	78	sw.	7	3.1			10 s		s.	0.05	1.3	cloudy	
Alpena, Michigan	29.08	738.6	29.75	755.6	72	22.2	82	sw.	18	8.0			10 ks		sw.	0	0	cloudy	
Atlanta, Georgia	29.08	738.6	30.26	768.6	67.2	19.6	90	e.	12	5.4		0	4 s		e.	0	0	fair	
Atlantic City, New Jersey	30.33	770.4	30.34	770.6	73.9	23.3	97	se.	10	4.5		6 ck	0	calm		0	0	fair	
Augusta, Georgia	30.11	764.8	30.30	769.6	70.8	21.6	82	e.	4	1.8		0	0			inap.	inap.	clear	
Baltimore, Maryland	30.28	769.1	30.33	770.4	74	23.3	85	e.	3	1.3		0	hz.		calm	0.01	0.3	clear	
Barnegat, New Jersey	30.30	769.6	30.32	770.1	73.5	23.1	97	se.	8	3.6			10 s		sw.	0.04	1.0	cloudy	
Bismarck, Dakota	27.90	708.6	29.74	755.4	37	2.8	72	w.	12	5.4		0	0			0	0	clear	
Boise City, Idaho	27.02	686.3	29.86	758.4	38.0	3.3	65	nw.	4	1.8		0	0			0.02	0.5	clear	
Boston, Massachusetts	30.21	767.3	30.37	771.4	60.0	15.6	93	se.	4	1.8			10s;fg			0	0	cloudy	
Brackettville, Texas	28.59	726.2	29.58	751.3	76	24.4	100	e.	8	3.6			10 n		se.	0.37	9.4	light rain	
Brownsville, Texas	29.71	754.6	29.75	755.6	80	26.7	91	s.	8	3.6		0	8 s		s.	0	0	fair	
Buffalo, New York	29.35	745.5	30.07	763.8	74.2	23.4	71	sw.	11	4.9		0	0			0.17	4.3	clear	
Burlington, Vermont	29.91	759.7	30.20	767.1	63.7	17.6	85	s.	21	9.4		2 ck	2 s	w.	s.	inap.	inap.	fair	
Cairo, Illinois	29.67	753.6	30.07	763.8	73.8	23.2	83	s.	8	3.6		3 ck	0	s.		0	0	fair	
Campo, California	27.20	692.4	29.82	757.4	39.6	4.2	73	se.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.11	688.6			46	7.8	76	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.35	770.9	30.37	771.4	73	22.8	97	s.	4	1.8		0	0			0	0	clear	
Cape May, New Jersey	30.30	769.6	30.32	770.1	75	23.9	90	s.	16	7.2		0	5 ks		s.	0	0	fair	
Castroville, Texas	29.00	736.6	29.66	753.4	80	26.7	79	se.	2	0.9			10 s		se.	0.04	1.0	cloudy	
Cedar Keys, Florida	30.10	764.5	30.12	765.0	75	23.9	90	ne.	9	4.0		2 c	0			inap.	inap.	clear	
Champaign, Illinois	29.14	740.1	29.91	759.7	65.0	18.3	93	sw.	10	4.5			10 n		sw.	0.37	9.4	heavy rain	
Charleston, S. Carolina	30.20	767.1	30.26	768.6	80	26.7	79	e.	8	3.6		0	3 s		se.	0.08	2.0	clear	
Charlotte, N. Carolina	29.44	747.8	30.32	770.1	71.0	21.7	84	s.	1	0.4		2 ck	hz.	calm	calm	0	0	fair	
Chattanooga, Tennessee	29.43	747.5	30.26	768.6	70.0	21.1	90	se.	3	1.3		0	6 k		s.	0	0	fair	
Cheyenne, Wyoming	23.94	608.1	29.91	759.7	37.3	2.9	33	w.	20	8.9		0	0			inap.	inap.	clear	
Chicago, Illinois	29.12	739.6	29.84	757.9	67.9	19.9	84	s.	9	4.0			10 n			0.20	5.1	light rain	
Chincoteague, Virginia	30.34	770.6	30.36	771.1	75	23.9	90	sw.	12	5.4		0	0			0	0	clear	
Cincinnati, Ohio	29.46	748.3	30.12	765.0	74.6	23.7	74	s.	11	4.9		0	0			0	0	clear	
Cleveland, Ohio	29.34	745.2	30.08	764.0	75	23.9	69	s.	14	6.3		2 c	0			0	0	clear	
Coleman City, Texas																			
Columbus, Ohio	29.27	743.4	30.13	765.3	70	21.1	84	s.	8	3.6		0	0			0	0	clear	
Concho, Texas	27.90	708.6	29.84	757.9	75	23.9	82	se.	6	2.7		0	9 s		s.	0	0	cloudy	
Corsicana, Texas	29.42	747.3	29.89	759.2	78	25.6	82	s.	4	1.8		3 cs	5 s			0	0	cloudy	
Davenport, Iowa	29.18	741.2	29.84	757.9	63	17.2	90	nw.	12	5.4			10 n		calm	0.80	20.3	light rain	
Dayton, Washington T'y	28.03	711.9	29.84	757.9	47	8.3	77	sw.	10	4.5			10 s		w.	0	0	cloudy	
Deadwood, Dakota	25.15	638.8	29.85	758.2	34	1.1	74	n.	4	1.8		4 k	0	n.		0.14	3.6	fair	
Decatur, Texas	28.77	730.7	29.88	758.9	76	24.4	85	se.	12	5.4			10 n			0.55	14.0	light rain	
Delaware Breakwater, Del.	30.32	770.1	30.34	770.6	74	23.3	90	s.	14	6.3		3 k	hz.			0	0	fair	
Denison, Texas	29.07	738.4	29.88	758.9	77	25.0	85	s.	12	5.4			10 s		s.	0	0	cloudy	
Denver, Colorado	24.74	628.4	29.96	761.0	38.4	3.6	72	s.	6	2.7		0	0			0.09	2.3	clear	
Des Moines, Iowa	28.96	735.6	29.87	758.7	53.5	11.9	86	nw.	3	1.3			10 s		nw.	0.29	7.4	cloudy	
Detroit, Michigan	29.26	743.2	29.98	761.5	75.0	23.9	71	s.	22	9.8		7 c;cs	0	w.		0	0	fair	
Dodge City, Kansas	27.36	694.9	29.95	760.7	43.7	6.5	84	n.	12	5.4		0	1 s			0.21	5.3	clear	
Dubuque, Iowa	29.00	736.6	29.72	754.9	59.1	15.1	87	w.	4	1.8			10 s		nw.	2.75	69.9	cloudy	
Duluth, Minnesota	28.90	734.0	29.62	752.3	53	11.7	80	sw.	6	2.7		0	6 s		sw.	1.88	47.8	fair	
Eagle Pass, Texas	28.98	736.1	29.81	757.2	78.1	25.6	88	se.	5	2.2			10 s		calm	0	0	cloudy	
Eagle Rock, Idaho	25.22	640.6	30.07	763.8	28	— 2.2	70	nw.	3	1.3		5 ck	0	sw.		0	0	fair	
Eastport, Maine	30.30	769.6	30.36	771.1	54	12.2	86	s.	9	4.0			10 s		s.	0	0	cloudy	
El Paso, Texas	26.14	663.9	29.89	759.2	54.6	12.6	40	nw.	2	0.9		0	2 s			0	0	clear	
Erie, Pennsylvania	29.36	745.7	30.09	764.3	74	23.3	71	s.	15	6.7		0	0			0	0	clear	
Escanaba, Michigan	28.92	734.6	29.58	751.3	62	16.7	100	s.	14	6.3			10 n		s.	1.21	30.7	light rain	
Florence, Arizona	28.30	718.8	29.90	759.4	53	11.7	57	calm	0	0		0	0			0	0	clear	
Fort Apache, Arizona	24.90	632.4	29.82	757.4	39	3.9	82	e.	1	0.4		0	0			0	0	clear	
Fort Assinnaboine, Montana	26.96	684.8	29.77	756.1	33	0.6	81	s.	4	1.8		0	3 s		sw.	0	0	fair	
Fort Bennett, Dakota	28.25	717.5	29.79	756.7	38	3.3	82	w.	6	2.7		0	0			0	0	clear	
Fort Benton, Montana	26.95	684.8	29.82	757.4	39	3.9	73	calm	0	0		4 k	0	calm		0	0	fair	
Fort Buford, Dakota	27.75	704.8	29.76	755.9	36	2.2	82	w.	16	7.2		10 cs	0	n.		0	0	cloudy	
Fort Custer, Montana	26.67	677.4	29.91	759.7	35	1.7	90	ne.	4	1.8			10 ks		calm	inap.	inap.	cloudy	
Fort Davis, Texas	25.13	638.3	30.09	764.3	52	11.1	86	n.	7	3.1			10 s			inap.	inap.	cloudy	
Fort Elliott, Texas	27.25	692.1	30.44	773.2	54	12.2	64	n.	18	8.0		0	0			0.01	0.3	clear	
Fort Gibson, Indian T'y	29.28	743.7	29.83	757.7	77.0	25.0	79	se.	10	4.5			10 s		s.	0.10	2.5	cloudy	
Fort Grant, Arizona					50	10.0	61	ne.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.53	724.6	29.73	755.1	76.3	24.6	88	se.	9	4.0			10 s		se.	inap.	inap.	cloudy	
Fort Keogh, Montana	27.31	693.7	29.85	758.2	40	4.4	73	w.	12	5.4		7 c	0			0.03	0.8	fair	
Fort Macon, North Carolina	30.32	770.1	30.34	770.6	78	25.6	74	se.	16	7.2		hz.	0	calm		0	0	clear	
Fort McKavett, Texas	27.60	701.0	29.42	747.3	72.9	22.7	90	s.	3	1.3			9 s			0	0	cloudy	
Fort Missoula, Montana	26.50	673.1	30.02	762.5	38	3.3	92	nw.	3	1.3			10 s			0.05	1.3	cloudy	
Fort St. Michaels	29.98	761.5	30.02	762.5	38	3.3	72	e.	12	5.4		0	0			0	0	clear	
Fort Shaw, Montana	26.12	663.4	29.72	754.9	40	4.4	59	sw.	7	3.1			10 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.58	725.9	29.83	757.7	75.3	24.1	87	s.	15	6.7			10 s		s.	0.27	6.9	cloudy	
Fort Stevenson, Dakota	27.88	708.1	29.75	755.6	43	6.1	68	nw.	8	3.6		0	4 ks		nw.	0.08	2.0	fair	
Fort Verde, Arizona					47	8.3	71	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.08	713.2	29.57	751.1	72	22.2	97	s.	4	1.8			10 n		s.	0.50	12.7	light rain	
Galveston, Texas	29.85	758.2	29.89	759.2	82	27.8	87	se.	15	6.7		hz.	5 ks		se.	0.18	4.6	fair	
Grand Haven, Michigan	29.13	739.9	29.80	756.9	68.0	20.0	90	s.	18	8.0			10 s		sw.	0.04	1.0	cloudy	
Hatteras, North Carolina	30.34	770.6	30.36	771.1	78	25.6	74	se.	12	5.4		1 k	0			0	0	clear	
Helena, Montana	25.57	649.5	29.96	761.0	40	4.4	67	s.	8	3.6		3 k	0	calm		0.47	11.9	fair	
Henrietta, Texas	28.77	730.7	29.66	753.4	58	14.4	53	s.	14	6.3			10 s		s.	0	0	cloudy	
Huron, Dakota	28.46	722.9	29.86	758.4	36	2.2	89	sw.	8	3.6		0	0			0	0	clear	
Indianapolis, Indiana	29.20	741.7	30.00	762.0	75	23.9	71	sw.	13	5.8		5 c	0	sw.		0	0	fair	
Indianola, Texas	29.79	756.7	29.82	757.4	80.2	26.8	91	s.	12	5.4		4 ck	4 ks	se.	s.	0.14	3.6	cloudy	
Jacksboro, Texas	28.67	728.2	29.74	755.4	75	23.9	85	se.	8	3.6			10 s		s.	0.15	3.8	cloudy	
Jacksonville, Florida	30.08	764.0	30.12	765.0	78	25.6	82	ne.	10	4.5			10 s		ne.	0.12	3.0	cloudy	
Keokuk, Iowa	29.17	740.9	29.83	757.7	67.0	19.4	90	s.	12	5.4			10 n		s.	0.81	20.6	light rain	
Key West, Florida	30.00	762.0	30.03	762.7	75.7	24.3	89	e.	19	8.5			10 n		e.	1.19	30.2	light rain	
Kittyhawk, North Carolina	30.36	771.1	30.38	771.6	74	23.3	90	s.	3	1.3		0	fg.			0	0	clear	
Knoxville, Tennessee	29.23	742.4	30.27	768.8	66	18.9	89	ne.	3	1.3		0	fg.		calm	0.09	2.3	clear	
La Crosse, Wisconsin	29.03	737.3	29.80	756.9	58	14.4	74	w.	8	3.6			10 s		w.	1.81	46.0	cloudy	
La Mesilla, New Mexico	25.98	659.9	30.13	765.3	45.5	7.5	63	calm	0	0		0	1 s			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	28.98	736.1	29.88	758.9	58	14.4	74	n.	8	3.6			10 s		sw.	2.49	63.2	cloudy	
Lewiston, Idaho	28.97	735.8	29.82	757.4	45	7.2	76	w.	4	1.8			10 s		calm	0	0	cloudy	
Little Rock, Arkansas	29.65	753.1	29.97	761.2	74	23.3	97	s.	9	4.0			10 ks		se.	0.32	8.1	cloudy	
Los Angeles, California	29.47	748.5	29.85	758.2	58.3	14.6	74	sw.	4	1.8		0	0			0	0	clear	
Louisville, Kentucky	29.48	748.8	30.05	763.3	75.0	23.9	76	s.	12	5.4		3 c	0			0	0	clear	
Lynchburg, Virginia	29.63	752.6	30.32	770.1	75	23.9	76	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	28.74	730.0	29.77	756.1	62	16.7	93	w.	10	4.5			10 s		calm	1.72	43.7	cloudy	
Marquette, Michigan	28.82	732.0	29.55	750.6	64	17.8	84	sw.	11	4.9			10 s		sw.	5.25	133.3	cloudy	
Mason, Texas	28.18	715.8	29.83	757.7	76.1	24.5	82	calm	0	0			10 s		s.	0.03	0.8	cloudy	
Memphis, Tennessee	29.73	755.1	30.07	763.8	73	22.8	76	se.	6	2.7		0	2 s			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Velocity.		Force	Clouds. Amount and kind.		Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.02	737.1	29.78	756.4	65	18.3	90	s.	16	7.2			10 n		w.	0.30	7.6	light rain	
Mobile, Alabama	30.01	762.2	30.08	764.0	76.8	24.9	85	e.	11	4.9		2 k	4 s			0.70	17.8	fair	
Montgomery, Alabama	29.95	760.7	30.18	766.6	72	22.2	84	e.	8	3.6		0	0			0	0	clear	
Moorhead, Minnesota	28.70	729.0	29.70	754.4	38	3.3	89	w.	12	5.4		0	0			0.07	1.8	clear	
Morgantown, W. Virginia	29.22	742.2	30.18	766.6	70.2	21.2	77	sw.	4	1.8		0	0			0	0	clear	
Mt. Washington, N. H.	24.10	612.1	30.30	769.6	53.0	11.7	100	nw.	60	26.8			fg		nw.	0.58	14.7	dense fog	
Nashville, Tennessee	29.59	751.6	30.13	765.3	74.3	23.5	76	se.	12	5.4		0	0			0	0	clear	
New Haven, Connecticut	30.24	768.1	30.36	771.1	61	16.1	93	e.	3	1.3			fg			0.02	0.5	dense fog	
New London, Connecticut	30.33	770.4	30.38	771.6	65	18.3	100	se.	3	1.3			fg			0	0	dense fog	
New Orleans, Louisiana	29.95	760.7	30.01	762.2	77.0	25.0	85	e.	5	2.2		hz	hz			0	0	dense haze.	
Newport, Rhode Island	30.32	770.1	30.36	771.1	64.5	18.1	96	e.	2	0.9			fg			0	0	dense fog	
New River, N. Carolina					79	26.1	69	se.			1	1 cs	0	se.		0	0	clear	
New Shoreham, Rhode I'd.	30.34	770.6	30.37	771.4	65.5	18.6	100	s.	4	1.8			fg		calm	0	0	dense fog	
New York, New York	30.17	766.3	30.35	770.9	67	19.4	100	e.	8	3.6			fg			0.01	0.3	dense fog	
Norfolk, Virginia	30.34	770.6	30.36	771.1	73	22.8	90	sw.	2	0.9		0	sk			0	0	clear	
North Platte, Nebraska	27.05	687.1	29.99	761.7	38.2	3.4	83	nw.	6	2.7		1 k	0	nw.		0	0	clear	
Olympia, Washington T'y	29.81	757.2	29.85	758.2	51.0	10.6	72	sw.	12	5.4		4 ck	0	calm		inap.	inap.	fair	
Omaha, Nebraska	28.75	730.2	29.94	760.5	52.6	11.4	84	nw.	4	1.8			10 s		sw.	2.17	55.1	cloudy	
Oswego, New York	29.77	756.1	30.10	764.5	72.0	22.2	84	s.	9	4.0		2 ck	3 s	sw.	sw.	0.16	4.1	fair	
Pensacola, Florida	30.06	763.5	30.08	764.0	75	23.9	97	ne.	12	5.4			10 n		ne.	0.87	22.1	light rain	
Philadelphia, Pa.	30.26	768.6	30.32	770.1	74	23.3	97	s.	7	3.1			10 s		sw.	0	0	cloudy	
Phœnix, Arizona	28.66	728.0	30.47	773.9	50	10.0	52	calm	0	0		0	0			0	0	clear	
Pike's Peak, Colorado	17.61	447.3	29.82	757.4	12	—11.1	64	w.	36	16.1		0	0			0.04	1.0	clear	
Ploche, Nevada	24.07	611.4	30.09	764.3	38	3.3	41	sw.	4	1.8		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.38	746.2	30.20	767.1	74.3	23.5	68	s.	6	2.7		0	0			0	0	clear	
Port Eads, Louisiana	30.00	762.0	30.01	762.2	79.0	26.1	82	se.	20	8.9		0	1 k;hz		c.; se.	0.19	4.8	clear	
Port Huron, Michigan	29.26	743.2	29.95	760.7	73.0	22.8	78	s.	19	8.5		7 c	0	sw.		0	0	fair	
Portland, Maine	30.30	769.6	30.35	770.9	60	15.6	81	s.	4	1.8			10 s		sw.	inap.	inap.	cloudy	
Portland, Oregon	29.89	759.2	29.96	761.0	51.0	10.6	80	nw.	1	0.4			10 s		w.	0	0	cloudy	
Portsmouth, N. Carolina					78	25.6	64	s.	12	5.4		2 k	0	calm		0	0	clear	
Prescott, Arizona	24.68	626.9	29.87	758.7	37	2.8	75	s.	1	0.4		0	0			0	0	clear	
Punta Rassa, Florida	30.01	762.2	30.02	762.5	78	25.6	85	e.	11	4.9		3 cs	2 s	sw.	sw.	0.05	1.3	fair	
Red Bluff, California	29.42	747.3	29.76	755.9	55.0	12.8	55	calm	0	0		0	0			0	0	clear	
Rio Grande City, Texas	29.53	750.0	29.74	755.4	77	25.0	88	s.	3	1.3		2 c	0	calm		0.32	8.1	clear	
Rochester, New York	29.47	748.5	30.11	764.8	75	23.9	71	s.	8	3.6		1 cs	0	calm		inap.	inap.	clear	
Roseburg, Oregon	29.38	746.2	29.96	761.0	38	3.3	89	calm	0	0		0	0			0	0	clear	
Sacramento, California	29.71	754.6	29.79	756.7	53.3	11.8	61	se.	6	2.7		0	0			0	0	clear	
St. Louis, Missouri	29.37	746.0	29.98	761.5	68.2	20.1	90	n.	8	3.6			10 n		n.	0.02	0.5	light rain	
St. Paul, Minnesota	28.87	733.3	29.75	755.6	50.5	10.3	86	sw.	10	4.5		4 ck	0	w.		1.85	47.0	fair	
Salt Lake City, Utah	25.61	650.5	29.94	760.5	38	3.3	46	calm	0	0		0	0			0.03	0.8	clear	
San Antonio, Texas	29.11	739.4	29.81	757.2	76.0	24.4	97	se.	4	1.8			10 n		se.	0.25	6.3	light rain	
San Diego, California	29.64	752.8	29.71	754.6	59.5	15.3	93	calm	0	0			fg			0	0	dense fog	
Sandusky, Ohio	29.34	745.2	30.03	762.7	75	23.9	71	sw.	25	11.2		0	7 ks		w.	0	0	cloudy	
Sandy Hook, New Jersey	30.30	769.6	30.33	770.4	72.0	22.2	97	se.	4	1.8			fg		calm	0.05	1.3	dense fog	
San Francisco, California	29.73	755.1	29.79	756.7	55	12.8	80	w.	8	3.6		0	0			0	0	clear	
Santa Fé, New Mexico	23.26	690.8	30.06	763.5	37	2.8	66	n.	4	1.8		0	0			0	0	clear	
Savannah, Georgia	30.14	765.5	30.23	767.8	77	25.0	82	ne.	2	0.9		6 c	2 k		ne.	0.03	0.8	fair	
Shreveport, Louisiana	29.73	755.1	29.96	761.0	75	23.9	97	se.	4	1.8			10 s		sw.	0	0	cloudy	
Silver City, New Mexico	24.16	613.7	29.73	755.1	47	8.3	54	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.85	758.2	29.92	760.0	48.1	8.9	85	n.	2	0.9		0	0			0.19	4.8	clear	
Smithville, North Carolina	30.27	768.8	30.31	769.9	79	26.1	74	se.	12	5.4		1 k	hz	ne.		0	0	clear	
Spokane Falls, Wash. Ter.	27.73	704.3	29.75	755.6	44.8	7.1	63	sw.	4	1.8			10 s			0	0	cloudy	
Springfield, Illinois	29.27	743.4	29.96	761.0	66.5	19.2	92	s.	11	4.9			10 n		s.	0.70	17.8	light rain	
Springfield, Massachusetts	30.23	767.8	30.36	771.1	61.8	16.6	87	se.	1	0.4			10s;fg			0	0	cloudy	
Stockton, Texas	26.80	680.7	29.87	758.7	71.8	22.1	90	s.	12	5.4			10 s		s.	0	0	cloudy	
St. Vincent, Minnesota	28.65	727.7	29.54	750.3	37	2.8	89	sw.	12	5.4		0	0			0.23	5.8	clear	
Thatcher's Island, Mass.	30.31	769.9	30.36	771.1	62.2	16.8	100	s.	11	4.9			fg			0	0	dense fog	
Toledo, Ohio	29.27	743.4	29.97	761.2	75	23.9	76	s.	20	8.9		5 c	0	s.		0	0	fair	
Tucson, Arizona	27.31	694.4	29.70	754.4	58	14.4	55	se.	5	2.2		0	0			0	0	clear	
Umatilla, Oregon	29.42	747.3	29.84	757.9	53.6	12.0	56	sw.	20	8.9			10 s		calm	0	0	cloudy	
Uvalde, Texas	28.81	731.8	29.59	751.6	76	24.4	97	se.	2	0.9			10 s		calm	0.14	3.6	cloudy	
Vicksburg, Mississippi	29.77	756.1	30.03	762.7	74	23.3	90	se.	3	1.3		0	1 s		calm	0	0	clear	
Visalia, California	29.38	746.2	29.74	755.4	55	12.8	69	e.	3	1.3		0	0			0	0	clear	
Washington, D. C.	30.20	767.1	30.31	769.9	75.0	23.9	85	s.	4	1.8		0	0			0	0	clear	
Wickenburg, Arizona					51	10.6	66	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.25	768.3	30.31	769.9	78	25.6	76	se.	4	1.8		0	sk.		calm	0	0	clear	
Winnemucca, Nevada	25.55	649.0	29.88	758.9	27	— 2.8	51	nw.	6	2.7		0	0			0	0	clear	
Wood's Holl, Mass.	30.33	770.4	30.37	771.4	65	18.3	93	se.	8	3.6			10 s		calm	0	0	cloudy	
Yankton, Dakota	28.61	726.7	29.92	760.0	45	7.2	83	w.	8	3.6		0	0			0.66	16.8	clear	
Yuma, Arizona	29.54	750.3	29.68	753.9	62.3	16.8	74	ne.	1	0.4		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.96	761.0	29.99	761.7	82	27.8	87	e.	5	2.2		5 ck	5 ks	e.	e.	0.20	5.1		J. A. Racker.
Bogota, U. S. Columbia	22.02	559.3			54.8	12.7	77	s.	3	1.3		2 k	5 n;s		w.	0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.84	757.9	29.85	758.2	82	27.8	87	e.				5 cs	0			0.1	3.		B. Bigar.
Havana, Cuba, W. I.	29.94	760.5	29.99	761.7	78	25.6	88	calm	0	0		5 cs	2 ks	calm	calm	0.60	15.2	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.88	758.9	29.89	759.2	78.7	25.9	78	calm	0	0		9 cs	0	wnw.		0.18	4.6		Robert Johnstone.
Navassa, W. I.	29.82	757.4	29.90	759.4	82	27.8	91	e.	20	8.9		8cs;hz	2 kn	e.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.99	761.7	29.99	761.7			83	se.			2	4 k	3 s	e.		0	0		Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.36	745.7	29.92	760.0	79	26.1	95	calm			0	8 c	1 s	calm	calm	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24.		calm			0	0	9 ks			0.63	16.		Earl Flint.
Santiago de Cuba, W. I.	29.92	760.0	29.95	760.7	81	27.2	82	n.	3.6	1.6		1 cs	0			0	0	fair	Robert Mason.
St. Thomas, W. I.‡	30.01	762.2	30.02	762.5	79	26.1	88	e.	5	2.2			8 ks		e.	1.57	39.9	cloudy	G. O. Gyllich.
York Factory, B. A.	29.77	756.1	29.82	757.4	30.0	— 1.1	95	n.	10	4.5		3 k	2 s	n.	n.	0	0	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, S. 10° 44′, E. 141° 43′	30.00	762.0	75	23.9	77	e.			4-5		0							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibralter, Mediterranean	30.19	766.8	72	22.2	82	nne.			3-4		1	nne.						squally	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 08′, E. 29° 03′	30.30	769.6	62	16.7		nne.			3		5	n.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab, Aden, Arabia	29.77	756.1	88	31.1	66	ne.			2		0							blue sky	Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 42° 45′, W. 64° 29′	30.43	772.9	60	15.6	94	se.			1-2		4					1	ene.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 36′, E. 10° 03′	29.93	760.2	65.5	18.6	73	calm			0		10	calm				2	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A. T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 10′, E. 20° 30′	29.98	761.5	70	21.1		ssw.			4		6	ssw.				1	ssw.	showery	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.07	763.8	71	21.7		nne.			1		0							blue sky	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.32	770.1	77	25.0	79	nne.			1-2		1							blue sky	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	30.37	771.4	43	6.1	90	sw.			1		10							overcast	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 25° 39′, E. 57° 43′	29.68	753.9	90	32.2		sw.			2		5	sw.				1	sw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse																			Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald																			Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.80	756.9	84	28.9	75	ese.			1		3	nw.						d. clouds	Capt. R. D. King.
H. M. S. Falcon, N. 35° 54′, E. 14° 31′	29.82	757.4	74	23.3		nw.			1		1							blue sky	Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 26′, E. 38° 54′	30.16	766.1	71	21.7	85	ssw.			3		3	s.				2	ssw.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish, Off Osima, Yezo, Japan.	29.84	757.9	62	16.7	77	w.			3		5					3	sw.	d. clouds	Capt. R. F. Moskyn.
H. M. S. Gannet, N. 21° 18′, W. 157° 30′	30.02	762.5	76	24.4	72	ne.			4		5					3	ne.	d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	30.35	770.9	57	13.9	81	n.			2		0							blue sky	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 14′, W. 76° 25′	29.94	760.5	81	27.2	87	se.			1		10							raining	Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, N. 11° 45′, E. 161° 00′	29.89	759.2	86	30.0	88	nne.			3-4		4	nne.				3	nne.	showery	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 35° 26′, E. 139° 38′	29.91	759.7	68	20.0		calm			0									d. clouds	Capt. R. E. Tracey.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, Guayaquil, Ecuador	29.89	759.2	75	23.9		calm			0		2	calm						d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 27° 00′, E. 48° 00′	30.04	763.0	71	21.7		sse.			1		6	sse.				1	sse.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 32° 25′, W. 22° 35′	30.04	763.0	66	18.9	78	wnw.			4		8					2	e.	squally	Lt. C. F. Oldham.
H. M. S. Lily																			
H. M. S. London																			
H. M. S. Magpie, N. 20° 04′, E. 110° 18′	29.87	758.7	80.5	26.9	80	ne.			3-4		10					2-3	ne.	d. nse mist	Lt. A. Carpenter.
H. M. S. Midge																			
H. M. S. Malabar																			
H. M. S. Minotaur, N. 42° 17′ W. 9° 40′	30.02	762.5	68	20.0	74	ne.			2		0					1	nnw.	blue sky	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.92	760.0	76	24.4	100	nne.			4		0							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.05	763.3	54.5	12.5	90	calm			0		10							misty	Capt. F. Edwards

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Northampton, Halifax, Nova Scotia	30.35	770.9	55	12.8	90	sse.			1		8	ssw.						foggy	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican, S. 28° 23′, W. 71° 24′	30.03	762.7	55	12.8	100	sse.			1		10					2	ssw.	misty	Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket																			Capt. V. B. Orlebar.
H. M. S. Ruby, N. 12° 41′, E. 48° 36′	29.82	757.4	85.3	29.6	79	e.			2		5							d. clouds	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis, S. 14° 44′, E. 4° 40′	30.02	762.5	64	17.8	89	calm			0		9	sse.				4	s.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 3° 50′, W. 16° 55′	30.00	762.0	81	27.2	74	sse.			3		4	sse.				1	s.	d. clouds	Capt. T. H. Boyse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S Thunderer, Sfax Roads, Tunis	29.93	760.2	81.5	27.5	45	nnw.			4		1					3	nnw.	blue sky	Capt. P. H. Colomb.
H. M. S Triumph, Callao Bay, Peru	29.98	761.5	59	15.0	94	calm			0		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne,																			Capt. J. E. Stokes.
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.88	758.9	83	28.3		ne.			2		2							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene																			Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	30.00	762.0	76.6	24.8	77	nnw.			3		2					1		blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, Brava, Cape Verd Ids.	29.98	761.4	81.5	27.5	74	ne.			2		2		s.			1	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.95	760.7	80.2	26.8	69	e.			3		5							d. clouds	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

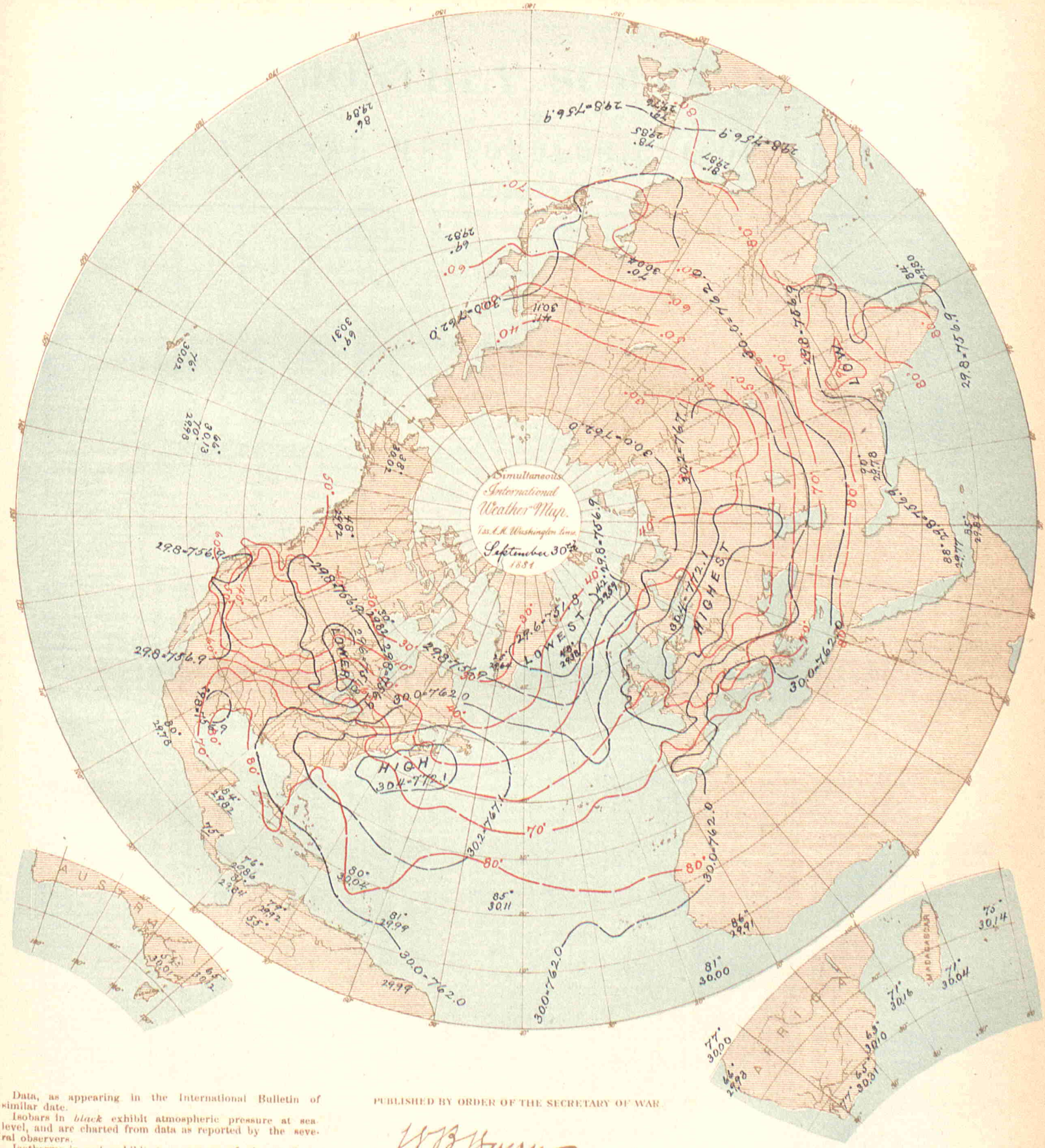
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.14	765.5	77	25.0	86	ne.	9	4.0			10		ne.	0.22	5.6			cloudy	
N. Yard, Portsmouth, N. H.	30.35	770.9	59	15.0	94	calm	0	0		10 c	0	e.		0	0			fair	
Naval Hospital, Yokohama, Japan	29.79	756.7	66	18.9	89	calm			0		0			0.06	1.5			clear	
Adams, [S. A. Guayaquil River, Equador,	29.76	755.9	73	22.8	81	sw.			2		10					sm'h		cloudy	
Alaska, Callao, Peru	29.95	760.7	60	15.6	100	calm			0		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.81	757.2	66	18.9	94	wsw.			1		2		wsw.	0	0			clear	
Alliance, N. 70° 38′, W. 1° 40′	29.59	751.6	42	5.6	91	w.			5		2		w.	light	light	mod.		squally	
Ashuelot, Kobe, Japan	29.93	760.2	72	22.2	58	calm			0		2		calm					clear	
Colorado, New York, N. Y.	30.29	769.4	68	20.0	95	calm	0	0			10			0	0			dense fog	
Constitution, Newport, R. I.	30.31	769.9	64	17.8	?	sse.	1	0.4			10							foggy	
Franklin, Norfolk, Va	30.26	768.6	73	22.8	?	s.	2.4	1.1			1		s.	0	0			hazy	
Galena, Leghorn, Italy	29.87	758.7	60	15.6	82	ene.			2		10					sm'h		cloudy	
Independence, N. Yard, Mare I'd, Cal.	29.75	755.6	56	13.3	87	sw.	2.4	1.1			0							clear	
Kearsarge, New York, N. Y. *†	30.47	773.9	68	20.0	95	ne.			1							sm'h		foggy	
Lackawanna, San Francisco, Cal. †	29.97	761.2	56	13.3	100	wsw.			1		0							clear	
Lancaster, New York, N. Y.	30.28	769.1	72	22.2	90	calm	0	0			10		calm					foggy	
Marion, Montevideo, Uruguay *	30.07	763.8	53	11.7		nnw.			2		0					sm'h		clear	
Michigan, Erie, Pa	30.02	762.5	76	24.4	64	sw.			5		0							clear	
Minnesota, Newport, R. I.	30.34	770.6	66	18.9	94	s.			1		10			0	0	sm'h		foggy	
Monocacy, Yokohama, Japan	29.94	760.5	68	20.0	95	calm			0		5		calm					fair	
Nipsic, Genoa, Italy	29.98	761.5	64	17.8	44	nne.			3		10		e.			sm'h		overcast	
Onward, Callao, Peru †	29.97	761.2	59	15.0	100	calm			0		10		n.			long	w.	misty	
Palos, Hong Kong, China	29.96	761.0	80	26.7	66	ese.			4		5		n;e.					fair	
Passaic, Washington, D. C.	30.26	768.6	76	24.4	95	s.			1		0							clear	
Pensacola, S. 8° 48′, W. 79° 23′.	30.01	762.2	60	15.6	94	se.			3		10			0	0	mod.	se.	cloudy	
Portsmouth, Newport, R. I.	30.36	771.1	64	17.8	94	se.			4							sm'h		foggy	
Powhatan, Aspinwall, Panama	29.86	758.4	76	24.4	95	se.			1		5		s.					fair	
Quinnebaug, Marseilles, France	29.98	761.5	65	18.3	68	wsw.			1		2		w.			sm'h		fair	
Ranger, Mare Island, Cal.	29.73	755.1	61	16.1	77	calm			0		0			0	0	sm'h		clear	
Richmond, Panama, Panama	29.84	757.9	81	27.2	87	s.			3		5			0.35	8.9			hazy	
Saratoga, Newport, R. I.	30.31	769.9	65	18.3	100	s.			1		10			0	0	sm'h		foggy	
Shenandoah, Maldonado, Uruguay *	30.40	772.1	52	11.1	73	nnw.			2		2					sm'h		fair	
St. Louis, League Island, Pa	30.07	763.8	76	24.4	91	sse.	4.3	1.9			8		se.	0	0			misty	
Swatara, Chefoo, China †	30.08	764.0	72	22.2	76	calm			0		0							clear	
Tennessee, New York, N. Y.	30.37	771.4	70	21.1	?	ne.	2	0.9			10			0.1	3.			rain & fog	
Trenton, N. 22° 30′, W. 44° 16′ *	30.11	764.8	85	29.4	68	ese.			3		2			0	0	sm'h		fair	
Vandalia, New York, N. Y.	30.33	770.4	68	20.0	95	ne.			2		10		calm					foggy	
Wabash, Boston, Mass.	30.36	771.1	64	17.8	89	sse.	3	1.3			10		e.	0	0			hazy	
Wyoming, Port Royal, S. C.	30.23	767.8	77	25.0	86	e.	6	2.7			2		ne.	0	0			fair	
Yantic, New York, N. Y. *	30.30	769.6	67	19.4	95	ne.			1		10		ne.					misty	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 56° 02′, W. 13° 08′ *†	30.24	768.1				ssw.	5		10		sw.			r'gh	w.	cloudy	N McLean.
S. S. Circassian, Capt. W. H. Smith																	G. Capou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 52° 17′, W. 20° 48′	29.96	761.0	55	12.8		ssw.	6		10		sw.			cross	sw.; wnw.	misty	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Liverpool, Eng	30.32	770.1	64	17.8	94	s.	3		2		s.					fine	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent,																	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, N. 43° 32′, W. 59° 32′ *†	30.44	773.2	62	16.7	94	ese.	1		5		s.			sm'h	sse.	fine	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge, Philadelphia, Penn †.	30.23	767.8	90	32.2	88	sw.	3		2		w.					fair	
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, S. 15° 14′, W. 35° 24′	30.05	763.3	76	24.4	73	e.	3		4						se.	blue sky	
S. British Merchant, E. J. Moloney,																	
S. S. Cipero, Capt. W. N. Lailey, N. 17° 07′, W. 87° 58′	29.82	757.4	83.5	28.6	89	ese.	3		10					1	ese.	overcast	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, S. 13° 50′, W. 31° 56′	30.11	764.8	76	24.4	68	ese.	4		2							d. clouds	
Bkt. Hope, Capt. J. Campbell																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 39° 35′, E. 73° 06′	30.01	762.2	57.5	14.2	97	wnw.	7		10							overcast	
Bk. Mertola, Capt. E. W. Turner, N. 41° 15′, W. 14° 03′	30.21	767.3	65.6	18.7	94	nne.	2		9							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pielone, Capt. C. H. Renant, S. 43° 46′, E. 57° 31′	29.88	758.9	43	6.1	73	w.	5		10							d. clouds	
Queen of Cambria, Capt. M. Parry, N. 16° 21′, W. 26° 26′	30.02	762.5	83	28.3	79	ene.	4		4							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estrella, Capt. P. Murdock,																	
Bk. Shun Lee, Capt. J. N. Gray, N. 26° 06′, W. 37° 10′ ‡.	30.16	766.1	79.7	26.5	78	ese.	1		4					sm'h		d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, Yokohama, Japan	29.85	758.2	65.5	18.6	94	calm	0		4							d. clouds	R. Ladd, 1st Officer.
S. S. Thames, Capt. Luckhurst																	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, agent. San Francisco.*																	
S. S. Newbern, Capt, E. Rogers																	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Galia, Capt. W. H. P. Hains Off Skerries' Rock, Eng	30.35	770.9	60	15.6		se.	2		8					sm'h		hazy	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, Start Point, Eng	30.27	768.8	65.0	18.3	70	sse.	3		2		ese.			sm'h	s.	fair	
S. S. Hermann, Capt. H. Baur, N. 36° 53′, W. 75° 35′	30.46	773.7	77.9	25.5		s.	2		2		calm	0	0	mod.	s.	clear	E. Schmidt, 3d Offer.
S. S. Koln, Capt. T. Jüngst, N. 39° 09′, W. 71° 13′	30.49	774.4	84.0	28.9	87	sw.	1		0			0	0	sm'h	sw.	clear	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer																	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 49° 59′, W. 39° 09′	30.09	764.3	47.5	8.6	74	nw.	6		5		nw.	10 h'r	10 h'r	r'gh	nnw.	fair	Englehart & von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 22° 15′, E. 114° 30′ †.	30.13	765.3	80	26.7	82	e.	5		2		e.	0	0	mod.	e.	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 42° 39′ W. 171° 41′ *†.	30.31	769.9	69	20.6	65	s.	4		1		sw.			mod.	wsw.	clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, San Francisco, Cal	29.87	758.7	52	11.1	86	n.	4		3							fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles N. 45° 30′, W. 124° 10′ †.	29.93	760.2	56	13.3	81	ne.	1		10		nnw.			mod.	n.	cloudy	O. W. Poh[illegible] 2d Officer
S. S. Oregon, Capt. Pollmann																	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. N. Ingalls, N. 34° 20′, W. 120° 00′ †..	29.76	755.9	60	15.6	94	nw.	2		0					sm'h		fair	J. N. Ingalls.
S. S. Dakota, Capt. ——, Esquimalt, Vancouver's Id. †..	29.83	757.7	56	13.3	94	ssw.	4		7		sw.	rain	rain	sm'h		rainy	
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal †...	29.88	758.9	56	13.3	94	calm	0		0							clear	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,																	G. H. Harrison.
S. S. Senator, Capt. Wallace, Eureka, Cal †..	29.95	760.7	47	8.3	85	sw.	1		10							cloudy	T. Wallace.
S. S. State of California, Capt. Debney, Po tland, Oregon †..	29.93	760.2	53	11.7	93	e.	2		8		sw.					cloudy	G. Debney.
S. S. Victoria, H. M. Hayward, N. 43° 37′. W. 124° 34′	29.96	761.0	54	12.2	87	n.	3		0					sm'h		clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——, N. 30° 38′, W. 142° 57′	30.13	765.3	66	18.9	84	ene.	1		8		ene.			sm'h		hazy	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb. Sydney, N. S. W †..	30.12	765.0	65	18.3	89	s.	2		0							clear	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 32° 49′. E. 133° 39 †*	30.07	763.8	72	22.2	80	n.	3		8		n.	0	0	sm'h		fair	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——...																	
S. S. City of Sydney, Capt. H. C. Dearborn, N. 27° 40′, W. 146° 04′ †	29.98	761.5	70	21.1	75	ne.	3		5		ne.			mod.	ne.	fair	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 39° 36′, E. 151° 21′ †...	29.92	760.0	69	20.6	80	n.	2		10		n.	0	0	mod.	ne.	cloudy	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle N. 16° 27′, W 99° 30′ †....	29.78	756.4	80	26.7	96	e.	2		6		calm	1.20	30.5	h'vy	cf'd	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, Panama, Panama †.	29.84	757.9	83	28.3	83	e.	3		10		se.	3 h'r	3 h'r			drizzling	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W	30.14	765.5	54	12.2	?	e.	2		2							clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Staten Island N.Y †.	30.51	774.9	69	20.6	85	calm	0					0.05	1.3	sm'h		foggy	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 51° 03′, W. 22° 57′ †..	29.85	758.2	56	13.3	?	ssw.	5		10		sw.	4 h'r	4 h'r	mod.	sw.	cloudy	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 42° 45′, W. 62° 25′ †..	30.56	776.2	59	15.0		sw.	1		0			0	0	sm'h		fine	
S. S. Celtic, Capt. B. Gleadell, N. 40° 40′, W. 68° 06′ †..	30.38	771.6	70	21.1	95	s.	3		5		se.	0	0	sm'h		fair	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, Liverpool, Eng †..	30.48	774.2	63	17.2	94	s.	4		5		s.	light	light			showery	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 51° 07′, W. 15° 22′ †..	30.17	766.3	60	15.6	82	sse.	4		8		se.	0	0	mod.	s.	d. clouds	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass †.	30.36	771.1	65	18.3	?	se.	2		10 n			0	0			misty	
Golden Fleece																	
Hassler Lt. Com. Nichols, Esquimalt, Vancouver's I l *†.	29.90	759.4	52	11.1		sw.	2		8		sse.			sm'h		d. clouds	
S. Iron Cross, Capt. Randall, N. 17° 35′, W. 31° 00′ *..	29.98	761.5	81.5	27.5	98	ene.	4-5		4		ene.	0	0	r'gh	ene.	misty	W. Randall.
S. Pawashick, Capt. E. Fry, N. 40° 38′, W. 15° 44′ *†..	30.06	763.5	68	20.0	100	nne.	1		10					sm'h	wnw.	rainy	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †.	30.12	765.0	80	26.7	74	se.	1		0			0	0			clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer. U. S. A.

Heliotype Printing Co. Boston.

MONTHLY SUMMARY

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

SEPTEMBER, 1881.

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea. Feet.	Met'rs	Result of Simultaneous Observations for September, 1881. Mean Barometer. Actual. Inch.	Actual. Mill.	Reduced. Inch.	Reduced. Mill.	Mean Temperature. Fah.	Cent.	Mean Rel. Humidity.	Wind. Directions. N	NW	W	SW	S	SE	E	NE	O	Total Movement. Miles	Kil.	Average Cloudiness. 0-10	Total Precipitation. Inch.	Mil.
Algerian Series.	° ′	° ′																								
Nemours	N. 35 06	W. 1 50	0.00 m.	13	4	.....	.....	29.95	760.7	79.7	26.5	68.8	8	3	9	.....	.....	1	5	.....	4	.....	.....	1	inap.	inap.
Algiers	N. 36 47	E. 3 05	0.20 p.m.	72	22	.....	.....	29.95	760.7	75.9	24.4	36.4	6	3	8	.....	.....	.....	2	11	.....	.....	.....	2	0.07	1.8
La Calle	N. 36 54	E. 8 26	0.42 p.m.	36	11	.....	.....	29.95	760.7	78.1	25.6	77.0	12	5	4	1	.....	.....	4	4	.....	.....	.....	4	2.03	51.5
Tunis	N. 36 42	E. 10 13	0.49 p.m.	46	14	.....	.....	29.92	760.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sfax	N. 34 44	E. 10 40	0.51 p.m.	?	?	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saida	N. 34 51	E. 0 10	0.09 p.m.	2844	867	.....	.....	29.98	761.6	86.9	30.5	29.0	16	5	1	5	1	.....	.....	2	.....	.....	.....	1	0.28	7.2
Tebessa	N. 35 24	E. 8 06	0.40 p.m.	2890	881	.....	.....	29.97	761.3	85.3	29.6	63.5	7	10	2	4	.....	1	.....	4	2	.....	.....	3	inap.	inap.
Geriville	N. 33 45	E. 1 10	0.13 p.m.	4285	1306	.....	.....	.....	.....	90.5	32.5	12.0	2	8	3	10	1	6	.....	.....	.....	.....	.....	0	0.14	3.6
Laghouat	N. 33 48	E. 2 53	0.20 p.m.	2559	780	.....	.....	30.01	762.2	94.1	34.5	16.0	2	3	3	10	6	2	3	1	.....	.....	.....	1	0.36	9.2
Biskra	N. 34 51	E. 5 41	0.31 p.m.	410	125	.....	.....	29.98	761.6	90.0	32.2	16.0	.....	19	2	.....	.....	9	.....	.....	.....	.....	.....	3	inap.	inap.
Australian Series.																										
Melbourne	S. 37 50	E. 144 58	9.47 p.m.	91	28	29.96	761.0	30.05	763.3	51.6	10.9	76.5	5	4	3	3	6	2	3	3	1	.....	.....	4	0.66	16.8
Sub-Series.																										
Austro-Hungarian Series.																										
Agram	N. 45 48	E. 15 53	1.12 p.m.	536	163	29.44	747.7	29.97	761.3	66.0	18.9	66.7	.....	.....	1	2	5	.....	5	6	11	.....	.....	6	2.34	59.5
Cracow	N. 50 04	E. 20 00	1.28 p.m.	722	220	29.25	743.0	30.01	762.3	59.9	15.5	69.9	.....	1	7	4	2	.....	7	9	.....	.....	.....	8	7.11	180.6
Eperies	N. 48 58	E. 21 15	1.33 p.m.	820	250	29.09	738.9	29.95	760.6	61.7	16.5	67.2	9	1	.....	.....	6	6	.....	.....	8	.....	.....	7	2.71	68.9
Gratz	N. 47 04	E. 15 28	1.10 p.m.	1171	357	28.73	729.8	29.96	760.9	62.4	16.9	77.6	.....	2	2	9	5	9	3	.....	.....	.....	.....	6	4.35	110.4
Hermannstadt	N. 45 47	E. 24 13	1.45 p.m.	1352	412	28.58	725.8	29.96	761.0	66.9	19.4	56.8	1	12	3	.....	2	6	5	1	.....	.....	.....	6	3.09	78.4
Kremsmünster	N. 48 04	E. 14 08	1.04 p.m.	1260	384	28.04	727.4	29.96	761.0	58.5	14.7	80.9	.....	2	9	6	1	.....	1	11	.....	.....	.....	6	4.75	120.7
Lemberg	N. 49 50	E. 24 00	1.44 p.m.	978	298	28.62	726.9	29.99	761.7	59.2	15.1	68.4	.....	8	3	5	7	6	.....	1	.....	.....	.....	8	3.50	88.8
Pola	N. 44 52	E. 13 51	1.03 p.m.	105	32	29.85	758.3	29.96	761.0	69.1	20.6	67.6	.....	.....	6	5	2	8	3	6	.....	.....	.....	6	3.44	87.3
Szathmar	N. 47 46	E. 22 53	1.39 p.m.	430	131	29.51	749.6	29.97	761.2	66.4	19.1	60.6	1	2	8	2	4	2	10	1	.....	.....	.....	7	2.53	59.2
Szegedin	N. 46 15	E. 36 49	2.35 p.m.	256	78	29.69	754.1	29.96	761.0	66.7	19.3	66.2	10	1	.....	6	7	.....	1	.....	11	.....	.....	6	1.18	30.0
Trieste	N. 45 39	E. 13 46	1.04 p.m.	85	26	29.88	759.0	29.98	761.6	68.4	20.2	63.7	1	3	4	4	.....	1	6	2	9	.....	.....	6	7.04	194.0
Vienna	N. 48 12	E. 16 22	1.14 p.m.	663	202	29.28	743.8	29.99	761.8	61.5	16.4	68.9	4	2	9	1	.....	6	4	2	2	.....	.....	5	2.33	59.2
Belgian Series.																										
Brussels	N. 50 51	E. 4 22	0.26 p.m.	187	57	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Furnes	N. 51 04	E. 2 40	0.19 p.m.	20	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maeseyck	N. 51 06	E. 5 48	0.32 p.m.	115	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
British Series.																										
Aberdeen	N. 57 10	W. 2 06	0.00 m.	86	26	29.90	759.4	30.00	762.0	55.3	12.9	76.2	6	10	2	.....	4	4	2	2	.....	.....	.....	8	1.87	47.5
Armagh	N. 54 21	W. 6 39	11.42 a.m.	206	63	29.76	755.9	29.99	761.7	56.7	13.7	80.6	3	3	1	4	9	2	1	7	.....	.....	.....	7	.....	.....
Bidston	N. 53 24	W. 3 04	11.56 a.m.	180	85	.....	.....	29.98	761.5	58.0	14.4	74.3	1	8	12	1	1	4	3	.....	.....	.....	.....	7	.....	.....
Bolton *a*	N. 53 35	W. 2 28	11.58 a.m.	481	145	29.45	748.0	29.99	761.7	57.5	14.2	75.9	2	3	5	4	3	2	3	7	.....	.....	.....	8	.....	.....
Bradford *d*	N. 53 48	W. 1 47	0.01 p.m.	362	110	29.59	751.6	29.99	761.7	57.8	14.3	73.8	.....	4	4	7	.....	.....	1	10	.....	.....	.....	6	3.11	79.0
Bridgetown	N. 13 04	W. 59 37	8.10 a.m.	28	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cardington	N. 52 08	W. 0 27	0.06 p.m.	109	33	.....	.....	29.95	760.7	61.6	16.4	74.0	6	5	6	6	1	3	3	.....	.....	.....	.....	7	.....	.....
Chatham	N. 51 25	E. 0 33	0.10 p.m.	120	37	29.85	758.2	29.98	761.5	60.4	15.8	83.6	7	2	1	9	.....	1	3	3	4	.....	.....	8	.....	.....
Falmouth	N. 50 09	W. 5 04	11.48 a.m.	200	61	29.77	756.1	30.00	762.0	60.1	15.6	73.5	3	4	3	5	2	5	7	1	.....	.....	.....	6	.....	.....
Fort Napier	S. 30 00	E. 31 00	2.12 p.m.	2200	671	27.74	704.6	29.96	761.0	70.1	21.2	57.7	1	.....	.....	1	4	13	4	5	2	.....	.....	3	.....	.....
Free Town	N. 8 30	W. 13 14	11.15 a.m.	224	68	29.71	754.6	29.94	760.5	84.2	29.0	84.7	3	2	4	3	6	5	3	2	2	.....	.....	4	.....	.....
Galway	N. 53 15	W. 9 03	11.32 a.m.	25	8	.....	.....	29.93*a*	760.2*a*	59.3	15.2	75.1	5	4	10	4	4	.....	1	2	.....	.....	.....	8	.....	.....
Gibraltar	N. 36 09	W. 5 21	11.47 a.m.	50	15	30.01	762.2	30.06	763.5	76.7	24.8	83.0	.....	2	8	2	.....	2	7	9	.....	.....	.....	4	.....	.....
Glasgow	N. 55 53	W. 4 17	11.51 a.m.	90	27	29.77	756.1	29.97	761.2	56.0	13.7	75.9	.....	2	5	6	1	4	3	9	.....	.....	.....	8	.....	.....
Greenwich	N. 51 29	0 00	0.08 p.m.	159	48	29.80	756.9	29.97	761.2	60.6	15.9	77.4	2	8	4	0	3	2	1	4	.....	.....	.....	7	.....	.....
Guernsey	N. 49 27	W. 2 41	11.58 a.m.	204	62	29.76	755.9	29.98	761.5	60.8	16.0	76.1	2	4	6	4	2	4	4	4	.....	.....	.....	5	.....	.....
Kew	N. 51 28	W. 0 19	0.07 p.m.	34	10	29.94	760.5	29.98	761.5	60.6	15.9	71.9	9	5	5	5	2	2	.....	2	.....	.....	.....	7	.....	.....
Leicester	N. 52 39	W. 1 08	0.04 p.m.	245	75	29.71	754.6	29.96	761.0	60.1	15.6	73.1	5	5	3	4	3	3	.....	7	.....	.....	.....	8	.....	.....
Malta	N. 36 00	E. 14 30	1.06 p.m.	111	34	29.91	759.7	29.98	761.5	80.1	26.7	66.9	.....	15	1	1	2	3	3	5	.....	.....	.....	3	0.39	9.9
Nassau	N. 25 04	W. 77 22	6.58 a.m.	44	13	29.94	760.5	29.99	761.7	83.2	28.4	79.6	1	.....	.....	.....	6	6	9	8	.....	.....	.....	6	.....	.....
Oscott	N. 52 28	W. 1 55	0.00 m.	483	147	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oxford	N. 51 46	W. 1 17	0.03 p.m.	212	64	29.76	755.9	29.99	761.7	60.1	15.6	73.4	6	7	2	3	3	5	1	2	1	.....	.....	7	.....	.....
Plymouth	N. 50 22	W. 4 10	11.51 a.m.	69	21	29.91	759.7	29.99	761.7	61.0	16.1	78.2	1	6	1	5	7	5	3	1	1	.....	.....	7	.....	.....
Sandwick Manse	N. 59 05	W. 3 20	11.54 a.m.	94	29	.....	.....	30.05	763.3	53.2	11.8	82.0	.....	2	5	3	3	5	3	8	1	.....	.....	7	.....	.....
Scutari Cemet'y	N. 41 00	E. 29 03	2.04 p.m.	60	18	29.85	758.2	29.92	760.0	78.9*a*	26.1*a*	54.4*a*	5	.....	.....	8	1	.....	.....	10	.....	.....	.....	4	.....	.....
Sheffield	N. 53 23	W. 1 28	0.02 p.m.	260	79	29.71	754.6	29.99	761.7	60.5	15.8	78.5*a*	6	1	1	9	3	2	.....	6	2	.....	.....	7	2.22	56.4
Silloth Rectory	N. 54 52	W. 3 22	11.54 a.m.	28	9	29.95	760.7	29.98	761.5	59.2	15.1	76.9	.....	1	7	7	2	1	6	2	4	.....	.....	7	2.39	60.7
Stonyhurst	N. 53 51	W. 2 28	11.58 a.m.	363	110	.....	.....	30.02*a*	762.5*a*	57.6	14.2	77.5	7	.....	7	4	3	3	2	4	.....	.....	.....	8	.....	.....
Strathfield Turgiss	N. 51 17	W. 0 53	0.04 p.m.	197	60	.....	.....	.....	.....	61.1	16.2	74.3	3	10	6	3	3	1	1	3	.....	.....	.....	6	.....	.....
Truro	N. 50 16	W. 5 04	11.53 a.m.	43	13	29.96	761.0	29.98	761.5	64.9	18.3	68.8	2	9	.....	6	5	5	2	1	.....	.....	.....	6	.....	.....
Valencia	N. 51 55	W. 10 18	11.27 a.m.	20	6	29.94	760.5	29.96	761.0	59.0	15.0	78.2	4	7	2	4	1	9	2	1	.....	.....	.....	8	.....	.....

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea. Feet.	Met'rs	Result of Simultaneous Observations for September, 1881. Mean Barometer. Actual. Inch.	Mill.	Reduced. Inch.	Mill.	Mean Temperature. Fah.	Cent	Mean Rel. Humidity.	Wind. Directions. N	NW	W	SW	S	SE	E	NE	C	Total Movement. Miles	Kil.	Average Cloudiness. 0-10	Total Precipitation. Inch.	Mill.
Canadian Series[8]	° ′	° ′																								
Bathurst	N. 47 39	W. 65 43	7.45 a.m.	35	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charlottetown	N. 46 14	W. 63 10	7.55 a.m.	38	12	30.04	763.0	30.08	764.0	57.2	14.0	86.9	4	3	5	3	3	4	2	3	3	4960	7982	8	1.42	36.1
Chatham	N. 47 03	W. 65 29	7.45 a.m.	56	17	30.03	762.7	30.09	764.3	53.8	12.1	90.4	2	5	2	5	8	3	1	2	2	2270c	3653c	6	1.96	49.8
Chicoutimi	.....	.....	.....	159	48	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cornwall	N. 45 01	W. 74 43	7.09 a.m.	175	53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dalhousie	N. 48 04	W. 66 21	7.32 a.m.	150	46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Father Point	N. 48 31	W. 68 28	7.34 a.m.	20	6	30.02	762.5	30.04	763.0	52.4	11.3	87.7	2	2	6	9	5	.....	1	1	4	9135	14701	5	2.28	57.9
Fort Garry	N. 49 51	W. 97 07	5.39 a.m.	754	230	29.04	737.6	29.87	758.7	44.1	6.7	90.8	3	5	4	5	1	6	1	1	4	4062	6537	7	2.60	66.0
Fredericton	N. 45 57	W. 66 39	7.41 a.m.	59	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Granton	N. 43 12	W. 81 21	6.43 a.m.	1015	309	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Halifax	N. 44 39	W. 63 36	7.53 a.m.	122	37	29.98	761.5	30.11	764.8	57.5	14.2	89.5	6	9	4	.....	3	.....	6	2	.....	.....	.....	4	3.10	78.7
Hamilton	N. 43 16	W. 79 53	6.49 a.m.	358	109	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kingston	N. 44 14	W. 76 30	7.02 a.m.	307	94	29.70	754.4	30.02	762.5	64.5	18.1	82.6	4	2	1	7	7	4	1	4	.....	3832	6167	5	1.15	29.2
Little Glace Bay	N. 46 12	W. 59 58	8.08 a.m.	34	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Montreal	N. 45 31	W. 73 33	7.13 a.m.	187	57	29.84	757.9	30.04	763.0	61.2	16.2	81.6	1	1	4	4	6	4	4	6	.....	.....	.....	6	1.93	49.0
Moose Factory	N. 51 16	W. 80 56	6.44 a.m.	30	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Parry Sound	N. 45 19	W. 80 01	6.48 a.m.	635	194	29.32	744.7	30.00	762.0	59.5	15.3	89.7	1	1	6	2	3	5	5	1	6	7484	12049	5	4.15	105.4
Peterborough	N. 44 17	W. 78 20	6.54 a.m.	688	210	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Port Dover	N. 42 47	W. 80 13	6.47 a.m.	635	194	29.36	745.7	30.03	762.7	64.5	18.1	94.7	3	4	1	6	3	2	.....	3	8	4525	7282	6	1.07	27.2
Port Stanley	N. 42 40	W. 81 13	6.43 a.m.	592	180	29.39	746.5	30.02	762.5	63.3	17.4	89.8	4	3	8	4	1	.....	5	4	1	.....	.....	4	1.48	37.6
Quebec	N. 46 48	W. 71 12	7.23 a.m.	293	89	29.74	755.4	30.06	763.5	56.8	13.8	80.4b	2	1	4	.....	.....	2	6	10	5	.....	.....	5	2.22	56.4
Rockliffe	N. 46 10	W. 77 48	6.57 a.m.	418	127	29.57	751.1	30.02	762.5	56.3	13.5	83.5	2	2	7	.....	1	2	9	.....	7	.....	.....	4	2.01	51.1
Saugeen	N. 44 30	W. 81 21	6.42 a.m.	656	200	29.29	744.0	29.99	761.7	61.0	16.1	86.2	2	3	2	1	8	12	.....	1	1	7968	12823	6	4.18	106.2
St. Andrews	N. 43 04	W. 81 06	6.34 a.m.	47	14	30.05	763.3	30.10	764.5	54.5	12.5	90.2	5	6	.....	1	1	6	2	2	7	.....	.....	3	4.87	123.7
St. John, N.B. f.	N. 45 17	W. 66 03	7.44 a.m.	150	46	29.96	761.0	30.21	767.3	53.2	11.8	89.4	1	3	3	4	2	7	1	3	.....	.....	.....	5	5.85	148.6
Stratford	N. 43 23	W. 81 00	6.44 a.m.	1182	360	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sydney	N. 46 08	W. 60 10	8.07 a.m.	55	17	30.03	762.7	30.08	764.0	55.7	13.2	88.0	3	6	.....	6	4	1	2	5	3	5633	9065	8	2.26	57.4
Toronto	N. 43 39	W. 79 23	6.50 a.m.	350	107	29.67	753.6	30.04	763.0	63.4	17.4	84.0	5	5	3	5	2	3	5	2	.....	6747	10858	5	0.87	22.1
Windsor	N. 44 59	W. 63 58	7.53 a.m.	87	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Woodstock	N. 43 08	W. 80 47	6.48 a.m.	980	299	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yarmouth	N. 43 50	W. 66 02	7.44 a.m.	61	19	30.05	763.3	30.11	764.8	56.5	13.6	93.4	2	5	1	4	2	3	7	3	3	4308	7030	4	1.85	47.0
Sub-Series.																										
St. Johns, N. F.	N. 47 34	W. 52 42	8.37 a.m.	230	70	29.96	761.0	30.21	767.3	52.0	11.1	88.7	1	3	3	4	5	7	3	4	.....	.....	.....	5	5.85	148.6
St. Pierre	N. 46 47	W. 56 08	8.24 a.m.	?	?	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape Colony Series.																										
Cape St. Francis.‡	S. 34 10	E. 24 50	1.47 p.m.	25	7	30.11	764.8	30.14	765.5	63.9	17.7	90.7	.....	.....	4	9	1	4	7	4	1	.....	.....	4	2.18	55.4
Cape Town	S. 34 05	E. 18 29	1.22 p.m.	27	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Worcester g.	S. 33 36	E. 19 26	1.26 p.m.	?	?	29.29	744.0	.....	.....	70.6	21.4	47.0	.....	5	6	1	5	10	2	.....	.....	.....	.....	2	0.33	8.4
Chinese Series.																										
Zi-Ka-Wei	N. 31 12	E. 121 26	8.14 p.m.	23	7	29.92	759.9	29.95	760.6	71.8	22.1	93	1	3	3	2	3	3	9	6	.....	.....	.....	6	5.94	151.0
Costa Rican Series.																										
San José	N. 9 56	W. 84 00	6.15 a.m.	3757	1145	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Danish Series.																										
Copenhagen	N. 55 41	E. 12 36	0.58 p.m.	43	13	29.94	760.5	29.99	761.7	56.7	13.7	78.0	2	5	1	2	3	8	7	2	.....	.....	.....	7	.....	.....
Fanöe	N. 55 27	E. 8 24	0.42 p.m.	20	6	29.95	760.7	29.97	761.2	58.1	14.5	80.5	1	1	5	5	2	5	4	7	.....	.....	.....	7	.....	.....
Godthaab	N. 64 11	W. 51 46	8.41 a.m.	36	11	29.61	752.1	29.65	753.2	35.8	2.1	83.0	3	2	3	1	9	.....	.....	9	3	.....	.....	6	.....	.....
Stykkisholm	N. 65 05	W. 22 46	10.37 a.m.	30	11	29.71	754.5	29.75	755.6	50.7	10.4	82.0	.....	.....	.....	2	7	10	4	2	5	.....	.....	9	.....	.....
Thorshavn	N. 62 02	W. 6 44	11.41 a.m.	29	9	29.97	761.1	30.00	762.0	51.4	10.8	82.0	1	.....	2	5	4	2	5	7	4	.....	.....	8	.....	.....
Vestervig	N. 56 47	E. 8 20	0.41 p.m.	82	25	29.90	759.5	29.99	761.8	56.7	13.7	81.7	3	3	3	2	1	5	3	8	2	.....	.....	7	.....	.....
French Series.																										
Agen	N. 44 12	E. 0 38	0.11 p.m.	604	184	29.39a	746.4a	30.03a	762.8a	69.8	21.0	59.4	2	7	8	1	2	8	2	.....	.....	.....	.....	.....	2.13	54.1
Alençon	N. 48 25	E. 0 06	0.09 p.m.	476	145	29.47	748.6	30.02	762.6	62.4	16.9	83.1	8	2	4	4	4	6	.....	2	.....	.....	.....	.....	1.47	37.4
Arras m.	N. 50 18	E. 2 47	0.19 p.m.	239	73	29.62	752.3	29.87	758.8	60.1	15.6	78.3	2	4	2	.....	4	4	.....	1	.....	.....	.....	.....	.....	.....
Avignon	N. 43 57	E. 4 38	0.26 p.m.	65	20	29.93	760.2	30.01	762.2	70.5	21.4	60.8	20	5	1	1	1	1	1	.....	.....	.....	.....	3	1.40	35.5
Bar-sur-Seine	N. 48 06	E. 4 22	0.25 p.m.	518	158	29.45	748.1	30.00	762.0	63.5	17.5	69.3	1	4	2	4	5	7	2	5	.....	.....	.....	7	3.06	77.8
Beauvais	N. 49 26	E. 2 04	0.16 p.m.	246	75	29.74	755.4	29.99	761.8	62.6	17.0	71.2	2	3	6	5	2	3	4	5	.....	.....	.....	7	3.22	81.8
Besançon	N. 47 14	E. 6 01	0.32 p.m.	797	243	29.13	740.0	30.02	762.4	62.2	16.8	76.5	2	.....	4	5	10	3	2	4	.....	.....	.....	5	0.51	13.0
Bordeaux	N. 44 50	E. 0 32	0.06 p.m.	243	74	29.76	755.8	30.02	762.4	68.7	20.4	56.2	5	3	4	8	3	3	3	1	.....	.....	.....	6	1.30	33.1
Bourges	N. 47 10	E. 2 26	0.17 p.m.	510	156	29.43	747.5	29.97	761.2	66.6	19.2	59.4	8	3	5	8	.....	1	3	2	.....	.....	.....	5	1.60	40.7
Brest	N. 48 23	W. 4 29	11.50 a.m.	210	64	29.77	756.2	30.02	762.4	65.8	18.8	72.8	2	2	7	1	3	4	6	4	1	.....	.....	7	1.72	43.8
Caen	N. 49 11	W. 0 21	0.07 p.m.	69	21	29.91	759.6	29.98	761.5	63.9	17.7	77.5	3	9	5	2	5	4	.....	2	.....	.....	.....	5	1.80	45.6
Châlons-sur-Marne	N. 48 57	E. 4 23	0.25 p.m.	294	90	.....	.....	.....	.....	63.5	17.5	69.5	.....	2	4	4	8	3	1	5	3	.....	.....	5	2.40	61.0
Charleville	N. 49 46	E. 4 42	0.27 p.m.	476	145	29.47	748.5	29.97	761.3	62.6	17.0	63.2	1	4	2	7	11	3	.....	2	.....	.....	.....	7	5.15	130.9
Clermont-Fd.	N. 45 45	E. 3 04	0.20 p.m.	1273	388	28.05	727.6	29.97	761.3	66.2	19.0	55.5	7a	4	4	4	3	4	1	2	.....	.....	.....	6	1.66	42.3
Cluny	N. 46 26	E. 4 39	0.27 p.m.	787	240	29.18	741.1	30.01	762.3	65.5	18.6	63.7	11	1	4	3	0	1	4	.....	.....	.....	.....	3	2.99	75.9
Commercy	N. 48 45	E. 5 35	0.30 p.m.	797	243	29.15	740.4	30.00	762.0	59.0	15.0	73.8	2	4	13	.....	2	.....	8	1	.....	.....	.....	4	5.71	145.1
Gap	N. 44 34	E. 6 04	0.32 p.m.	2427	740	27.46	697.5	29.93	760.2	65.7	18.7	52.6	7	.....	1	1	10	3	2	6	.....	.....	.....	4h	1.03	26.1
Créasque	N. 43 24	E. 5 37	0.31 p.m.	1056	322	28.93	734.8	30.07	763.8	71.1	21.7	45.0	1	.....	.....	.....	3	16	7	3	.....	.....	.....	6	0.50	12.7
Grenoble	N. 45 11	E. 5 43	0.31 p.m.	715	218	29.24	742.6	29.99	761.7	65.1	18.4	66.7	2	15	2	.....	.....	1	4	6	.....	.....	.....	.....	2.92	74.1
Guéret	N. 46 10	E. 1 52	0.16 p.m.	1486	453	28.45	722.5	30.00	762.0	63.1	17.3	65.1	2	4	1	12	3	2	2	4	.....	.....	.....	.....	2.21	56.1
Lamballe	N. 48 28	W. 2 31	11.59 a.m.	252	77	29.76a	756.0a	30.03a	762.8a	63.1	17.3	79.6	4	9	5	3	1	4	1	3	.....	.....	.....	.....	6.02	152.8
Lescar	N. 43 21	W. 0 26	0.06 p.m.	525	160	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lorient	N. 47 44	W. 3 21	11.55 a.m.	86	26	29.92	760.0	30.02	762.6	66.6	19.2	73.8	1	1	6	6	5	3	5	3	.....	.....	.....	7	2.84	72.1
Lyons	N. 45 45	E. 4 49	0.27 p.m.	981	299	28.98	736.1	30.02	762.5	63.3	17.4	59.9	8	4	3	1	5	6	1	2	.....	.....	.....	4	4.16	105.7
Mans	N. 48 01	E. 0 12	0.09 p.m.	285	87	29.71	754.5	30.01	762.3	63.0	17.2	68.7	5	.....	4	7	1	5	5	3	.....	.....	.....	5	1.92	48.9
Marseilles	N. 43 18	E. 5 23	0.29 p.m.	246	75	29.70	754.4	29.97	761.1	71.4	21.9	56.5	.....	6	9	8	2	2	2	1	.....	.....	.....	.....	0.33	8.4
Mont-Louis	N. 42 30	E. 2 07	0.16 p.m.	5203	1586	24.88	632.0	30.12	765.0	58.1	14.5	52.8	2	5	11	6	1	1	4	.....	.....	.....	.....	3	0.67	17.0
Montpelier	N. 43 36	E. 3 54	0.24 p.m.	102	31	29.89	759.1	29.99	761.8	70.0	21.1	57.3a	3	0	3	2	3	6	4	3	.....	.....	.....	.....	.....	.....
Nancy	N. 48 41	E. 6 11	0.33 p.m.	712	217	29.25	742.9	30.00	762.0	60.3	15.7	75.4	4	7	5	10	1	1	1	1	.....	.....	.....	7	5.13	130.4
Nantes	N. 47 13	W. 1 33	0.02 p.m.	134	41	29.87	758.8	30.04	763.0	66.6	19.2	67.6	2	5	2	6	5	1	2	7	.....	.....	.....	8	2.14	54.3
Nice	N. 43 41	E. 7 16	0.37 p.m.	29	9	29.91	759.6	29.94	760.5	70.5	21.4	66.8	.....	.....	7	3	4	7	9	.....	.....	.....	.....	.....	4.24	107.8
Perpignan	N. 42 41	E. 2 53	0.19 p.m.	98	30	29.87	758.8	29.98	761.4	71.8	22.1	49.4	4	6	.....	3	3	10	.....	4	.....	.....	.....	5	0.34	8.7
Pic du Midi (Pitde)	N. 42 15	W. 0 08	0.08 p.m.	7763	2366	22.61	574.2	.....	.....	45.5	7.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	5.05	128.3
Privas	N. 44 45	E. 4 35	0.26 p.m.	997	304	.....	.....	.....	.....	67.1	19.5	70.0	2	3	.....	2	6	.....	.....	.....	17	.....	.....	3	1.16	29.4
Puy de Dome	N. 45 46	E. 2 58	0.20 p.m.	4813	1467	25.17	639.3	.....	.....	46.6	8.1	83.2	3	3	7	9	2	.....	.....	6	.....	.....	.....	8	4.59	116.5
Rochefort	N. 45 56	W. 0 58	0.04 p.m.	29	9	30.00	762.0	30.03	762.8	68.7	20.4	90.1	1	2	5	6	5	1	2	3	5	.....	.....	5	1.09	27.7
Roche-sur-Yon	N. 46 40	W. 1 26	0.02 p.m.	198	60	29.81	757.2	30.02	762.5	65.5	18.6	73.6	6	.....	8	4	3	4	.....	5	.....	.....	.....	6	2.15	54.5
Rodez	N. 44 21	E. 2 35	0.18 p.m.	2050	625	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rouen	N. 49 26	E. 1 14	0.13 p.m.	80	24	29.93b	760.2b	30.02b	762.4b	60.8	16.0	79.8	.....	6	4	8	2	5	1	4	.....	.....	.....	6	3.65	92.7
Saint Lô a.	N. 49 06	W. 1 05	0.04 p.m.	134	41	29.84	757.9	30.00	761.9	61.9	16.6	79.4	8	8	4	1	3	2	2	1	.....	.....	.....	8	2.44	62.1
Saint Maur	N. 48 48	E. 2 21	0.18 p.m.	162	49	29.84	757.9	30.00	762.1	63.0	17.2	69.6	4	8	2	5	4	4	2	1	.....	.....	.....	8	3.18	80.9
Toulouse	N. 43 37	E. 1 27	0.14 p.m.	636	194	29.36	745.7	30.08	764.1	71.1	21.7	56.9	3	10	6	2	1	6	.....	2	.....	.....	.....	5	2.83	71.8
Tours d.	N. 47 24	E. 0 41	0.11 p.m.	171	52	29.80	757.0	30.00	762.0	64.8	18.2	66.8	1	2	2	9	1	.....	8	3	.....	.....	.....	8	2.37	60.1
Versailles	N. 48 48	E. 2 07	0.16 p.m.	445	136	29.51	749.6	30.00	762.1	54.7	12.6	69.0	4	5	5	5	2	3	1	5	.....	.....	.....	.....	4.37	111.1
Sub Series.																										
Paris, Montsouris.	N. 48 50	E. 2 20	0.18 p.m.	256	78	29.72	754.9	30.01	762.3	62.2	16.8	73.7	2	6	2	6	2	6	2	3	1	.....	.....	.....	3.13	79.6

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea. Feet.	Altitude of Barometer above sea. Met'rs	Mean Barometer. Actual. Inch.	Mean Barometer. Actual. Mill.	Mean Barometer. Reduced. Inch.	Mean Barometer. Reduced. Mill.	Mean Temperature. Fah.	Mean Temperature. Cent.	Mean Rel. Humidity.	Wind. Directions. N	NW	W	SW	S	SE	E	NE	O	Wind. Total Movement. Miles	Wind. Total Movement. Kil.	Average Cloudiness. 0–10	Total Precipitation. Inch.	Total Precipitation. Mill.
German Series	° ′	° ′																								
Bamberg ..... *a*	N. 49 54	E. 10 53	0.51 p.m.	787	240	29.14	740.2	30.01	762.2	61.7	16.5	62.3	1	7	10	1	5	2	1	1	1	.....	.....	6	2.06	52.2
Berlin	N. 52 30	E. 13 23	1.02 p.m.	164	50	29.80	756.9	29.97	761.3	62.6	17.0	61.3	1	6	1	4	1	7	5	4	1	.....	.....	7	1.83	46.4
Breslau	N. 51 07	E. 17 02	1.17 p.m.	482	147	29.48	748.9	30.02	762.6	60.4	15.8	62.1	.....	1	8	4	1	7	8	1	.....	.....	.....	3	2.78	70.6
Carlsruhe	N. 49 01	E. 8 25	0.42 p.m.	404	123	29.58	751.2	29.99	761.8	61.9	16.6	77.6	4	1	1	16	.....	.....	1	7	.....	.....	.....	7	3.51	89.1
Cassel	N. 51 19	E. 9 28	0.46 p.m.	669	204	29.24	742.8	29.96	761.0	61.0	16.1	69.9	5	4	1	1	14	1	2	.....	2	.....	.....	7	1.88	47.7
Frankfort on M.	N. 50 08	E. 8 41	0.43 p.m.	338	103	29.62	752.4	29.98	761.5	62.2	16.8	64.3	6	1	2	5	12	1	1	2	.....	.....	.....	7	1.35	34.2
Friedrichshafen	N. 47 39	E. 9 29	0.45 p.m.	1355	413	28.59	726.1	30.00	762.1	59.4	15.2	79.0	2	.....	3	18	4	.....	.....	3	.....	.....	.....	7	7.41	188.2
Hamburg	N. 53 33	E. 9 58	0.48 p.m.	85	26	29.90	759.5	30.00	762.1	57.9	14.4	77.1	.....	3	4	3	2	7	3	6	2	.....	.....	7	2.37	60.3
Kiel	N. 54 20	E. 10 04	0.49 p.m.	13	4	30.04	763.1	30.06	763.5	58.5	14.7	79.1	3	4	4	3	3	2	5	4	2	.....	.....	8	1.56	39.5
Leipsic	N. 51 20	E. 12 24	0.58 p.m.	390	119	29.58	751.3	30.00	761.9	60.1	15.6	68.6	3	2	3	8	3	3	4	4	.....	.....	.....	7	2.38	60.4
Magdeburg	N. 52 09	E. 11 37	0.54 p.m.	269	82	29.79	756.6	29.97	761.3	61.0	16.1	67.7	3	1	8	2	5	2	8	1	.....	.....	.....	7	2.18	55.4
Memel	N. 55 43	E. 21 07	1.32 p.m.	39	12	30.03	762.8	30.08	764.0	58.5	14.7	78.8	.....	5	5	4	5	3	4	4	.....	.....	.....	7	.....	.....
Munich	N. 48 09	E. 11 34	0.55 p.m.	1732	528	28.19	716.1	30.06	763.5	59.7	15.4	64.7	1	9	5	2	.....	1	1	8	3	.....	.....	6	2.46	62.5
Neufahrwasser	N. 54 24	E. 18 40	1.25 p.m.	16	5	30.02	762.4	30.03	762.8	59.7	15.4	68.3	2	2	2	1	9	4	6	4	.....	.....	.....	7	2.08	52.8
Neustadt	N. 49 21	E. 8 08	0.41 p.m.	479	146	29.44	747.8	29.97	761.1	62.1	16.7	68.2	4	5	6	5	4	.....	1	1	4	.....	.....	7	1.79	45.4
Stuttgart	N. 48 47	E. 9 11	0.45 p.m.	879	268	29.04	737.6	29.93	760.1	61.5	16.4	71.2	9	3	9	2	3	.....	3	1	.....	.....	.....	7	3.80	96.5
Weissenburg	N. 49 02	E. 10 58	0.52 p.m.	1401	427	28.51	724.2	30.00	761.9	59.7	15.4	67.1	6	4	7	2	2	2	3	2	2	.....	.....	8	2.94	74.7
Wustrow	N. 54 21	E. 12 24	0.58 p.m.	23	7	29.98	761.5	30.00	762.1	57.7	14.3	78.0	2	.....	8	1	1	10	3	5	.....	.....	.....	7	4.91	124.7
Greek Series.																										
Athens	N. 37 58	E. 23 43	1.43 p.m	359	110	29.56	750.9	29.94	760.4	84.0	28.9	.....	.....	1	.....	11	8	.....	1	9	.....	.....	.....	1	.....	.....
Indian Series.																										
Kurachee	N. 24 47	E. 67 04	4.36 p.m.	49	15	29.64	752.8	29.69	754.1	83.9	28.8	77.2	.....	.....	1	24	5	.....	.....	.....	.....	.....	.....	3	1.05	26.7
Deesa	N. 24 16	E. 72 14	4.57 p.m.	465	142	29.21	741.9	29.67	753.6	88.7	31.5	65.6	3	2	5	14	5	.....	.....	1	.....	.....	.....	8	2.85	72.4
Bombay	N 18 54	E. 72 49	5.00 p.m.	37	11	29.75	755.6	29.79	756.7	81.5	27.5	84.8	1	5	15	7	2	.....	.....	.....	.....	.....	.....	8	4.57	116.1
Poona	N. 18 28	E. 74 10	5.05 p.m.	1849	564	27.93	709.4	29.79	756.7	76.5	24.7	72.6	.....	1	23	5	...	.....	.....	.....	1	.....	.....	7	2.31	58.7
Belgaum	N. 15 52	E. 74 42	5.07 p.m.	2550	777	27.28	692.9	29.83	757.7	72.2	22.3	83.3	.....	.....	12	18	.....	.....	.....	.....	.....	.....	.....	7	4.11	104.4
Lahore	N. 31 34	E. 74 20	5.05 p.m.	732	223	28.86	733.0	29.58	751.3	92.9	33.8	40.0	2	2	8	2	.....	.....	2	1	13	.....	.....	7	0.18	4.6
Roorkee	N. 29 52	E. 77 56	5.20 p.m.	887	270	28.71	729.2	29.60	751.8	88.3	31.3	66.8	.....	4	9	1	3	.....	2	1	10	.....	.....	4	4.92	125.0
Agra	N. 27 10	E. 78 05	5.20 p.m.	555	169	29.07	738.4	29.62	752.3	88.3	31.3	60.3	.....	1	18	5	1	1	1	.....	3	.....	.....	4	.....	.....
Nagpur	N. 21 09	E. 79 11	5.24 p.m.	1025	312	28.64	727.4	29.68	753.9	80.0	26.7	76.6	1	4	4	6	4	1	1	1	8	.....	.....	8	10.24	260.1
Jubulpore	N. 23 09	E. 79 59	5.28 p.m.	1351	412	28.35	720.1	29.69	754.1	85.9	29.9	69.9	1	4	10	.....	1	.....	3	1	10	.....	.....	6	1.75	44.4
Lucknow	N. 26 50	E. 81 00	5.32 p.m.	369	112	29.26	743.2	29.63	752.6	86.6	30.3	66.0	.....	1	8	10	.....	1	2	2	6	.....	.....	4	1.85	47.0
Alahabad ..... *a*	N. 25 26	E. 81 52	5.35 p.m.	307	94	29.31	744.5	29.62	752.3	83.3	28.5	81.9	1	1	.....	12	1	1	2	1	10	.....	.....	6	3.10	78.7
Patna	N. 25 37	E. 85 08	5.49 p.m.	183	56	29.46	748.3	29.64	752.8	85.6	29.8	77.5	1	4	8	3	.....	.....	5	8	1	.....	.....	7	9.44	239.8
Hazaribagh	N. 24 00	E. 85 24	5.50 p.m.	2007	612	27.66	702.6	29.65	753.1	80.3	26.8	76.9	3	7	3	2	4	2	5	.....	4	.....	.....	7	5.90	149.9
Cuttack	N. 20 29	E. 85 54	5.52 p.m.	80	24	29.59	751.6	29.68	753.9	87.0	30.6	78.7	2	4	8	1	2	3	.....	1	9	.....	.....	7	14.62	371.3
Calcutta	N. 22 33	E. 88 19	6.01 p.m.	21	7	29.64	752.8	29.66	753.4	85.6	29.8	85.7	2	.....	2	4	10	4	5	1	2	.....	.....	8	5.17	131.3
Dhubri	N. 26 07	E. 89 50	6.08 p.m.	118	36	29.54	750.3	29.66	753.4	80.0	26.7	89.5	1	.....	.....	1	3	.....	1	3	21	.....	.....	5	17.38	441.4
Chittagong ..... *a*	N. 22 21	E. 91 50	6.15 p.m.	87	26	29.62	752.3	29.71	754.6	81.6	27.6	87.0	.....	.....	7	5	12	3	.....	.....	2	.....	.....	7	0.29	7.4
Sibsagar	N. 26 59	E. 94 40	6.27 p.m.	333	112	29.35	745.5	29.69	754.1	82.3	27.9	87.2	.....	.....	.....	10	7	1	4	6	2	.....	.....	8	16.91	429.5
Jeypore	N. 26 55	E. 75 50	5.05 p.m.	1431	436	28.23	717.0	29.65	753.1	88.2	31.2	50.6	2	6	13	4	.....	.....	4	1	.....	.....	.....	5	0.75	19.0
Zanzibar	S. 6 10	E. 39 11	2.45 p.m.	22	7	.....	.....	30.01	762.2	83.2	28.4	56.0	.....	.....	2	1	1	23	1	1	1	.....	.....	4	1.11	28.2
Italian Series.																										
Udine	N. 46 04	E. 13 14	1.01 p.m.	381	116	29.58*a*	751.3*a*	29.98*a*	761.5*a*	66.7	19.3	64.6	1	.....	1	3	5	.....	6	3	11	.....	.....	6	9.04	229.5
Milan	N. 45 28	E. 9 11	0.45 p.m.	482	147	29.08	738.6	29.98	761.4	68.7	20.4	60.6	.....	1	4	3	5	7	5	5	.....	.....	.....	6	5.97	151.6
Padua	N. 45 24	E. 11 53	0.56 p.m.	102	31	29.87	758.8	29.98	761.4	67.8	19.9	61.3	7	3	2	2	3	2	4	6	1	.....	.....	6	4.16	105.8
Moncalieri	N. 45 00	E. 7 42	0.39 p.m.	853	260	29.06	738.2	29.95	760.8	66.7	19.3	67.5	3	5	1	.....	5	8	7	1	.....	.....	.....	6	4.16	105.6
Genoa	N. 44 25	E. 8 55	0.44 p.m.	157	48	29.78	756.5	29.98	761.4	69.1	20.6	60.0	5	1	.....	7	5	9	2	1	.....	.....	.....	5	3.69	93.8
Mondovi	N. 44 22	E. 7 48	0.39 p.m.	1824	556	28.08	713.2	29.96	761.0	63.7	17.6	64.3	2	3	17	.....	.....	2	2	4	.....	.....	.....	4	5.36	136.1
Pesaro	N. 43 55	E. 12 53	1.00 p.m.	46	14	29.91	759.8	29.96	761.0	68.7	20.4	65.9	4	1	2	4	.....	2	5	12	.....	.....	.....	5	4.39	111.6
Florence	N. 43 46	E. 11 14	0.53 p.m.	240	73	29.71	754.7	29.96	761.0	69.6	20.9	54.2	3	5	6	7	4	.....	.....	8	.....	.....	.....	5	4.38	111.2
Leghorn	N. 43 32	E. 10 18	0.49 p.m.	79	24	29.88	759.0	29.97	761.1	70.0	21.1	64.9	2	2	6	9	3	1	1	6	.....	.....	.....	5	8.73	221.8
Rome	N. 41 54	E. 12 29	0.58 p.m.	164	50	29.79	756.6	29.96	760.9	74.7	23.7	48.5	5	4	7	7	6	1	.....	.....	.....	.....	.....	5	4.28	108.6
Lecce	N. 40 21	E. 18 12	1.21 p.m.	236	72	29.72	754.8	29.97	761.1	77.2	25.1	55.2	3	6	3	6	4	6	2	.....	.....	.....	.....	4	3.20	81.2
Cosenza	N. 39 13	E. 16 15	1.13 p.m.	840	256	29.10	739.1	29.97	761.1	77.0	25.0	58.9	1	1	1	3	2	16	5	1	.....	.....	.....	6	4.16	105.8
Cagliari	N. 39 13	E. 9 10	0.45 p.m.	180	55	29.78	756.5	29.97	761.2	77.0	25.0	48.7	.....	10	4	.....	6	6	2	.....	2	.....	.....	3	0.39	10.0
Palermo	N. 38 07	E. 13 22	1.02 p.m.	236	72	29.75	755.6	29.99	761.8	77.4	25.2	51.4	2	6	5	2	.....	.....	7	8	.....	.....	.....	4	1.08	27.3
Syracuse	N. 37 03	E. 15 18	1.09 p.m.	43	13	29.91	759.7	29.95	760.8	77.2	25.1	65.5	2	.....	2	3	8	4	8	3	.....	.....	.....	6	3.23	82.1
Sub-Series.																										
Naples	N. 40 52	E. 14 18	1.05 p.m.	489	149	29.44	747.8	29.93	760.1	73.0	22.8	65.8	2	.....	3	9	2	7	3	4	.....	.....	.....	5	5.92	150.4
Stelvio	N. 46 37	E. 10 26	0.50 p.m.	8343	2543	22.21	564.1	.....	.....	40.3	4.6	62.3	1	1	6	9	2	2	2	7	.....	.....	.....	7	3.25	82.5
Valdobbia	N. 45 47	E. 7 54	0.40 p.m.	8360	2548	22.24	564.9	.....	.....	43.0	6.1	74.3	16	2	3	.....	1	2	2	4	.....	.....	.....	7	4.66	118.4
Japanese Series.																										
Hiroshima	N. 34 20	E. 132 27	8.58 p.m.	14	4	29.87	758.7	29.89	759.2	73.2	22.9	80.5	17	.....	.....	5	3	.....	.....	5	.....	.....	.....	6	6.44	163.6
Kioto	N. 35 01	E. 135 46	9.11 p.m.	162	49	29.77	756.1	29.94	760.5	71.9	22.2	84.4	4	14	.....	2	5	1	2	2	.....	.....	.....	6	11.26	286.0
Nagasaki	N. 32 44	E. 129 51	8.47 p.m.	189	58	29.74	755.4	29.94	760.5	74.0	23.3	80.6	3	.....	3	5	5	.....	1	9	4	.....	.....	5	8.23	209.0
Niigata	N. 37 55	E. 139 03	9.24 p.m.	32	10	29.93	760.2	29.96	761.0	74.6	23.7	78.0	3	.....	3	2	1	11	3	7	.....	.....	.....	7	5.00	127.0
Nobiru	N. 38 23	E. 141 12	9.32 p.m.	15	5	29.97	761.2	29.99	761.7	69.7	20.9	89.3	4	10	.....	3	2	4	.....	6	1	.....	.....	7	7.88	200.2
Supporo	N. 43 04	E. 141 23	9.33 p.m.	61	19	29.88	758.9	29.94	760.5	61.1	16.2	85.9	1	4	2	1	4	9	5	.....	4	.....	.....	5	3.50	88.9
Tokei	N. 35 40	E. 139 45	9.27 p.m.	63	19	29.91	759.7	29.97	761.2	70.7	21.5	89.5	9	2	1	1	6	2	1	7	1	.....	.....	7	9.50	241.3
Wakayama	N. 34 14	E. 135 09	9.09 p.m.	48	15	29.90	759.4	29.95	760.7	75.0	23.9	82.2	7	1	2	3	5	.....	3	4	5	.....	.....	6	8.20	208.3
Mauritius Ser's.																										
Mauritius	S. 20 06	E. 57 33	3.58 p.m.	181	55	29.99	761.7	30.18	766.6	72.3	22.4	60.7	1	1	1	.....	.....	4	23	.....	.....	.....	.....	5	1.01	25.7
Mexican Series.																										
Guanajuato	N. 21 01	W. 100 48	5.24 a.m.	6683	2037	23.66	601.7	29.82	757.3	57.5	14.2	76.0	*a*	1	.....	.....	.....	1	1	9	17	.....	.....	5	4.07	103.3
Leon	N. 21 07	W. 101 35	5.22 a.m.	5902	1799	24.41	619.9	30.05	763.4	61.3	16.3	85.0	9	8	2	2	4	.....	3	2	.....	.....	.....	5	2.72	69.2
Muzatlan	N. 23 11	W. 106 17	5.03 a.m.	249	76	29.61	752.2	29.87	758.7	77.5	25.4	90.0	2*a*	4	1	.....	.....	4	8	9	1	.....	.....	7	22.48	571.0
Mexico	N. 19 26	W. 99 00	5.32 a.m.	7490	2283	23.09	586.6	30.09	764.4	54.3	12.4	82.0	.....	8	.....	.....	.....	.....	.....	.....	22	.....	.....	3	2.17	55.1
Morelia	N. 19 42	W. 101 06	5.22 a.m.	6247	1940	24.09	611.8	30.17	766.3	55.4	13.0	69.0	2*a*	2	.....	6	5	10	.....	4	.....	.....	.....	3	1.04	26.4
Pabellon	N. 22 04	W. 102 04	5.20 a.m.	6312	1924	23.92	608.0	29.91	759.7	59.1	15.1	80.0	5*b*	4	2	3	.....	1	.....	2	11	.....	.....	4	3.60	91.0
Puebla	N. 19 02	W. 98 03	5.36 a.m.	7113	2168	23.42	594.8	30.19	766.9	53.3	11.8	64.0	2	.....	.....	.....	.....	.....	.....	3	25	.....	.....	5	4.86	123.4
San Luis Potosi	N. 22 10	W. 100 51	5.25 a.m.	6211	1893	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tlacotalpam	N. 18 37	W. 95 32	5.46 a.m.	13	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Zacatecas	N. 22 44	W. 102 26	5.18 a.m.	8100	2469	22.57	573.2	30.16	766.2	53.6	12.0	75.0	.....	.....	1	.....	.....	4	5	15	5	.....	.....	5	0.48	12.0

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea. Feet.	Met'rs	Mean Barometer. Actual. Inch.	Mill.	Reduced. Inch.	Mill.	Mean Temperature. Fah.	Cent.	Mean Rel. Humidity.	Wind. Directions. N	NW	W	SW	S	SE	E	NE	C	Total Movement. Miles	Kil.	Average Cloudiness. 0–10	Total Precipitation. Inch.	Mill.
NETHERLAND SERIES.	° ′	° ′																								
Flushing	N. 51 24	E. 3 35	0.22 p.m.	0	0	29.98	761.6	29.98	761.6	62.2	16.8	.....	2	3	8	3	3	4	3	4	.....	.....	.....	.....	6.15	156.3
Groningen	N. 53 12	E. 6 34	0.34 p.m.	0	0	29.91	759.7	29.97	761.1	59.2	15.1	.....	1	5	2	3	6	.....	4	9	.....	.....	.....	.....	2.65	67.4
Helder	N. 52 58	E. 4 45	0.27 p.m.	0	0	29.94	760.5	29.94	760.5	58.5	14.7	.....	5	2	1	6	3	2	7	4	.....	.....	.....	.....	2.12	53.9
Hellevoetsluis	N. 51 49	E. 4 08	0.25 p.m.	0	0	29.96	761.0	29.96	761.0	61.5	16.4	81.2	2	6	4	4	4	3	5	2	.....	.....	.....	.....	5.30	134.6
Utrecht	N. 52 05	E. 5 07	0.29 p.m.	43	13	29.93	760.1	29.97	761.3	61.3	16.3	77.1	4	2	5	5	4	5	2	3	.....	.....	.....	7	2.63	66.8
NORWEGIAN SERIES.																										
Bergen	N. 60 24	E. 5 20	0.29 p.m.	56	17	29.94	760.4	30.00	762.0	58.8	14.9	65.7	2	1	3	1	7	4	2	.....	10	.....	.....	5	3.44	87.3
Christiania	N. 59 55	E. 10 45	0.51 p.m.	134	41	29.91	759.8	30.06	763.4	56.1	13.4	72.3	6	3	.....	8	2	3	4	4	.....	.....	.....	7	2.36	59.9
Gjæsvær	N. 71 07	E. 25 22	1.49 p.m.	23	7	30.02	762.6	30.05	763.2	43.5	6.4	.....	1	.....	10	3	2	2	5	2	5	.....	.....	9	.....	.....
Lodingen	N. 68 24	E. 16 01	1.12 p.m.	43	13	30.00	762.0	30.05	763.2	50.2	10.1	73.3	4	.....	.....	6	4	3	2	5	6	.....	.....	5	3.40	86.3
PORTUGUESE SERIES.																										
Angra	N. 38 39	W. 27 14	10.19 a.m.	144	44	29.89	759.3	30.05	763.3	68.9	20.5	80.6	6	6	5	4	1	3	2	3	.....	.....	.....	4	8.63	219.1
Campo Major	N. 39 02	W. 6 59	11.40 a.m.	945	288	29.06	738.2	30.02	762.5	79.7	26.5	36.0	.....	3	10	2	5	.....	9	1	.....	.....	.....	5	0.43	11.0
Funchal	N. 32 38	W. 16 55	11.00 a.m.	82	25	30.05	763.2	30.13	765.3	75.0	23.9	64.9	.....	.....	1	15	2	10	.....	.....	2	.....	.....	5	0.10	2.5
Lisbon	N. 38 42	W. 9 08	11.31 a.m.	335	102	29.74	755.3	30.09	764.2	72.7	22.6	54.4	4	4	2	6	5	1	1	6	1	.....	.....	4	0.69	17.6
Ponta Delgada	N. 37 45	W. 25 41	10.25 a.m.	66	20	30.02	762.6	30.10	764.4	73.2	22.9	71.4	4	4	1	5	5	2	2	3	4	.....	.....	4	3.07	77.9
RUSSIAN SERIES.																										
Akmolinski	N. 51 03	E. 71 22	4.54 p.m.	?	?	28.76	730.4	29.83	757.7	52.0	11.1	65.2	1	1	11	10	5	.....	.....	2	.....	.....	.....	6	.....	.....
Archangel	N. 64 33	E. 40 32	2.50 p.m.	16	5	30.06	763.4	30.08	763.9	46.0	7.8	77.5	5	6	5	1	3	.....	1	5	4	.....	.....	9	.....	.....
Astrakhan	N. 46 21	E. 48 02	3.20 p.m.	‖ 72	‖ 22	30.15	765.7	30.06	763.6	65.7	18.7	47.9	1	3	3	2	2	6	4	8	1	.....	.....	5	.....	.....
Barnaul	N. 53 20	E. 83 47	5.45 p.m.	482	147	29.33	744.9	29.82	757.3	52.7	11.5	63.2	.....	1	7	9	3	.....	.....	.....	10	.....	.....	8	.....	.....
Dorpat	N. 58 23	E. 26 43	1.55 p.m.	223	68	29.87	758.7	30.11	764.8	59.4	15.2	58.7	.....	2	4	6	6	3	4	5	.....	.....	.....	8	.....	.....
Ekaterinburg	N. 56 49	E. 60 35	4.11 p.m.	876	267	28.86	733.1	29.82	757.5	45.7	7.6	65.4	1	9	8	5	.....	2	.....	5	.....	.....	.....	9	.....	.....
Kasan	N. 55 47	E. 49 08	3.25 p.m.	249	76	29.70	754.3	29.97	761.2	53.8	12.1	56.1	3	10	4	5	2	1	1	1	3	.....	.....	6	.....	.....
Kertch	N. 45 21	E. 36 29	2.34 p.m.	20	6	29.96	761.0	29.98	761.5	67.3	19.6	69.1	5	4	.....	1	2	5	6	6	1	.....	.....	4	1.27	32.3
Kieff	N. 50 26	E. 30 31	2.10 p.m.	600	183	29.39	746.4	30.02	762.6	62.1	16.7	50.7	9	1	3	2	1	6	5	3	.....	.....	.....	6	.....	.....
Lugan	N. 48 35	E. 39 20	2.46 p.m.	187	57	29.84	757.9	30.04	762.9	66.6	19.2	42.4	1	2	3	5	2	.....	9	7	1	.....	.....	6	.....	.....
Moscow	N. 55 46	E. 37 40	2.39 p.m.	512	156	29.56	750.8	30.03	762.7	56.1	13.4	57.5	5	6	1	3	10	1	1	1	2	.....	.....	5	.....	.....
Nikolajev	N. 46 58	E. 31 58	2.16 p.m.	62	19	29.99	761.7	30.06	763.5	67.3	19.6	56.8	5	3	2	1	3	2	7	6	1	.....	.....	5	.....	.....
Nikolaievsk.....a	N. 53 08	E. 140 45	9.31 p.m.	59	18	29.78	756.3	29.86	758.5	52.2	11.2	84.4	.....	1	1	.....	.....	1	3	.....	23	.....	.....	5	2.46	62.4
Pekin	N. 39 57	E. 116 29	7.54 p.m.	125	38	29.84	757.8	29.98	761.4	68.4	20.2	71.1	.....	5	.....	2	1	1	.....	1	20	.....	.....	4	2.91	74.0
St. Petersburg	N. 59 56	E. 30 16	2.09 p.m.	16	5	30.08	764.0	30.10	764.4	56.8	13.8	69.5	1	6	5	1	3	6	3	4	1	.....	.....	7	.....	.....
Tashkend	N. 41 19	E. 69 16	4.45 p.m.	1621	494	28.43	722.0	29.95	760.6	71.1	21.7	59.3	1	2	.....	.....	.....	.....	.....	.....	27	.....	.....	1	.....	.....
Tiflis	N. 41 43	E. 44 47	3.07 p.m.	1342	409	28.59	726.1	29.94	760.5	77.9	25.5	47.1	1	6	1	.....	7	9	1	.....	5	.....	.....	4	.....	.....
Warsaw	N. 52 13	E. 21 02	1.32 p.m.	394	120	29.61	752.0	30.03	762.8	60.1	15.6	63.5	.....	4	1	4	2	6	8	3	2	.....	.....	8	.....	.....
Wilna	N. 54 41	E. 25 18	1.49 p.m.	387	118	29.67	753.7	30.09	764.3	60.4	15.8	61.5	.....	1	6	3	3	8	3	4	2	.....	.....	6	.....	.....
Yeniseisk	N. 58 27	E. 92 09	6.16 p.m.	128	39	29.59	751.6	29.87	758.8	44.2	6.8	77.3	.....	2	12	5	2	2	6	.....	1	.....	.....	7	.....	.....
SCOTTISH SERIES.																										
Leith	N. 55 58	W. 3 10	11.55 a.m.	83	25	.....	.....	30.01	762.2	57.2	14.0	78.5	.....	.....	9	2	.....	3	12	4	.....	.....	.....	7	3.33	84.6
Monach L.house	N. 57 31	W. 7 42	11.37 a.m.	150	46	.....	.....	29.96	761.0	56.1	13.4	93.6	3	3	3	2	2	7	4	6	.....	.....	.....	9	3.40	86.4
North Unst	N. 60 51	W. 0 53	0.04 p.m.	230	70	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
SPANISH SERIES.																										
Barcelona	N. 41 23	E. 2 11	0.16 p.m.	98	30	29.89	759.1	29.98	761.6	73.9	23.3	63.5	.....	.....	2	4	8	9	6	1	.....	.....	.....	2	4.90	124.4
Bilbao	N. 43 15	W. 2 59	11.56 a.m.	52	16	30.00	762.1	30.06	763.5	72.9	22.7	64.6	2	11	2	1	3	8	2	1	.....	.....	.....	7	5.24	133.1
Burgos	N. 42 20	W. 3 46	11.53 a.m.	2821	860	27.13	689.2	.....	.....	66.4	19.1	60.0	9	.....	3	13	2	.....	.....	3	.....	.....	.....	4	2.09	53.0
Madrid	N. 40 25	W. 3 42	11.53 a.m.	2152	656	27.85	707.4	30.01	762.2	75.7	24.3	38.6	3	3	7	6	4	3	3	1	.....	.....	.....	4	0.14	3.5
Murcia	N. 37 59	W. 1 10	0.03 p.m.	141	43	29.86	758.4	30.00	762.0	85.1	29.5	47.1	3	1	1	1	3	3	7	11	.....	.....	.....	5	0.02	0.6
Santiago	N. 42 53	W. 8 28	11.34 a.m.	863	263	29.10	739.1	29.97	761.3	68.0	20.0	71.8	3	2	2	10	5	4	.....	4	.....	.....	.....	7	6.88	174.8
Sub-Series.																										
Havana	N. 23 08	W. 82 28	7.39 a.m.	62	19	29.90	759.4	29.97	761.2	77.5	25.3	87.0	.....	.....	.....	.....	1	5	7	12	5	.....	.....	5	4.92	125.0
Manilla	N. 14 35	E. 121 00	8.12 p.m.	56	17	29.81	757.1	29.86	758.4	82.4	28.0	85.0	2	.....	1	8	6	5	7	1	.....	.....	.....	7	6.08	154.5
San Fernando	N. 36 28	W. 6 13	11.43 a.m.	95	29	29.98	761.5	30.08	764.0	77.4	25.2	57.5	.....	1	15	2	2	1	8	.....	1	.....	.....	6	0.08	1.9
San Juan de Porto Rico	N. 18 30	W. 66 10	7.44 a.m.	82	25	29.90	759.4	29.99	761.7	80.8	27.1	88.0	1	1	1	1	8	13	3	2	.....	.....	.....	6	9.07	230.3
Tuguegarao	N. 17 37	E. 121 30	8.15 p.m.	125	38	29.72	755.0	29.86	758.4	79.5	26.4	85.0	4	20	2	2	.....	2	.....	.....	.....	.....	.....	7	0.94	23.9
SWEDISH SERIES.																										
Haparanda	N. 65 47	E. 24 03	1.44 p.m.	29	9	30.09	764.3	30.13	765.3	50.9	10.5	75.0	5	2	.....	7	5	2	3	3	3	.....	.....	5	0.77	19.5
Umea	N. 63 50	E. 20 17	1.29 p.m.	39	12	30.07	763.8	30.12	765.1	54.5	12.5	72.0	3	2	2	6	6	1	3	6	1	.....	.....	6	1.60	40.6
Hernosand	N. 62 32	E. 17 57	1.20 p.m.	46	14	30.07	763.8	30.12	765.1	54.1	12.3	73.0	4	1	2	.....	9	3	2	9	.....	.....	.....	6	2.50	63.6
Stockholm	N. 59 20	E. 18 04	1.20 p.m.	144	44	29.89	759.1	30.06	763.6	55.8	13.2	77.0	5	1	.....	4	6	3	6	3	2	.....	.....	8	4.25	107.9
Wisby	N. 57 39	E. 18 19	1.20 p.m.	52	16	29.97	761.2	30.03	762.7	50.3	13.5	80.0	4	2	7	4	2	4	5	2	.....	.....	.....	7	3.06	77.7
Sub-Series.																										
Upsala	N. 59 51	E. 17 37	1.19 p.m.	79	24	29.89	759.3	29.98	761.5	54.9	12.7	75.4	6	3	2	4	3	3	4	5	.....	.....	.....	8	2.66	67.5
SWISS SERIES.																										
Geneva	N. 46 12	E. 6 08	0.33 p.m.	1338	408	28.62	727.0	30.02	762.6	61.5	16.4	66.6	13	3	.....	3	4	2	1	4	.....	.....	.....	6	5.16	131.0
Zurich.....‡	N. 47 22	E. 8 40	0.43 p.m.	1542	470	28.41	721.6	30.03	762.7	50.7	10.4	74.7	1	3	10	.....	.....	2	4	1	9	.....	.....	6	8.26	209.9
TURKISH SERIES.																										
Constantinople	N. 41 00	E. 28 59	2.04 p.m.	230	70	.....	.....	29.98	761.5	74.5	23.6	57.2	1	3	.....	7	.....	.....	.....	15	4	.....	.....	5	0.35	8.9
Valona	N. 40 27	E. 19 27	1.25 p.m.	105	32	.....	.....	30.07	763.8	75.6	24.2	.....	.....	6	15	1	7	1	.....	.....	.....	.....	.....	2	4.21	107.0
Sub-Series.																										
Beirut	N. 33 54	E. 35 28	2.30 p.m.	111	34	.....	.....	29.86	758.4	85.6	29.8	58.3	7	8	9	6	.....	.....	.....	.....	.....	.....	.....	1	0.77	19.6

SEPTEMBER, 1881.

‖ Below sea level.

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea: Feet.	Met'rs	Mean Barometer: Actual: Inch.	Actual: Mill.	Reduced: Inch.	Reduced: Mill.	Mean Temperature: Fah.	Cent.	Mean Rel. Humidity.	Wind: Directions: N	NW	W	SW	S	SE	E	NE	C	Total Movement: Miles	Kil.	Average Cloudiness. 0–10	Total Precipitation: Inch.	Mill.
U. S. Series.	° ′	° ′																								
Albany	N. 42 40	W. 73 45	7.13 a.m.	75	23	30.04	763.0	30.12	765.0	67.1	19.5	74.5	6	......	3	4	11	3	1	1	1	3734	6009	6	2.38	60.5
Alpena	N. 45 05	W. 83 28	6.34 a.m.	609	185	29.34	745.2	30.01	762.2	59.3	15.2	83.3	1	5	4	9	......	5	2	3	1	6896	11098	7	6.16	156.5
Atlanta	N. 33 45	W. 84 23	6.31 a.m.	1131	345	28.94	735.1	30.12	765.0	69.1	20.6	86.8	3	7	......	2	2	......	15	1	......	5173	8325	4	3.76	95.5
Atlantic City	N. 39 22	W. 74 25	7.11 a.m.	13	4	30.11	764.8	30.12	765.0	70.6	21.4	89.2	7	2	1	7	3	2	5	2	1	7136	11484	4	2.20	55.9
Augusta	N. 33 28	W. 81 54	6.41 a.m.	183	56	29.93	760.2	30.12	765.0	73.3	22.9	86.0	......	1	1	3	2	6	5	4	8	1964	3161	5	7.01	178.1
Baltimore	N. 39 18	W. 76 38	7.02 a.m.	45	14	30.07	763.8	30.12	765.0	71.6	22.0	80.0	5	......	2	2	5	3	5	4	4	3252	5234	5	2.98	75.7
Barnegat	N. 39 48	W. 74 09	7.12 a.m.	20	6	30.08	764.0	30.10	764.5	70.8	21.6	85.9	3	1	1	9	1	5	7	3	......	8872	14278	6	3.55	90.2
Bismarck	N. 46 48	W. 100 38	5.26 a.m.	1693	516	28.10	713.7	29.93	760.2	45.0	7.2	83.2	3	8	4	1	......	1	6	3	4	7218	11616	5	1.26	32.0
Boise City	N. 43 46	W. 116 06	4.24 a.m.	2750	838	27.20	690.9	30.04	763.0	44.6	7.0	68.2	3	10	9	2	......	......	......	1	5	3202	5153	3	0.25	6.3
Boston	N. 42 21	W. 71 04	7.23 a.m.	142	43	29.97	761.2	30.13	765.3	62.6	17.0	84.3	4	3	4	5	3	1	3	7	......	6342	10206	2	2.50	63.5
Brackettville	N. 29 17	W. 100 51	5.27 a.m.	1170	356	28.79	731.3	29.81	757.2	71.6	22.0	85.4	3	......	......	......	......	3	18	3	3	6144	9888	5	4.12	104.6
Brownsville	N. 26 00	W. 97 30	5.38 a.m	43	13	29.88	758.9	29.92	760.0	74.8	23.8	90.8	1	2	......	1	3	3	1	1	18	2541	4089	4	5.02	127.5
Buffalo	N. 42 53	W. 78 55	6.52 a.m.	664	202	29.34	745.2	30.06	763.5	67.2	19.6	77.3	......	1	3	13	4	3	2	4	......	5003	8051	5	1.21	30.7
Burlington	N. 44 29	W. 73 13	7.15 a.m.	268	82	29.79	756.7	30.08	764.0	63.2	17.3	78.9	5	......	2	1	15	4	2	1	......	5566	8958	2	2.34	59.4
Cairo	N. 37 00	W. 89 12	6.11 a.m.	377	115	29.68	753.9	30.08	764.0	68.8	20.4	82.2	4	1	1	2	18	1	......	3	......	4801	7726	3	2.74	69.6
Campo ....*f*	N. 32 22	W. 116 08	4.22 a.m.	2500	762	27.34	694.4	29.91	759.7	42.9	6.1	71.6	......	1	5	1	9	6	2	......	......	2567	4131	1	0.02	0.5
Camp Thomas	N. 32 04	W. 110 06	4.49 a.m.	2710	826	27.19	690.6	......	......	59.6	15.3	82.6	......	......	......	......	1	2	2	3	22	......	......	2	1.55	39.4
Cape Henry	N. 36 56	W. 76 00	7.04 a.m.	16	5	30.10	764.5	30.12	765.0	73.9	23.3	87.3	1	2	1	14	2	1	5	2	2	8094	13026	3	0.93	23.6
Cape May .... *b*	N. 38 56	W. 74 58	7.08 a.m.	27	8	30.08	764.0	30.11	764.8	72.3	22.4	84.3	3	1	2	9	3	3	3	4	......	8874	14281	2	1.22	31.0
Castroville .... *b*	N. 29 25	W. 98 50	5.33 a.m.	780	238	29.18	741.2	29.85	758.2	73.3	22.9	79.8	1	4	3	......	4	9	2	......	5	4419	7112	7	2.14	54.4
Cedar Keys	N. 29 12	W. 83 02	6.36 a.m.	22	7	30.03	762.7	30.05	763.3	76.6	24.8	85.9	1	2	1	......	......	1	7	18	......	6217	10005	2	7.41	188.2
Champaign	N. 40 07	W. 88 14	6.15 a.m.	767	234	29.19	741.4	29.96	761.0	63.8	17.7	84.9	1	1	1	9	11	6	......	1	......	7982	12846	4	4.89	124.2
Charleston	N. 32 45	W. 79 55	6.49 a.m.	52	16	30.04	763.0	30.10	764.5	77.1	25.1	87.1	6	1	2	2	3	2	3	8	3	5372	8645	4	5.49	139.4
Charlotte	N. 35 13	W. 80 51	6.45 a.m.	808	246	29.24	742.7	30.12	765.0	71.8	22.1	82.0	1	5	......	5	6	3	3	6	1	3283	5283	5	4.85	123.2
Chattanooga	N. 35 04	W. 85 15	6.27 a.m.	783	239	29.30	744.2	30.13	765.3	67.9	19.9	85.2	1	3	3	2	1	3	3	3	11	3143	5058	5	5.74	145.8
Cheyenne	N. 41 12	W. 104 42	5.09 a.m.	6089	1856	24.06	611.1	30.03	762.7	43.0	6.1	62.5	6	10	6	4	1	......	......	1	2	7432	11960	3	1.75	44.4
Chicago	N. 41 52	W. 87 35	6.18 a.m.	661	201	29.27	743.4	29.98	761.5	64.9	18.3	75.0	4	2	1	10	9	......	1	2	1	5906	9505	5	4.34	110.2
Chincoteague	N. 37 55	W. 75 20	7.06 a.m.	18	5	30.10	764.5	30.12	765.0	72.5	22.5	91.4	1	3	2	11	1	8	1	3	......	9837	15831	3	2.05	52.1
Cincinnati	N. 39 06	W. 84 26	6.30 a.m.	620	189	29.44	747.8	30.10	764.5	69.7	20.9	78.3	3	4	1	1	7	8	1	......	5	3388	5452	4	2.10	53.3
Cleveland	N. 41 30	W. 81 47	6.42 a.m.	690	210	29.34	745.2	30.08	764.0	68.0	20.0	72.6	1	2	1	4	11	8	1	1	1	5837	9394	6	1.66	42.2
Coleman City	N. 31 55	W. 99 10	5.32 a.m.	1709	521	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Columbus	N. 39 57	W. 83 03	6.36 a.m.	805	245	29.23	742.4	30.09	764.3	66.7	19.3	79.3	3	3	1	3	10	5	1	3	1	4010	6453	5	1.54	39.1
Concho	N. 31 22	W. 100 20	5.26 a.m.	1900	579	28.07	713.0	30.01	762.2	67.3	19.6	83.9	3	1	1	......	12	4	1	1	7	8398	13515	5	2.48	63.0
Corsicana	N. 32 05	W. 96 30	5.41 a.m.	448	136	29.56	750.8	30.03	762.7	71.7	22.1	75.7	4	1	......	......	14	2	......	2	7	4497	7237	3	4.03	102.4
Davenport	N. 41 32	W. 90 30	6.06 a.m.	615	187	29.29	744.0	29.95	760.7	63.9	17.7	77.0	2	2	3	9	4	......	5	4	1	6510	10477	5	5.59	142.0
Dayton	N. 46 23	W. 117 50	4.16 a.m.	1660	506	28.25	717.5	30.06	763.5	48.0	8.9	71.3	6	1	1	9	3	6	......	2	2	3560	5729	3	1.47	37.3
Deadwood	N. 44 22	W. 103 34	5.14 a.m.	4600	1402	25.34	643.6	30.05	763.3	45.0	7.2	72.8	3	......	1	5	6	......	......	6	9	3485	5608	4	1.80	45.7
Decatur .... *b*	N. 33 10	W. 97 30	5.38 a.m.	1150	350	28.80	731.5	29.93	760.2	70.1	21.2	65.4	4	......	......	3	11	8	......	2	......	8887	14302	3	7.57	192.3
Del. Breakwater	N. 38 48	W. 75 05	7.08 a.m.	20	6	30.08	764.0	30.10	764.5	71.4	21.9	89.6	4	......	5	4	6	5	5	1	......	10039	16156	4	0.50	12.7
Denison	N. 33 50	W. 96 40	5.41 a.m.	767	234	29.20	741.7	30.01	762.2	70.7	21.5	77.8	1	3	......	4	17	1	1	2	1	5472	8806	4	5.59	142.0
Denver	N. 39 45	W. 105 04	5.08 a.m.	5294	1614	24.78	629.4	30.00	762.0	49.1	9.5	60.0	4	2	......	......	18	5	......	......	1	4787	7704	2	0.57	14.5
Des Moines	N. 41 35	W. 93 40	5.53 a.m.	849	259	29.01	736.8	29.92	760.0	59.8	15.4	84.1	4	3	3	10	2	4	......	3	1	5520	8883	6	4.70	119.4
Detroit	N. 41 21	W. 83 07	6.30 a.m.	661	201	29.33	745.0	30.05	763.3	67.6	19.8	78.6	2	2	4	6	9	......	3	1	3	5051	9094	5	2.86	72.6
Dodge City	N. 37 39	W. 100 08	5.27 a.m.	2512	766	27.35	694.7	29.94	760.5	59.1	15.1	72.5	3	4	......	5	14	......	1	2	1	10137	16313	4	3.13	79.5
Dubuque	N. 42 30	W. 90 44	6.05 a.m.	665	203	29.21	741.9	29.93	760.2	60.4	15.8	80.0	1	3	2	2	14	4	......	2	2	3779	6082	6	10.26	260.6
Duluth	N. 46 48	W. 92 08	6.00 a.m.	644	184	29.18	741.2	29.89	759.2	53.5	11.9	84.8	2	7	4	6	1	......	......	10	......	6210	10004	6	11.52	292.6
Eagle Pass	N. 28 40	W. 100 15	5.26 a.m.	780	238	29.18	741.2	30.01	762.2	72.9	22.7	83.3	......	3	......	2	2	19	......	......	4	5193	8357	4	4.99	126.7
Eagle Rock	N. 43 30	W. 112 04	4.40 a.m.	4650	1415	25.25	641.3	30.10	764.5	39.0	3.9	53.8	11	2	3	7	4	......	......	......	3	8908	14432	4	0	0
Eastport	N. 44 55	W. 66 54	7.40 a.m.	61	18	30.05	763.3	30.12	765.0	55.2	12.9	85.8	3	10	......	4	4	......	1	7	1	4193	6748	4	2.80	71.1
El Paso	N. 31 46	W. 106 32	5.02 a.m.	3760	1146	26.22	666.0	29.97	761.2	63.0	17.2	70.7	3	5	5	......	......	2	1	3	11	2834	4561	3	1.44	36.6
Erie	N. 42 07	W. 80 10	6.47 a.m.	681	208	29.33	745.0	30.06	763.5	68.8	20.4	77.2	1	2	1	8	9	3	1	1	4	5753	9258	5	1.35	34.3
Escanaba	N. 45 46	W. 87 14	6.20 a.m.	612	186	29.27	743.4	29.93	760.2	56.6	13.7	88.0	6	2	2	2	5	7	1	3	2	5501	8949	7	9.48	240.8
Florence	N. 33 03	W. 111 17	4.43 a.m.	1480	451	28.38	720.8	29.98	761.5	66.1	18.9	66.5	1	......	8	2	3	1	7	2	6	2021	3252	2	1.00	25.4
Fort Apache *f*	N. 33 47	W. 109 58	4.49 a.m.	5050	1539	25.02	635.5	29.93	760.2	47.8	8.8	83.4	......	......	......	1	1	1	19	1	1	3784	6090	2	5.41	137.4
Fort Assinnaboine	N. 48 37	W. 109 43	4.49 a.m.	2710	826	27.12	688.8	29.93	760.2	43.2	6.2	75.2	......	......	6	11	3	3	......	4	3	6696	10776	5	1.64	41.7
Fort Bennett	N. 44 42	W. 100 38	5.26 a.m.	1510	457	28.32	719.3	29.86	758.4	49.7	9.8	84.5	5	7	5	......	3	5	1	1	3	6326	10181	6	2.74	69.6
Fort Benton	N. 47 51	W. 110 40	4.45 a.m.	2700	823	27.14	689.3	30.00	762.0	44.0	6.7	69.5	1	3	1	3	......	3	1	2	16	5775	9294	3	1.32	33.5
Fort Buford	N. 48 03	W. 103 58	5.12 a.m.	1900	579	27.97	710.4	29.98	761.5	42.1	5.6	83.6	1	12	7	1	1	3	4	1	......	6054	9743	4	0.58	14.7
Fort Custer	N 45 48	W. 107 38	4.58 a.m.	3040	927	26.79	685.0	30.03	762.7	44.0	6.7	70.4	7	6	......	3	3	4	1	2	4	5022	9048	4	1.09	27.7
Fort Davis	N. 30 30	W. 103 45	5.13 a.m.	4940	1506	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Fort Elliott	N. 35 31	W. 100 27	5.28 a.m.	2650	808	27.24	691.9	30.43	772.9	59.5	15.3	71.1	2	3	2	1	4	11	......	3	4	9165	14749	4	3.18	80.8
Fort Gibson	N. 35 43	W. 95 16	5.48 a.m.	540	165	29.42	747.3	29.97	761.2	68.2	20.1	68.1	2	1	1	2	7	10	......	......	7	6179	9944	3	2.79	70.9
Fort Grant	N. 32 25	W. 109 56	4.49 a.m.	4860	1481	......	......	......	......	59.6	15.3	68.5	6	......	......	2	1	......	5	13	3	4275	6880	2	3.84	97.5
Fort Griffin ......*c*	N. 32 53	W. 99 21	5.33 a.m.	1260	384	28.70	729.0	29.92	760.0	70.4	21.3	74.0	2	......	......	3	2	13	2	1	4	6090	10766	5	4.87	123.7
Fort Keogh	N. 40 17	W. 105 55	5.05 a.m.	2372	723	27.45	697.2	29.99	761.7	44.5	6.9	76.4	2	6	6	2	......	5	1	6	2	6195	9970	5	0.55	14.0
Fort Macon	N. 34 42	W. 76 40	7.01 a.m.	11	3	30.11	764.8	30.12	765.0	70.0	24.4	86.7	3	5	1	5	2	9	2	3	......	7309	11859	5	4.85	123.2
Fort McKavett *c*	N. 30 48	W. 99 58	5.28 a.m.	2240	683	27.76	705.1	29.62	752.3	67.2	19.6	76.3	......	2	......	2	9	2	6	......	6	6853	11029	4	1.15	29.2
Fort Missoula	N. 46 50	W. 114 01	4.32 a.m.	3140	957	26.70	678.2	30.22	767.6	41.4	5.3	82.7	......	9	......	6	4	1	1	3	6	2433	3915	4	1.05	26.7
Fort St. Michael	N. 63 48	W. 162 00	1.20 a.m.	30	9	29.75	755.6	29.78	756.4	44.8	7.1	88.6	1	2	......	4	11	5	6	1	......	5208	8381	9	3.40	86.4
Fort Shaw	N. 47 29	W. 111 46	4.41 a.m.	3550	1082	26.35	669.3	29.95	760.7	42.6	5.9	78.2	......	4	10	4	......	......	......	6	......	5902	9498	5	0.96	24.4
Fort Sill	N. 34 40	W. 98 30	5.34 a.m.	1200	366	28.74	730.0	29.99	761.7	67.0	19.4	75.0	4	1	......	1	16	......	1	......	7	10505	17002	4	4.46	113.3
Fort Stevenson	N. 47 36	W. 101 23	5.22 a.m.	1750	534	28.08	713.2	29.95	760.7	44.2	6.8	82.7	4	6	8	1	1	3	3	0	4	5995	9648	5	2.10	53.3
Fort Verde	N. 34 24	W. 111 53	4.38 a.m.	?	?	......	......	......	......	56.3	13.5	66.4	4	14	7	1	......	2	......	1	1	......	......	2	1.88	47.8
Fredericksburg *a*	N. 30 20	W. 98 40	5.33 a.m.	1700	518	28.26	717.8	29.77	756.1	69.3	20.7	85.0	2	2	2	8	7	......	......	3	5	5174	8327	6	2.14	54.4
Galveston	N. 29 18	W. 94 50	5.49 a.m.	40	12	29.95	760.7	29.99	761.7	78.6	25.9	77.6	3	2	2	......	10	8	1	2	2	7332	11800	3	3.66	93.0
Grand Haven	N. 43 05	W. 86 18	6.23 a.m.	620	189	29.31	744.5	29.98	761.5	63.7	17.6	83.9	2	3	1	1	5	7	6	2	3	7202	11687	5	6.71	170.4
Hatteras	N. 35 14	W. 75 30	7.06 a.m.	19	6	30.10	764.5	30.12	765.0	70.3	24.6	84.4	5	......	......	6	2	4	2	4	7	8336	13415	4	4.45	113.0
Helena	N. 46 33	W. 112 02	4.40 a.m.	4100	1250	25.77	654.5	30.16	766.1	49.9	9.9	68.2	......	2	......	4	17	1	......	......	6	4904	7989	3	2.49	63.2
Henrietta ....*b*	N. 33 42	W. 98 00	5.36 a.m.	980	300	28.96	735.6	29.85	758.2	73.2	22.9	64.8	3	1	......	1	10	12	......	1	......	9661	15548	2	2.43	61.7
Huron	N 44 21	W. 98 17	5 35 a.m.	1305	398	28.52	724.4	29.90	759.4	48.8	9.3	88.7	6	7	......	5	2	6	......	4	......	8039	12937	5	3.11	79.0
Indianapolis	N. 39 47	W. 86 06	6.24 a.m.	753	229	29.24	742.7	30.04	763.0	67.1	19.5	77.8	2	......	1	9	8	4	2	1	3	3759	6049	3	3.25	82.5
Indianola	N. 28 32	W. 96 38	5.42 a.m.	26	8	29.94	760.5	29.98	761.5	77.4	25.2	85.4	2	1	1	2	10	10	1	3	......	8300	13367	4	6.51	165.4
Jacksboro	N. 33 10	W. 98 00	5.35 a.m.	1120	341	28.82	732.0	29.91	759.7	69.2	20.7	76.3	2	2	......	6	10	7	1	2	......	7373	11866	3	6.32	160.5
Jacksonville	N. 30 24	W. 81 40	6.41 a.m.	43	13	30.02	762.5	30.06	763.5	70.4	24.7	84.4	......	......	......	4	1	3	7	15	......	4888	7866	3	4.58	116.3
Keokuk	N. 40 23	W. 91 25	6.02 a.m.	618	188	29.28	743.7	29.94	760.5	66.2	19.0	76.1	......	2	1	7	9	4	3	1	3	6939	11167	4	4.10	104.1
Key West	N. 24 32	W. 81 48	6.41 a.m.	27	8	29.95	760.7	29.98	761.5	80.5	26.9	82.4	......	1	1	2	2	2	14	4	4	4792	7712	6	10.71	272.0
Kitty Hawk	N. 36 00	W. 75 23	7.05 a.m.	22	7	30.12	765.0	30.14	765.5	74.3	23.5	87.6	3	1	2	8	2	3	5	4	2	8553	13764	3	0.49	12.4
Knoxville	N. 35 56	W. 83 58	6.32 a.m.	980	299	29.12	739.6	30.16	766.1	66.1	18.9	88.6	3	......	2	2	......	1	3	6	13	2629	4231	4	2.31	58.7
La Crosse	N. 43 48	W. 91 23	6.03 a.m.	702	214	29.11	739.4	29.88	758.9	60.1	15.6	80.5	3	2	5	2	12	3	......	3	......	6045	9728	5	10.87	276.1
La Mesilla	N. 32 17	W. 106 48	5.01 a.m.	3900	1189	26.11	663.2	30.26	768.6	57.1	13.9	77.6	1	......	......	......	......	2	......	......	27	804	1390	4	1.90	49.8
Laredo	N. 27 32	W. 99 26	5.30 a.m.	460	136	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Leavenworth	N. 39 19	W. 94 58	5.48 a.m.	842	256	29.06	738.1	29.96	761.0	63.2	17.3	73.4	2	6	......	2	12	5	......	1	2	6325	10179	5	6.89	175.0
Lewiston	N. 46 25	W. 116 59	4.20 a.m.	780	238	29.16	740.7	30.01	762.2	50.4	10.2	69.2	......	......	4	4	......	2	3	7	10	1978	3183	4	1.17	29.7
Little Rock	N. 34 40	W. 92 12	5.59 a.m.	298	91	29.71	754.6	30.03	762.7	68.9	20.5	83.5	2	1	3	1	7	3	1	1	11	3427	5515	3	1.87	47.5
Los Angeles	N. 34 03	W. 118 16	4.15 a.m.	371	113	29.54	750.3	29.92	760.0	57.9	14.4	81.1	1	2	2	13	3	6	3	......	......	3938	6338	2	inap.	inap
Louisville	N. 38 18	W 85 52	6.25 a.m.	530	162	29.48	748.8	30.06	763.5	69.0	20.6	79.6	3	......	1	4	12	3	1	1	5	4071	7517	4	2.70	68.6
Lynchburg	N. 37 30	W. 79 02	6.52 a.m.	652	199	29.43	747.5	30.12	765.0	72.9	22.7	75.3	......	1	1	1	......	......	2	2	23	1351	2174	3	2.07	52.6
Madison	N. 43 03	W. 89 30	6.10 a.m.	949	289	28.92	734.6	29.95	760.7	59.7	15.4	86.8	3	2	2	5	7	7	4	......	......	6804	11046	5	8.17	207.5
Marquette	N. 46 33	W. 87 36	6.19 a.m.	673	205	29.19	741.4	29.92	760.0	55.2	12.9	85.8	4	3	6	6	3	4	1	1	2	6241	10044	8	12.71	322.8
Mason	N. 30 42	W. 99 02	5.32 a.m.	1620	494	28.36	720.3	30.06	763.5	69.3	20.7	81.1	4	1	1	2	6	2	......	......	14	5798	9331	5	5.26	133.6
Memphis	N. 35 07	W. 90 07	6.08 a.m.	321	98	29.73	755.1	30.07	763.8	70.0	21.1	77.6	1	1	......	......	2	3	1	2	20	1873	3014	3	3.84	97.5
Milwaukee	N. 43 03	W. 87 54	6.17 a.m.	697	212	29.20	741.7	29.96	761.0	60.7	15.9	84.5	4	3	......	4	10	6	1	......	2	7383	11882	5	4.28	108.7
Mobile	N. 30 42	W. 87 59	6.16 a.m.	69	21	29.97	761.2	30.04	763.0	73.4	23.0	80.5	7	0	2	1	1	1	8	4	......	4700	7564	4	11.71	297.4
Montgomery	N. 32 22	W. 86 23	6.23 a.m.	219	66	29.85	758.2	30.08	764.0	70.8	21.6	87.0	2	4	......	2	......	5	11	3	3	2525	4064	4	4.49	114.0
Moorhead	N. 46 52	W. 96 40	5.41 a.m.	923	281	28.90	734.0	29.91	759.7	46.6	8.1	90.1	6	5	4	1	1	4	2	5	2	7095	11418	6	4.75	120.6
Morgantown	N. 39 36	W. 79 52	6.48 a.m.	963	293	29.11	739.4	30.07	763.8	66.5	19.2	84.6	3	1	1	8	......	2	1	1	13	2590	4168	5	2.78	70.6
Mt. Washington	N. 44 16	W. 71 16	7.22 a.m.	6279	1914	23.97	608.8	30.17	766.3	47.3	8.5	78.7	1	19	2	2	2	......	......	3	1	25957	41773	3	6.13	155.7

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea. Feet.	Met'rs	Result of Simultaneous Observations for September, 1881. Mean Barometer. Actual. Inch.	Mill.	Reduced. Inch.	Mill.	Mean Temperature. Fah.	Cent.	Mean Rel. Humidity.	Wind. Directions. N	NW	W	SW	S	SE	E	NE	C	Total Movement. Miles	Kil.	Average Cloudiness. 0–10	Total Precipitation. Inch.	Mill.
U.S. Series—*Continued.*	° ′	° ′																								
Nashville	N. 36 11	W. 86 53	6.21 a.m.	507	154	29.54	750.3	30.08	764.0	68.3	20.2	83.6	.....	4	1	1	3	8	2	1	10	2696	4339	3	6.49	164.8
New Haven	N. 41 17	W. 72 57	7.16 a.m.	107	32	30.01	762.2	30.12	765.0	64.9	18.3	82.8	4	2	.....	6	5	.....	1	10	2	4540	7306	4	1.45	36.8
New London	N. 41 22	W. 72 09	7.19 a.m.	47	14	30.08	764.0	30.13	765.3	65.9	18.8	86.8	4	3	4	1	2	1	1	8	6	4165	6703	3	1.37	34.8
New Orleans	N. 29 58	W. 90 07	6.08 a.m.	52	16	29.96	761.0	30.02	762.5	76.5	24.7	80.8	6	2	1	1	1	3	11	2	3	5142	8275	3	4.47	113.5
Newport	N. 41 29	W. 71 19	7.23 a.m.	44	13	30.07	763.8	30.12	765.0	64.5	18.1	87.7	9	1	.....	9	1	2	1	5	2	4704	7570	4	2.65	67.3
New River	N. 34 30	W. 77 23	6.58 a.m.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Shoreham	N. 41 10	W. 71 37	7.22 a.m.	27	8	30.09	764.3	30.12	765.0	65.0	18.3	87.1	1	3	.....	10	2	2	1	10	1	9884	15906	2	3.78	96.0
New York	N. 40 43	W. 74 00	7.12 a.m.	164	50	29.95	760.7	30.13	765.3	67.5	19.7	85.3	1	2	.....	7	3	1	4	12	.....	6216	10004	5	1.38	35.1
Norfolk	N. 36 51	W. 76 19	7.03 a.m.	30	9	30.09	764.3	30.12	765.0	73.2	22.9	86.6	1	1	5	11	.....	5	3	1	3	4590	7387	5	2.67	67.8
North Platte	N. 41 08	W. 100 53	5.24 a.m.	2841	866	27.03	686.5	29.97	761.2	50.3	10.2	81.4	6	8	3	2	1	1	3	5	1	9645	15522	5	2.36	59.9
Olympia	N. 47 02	W. 122 56	3.56 a.m.	36	11	29.96	761.0	30.00	762.0	48.7	9.3	90.4	3	1	3	3	13	1	2	4	.....	2734	4400	4	2.47	62.7
Omaha	N. 41 16	W. 96 00	5.45 a.m.	1113	339	28.75	730.2	29.94	760.5	59.3	15.2	78.6	6	3	1	4	10	5	1	.....	.....	7579	12197	5	8.36	212.3
Oswego	N. 43 29	W. 76 35	7.01 a.m.	304	93	29.72	754.9	30.05	763.3	66.8	19.3	78.3	2	3	1	2	11	7	2	2	.....	5064	8150	5	0.76	19.3
Pensacola	N. 30 25	W. 87 12	6.19 a.m.	30	9	30.01	762.2	30.04	763.0	74.2	23.4	87.6	3	4	1	3	4	3	4	8	.....	5444	8701	4	8.47	215.1
Philadelphia	N. 39 57	W. 75 10	7.07 a.m.	52	16	30.07	763.8	30.13	765.3	69.6	20.9	83.8	3	1	8	2	3	5	5	3	.....	5845	9406	4	0.94	23.9
Phœnix	N. 33 18	W. 112 00	4.40 a.m.	1120	341	28.74	730.0	30.49	774.4	64.3	17.9	63.5	.....	1	1	2	.....	.....	17	5	4	1079	1736	2	1.04	26.4
Pikes Peak	N. 38 48	W. 104 59	5.07 a.m.	14134	4308	17.86	453.6	30.07	763.8	26.9	—2.8	68.8	3	1	1	22	.....	.....	.....	1	2	14221	22886	2	1.85	47.0
Pioche	N. 37 57	W. 114 26	4.30 a.m.	6110	1862	24.08	611.6	30.10	764.5	51.1	10.6	34.1	.....	8	3	2	13	.....	.....	.....	4	5165	8312	1	0	0
Pittsburg	N. 40 32	W. 80 02	6.48 a.m.	776	236	29.29	744.0	30.11	764.8	68.2	20.1	79.1	1	4	8	1	8	1	2	1	4	3870	6228	4	0.76	19.3
Port Eads	N. 29 00	W. 89 15	6.11 a.m.	7	2	30.01	762.2	30.02	762.5	78.2	25.7	82.9	1	1	1	1	2	7	11	5	1	8199	13195	3	7.24	183.9
Port Huron	N. 42 58	W. 82 29	6.38 a.m.	633	193	29.34	745.2	30.03	762.7	63.4	17.4	83.9	3	2	.....	6	7	7	2	3	.....	6694	10773	4	2.86	72.6
Portland, Maine	N. 43 40	W. 70 16	7.27 a.m.	45	14	30.07	763.8	30.12	765.0	61.2	16.2	81.6	4	3	2	4	3	4	3	6	1	4435	7137	6	2.75	69.8
Portland, Oregon	N. 45 30	W. 122 28	3.57 a.m.	67	20	29.96	761.0	30.04	763.0	52.2	11.2	87.3	3	7	1	2	3	3	.....	.....	11	3674	5913	4	2.64	67.1
Portsmouth	N. 35 02	W. 76 04	7.04 a.m.	40	12	.....	.....	.....	.....	77.1	25.1	80.2	3	1	1	10	6	.....	1	8	.....	8503	13780	4	3.29	83.6
Prescott	N. 34 29	W. 112 13	4.38 a.m.	5340	1628	24.76	628.9	29.95	760.7	49.5	9.7	72.3	...	.....	6	2	20	.....	.....	.....	2	3982	6408	1	1.69	42.9
Punta Rassa	N. 26 36	W. 82 10	6.40 a.m.	13	4	29.97	761.2	29.98	761.5	77.9	25.5	85.1	1	.....	.....	.....	1	1	11	16	.....	5940	9559	5	7.20	182.9
Red Bluff	N. 40 10	W. 122 16	3.59 a.m.	350	106	29.55	750.6	29.89	759.2	61.7	16.5	55.0	10	8	.....	1	.....	2	.....	.....	9	3894	6267	1	1.07	27.2
Rio Grande City	N. 26 22	W. 98 45	5.33 a.m.	230	70	29.76	755.9	29.96	761.0	73.4	23.0	83.5	1	.....	.....	1	2	10	1	.....	15	4504	7248	3	3.71	94.2
Rochester	N. 43 08	W. 77 51	6.58 a.m.	589	179	29.43	747.5	30.07	763.8	66.3	19.1	79.7	1	2	7	11	5	1	3	.....	.....	5967	9603	6	1.82	46.2
Roseburg	N. 43 10	W. 123 16	3.55 a.m.	511	156	29.49	749.0	30.07	763.8	49.9	9.9	87.7	1	.....	.....	3	2	.....	2	2	20	2246	3615	5	0.72	18.3
Sacramento	N. 38 35	W. 121 31	4.02 a.m.	70	21	29.82	757.4	29.90	759.4	57.6	14.2	69.0	3	2	1	1	2	16	....	1	4	4694	7554	1	0.30	7.6
Saint Louis	N. 38 37	W. 90 15	6.07 a.m.	568	173	29.41	747.0	30.02	762.5	67.3	19.6	78.2	1	5	.....	2	16	4	.....	1	1	6967	11212	4	3.14	79.8
Saint Paul	N. 44 53	W. 93 05	5.56 a.m.	811	247	29.00	736.6	29.88	758.9	54.4	12.4	88.6	3	6	1	5	2	4	5	4	.....	7416	11935	7	9.95	252.7
Saint Vincent	N. 48 58	W. 97 03	5.40 a.m.	804	245	29.01	736.8	29.90	759.4	44.0	6.7	90.1	1	11	3	4	3	3	2	.....	3	5841	9400	6	1.99	50.5
Salt Lake City	N. 41 10	W. 112 00	4.40 a.m.	4348	1325	25.60	650.2	29.93	760.2	51.7	10.9	35.5	1	3	.....	.....	.....	6	1	1	18	3916	6302	3	0.43	10.9
San Antonio	N. 29 28	W. 98 22	5.34 a.m.	673	205	29.28	743.7	29.98	761.5	71.4	21.9	88.5	3	.....	.....	.....	1	7	6	2	11	4239	6822	5	5.86	148.8
San Diego	N. 32 32	W. 117 08	4.20 a.m.	67	20	29.77	756.1	29.84	757.9	62.1	16.7	81.4	1	5	2	1	6	.....	3	2	4	4082	6569	5	0.04	1.0
Sandusky	N. 41 27	W. 82 43	6.37 a.m.	639	195	29.36	745.7	30.05	763.3	68.5	20.3	77.8	.....	3	5	14	2	4	.....	2	.....	8072	12990	4	3.78	96.0
Sandy Hook	N. 40 28	W. 74 01	7.12 a.m.	28	8	30.09	764.3	30.12	765.0	70.5	21.4	84.3	3	5	4	4	1	5	3	4	1	8201	13198	5	3.57	90.7
San Francisco	N. 37 48	W. 122 26	3.58 a.m.	60	18	29.86	758.4	29.92	760.0	54.5	12.5	86.9	...	.....	12	13	.....	.....	.....	.....	5	7104	11432	3	0.25	6.3
Santa Fé	N. 35 41	W. 106 10	5.04 a.m.	7064	2153	23.31	592.1	30.11	764.8	49.0	9.4	66.4	3	2	...	1	2	5	5	1	11	3318	5340	3	0.91	23.1
Savannah	N. 32 05	W. 81 08	6.44 a.m.	87	26	30.00	762.0	30.08	764.0	76.3	24.6	88.6	0	2	2	2	4	4	2	6	2	4010	6453	5	3.09	78.5
Shreveport	N. 32 30	W. 93 45	5.54 a.m.	227	69	29.80	756.9	30.03	762.7	69.4	20.8	84.4	1	.....	2	2	7	6	.....	2	10	3318	5340	3	5.90	149.9
Silver City	N. 32 48	W. 108 15	4.55 a.m.	5890	1795	24.29	617.0	29.86	758.4	53.8	12.1	68.7	.....	13	.....	.....	1	.....	.....	.....	16	1486	2392	3	3.89	98.8
Sitka	N. 57 03	W. 135 19	3.07 a m.	63	19	29.82	757.4	29.89	759.2	52.0	11.1	86.9	2	3	2	4	1	6	4	5	3	5273	8486	7	12.11	307.6
Smithville	N. 33 55	W. 78 01	6.56 a.m.	34	10	30.07	763.8	30.11	764.8	75.5	24.2	86.4	4	3	3	3	4	5	.....	6	2	6815	10967	5	4.42	112.3
Spokane Falls	N. 47 39	W. 117 24	4.18 a.m.	1910?	582?	27.94	709.7	29.96	761.0	44.5	6.9	84.5	3	4	2	8	1	3	4	3	2	3472	5588	4	2.55	64.8
Springfield, Ill.	N. 39 48	W. 89 48	6.10 a.m.	644	196	29.32	744.7	30.01	762.2	65.5	18.6	80.9	1	2	.....	4	16	5	.....	2	....	6082	9784	4	6.43	163.3
Springfield, Mass.	N. 42 06	W. 72 36	7.18 a.m.	120	37	30.00	762.0	30.12	765.0	64.6	18.1	86.0	6	2	.....	.....	10	1	1	5	5	2652	4268	5	0.99	25.1
Stockton	N. 30 50	W. 102 50	5.16 a.m.	3010	917	26.97	685.0	30.04	763.0	64.9	18.3	85.1	.....	.....	2	3	10	9	.....	.....	6	7891	12699	3	1.71	43.4
Thatcher's Island	N. 42 36	W. 70 34	7.26 a.m.	48	15	30.08	764.0	30.14	765.5	61.7	16.5	91.2	2	3	3	5	5	.....	5	7	.....	7126	11468	5	3.76	95.5
Toledo	N. 41 40	W. 83 32	6.34 a.m.	651	198	29.34	745.2	30.04	763.0	66.9	19.4	81.1	2	1	6	4	7	7	2	.....	1	5370	8642	4	5.33	135.4
Tucson	N. 32 14	W. 110 56	4.44 a.m.	2369	722	27.41	696.2	29.77	756.1	66.5	19.2	69.8	1	.....	.....	2	9	16	.....	.....	2	2348	3779	2	2.37	60.2
Umatilla	N. 45 55	W. 119 21	4.11 a.m.	340	103	29.65	753.1	30.06	763.5	51.8	11.0	69.1	.....	1	5	5	3	9	3	2	2	6038	10083	5	0.74	18.8
Uvalde *a*	N. 29 13	W. 99 40	5.29 a.m.	930	283	29.00	736.6	29.79	756.7	72.1	22.3	83.7	1	1	.....	....	.....	11	2	.....	14	3242	5217	6	1.44	36.6
Vicksburg	N. 32 23	W. 90 54	6.04 a.m.	244	74	29.78	756.4	30.04	763.0	69.9	21.1	83.4	4	.....	.....	2	2	11	8	3	.....	3527	5676	4	6.11	155.2
Visalia	N. 36 20	W. 119 16	4.11 a.m.	348	106	29.49	749.0	29.85	758.2	56.5	13.6	87.3	1	11	1	.....	1	11	4	.....	1	2367	3809	1	0.09	2.3
Washington, D.C.	N. 38 53	W. 77 01	7.00 a.m.	106	32	30.00	762.0	30.11	764.8	70.7	21.5	87.3	4	5	1	2	7	1	3	3	4	2654	4271	5	2.19	55.6
Wickenburg *b*	N. 33 58	W. 112 42	4.37 a.m.	?	?	.....	.....	.....	.....	58.6	14.8	79.4	1	.....	1	.....	.....	.....	..	.....	26	.....	.....	1	1.16	29.5
Wilmington	N. 34 11	W. 78 10	6.56 a.m.	52	16	30.05	763.3	30.11	764.8	74.9	23.8	84.7	3	.....	1	3	2	2	...	4	15	3456	5562	4	3.50	88.9
Winnemucca	N. 41 00	W. 119 21	4.17 a.m.	4327	1319	25.62	650.7	29.95	760.7	42.4	5.8	44.3	2	1	...	4	6	3	.....	14	.....	5979	9622	1	0.12	3.0
Wood's Holl	N. 41 33	W. 70 40	7.26 a.m.	35	11	30.08	764.0	30.11	764.8	64.4	18.0	89.9	1	2	1	7	2	2	6	7	2	7893	12702	4	2.50	63.5
Yankton	N. 42 45	W. 97 30	5.38 a.m.	1228	374	28.61	726.7	29.92	760.0	53.8	12.1	83.6	3	5	1	3	.....	1	3	5	9	6026	9698	5	8.61	218.7
Yuma	N. 32 44	W. 114 36	4.30 a.m.	141	43	29.63	752.6	29.77	756.1	71.5	21.9	68.3	.....	6	1	3	1	7	1	5	6	3430	5520	1	0.05	1.3
Sub-Series.																										
Bogota	N. 4 36	W. 74 14	7.41 a.m.	8704	2653	22.06	560.3	.....	.....	52.9	11.6	73.8	1	.....	1	2	4	9	4	1	8	.....	.....	8	2.33	59.2
Bridgetown ‡	N. 13 12	W. 59 35	8.10 a.m.	?	?	29.98	761.5	30.00	762.0	82.8	28.2	89.2	.....	.....	1	.....	.....	3	21	5	.....	.....	.....	9	11.98	304.3
Gaudeloupe ‡	N. 16 12	W. 61 40	8.01 a.m.	?	?	29.89	759.2	29.89	759.2	81.5	27.5	87.6	.....	.....	.....	.....	.....	5	25	.....	.....	.....	.....	7	5.20	132.1
Havana	N. 23 09	W. 82 22	6.39 a.m.	50	15	29.94	760.5	29.99	761.7	79.5	26.4	77.3	.....	.....	.....	.....	.....	2	.....	.....	28	.....	.....	7	5.28	134.1
Kingston	N. 18 58	W. 76 48	7.01 a.m.	10	3	29.95	760.7	29.96	761.0	77.9	25.5	71.9	1	.....	.....	.....	.....	1	1	.....	27	.....	.....	7	2.20	55.9
Navassa	N. 18 25	W. 75 03	7.43 a.m.	77	23	29.85	758.2	29.93	760.2	82.0	27.8	80.7	1	.....	.....	.....	.....	.....	16	13	.....	.....	.....	7	4.70	119.4
Paramaribo	N. 5 50	W. 55 13	8.27 a.m.	6	2	30.02	762.5	30.02	762.5	80.1	26.7	80.5	.....	.....	.....	.....	.....	20	4	.....	.....	.....	.....	5	9.20	233.7
Puerto Berrio	N. 6 32	W. 74 28	7.10 a.m.	542	165	29.42	747.3	29.98	761.5	78.0	25.6	89.8	3	.....	.....	.....	4	.....	.....	2	21	.....	.....	9	16.36	415.5
Rivas	N. 11 26	W. 85 47	6.25 a.m.	150	46	.....	.....	.....	.....	75.4	24.1	.....	.....	.....	1	1	1	4	2	5	16	.....	.....	5	7.42	188.5
Santiago deCuba	N. 19 55	W. 75 50	7.04 a.m.	21	6	29.94	760.5	29.97	761.2	84.4	29.1	80.8	10	2	.....	.....	.....	1	.....	.....	17	.....	.....	5	8.57	217.7
St. Thomas ‡	N. 18 20	W. 64 56	7.48 a.m.	110	33	29.99	761.7	30.00	762.0	81.4	27.4	80.6	...	.....	....	1	1	8	15	5	.....	.....	.....	5	7.83	198.9
York Factory	N. 57 02	W. 92 26	5.58 a.m.	51	15	29.97	761.2	30.02	762.5	36.2	2.3	95.4	8	7	3	3	5	2	2	.....	.....	.....	.....	6	1.18	30.0

Ocean Square Data for September 1881.

Location of centre of each square.		No. of days.	No. of ob's.	Barometer.		Temperature.		Wind Frequency.										Wind force 0–10.
				Inch.	Mill.	Fah.	Cent.	N.	NW.	W.	SW.	S.	SE.	E.	NE.	Calm.	Blank.	
°	°																	
N. 7.5	W. 27.5	6	6															
12.5	22.5			29.99	761.7	81.1	27.3	5				8	2	3	4	8		1.5
12.5	27.5	10	14	29.99	761.7	81.1	27.3	5	2		4	5	3		7	2	2	1.5
12.5	32.5	4	4															
12.5	47.5	2	2															
12.5	52.5	9	10															
12.5	57.5	2	2															
17.5	22.5			30.02	762.5	79.8	26.6	8	2				1	1	13	4	1	2.0
17.5	27.5	8	8	30.02	762.5	80.4	26.9	6	4		1	1	2	1	12	1	2	1.9
17.5	32.5	5	5															
17.5	37.5	1	1															
17.5	42.5	2	2															
17.5	47.5	1	1															
22.5	27.5	2	2															
22.5	32.5	3	3															
22.5	37.5	9	10															
22.5	42.5	4	4															
22.5	67.5	1	1															
27.5	32.5	2	2															
27.5	37.5	6	6															
27.5	52.5	6	6															
27.5	67.5	3	3															
27.5	72.5			30.03	762.7	81.2	27.3	3	1	6	5	10	5					1.3
27.5	77.5			30.02	762.5	81.5	27.5	3			1	6	5	10	5			1.2
32.5	12.5	1	1	30.11	764.8	75.4	24.1	1			13	3	9		2	2		1.1
32.5	17.5	11	12	30.13	765.3	75.2	24.0	2			15	2	8		3			1.3
32.5	22.5			30.11	764.8	74.6	23.7	5		1	12	3	5	1	3			1.5
32.5	27.5			30.07	763.8	74.2	23.4	8	3		6	5	3		5			1.5
32.5	32.5	3	3	30.07	763.8	74.9	23.8	7	4	1	5	6	1	3	3			2.0
32.5	37.5	3	3	30.08	764.0	75.2	24.0	3	2	1	2	5		7	6		4	2.1
32.5	42.5	3	3	30.07	763.8	75.6	24.2	2	3	1	2	7		7	6		2	1.9
32.5	47.5	2	2	30.07	763.8	75.7	24.3	6	2	1	2	6	3	2	3		5	1.9
32.5	52.5	2	2	30.07	763.8	76.3	24.6	11	2	2	1	6		2	4		2	1.8
32.5	57.5			30.04	763.0	76.6	24.8	11	4	5	2	1		2	5			1.2
32.5	62.5	1	1	30.07	763.8	77.7	25.4	9	4	4	3	2	1	2	5			1.1
32.5	67.5	5	5	30.08	764.0	77.9	25.5	11	4	4	3	2	1	2	3			1.2
32.5	72.5			30.09	764.3	78.7	26.0	10	2	1	3	7	2	1	3	1		1.4
32.5	77.5			30.09	764.3	77.1	25.1	7	1	2	6	3	4	3	4			1.1
37.5	12.5	7	7	30.07	763.8	70.4	21.3	6	4	1	6	5	1	2	5			2.6
37.5	17.5	2	2	30.05	763.3	70.7	21.5	3	2	4	7	6	5		3			1.8
37.5	22.5			30.08	764.0	71.2	21.8	4	3	2	4	5	5		4	3		1.6
37.5	27.5			30.05	763.3	69.0	20.6	5	10	1	4	2	3	2	3			1.7
37.5	32.5	5	5	30.04	763.0	69.3	20.7	4	7	3	4	1	1	4	6			2.0
37.5	37.5	6	6	30.05	763.3	70.6	21.4	6	2	3	2	4	1	6	4		2	2.4
37.5	42.5			30.06	763.5	69.2	20.7	7	2	2	3	3		5	3	2	3	2.3
37.5	47.5			30.07	763.8	69.5	20.8	6	3	2	2	4	3	2	3	2	3	2.1
37.5	52.5			30.08	764.0	70.1	21.2	8	2	3	5	3	3	3	1	2		2.0
37.5	57.5	2	2	30.09	764.3	70.3	21.3	9	5	5	2	3	1	2	2	1		2.1
37.5	62.5	5	5	30.10	764.5	70.3	21.3	9	5	5	3	1	2	2	2	1		2.3
37.5	67.5	10	10	30.12	765.0	70.5	21.4	8	3		6	3	3		4	3		1.8
37.5	72.5	8	10	30.12	765.0	71.1	21.7	7	1	2	6	3	4	3	4			1.7
42.5	12.5	6	7	30.01	762.2	68.2	20.1	3	2	1	6	8	3		7			1.7
42.5	17.5	8	8	29.99	761.7	67.3	19.6	2	2	3	6	11	5		1			2.2
42.5	22.5	4	4	30.00	762.0	67.5	19.7	3	1	3	3	12	4		4			2.4
42.5	27.5	7	7	30.00	762.0	69.5	19.2	7	2	5	5	6		1	4			2.2
42.5	32.5	3	3	30.01	762.2	65.8	18.8	8	3	5	3	2	3	2	4			2.3
42.5	37.5	8	9	30.02	762.5	65.4	18.6	6	4	5	2	5		4	2	2		2.3
42.5	42.5	8	9	30.04	763.0	65.1	18.4	9	4	3	1	6		5	1		1	2.3
42.5	47.5	16	21	30.07	763.8	65.1	18.4	4	3	3	4	5	1	4	3	2	1	2.3
42.5	52.5	12	15	30.08	764.0	65.7	18.7	6	1	4	3	5	1	5	3	2		2.1
42.5	57.5	12	17	30.10	764.5	65.6	18.7	7	5	3	5	1	4	3	2			2.4
42.5	62.5	16	24	30.11	764.8	65.5	18.6	4	4	4	5	3	2	4	4			2.4
42.5	67.5	10	13	30.12	765.0	65.7	18.7	7	2	1	5	4	3	3	3	2		1.7
47.5	12.5	12	13	29.99	761.7	62.0	16.7	1	2	1	5	9	5	3	4			2.8
47.5	17.5	12	12	29.93	760.2	61.5	16.4	4	2	3	3	12	3	1	2			2.9
47.5	22.5	15	18	29.90	759.4	60.9	16.1	4	3	3	4	9	3	1	3			3.1
47.5	27.5	10	15	29.91	759.7	59.8	15.4	7	7	2	5	3	2		2	2		2.7
47.5	32.5	18	21	29.92	760.0	58.6	14.8	6	7	6	4	1	3		2	1		2.9
47.5	37.5	12	15	29.95	760.7	57.7	14.3	4	7	7	3	1	2		4	2		2.7
47.5	42.5	10	11	30.00	762.0	56.5	13.6	7	6	6	2	2		1	2	2	2	2.6
47.5	47.5	7	8	30.04	763.0	54.9	12.7	5	4	3	3	9	1	2	3			1.7
52.5	12.5	14	15	29.94	760.5	59.0	15.3	2	4	3	5	6	6	2	2			2.7
52.5	17.5	13	15	29.89	759.2	58.7	14.8	3	4	5	4	9	2		2		1	2.9
52.5	22.5	11	13	29.88	758.9	57.7	14.3	6	5	5	3	7	2		1		1	3.0
52.5	27.5	6	6	29.88	758.9	56.6	13.7	7	9	2	4	2	3		2		1	2.6
52.5	32.5	4	5	29.89	759.2	55.3	12.9	5	8	5	5	4	1		1	1		2.8
52.5	37.5	3	3	29.86	758.4	53.1	11.7	6	8	6	3	2	1		1	2	1	1.8
52.5	42.5	2	2	29.92	760.0	55.6	13.1	8	3	7	4	2			2	2	2	2.2
52.5	47.5			29.95	760.7	50.5	10.3	6	2	2	5	8	1	2	4			1.5
57.5	12.5	2	2	29.92	760.0	55.1	12.8	2	1	3	3	8	5	4	4			2.7
57.5	17.5	1	1	29.87	758.7	54.4	12.4				3	12	2	7	4	2		2.2
57.5	22.5	1	1	29.84	757.9	53.1	11.7				2	13	4	4	2	5		1.9
57.5	27.5	2	2	29.82	757.4	51.0	10.6	2			5	12	2	2	1	4	2	2.0
57.5	32.5			29.81	757.2	48.8	9.3	1		2	4	12		1	4	5	1	1.8
57.5	37.5	1	1	29.80	756.9	46.6	8.1	5		3	3	12		1	4	2		2.0
57.5	42.5			29.79	756.7	45.4	7.4	5		2	3	9		1	7	2	1	2.0
57.5	47.5			29.80	756.9	43.5	6.4	3		3	3	8		1	8	3	1	2.1

Note.—See General Remarks, page 9.

GENERAL REMARKS.

All data which appears in the DAILY BULLETIN OF SIMULTANEOUS METEOROLOGICAL OBSERVATIONS are copied from the regular exchanges of this office. The barometer readings for land stations, in the first and second columns, are reduced to freezing and their respective standards; those in the third and fourth columns to sea-level. When necessary, corrections for instrumental error, temperature and reduction to sea-level are applied at this office. In the Naval and Marine Series, corrections for temperature and reduction to sea-level are always applied, while those for instrumental error, only when such corrections can be ascertained with close approximation, as by comparison when vessels are at or near land stations. Relative humidity generally requires computation from the hygrometrical observations. When rain has fallen, but neither the amount or duration is recorded, the word "blank" is published in the rain-fall column. The weather is generally published as given. The following symbols and abbreviations are common to all series, viz.: †, aneroid; *, instrumental error not known; ‡, observations taken at 7.35 a. m., Washington mean time; c, cirrus; k, cumulus; s, stratus; n, nimbus; d, scud; f, fracto; p, pallio; hz, haze; fg, fog; sk, smoke; inap, inappreciable; d. clouds, detached clouds. The movement of the air is published as given on the originals, when indicated by velocity in miles per hour, in meters per second, or by force, all variations of the latter being reduced to the common scale of 0 to 10. Those stations reporting the movement in pounds pressure per square foot are reduced to force on the common scale, and those in kilometers per hour, to meters per second and miles per hour. *The distinction between upper and lower clouds is carefully made in the United States and a portion of the Canadian series, and the various formations are indicated by the letters* above given and their combinations. In the MONTHLY SUMMARY OF INTERNATIONAL SIMULTANEOUS METEOROLOGICAL OBSERVATIONS the position of stations (latitude and longitude) are obtained from Keith Johnson's Index Geographicus, except where more exact information is furnished. The elevations of stations are obtained either from the annual, semi-annual and monthly publications of the various meteorological bureaus here represented, or from the original forms, upon which are entered the daily observations. In the United States series the elevations are computed from the latest surveys, and are carefully revised each month, in order to note any change in the elevation of the barometer cistern at any station. *It is believed for the most part, that throughout the European and other series, the elevations as given represent the* height of the barometer cistern above sea-level; at least this should be the case. The local time, where omitted or not given correctly in the originals, is carefully computed at this office. Generally, all conversions are made at this office. A letter placed opposite the name of a station or some portion of the data credited thereto, indicates that a certain number of observations are missing, corresponding to the relative position in the alphabet of the letter so used. The following remarks relate to the individual peculiarities in the *methods* of recording and the *times* of taking the international simultaneous meteorological observations, under the auspices of the various Meteorological Bureaus:

ALGERIAN SERIES.—The originals give the barometer in millimeters reduced to sea-level; temperature in Centigrade. The movement of the air is indicated by force on a scale of 0 to 10. The rain-fall is measured at 7 a. m., local time, and the amount indicated in millimeters.

AUSTRALIAN SERIES.—At Melbourne the conversions are published as given in the originals. The movement of the air is indicated by velocity in miles per hour. The kind of clouds is not given except by inference from general weather terms.

AUSTRO-HUNGARIAN SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. At the following stations rainfall is measured at local time: Lemburg, 7 p. m.; Vienna, 2 p. m.; Trieste, 7 a. m. The weather is given by the Vienna symbols or in general terms. At Gratz, observations are taken *at 2 p. m., local time.*

BELGIAN SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The weather is occasionally given by the Vienna symbols. Except for Brussels, the distinction between upper and lower clouds is not made. At Furnes, observations are taken at 12.26 p. m., local time, and at *Maeseyck at 1 p. m., local time.*

BRITISH SERIES.—In general the originals do not give rain-fall or distinction between upper and lower clouds. Relative humidity, except for Bradford and Silloth Rectory, is not given on the originals, but is computed from hygrometrical observations. At Cardington, Galway, Oxford and Sandwick Manse the barometers are given as read off. At Free Town the barometer is reduced to freezing on the originals, but not to sea-level. The movement of the air is indicated by force, on a scale of 0 to 12, except pounds pressure per square foot at Greenwich. At the following stations rain-fall is measured at local time: Bradford, 9 a. m.; Nottingham, 6 p. m.; and Aberdeen, 10 a. m. The wind direction is given to 32 points and weather by the Beaufort notation.

CANADIAN SERIES.—The originals give the barometer reduced to sea-level in English inches and the temperature in Fahrenheit. Charlottetown, St. Andrews, Windsor and those stations marked with a star (*) give the clouds on a scale of 0 to 4, while the remainder report them on a scale of 0 to 10.

CAPE COLONY SERIES.—At Cape Town the barometer is given on the original as corrected for temperature only. Upper and lower clouds are given on a scale of 0 to 10 and the kind occasionally indicated by abbreviating Poëy's classification.

CHINESE SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is given in meters per second and the direction to 16 points. *The kind of clouds is occasionally given, and the degree of cloudiness on the scale of 0 to 10; distinction between upper and lower* clouds is sometimes made. The weather is given in general (French) terms. The rain-fall is given in millimeters and measured at the moment of simultaneous observation.

COSTA RICAN SERIES.—At San Jose the originals give the barometer as corrected for temperature only and the thermometer in Centigrade. Relative humidity is not given on the originals, but is computed from the hygrometrical observations. Upper and lower clouds are given, the amount on a scale of 0 to 10 and the kind by Howard's classification. The rain-fall is apparently measured at midnight.

DANISH SERIES.—The originals give the barometer *in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by force, on* a scale of 0 to 6. The weather is occasionally given by the Vienna symbols, but it is not certain that they always refer to the moment of simultaneous observations, except at Copenhagen. No distinction is made between upper and lower clouds and the direction of movement, together with the rain-fall, is entirely omitted.

FRENCH SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by force on a scale of 0 to 6, except in meters per second, for Mont Louis and Perpignan. In general, the rain-fall is measured at 9 a. m., local time, but at Lyons at the moment of simultaneous observation. *The direction of upper and lower clouds is given, but no distinction is made as to kind. The degree of cloudiness is given on a scale of 0 to 4 at* Clermont-Ferrand, Commune de Greasque and Puy de Dome, while at other stations the scale of 0 to 10 is employed, or general weather terms, from which the amount of cloudiness is inferred. The weather is given in general terms, except occasionally by the Vienna symbols at Mont Louis and Perpignan. Observations at Bourges are stated to be taken at 1.00 p. m., instead of 0.17 p. m., local time.

GERMAN SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by force *on a scale of 0 to 10, except at Carlsruhe, where the scale of 0 to 4 is used.* No distinction is made between upper and lower clouds except at Magdeburg where distinction is also made as to direction and kind, but not as to amount. The amount is given on a scale of 0 to 10, but the kind is rarely given. The weather is given in Vienna symbols or in general terms.

GREEK SERIES.—The originals give the barometer corrected for temperature only and the thermometer in Centigrade. Hygrometrical observations are not given, and the rain-fall is omitted. The kind of clouds is occasionally given, and the amount is inferred from the general weather terms. The movement of the air is indicated by force on *the scale of 0 to 10.*

INDIAN SERIES.—The barometric observations refer to the Calcutta standard, which requires a correction of —0.011 inch, or 0.28 m. m. as compared with the Kew standard. The wind-velocity given is the average rate of wind since the observation of the preceding day. All conversions are published as given in the originals, where the data are recorded to an additional decimal. The weather is given by the Beaufort notation, Vienna symbols, or special symbols.

ITALIAN SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by *velocity in kilometers per hour or by force on a scale of 0 to 4 as at Mondovi, Florence and Cagliari.* No distinction is made between upper and lower clouds and the amount is given on a scale of 0 to 10. The weather is given in Vienna symbols.

JAPANESE SERIES.—The rain-fall is measured at 9.30 a. m., local time, and the conversions are all published as given in the originals. *Distinction is generally made between* upper and lower clouds and the amount is given on the scale of 0 to 10. The weather is given in general terms.

MAURITIUS SERIES.—All conversions are published as given in the originals. The direction of the wind is given to 64 points and the rain-fall is measured at 9.30 a. m., local time.

MEXICAN SERIES.—All conversions (subject to correction at this office) are published as given in the originals. The kind of clouds is given, and also the direction and amount of both upper and lower. The degree of cloudiness is indicated on the scale of 0 to 10.

NETHERLANDS SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by pressure in kilograms per square meter, except at Hellevoetsluis, which gives force on the scale of 0 to 12. The humidity is not given on the originals, but for two stations it is computed from the hygrometrical observations. The weather is only given for Utrecht, from which the amount of cloudiness at that station is inferred.

NORWEGIAN SERIES.—The originals give the barometer in millimeters, reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by velocity in meters per second or by force on a scale of 0 to 6. The weather is occasionally given by Vienna symbols. At Bergen, observations upon the weather and degree of cloudiness are made at 2 p. m., local time.

PORTUGUESE SERIES.—In the originals the barometer is given in millimeters and the temperature in Centigrade. The movement of the air is indicated by velocity in kilometers per hour, except at Angra, which gives force on the scale of 0 to 9. The weather is occasionally given by the Vienna symbols. The rain-fall is measured at noon of each day.

RUSSIAN SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. At Astrakhan, the barometer cistern is below sea-level. The movement of the air is indicated by velocity in meters per second. *No distinction is made between upper and lower clouds; the amount is given on the scale of 0* to 10 and the kind occasionally. The weather is occasionally given by the Vienna symbols. The rain-fall is not given. At Barnaul, observations are taken at 6.18 p. m., local time.

SCOTTISH SERIES.—The originals give the barometer as read off and the movement of the air is indicated by force on a scale of 0 to 6. Distinction is made between upper and lower clouds as to degree, and the amount of cloudiness is given on a scale of 0 to 10. The direction of upper clouds is given separately. The rain-fall, temperature and humidity are not given at North Unst. The wind direction is given to 32 points.

SPANISH SERIES.—The originals give the barometer at Barcelona, Bilbao, Burgos, Murcia and Santiago as corrected for temperature only. The movement of the air except for sub-series, is given in kilometers per hour. The kind of clouds is occasionally given and the degree of cloudiness on a scale of 0 to 10. The rain-fall at San Juan is measured at 4 p. m., local time and at San Fernando at midnight. The weather is given in general (Spanish) terms.

SWEDISH SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by force, on a scale of 0 to 6, except in meters per second for Upsala. The kind of clouds is not given, but the degree of cloudiness is indicated on a scale of 0 to 10. The rain-fall is measured at 8 a. m., local time, and the weather is occasionally given by the Vienna symbols.

SWISS SERIES.—The originals give the barometer in millimeters, corrected for temperature only and the thermometer in Centigrade. The movement of the air is indicated by force on a scale of 0 to 10 and at Zurich on a scale of 0 to 4. The rain-fall at Zurich is measured at 9 a. m., local time, and the remainder of the observation is taken at 1.13 p. m., local time.

TURKISH SERIES.—The originals give the barometer in millimeters reduced to sea-level. The temperature is given in Centigrade. The movement of the air is indicated by force on a scale of 0 to 7 for Valona and on a scale of 0 to 12 for Beirut. At Constantinople the velocity is given in meters per second. The kind of clouds is not given, but the amount is indicated on a scale of 0 to 10, except at Valona, at which station it is inferred from the general weather terms.

UNITED STATES SERIES.—The originals generally give the barometer reduced to sea-level and the temperature in Fahrenheit. At Bogota the barometer is corrected for temperature only; at Navassa and Puerto Berrio is given as read off, and at Rivas is omitted. The amount of cloudiness is given on the scale of 0 to 4, except for Rivas, Paramaribo and York Factory. The movement of the air is generally indicated by velocity in miles per hour, except on a scale of 0 to 10 for Bogota, Paramaribo and Rivas, and 0 to 12 for Puerto Berrio. The wind direction is generally given to 16 points, except 8 points for Bogota and 32 points for Rivas. The rain-fall at Rivas is given in centimeters and millimeters. Barbadoes takes observations from September 4th, at 8.30 a. m., instead of 8.10 a. m., local time.

BRITISH NAVAL SERIES.—The originals give the barometer as read off. The wind direction is given to 32 points. The movement of the air is indicated by force on a scale of 0 to 12. The distinction between upper and lower clouds is made as to direction, but not as to amount. The height of sea-disturbance is given on the scale of 0 to 9 and the weather by the Beaufort notation. The direction of movement of wind, clouds and sea is compass direction, corrected only for deviation caused by the iron in the ship, while the correction for magnetic variation is applied at this office. The humidity is not given, but is computed from the hygrometrical observations.

GERMAN NAVAL SERIES.—No vessels reporting.

PORTUGUESE NAVAL SERIES.—The originals give the barometer in millimeters, corrected for temperature only and the thermometer in Centigrade. The movement of the air is indicated by force on the scale of 0 to 10. The humidity is not given, but is computed from the hygrometrical observations. The kind of clouds is not given, but the amount is indicated on the scale of 0 to 10; the direction of movement is given without distinction between upper and lower. The height of sea-disturbance is given on the scale of 0 to 9, and the weather by the Beaufort notation. The rain-fall is not measured, but the duration is generally given in hours and minutes.

SWEDISH NAVAL SERIES.—The originals give the barometer as read off. The movement of the air is indicated by force on the scale of 0 to 12, and the direction is corrected for magnetic variation at this office. The humidity is not given, but is computed from the hygrometrical observations. The rain-fall is omitted. The height of the sea-swell is given on the scale of 0 to 9, and the weather by the Beaufort notation.

UNITED STATES NAVAL SERIES.—The originals give the barometer as read off. The humidity is not given, but is computed from the hygrometrical observations. The sea-swell and the weather are given in general terms. The direction of the wind is compass direction, corrected for variation.

MERCHANT-MARINE SERIES.—Same as U. S. Naval.

OCEAN SQUARES.—The table of ocean square data shows, (1) the location of the centres of squares whose sides extend 5° each in latitude and longitude, (2) the number of days for which observations are at hand within the respective squares, and the total number of simultaneous observations reported on those days, (3) the monthly mean pressure and temperature of the air, and the mean force and total frequency of the wind at 7 a. m., Washington time, computed for the centre of each square from daily readings as obtained by interpolation between the isobars and isotherms of the "daily international simultaneous weather maps."

ERRATA.

MONTHLY SUMMARY, August, 1881, page 5, Augusta, E. 172° 30′, 11.38 p. m. —— feet and meters, should read W. 81° 54′, 6.41 a. m., 183 feet, 56 meters.

DAILY BULLETIN, September 4th, page 1, Austro-Hungarian series, Agram, direction of wind and force ——, should read calm, 0; same correction on the 8th, 11th, 13th, 17th, 18th, 19th and 20th.

10th, page 2, British series, Aberdeen reduced barometer 30.24 inches, should read 30.21 inches.

25th, page 3, German series, Memel, rainfall 0, should be ——; Munich, rainfall ——, should be 0; page 7, Port Huron, temperature 21.1° centigrade, should read 21.7°.

26th, page 8, H. M. S. Monarch, barometer 76.1 m. m., should read 766.1 m. m.

29th, page 6, Cheyenne, reduced barometer 29.41 inches, should read 29.64 inches.

30th, page 1, Austro-Hungarian series, Trieste, weather clear, should read cloudy.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR:

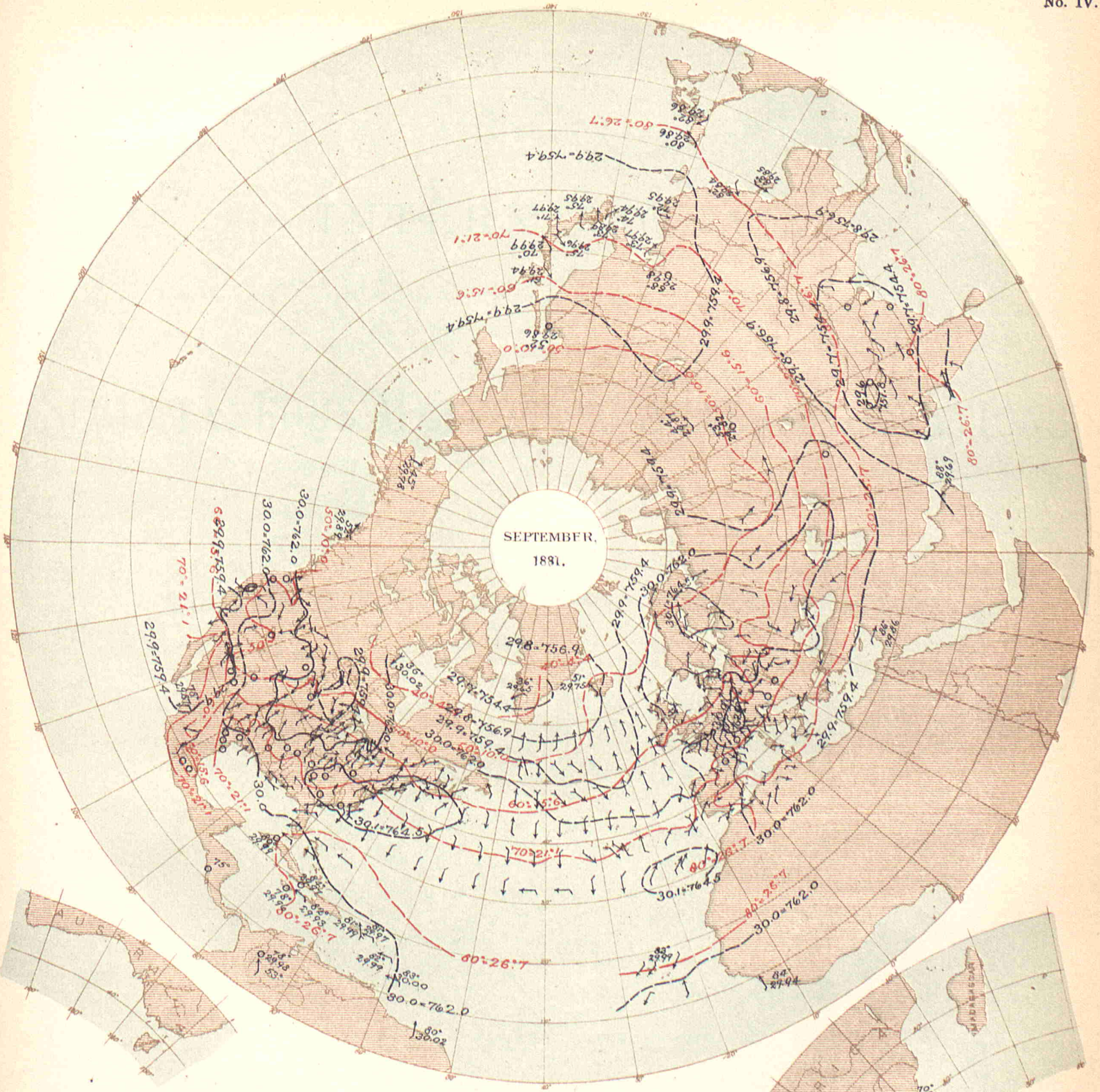
W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Office of the Chief Signal Officer,

UNITED STATES ARMY.

Charted from Actual Observations taken Simultaneously, Series commencing November, 1877.

No. IV.



PREVAILING WINDS.

Arrows show the direction of and fly with, the wind.
Force is shown as follows:

Symbols.	Force.	Velocity.	
		Miles per hour.	Metres per second.
O	0	0	0
	1, 2	0 to 9	0 to 4.0
	3, 4	9.1 to 22.5	4.1 to 10.1
	5, 6	22.6 to 40.5	10.1 to 18.1
	7, 8	40.6 to 67.5	18.1 to 30.2
	9, 10	67.6 up.	30.2 & over.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR

W. B. Hazen

BRIG. & BVT. MAJ. GEN'L.
CHIEF SIGNAL OFFICER, U. S. A.

ISOBARS AND ISOTHERMS.

Isobars in *black*; detached barometer means in English inches.

Isotherms in *red*; detached temperature means in degrees Fahrenheit.

Broken lines, are doubtful.

INTERNATIONAL MONTHLY CHART.

Showing mean pressure, mean temperature, mean force and prevailing direction of winds at 7:00 A. M., Washington mean time, for the month of September, 1881, based on the daily charts of the International Bulletin.

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER OF THE ARMY OF THE UNITED STATES.

INTERNATIONAL

SIMULTANEOUS METEOROLOGICAL OBSERVATIONS

INCLUDING A MONTHLY SUMMARY WITH DAILY BULLETINS AND ACCOMPANYING CHARTS.

FOR THE MONTH OF OCTOBER, 1881.

PRINTED FOR EXCHANGE WITH CO-OPERATING OBSERVERS.

WASHINGTON, D. C.
NOVEMBER, 1882.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBFR 1, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.86	758.5	69.8	21	93	w.			3		2			0	0	fair	Moiroud.
Algiers ‡			29.93	760.2	73.4	23.0	78	e.			2		3			0	0	pretty fair	Nicolas.
La Calle ‡			29.95	760.6	77.0	25.0	65	nne			5		3			0	0	pretty fair	Fonfrède.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			29.92	760.0	81.0	27.2	35	nne.			1		0			0	0	clear	Dumas.
Tebessa ‡			29.96	761.0	66.9	19.4	58	wsw.			7		4			0	0	cloudy	Derché.
Geriville ‡					82.8	28.2	14	nw.			2		4			0	0	cloudy	Lonchamp.
Laghouat ‡			30.00	762.1	79.5	26.4	30	sw.			1		0			0	0	clear	Herbin.
Biskra ‡			29.98	761.5	81.7	27.6	36	se.			2		6			0	0	very cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.70	754.4	29.80	756.9	57.6	14.2	89	ese.	4	1.8			8			0.03	0.8	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.55	750.5	30.11	764.8	46.0	7.8	92	ne.			2		10			0.417	10.6	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.49	749.0	30.27	768.9	50.2	10.1	66	ene.	11.9	5.3			1			0	0		Dr. Wiersbicki.
Eperies	29.26	743.2	30.13	765.4	57.9	14.4	55	calm			0	9cs	0			0	0		Julius Mikolik.
Gratz ‡	28.90	734.1	30.18	766.5	48.2	9.0	93	e.			2		10			0	0		Andreas Rospini.
Hermannstadt	28.70	729.0	30.13	765.4	54.7	12.6	68	sse.			6		6			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.73	729.8	30.10	764.4	46.6	8.1	83	ene.			4		10			0	0	gloomy	The Staff.
Lemberg	29.24	742.8	30.25	768.3	50.0	10.0	58	se.			2		2			0	0		Dr. T. Stanecki.
Pola	29.77?	756.1?	29.88?	758.9?	59.5	15.3	63	e.			7		10			0.567	14.4		I. R. Hydrographic Office.
Szathmar	29.68	753.8	30.14	765.5	59.0	15.0	43	e.			2		5			0	0		Jozsef Midlinszky, S. J.
Szegedin	29.91	757.9	30.12	765.0	53.6	12.0	76	se.			1		10			0.008	0.2		Karl Stancel.
Trieste	29.85	758.3	29.96	760.9	54.3	12.4	61	e.			6		8			0	0		Rieder.
Vienna	29.48	748.9	30.22	767.5	48.6	9.2	74	n.			1		10			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 4, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r.	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.23	767.8	30.32	770.1	58.3	14.6	85	sse.	10	4.5			0			0	0	misty	W. Boswell.
Armagh, Observatory	30.03	762.7	30.25	768.3	59.5	15.3	73	sse.	18	8.0			1					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.31	769.9	55.2	12.9	80	ese.	11	4.9			3					misty	John Hartnup.
Bolton, Sharples	29.77	756.1	30.31	769.9	57.1	13.9	69	se.	6	2.7			7					d. clouds	Thomas Mackereth, A.S.
Bradford, Yorkshire	30.00	762.0	30.40	772.1	50.1	10.1	63	sw.			3		6			0	0	d. clouds	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.27	768.8	58.0	14.4	71	e			0.6		3					d. clouds	John McLaren.
Chatham, School M. E.	30.13	765.3	30.26	768.6	59.6	15.3	73	e.			2		1					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	30.01	762.2	30.24	768.1	58.7	14.8	79	e.			3		4					d. clouds	The Staff.
Fort Napier, Natal	27.83	706.9	30.04	763.0	77.0	25.0	54	ne.			1		1					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.63	752.6	29.86	758.4	87.0	30.6	88	sw.			1		3					drizzling	Sergt. John Robinson.
Galway, Queen's College			30.09	764.3	62	16.7	77	s.			4		6					d. clouds	J. O'Donaghue.
Gibraltar, Mediterranean	29.91	759.7	29.96	761.0	78.5	25.8	80	w.			2		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	30.09	764.3	30.29	769.4	61.3	16.3	67	sse.			3		7					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.10	764.5	30.27	768.8	61.0	16.1	66	e.			3		0					blue sky	The Staff.
Guernsey	29.96	761.0	30.18	766.6	59.5	15.3	64	ene.			3		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.23	767.8	30.27	768.8	58.0	14.4	57	ne.	19	8.5			1					misty	The Staff.
Leicester, Museum	30.04	763.0	30.24	768.1	58.8	14.9	67	ne.			1		5					d. clouds	J. C. Smith.
Malta, Mediterranean	29.91	759.7	29.98	761.5	72.2	22.3	67	nw.			2		8			0.04	1.0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.02	762.5	30.06	763.5	83.0	28.3	79	e.			2		5					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.78	755.4	30.30	769.6	58.9	14.9	69	e.			2		6					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	30.06	763.5	30.29	769.4	58.6	14.8	64	ene.			3		3					squally	The Staff.
Plymouth	30.16	766.1	30.24	768.1	57.8	14.3	67	e.			1		5					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.28	769.1	57.4	14.1	90	sse.	11	4.9			10					foggy	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	30.08	764.0	30.14	765.5	64.8	18.2	62	ne.			2		7			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	30.07	763.8	30.36	771.1	56.6	13.7	79	ese.			2		7?			0	0	overcast ?	W. F. Cooper.
Silloth Rectory	30.27	768.8	30.30	769.6	64.5	18.1	64	n.			1		0			0	0	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.34	770.6	56.9	13.8	67	e.	10	4.5			0					blue sky	Rev. S. J. Perry.
Stratfield Turgiss	30.05	763.3	30.26	768.6	59.8	15.4	68	e.			2		2					foggy	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	30.19	766.8	30.21	767.3	62	16.7	71	ne.			4		3					d. clouds	W. Newcombe.
Valencia, Observatory	30.08	764.0	30.11	764.8	60.6	15.9	81	se.	30	13.4			7					misty	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.90	759.4	29.94	760.5	64	17.8	93	sw.	17	7.6			8 n		sw.	0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	29.78	756.4	29.84	757.9	68	20.0	90	s.	13	5.8		0	0			0	0	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.83	757.7	29.85	758.2	54	12.2	93	sw.	20	8.9			10 s		w.	0.11	2.8	threatening	J. McWilliams.
Fort Garry, Manitoba*	29.30	744.2	30.16	766.1	32	0.0	96	se.	2	0.9			fg.			0.060	1.5	dense fog	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.98	761.5	30.11	764.8	64	17.8	93	s.	8	3.6		2 k	0	w.		0.020	0.5	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.78	756.4	30.11	764.8	61	16.1	90	nw.	3	1.3			10 s		calm	0.01	0.3	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.90	759.4	30.10	764.5	62	16.7	84	w.	12	5.4			10 s		w.	0.07	1.8	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.48	748.8	30.14	765.5	58	14.4	100	calm	0	0			10 n		sw.	0.47	11.9	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.51	749.5	30.19	766.8	62	16.7	100	nw.	10	4.5			10 n		w.	0.07	1.8	light rain	H. Morgan.
Port Stanley, Ontario	29.55	750.6	30.19	766.8	60	15.6	93	nw.	5	2.2			10 n		nw.	0.22	5.6	light rain	M. Payne.
Quebec, Quebec*	29.70	754.4	30.02	762.5	61	16.1	78	w.			5		10 n		w.	0.22	5.6	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.69	754.1	30.14	765.5	56	13.3	93	calm	0	0		10 ck	0	w.		0.25	6.3	cloudy	W. H. McIntyre.
Sangeen, Ontario*	29.46	748.3	30.16	766.1	62	16.7	75	nw.	5	2.2			10 ks			0.36	9.1	cloudy	K. Stewart.
St. Andrews, N. B.	29.96	761.0	30.01	762.2	61	16.1	98	se.	1	0.4			10 n			0	0	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.91	759.7	29.97	761.2	64	17.8	90	sw.	21	9.4		2 c	2 ks		w.	0	0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.83	757.7	30.21	767.3	59	15.0	93	n.	3	1.3			10 n			0.33	8.4	light rain	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.10	764.5	30.16	766.1	58	14.4	100	sw.	12	5.4			fg.			0	0	foggy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.83	757.7	30.08	764.0	57	13.9	94	sw.				5 c	5 s			0	0	stormy	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	30.05	763.3	30.08	764.0	66.0	18.9	88	ne.	8.3	3.7		1 c	0			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.29	744.0			86	30.0	30	w.			1	0	0			0	0		C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.08	763.9	30.10	764.6	64.4	18.0	96	ese.	3.1	1.4		7 ck	0	w.		0	0	very cloudy	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.36	771.1	30.41	772.3	52.2	11.2	86	n.	4	2			8						Oversergent Fischer.
Fanöe	30.37	771.3	30.39	771.8	56.3	13.5	79	wsw.			2		6						Overloerer Lauridsen.
Godthaab, Greenland	29.11	739.5	30.16	740.6	25.2	—3.8	53	ene.			4		10						S. Kleinschmidt.
Stykkisholm, Iceland	29.56	750.8	29.60	751.9	46.6	8.1	77	s.			8		10					raining	A. O. Thorlacius.
Thorshavn,	30.13	765.4	30.17	766.3	51.4	10.8	98	s.	16	7			10					foggy	Overloerer Bergh.
Vestervig	30.30	769.6	30.39	771.9	56.1	13.4	91	wnw.			2		9						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.39	746.4	30.03	762.8	61.5	16.4	50	nnw.			1		0					clear	M. Labroue, Director.
Alençon Normal School	29.61	752.2	30.22	767.6	55.4	13	68	ne.			4		k			0	0		M. Nicot, Director.
Arras, Engineer School																			M. Klein, Commandant.
Avignon, Normal School	29.94	760.5	30.02	762.5	65.1	18.4	59	nnw.			1					0	0		M. Giraud, Director.
Bar-sur-Seine	29.50	749.2	30.05	763.3	55.9	13.3	66	ne.			1		5 kn		ne.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.90	759.5	30.17	766.3	54.9	12.7	54	ne.			2		0			0	0	clear	M. Frère Eugène Marie.
Besançon, Normal School	29.11	739.4	30.05	763.3	52.5	11.4	71	ne.			1		10		nw.	0	0	covered	M. Gobin, Director.
Bordeaux, Observatory	29.78	756.5	30.04	763.0	61.2	16.2	50	n.			1		5		ene.	0	0	cloudy	M. Rayet, Director.
Bourges, Normal School	29.46	748.3	30.01	762.2	59.9	15.5	45	ne.			2		1		ne.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	29.94	760.4	30.16	766.6	60.8	16.0	69	ne.			2		2		ne.	0	0		M. de Kermaree, Dir.
Caen, Normal School	30.06	763.6	30.14	765.5	61.2	16.2	59	ne.			1		0			0	0	clear	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.69	754.0	30.00	762.1	60.4	15.8	72	ne.			2		2			0	0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.60	751.7	30.10	764.5	59.4	15.2	58	e.			1		0			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.69	728.7	30.04	762.9	57.0	13.9	65	n.			1		10		n.	0	0	covered	M. Alluard, Director.
Cluny, Normal School	29.13	739.8	29.98	761.4	55.8	13.2	60	n.			1		1		n.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.21	742.0	30.08	764.0	51.8	11	63	nne.			3	2 c	0	nne.	nne.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.37	695.1	29.87	758.8	57.2	14	55	e.			1		1 sk		w.	0	0		M. Jeangirard, Director.
Grésaqué, dn. Rhône	28.86	733.0	30.00	762.0	65.8	18.8	57	s.			1		8		sw.	0	0	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.19	741.5	29.97	761.1	52.5	11.4	79	nw.			3		n			0	0		M. Ablard, Director.
Guéret, Normal School	28.43	722.0	30.01	762.3	52.7	11.5	69	ne.			1		0			0	0	clear	M. Rivoire, Director.
Lamballe, Normal School	29.93	760.1	30.20	767.1	59.5	15.3	60	ne.			2		2 k		ne.	0	0	clear	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	30.08	763.9	30.18	766.5	64.4	18	62	ene.			2		0			0	0	clear	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.95	735.3	30.02	762.4	50.2	10.1	79	n.			1		10		n.	0	0	covered	M. André, Director.
Mans, Normal School	29.84	758.0	30.15	765.9	55.6	13.1	51	ne.			1		2		ne.	0	0	slightly cl'dy	M. Piboen, Director.
Marseille, Observatory	29.65	753.2	29.92	760.0	61.3	16.3	58	wnw.			1		10		e; se.	0.039	1.0		M. Stephan, Director.
Montlouis l'Instituteur	24.77	629.2	30.01	762.2	52.5	11.4	37	se.	9.4	4.2			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.85	758.1	29.95	760.8	66.2	19	54	w.			2		2		s.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.28	743.8	30.05	763.4	57.9	14.4	57	nne.			3		1 ck			0	0	clear	M. Hasse.
Nantes, Observatory	30.00	762.1	30.17	766.2	61.7	16.5	52	ne.			2-3		0			0	0		M. Larocque, Director.
Nice	29.87	758.7	29.90	759.5	64.8	18.2	67	w.			3		hz	w.	w.	0	0	hazy	Capt. Boissière, Director.
Perpignan, Observatory	29.84	758.0	29.95	760.7	66.2	19.0	33	ne.	13.0	5.8			1	w.		0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					59.0	15	76	calm			0		5			0	0	cloudy	M. Tallien.
Puy de Dôme Obs'y, Summit	25.11	637.7			30.3	2.4	95	ne.			2		10			0.008	0.2	covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.09	764.2	30.12	765.0	62.1	16.7	96	ne.			1		0			0	0	clear	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	30.01	762.3	30.23	767.8	55.0	12.8	91	ne.			3		0			0	0	clear	M. Mouillot, Director.
Rodez, Normal School	27.85	707.7	30.01	762.2	54.1	12.3	69	nw.			1		0			0	0	clear	M. Richard, Director.
Rouen, Normal School	30.13	765.2	30.21	767.4	57.2	14	57	e.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School																			M. Delaplanche, Dir.
Saint Maur, Observatory	29.97	761.1	30.13	765.3	55.6	13.1	55	nne.			2		1	e.		0	0		M. Renou, Director.
Toulouse, Observatory	29.35	745.6	30.08	764.0	63.5	17.5	42	w.			4		1	w.		0	0	clear	M. Baillaud, Director.
Tours	29.91	759.7	30.11	764.7	57.2	14.0	57	ene.			2		0			0	0	clear	M. de Tastes.
Versailles, Observatory	29.65	753.0	30.13	765.4	55.0	12.8	53	ne.			3					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.85	758.3	30.15	765.7	54.5	12.5	59	ne.			2		1		ne.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.30	744.2	30.17	766.2	57.2	14.0	50	ese.			5	0	2 k	e.		0	0		Prof. Dr. Hoh.
Berlin	30.14	765.5	30.31	769.9	54.1	12.3	40	ne.			1		0			0	0		Prof. Dr. Arndt.
Breslau	29.77	756.2	30.31	769.8	50.9	10.5	57	e.			2		1			0	0		Royal University Obs'y.
Carlsruhe	29.68	753.9	30.11	764.8	55.4	13.0	66	ne.			1		1	se.		0	0		Albert Senz.
Cassel	29.50	749.2	30.21	767.4	53.2	11.8	48	e.			3		0			0	0		Dr. H. Möhl.
Frankfort on the Main	29.77	756.1	30.13	765.4	55.8	13.2	38	ne.			2		0			0	0		Physical Society.
Friedrichshafen	28.58	725.9	30.04	762.9	47.8	8.8	73	ne.			6		10	ne.		0	0		Wilhelm, Chief Tel.
Hamburg	30.28	769.2	30.38	771.0	54.3	12.4	50	ne.			3		1			0	0		E. Preller.
Kiel	30.33	770.4	30.35	770.8	51.8	11.0	65	ene.			2		0			0.008	0.2		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.85	758.3	30.29	769.3	48.4	9.1	61	e.			5		1			0	0		H. Leppig, Asst.
Magdeburg	30.12	765.0	30.31	769.9	52.3	11.3	51	ne.			4		0			0	0		Dr. Assmann.
Memel	30.28	769.0	30.32	770.2	51.8	11.0	87	nnw.			4		1c n						Issermann.
Munich	28.20	716.2	30.06	763.5	52.3	11.3	62	ne.			4		7	n.		0	0		Central Station.
Neufahrwasser	30.34	770.6	30.35	771.0	53.4	11.9	63	ene.			1		0			0	0		A. Lothes.
Neustadt, Palatinate	29.56	750.7	30.08	764.1	55.4	13.0	54	ne.			2		3	ne.		0	0		Dicknether.
Stuttgart	29.09	738.8	29.98	761.6	54.3	12.4	64	e.			1		9	ne.		0	0	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.58	725.8	30.08	764.1	53.1	11.7	61	e.			6		10	e.		0	0		Fischer.
Wustrow	30.38	771.7	30.41	772.4	52.3	11.3	70	ene.			2		0			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.75	755.6	30.13	765.4	71.4	21.9		nw.			1.0		10			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.74	755.4	29.79	756.7	83.8	28.8	72	sw.	20.0	8.9		2		sw.		0	0	d. clouds	
Deesa	29.18	741.2	29.05	753.0	89.7	32.1	55	n.	6.7	3.0		3		nnw.		0	0	d. clouds	
Bombay	29.77	756.1	29.81	757.1	80.5	25.9	93	nw.	10.0	4.5		10		nnw.		0.03	0.8	overcast	
Poona, Yarrowda	27.94	709.7	29.81	757.2	74.3	23.5	92	wnw.	15.0	6.7		10		wnw.		0.06	1.5	overcast	
Belgaum	27.20	692.4	29.81	757.1	73.2	22.9	91	wnw.	7.0	3.1		9		w.		0	0	d. clouds	
Lahore	29.00	736.5	29.72	755.0	90.1	32.3	46	calm	0.8	0.4		0				0	0	blue sky	
Roorkee	28.83	732.2	29.71	754.6	87.0	30.6	62	n.	3.6	1.6		2				0	0		
Agra	29.18	741.1	29.73	755.2	90.2	32.3	54	w.	2.5	1.1		0				0	0		
Nagpur	28.73	729.8	29.77	756.2	79.1	26.2	89	calm	2.1	0.9		9		sw.		0	0	gloomy	
Jubbulpore	28.48	723.5	29.85	758.2	76.1	24.5	84	e.	2.3	1.0		10				0.09	2.3	raining	
Lucknow	29.38	746.3	29.75	755.6	90.1	32.3	46	ssw.	2.5	1.1		5		nnw.		0.10	2.5	d. clouds	
Allahabad	29.46	748.2	29.77	756.1	81.4	27.4	88	calm	0.2	0.1		10				0.01	0.3	overcast	
Patna	29.60	751.8	29.78	756.4	80.0	27.0	65	wnw.	2.2	1.0		10		wnw.	wnw.	0	0	overcast	
Hazaribagh	27.78	705.7	29.81	757.2	73.6	23.1	81	nw.	4.8	2.2		10				0.71	18.0	thund'rst'm	
Cuttack	29.70	754.3	29.78	756.4	84.2	29.0	80	calm	0.3	0.1		8				0	0	d. clouds	
Calcutta, Alipore	29.72	755.0	29.75	756.0	82.1	27.8	85	ese.	2.0	0.9		9				0	0	d. clouds	
Dhubri	29.03	752.7	29.75	755.7	80.6	27.0	84	calm	3.2	1.4		0				0.02	0.5	blue sky	
Chittagong	29.68	753.8	29.77	756.1	84.3	29.1	83	wnw.	4.1	1.8		2				0	0	blue sky	
Sibsagar	29.44	747.7	29.77	756.1	84.0	28.9	77	ne.	4.1	1.8		3				0	0	blue sky	
Jeypore	28.33	719.5	29.73	755.2	91.9	33.3	38	ne.	2.2	1.0		3		ne.		0	0	d. clouds	
Zanzibar, Africa			30.02	762.5	86.7	30.4	44	se.	4	1.8		1				0	0	blue sky	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.60	751.7	30.00	762.1	52.7	11.5	63	e.	5.6	2.5		10				0.012	0.3		Prof. Giovanni Clodig.
Milan	29.50	749.4	30.00	762.1	57.2	14.0	71	sw.	4.3	1.9		10		ne.		0.232	5.9		Prof. Schiaparelli.
Padua	29.88	758.9	29.99	761.7	56.1	13.4	72	ene.	9.8	4.4		10		ne.		0.248	6.3		Prof. Dott. Lorenzoni.
Moncalieri	29.08	738.6	29.98	761.6	56.7	13.7	79	ssw.	2.5	1.1		10		ne.		0.114	2.9		Prof. P. F. Denza.
Genoa	29.74	755.4	29.93	760.2	62.6	17.0	45	n.	4.9	2.2		6		ne.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.09	713.4	30.01	762.2	51.8	11.0	75	w.			2	9				0.067	1.7		Prof. D. C. Bruno.
Pesaro	29.82	757.3	29.86	758.5	56.5	13.6	84	nw.	13.0	5.8		10		nw.		3.543	90.0		Prof. Luigi Guidi.
Florence	29.63	752.6	29.88	759.0	60.3	15.7	60	n.			6	10		n.		0.051	1.3		Prof. Costantino Pitter.
Leghorn	29.82	757.4	29.91	759.6	61.5	16.4	65	ne.	1.8	0.8		10				0.028	0.7		Prof. P. Monte.
Rome	29.66	753.3	29.83	757.7	66.7	19.3	62	sw.	13.0	5.8		7				0.614	15.6		Prof. P. S. Ferrari.
Lecce	29.67	753.5	29.91	759.8	69.8	21.0	72	se.	31.1	13.9		9		s.		2.169	55.1		Prof. C. de Giorgi.
Cosenza	29.05	737.9	29.93	760.2	68.4	20.2	59	se.	3.8	1.7		9		s.		0.100	2.7		Prof. D. Conti.
Cagliari	29.71	754.5	29.89	759.2	67.6	19.8	54	nw.			2	5		w.		0.020	0.5		Prof. A. Pacinotti.
Palermo	29.70	754.4	29.95	760.6	72.0	22.2	34	wsw.	11.9	5.3		2				0	0		Prof. G. Ciacciatore.
Syracuse	29.89	759.3	29.94	760.4	72.3	22.4	65	sw.	3.1	1.4		8		sw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.36	745.7	29.88	758.9	66.2	19.0	69	sw.	14.3	6.4		8		sse.		0.795	20.2		Prof. F. Brioschi.
Stelvio	22.08	560.9			30.9	— 0.6	92	ene.			2	10 km		e.		0	0	covered	Prof. P. F. Denza.
Valdobbia	22.12	561.9			33.8	1.0	90	se.			2	10				0.398	10.1	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of J. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y	30.03	762.7	30.05	763.3	71.6	22.0	68	nne.	12.5	5.6		0	0			0	0	clear	K. Sasaki.
Kioto	29.89	759.2	30.06	763.5	55.9	13.3	90	nw.	0.1	0.04		ck	7 s			0	0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.88	758.9	30.08	764.0	63.0	17.2	64	n.	5.8	2.6		0	0			0	0	clear	S. Takehayashi.
Nemuro	29.78	756.4	29.85	758.2	62.1	16.7	94	calm	0	0		0	0			0	0		
Niigata	29.96	761.0	29.99	761.7	59.2	15.1	96	sw.	5.3	2.4		ck	10 kb		w.	0.360	9.1	cloudy	
Nobira	29.90	759.4	29.92	759.9	59.5	15.3	80	nnw.	8.6	3.8		0	0			0	0	clear	
Sapporo	29.75	755.6	29.82	757.4	51.0	10.6	93	se.	2.4	1.1			0			0	0		
Tokei Obs'y, Yeddo	29.87	758.7	29.94	760.5	63.0	17.2	87	ene.	3.0	1.3		4 ck	4 kb	s.	ne.	0.190	4.8	cloudy	The Staff.
Wakayama	29.99	761.7	30.04	763.0	63.0	17.2	64	n.	5.8	2.6		2 ck	0			0.003	0.1	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.98	761.5	30.17	766.3	74.0	23.3	56	e.	13.5	6.0		0	6 ks;k		ssw.	0	0	fair	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.57	598.7	29.79	756.7	61.5	16.4	82	calm	0	0		0	8 k		ne.	0.035	0.9	cloudy	Vicente Fernandez.
Leon	24.31	617.5	29.88	758.9	66.0	18.9	88	e.			3	6 c	3 k	e.		0.079	2.0	very cloudy	Prof. M. Leal.
Mazatlan	29.5	751.3	29.84	757.8	73.5	23.1	88	ne.	0.9	0.4		7 cs	0	se.		0	0	cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	22.99	583.9	29.95	760.7	58.8	14.9	88	calm	0	0		0	8 kn		e.	0.169	4.3	cloudy	The Staff.
Morelia	24.01	610.3	30.08	764.0	59.0	15.0	66	s.			3	8	2	se.	s.	0.280	7.2	covered	M. Tenn, M. D.
Pabellon, Aguascalientes	23.83	605.3	29.72	754.8	65.1	18.4	90	calm			0	0	9 ns		ese.	0.043	1.1	very cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	594.9	30.19	766.9	54.5	12.5	58	calm	0	0		0	8		e.	0.030	0.8	cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.26	768.5	30.25	768.5	54.5	12.5		ne.			4					0.008	0.2		
Groningen	30.28	769.0	30.33	770.4	54.9	12.7		ene.			2					0	0		
Helder	30.33	770.4	30.33	770.4	52.5	11.4		ene.			4					0	0		
Hellevoetsluis	30.25	768.3	30.25	768.3	54.0	12.2	67	ne.			4					0	0		
Utrecht	30.23	767.9	30.28	769.1	55.8	13.2	53	ne.			3		0			0	0	clear	H. van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.34	770.6	30.40	772.2	55.8	13.2	80	nnw.	1.1	0.5			3			0	0		
Christiania	30.27	768.8	30.42	772.6	55.4	13.0	65	ene.	9	4			9			0	0		
Gjæsvær	30.28	769.1	30.30	769.7	45.1	7.3		wsw.			4		10						
Lodingen	30.34	770.7	30.39	771.9	49.6	9.8	78	wsw.			2		1			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.85	758.3	30.01	762.2	67.8	19.9	91	e.	1.8	0.8			5			0.118	3.0		Dr. J. A. Sampaio.
Campo Major	28.93	734.7	29.88	759.0	79.0	26.2	18	ene.	5.6	2.5			0			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.95	760.9	30.04	763.1	75.0	23.9	62	ssw.	1.8	0.8			9			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.61	752.2	29.95	761.0	74.3	23.5	28	ene.	5.6	2.5			0			0	0		The Staff.
Ponta Delgada, Azores	29.95	760.8	30.02	762.6	71.6	22.0	75	calm	0	0			3			0.031	0.8		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.31	744.4	30.45	773.3	32.7	0.4	85	sw.	13	6		3 cs	0						Capt. Lasarew.
Archangel	29.99	761.8	30.01	762.3	42.6	5.9	93	nw.	13	6			10						Capt. Sselivverstow.
Astrakhan	30.42	772.6	30.34	770.5	52.9	11.6	56	e.	7	3		0	7 ks						Capt. Wisganow.
Barnaul ‡	30.00	762.0	30.53	775.5	28.8	— 1.8	84	w.	4	2			10					snowing	Meteorological Obs'y.
Dorpat	29.81	757.1	30.05	763.3	51.8	11.0	79	nnw.	9	4		6 ck	0						Observatory.
Ekaterinburg	29.14	740.1	30.13	765.3	36.9	2.7	58	wsw.	13	6			10					light clouds	Meteorological Obs'y.
Kasan	29.82	757.3	30.10	764.4	41.4	5.2	56	sw.	16	7			10						Observatory.
Kertch	30.21	767.4	30.23	767.9	56.3	13.5	86	nnw.	2	1			10 n			0	0		Lagorio & Sastyrez.
Kieff	29.66	753.4	30.31	769.9	46.4	8.0	63	nne.	7	3		c;cs	3 ks						Observatory.
Lugan	30.08	764.1	30.29	769.3	53.2	11.8	78	se.	4	2			10						Meteorological Obs'y.
Moscow	29.56	750.7	30.04	763.1	43.5	6.4	62	s.	13	6			10 s						Meteorological Obs'y.
Nikolaiev	30.27	768.8	30.34	770.6	51.1	10.6	83	ene.	4	2			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.90	759.4	29.98	761.6	45.7	7.6	89	calm			0	2 c	0			0	0		Lieut. Iwanow.
Pekin, China	29.84	757.8	29.98	761.4	65.8	18.8	84	calm	0	0		0	4 k			0.020	0.5	raining	Physical Observatory.
St. Petersburg	29.91	759.7	29.93	760.1	48.6	9.2	98	nw.	4	2			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.52	724.3	30.08	764.0	59.5	15.3	66	calm	0	0			4			0	0		Teich, A. M.
Tiflis	28.76	730.6	30.16	766.0	66.2	19.0	63	s.	4	2		0	8 ks						Physical Observatory.
Warsaw	29.93	760.3	30.37	771.3	48.6	9.2	55	e.	2	1		0	0						Astronomical Obs'y.
Wilna	29.88	758.9	30.30	769.7	50.9	10.5	53	w.	4	2			1						Berg, Assistant.
Yeniseisk	30.04	762.9	30.34	770.5	32.0	0.0	91	w.	9	4			10					snowing	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.32	770.1	61.3	16.3	80	e.			1	0	0			0	0	fine	Andrew Gibb.
Monach Lt. House, Hebrides			30.16	766.1	57	13.9	94	s.			6		10			0	0	hazy	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.85	758.2	29.95	760.8	66.9	19.4	68	s.	4.7	2.1			9					raining	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.02	762.6	30.08	764.0	66.9	19.4	59	nw.	2.0	0.9		3	5	se.		0	0	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.09	688.0			59.0	15.0	68	ne.	9.2	4.1		0	0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.76	705.1	29.92	759.9	71.2	21.8	30	e.	5.8	2.6		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	29.76	755.9	29.91	759.6	82.4	28.0	54	ese.	3.8	1.7		1	4	e.		0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.04	737.5	29.90	759.4	72.5	22.5	54	e.	0	0			1			0	0	almost clear	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.92	760.0	29.99	761.7	78.7	25.9	84	e.	11.2	5.0		6 c;cs	k	s.	e.	0.839	21.3	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.77	756.1	29.82	757.4	80.8	27.1	89	e.	6.6	3.0			10 kn		ese.	0.70	17.8	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.88	758.8	29.97	761.2	73.2	22.9	73	calm	0	0		0	9		sw	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.91	759.8	30.00	762.1	81.0	27.2	85	calm	0	0		3 k	4 kn			0.059	1.5	cloudy	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.74	755.3	29.87	758.7	78.0	25.6	88	ne.	2.7	1.2			10 kn		ene.	0.006	1.5	very cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.31	769.8	30.35	770.8	46.0	7.8	75	ne.			2		0			0	0		
Umea	30.27	768.9	30.32	770.2	50.0	10.0	62	ne.			6		6			0	0		
Hernosand	30.29	769.3	30.34	770.6	54.5	12.5	47	nnw.			7		5			0	0		
Stockholm	30.10	764.4	30.27	768.9	52.3	11.3	53	nnw.			2		8			0	0		
Wisby	30.26	768.7	30.32	770.2	52.5	11.4	78	nnw.			4		10			0	0		
Sub-Series.																			
Upsala	30.21	767.3	30.20	769.5	53.1	11.7	58	nnw.	11.9	5.3			8	nw.	nw.	0.004	0.1		S. G. Finsmen.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.56	725.5	30.00	761.9	51.4	10.8	76	n.			1		10			0	0	covered	The Observatory.
Zurich ‡	28.40	721.4	30.07	763.7	46.0	7.8	80	n.			3		10			0	0	covered	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.19	766.9	61.2	16.2	73	ne.	22	10.0			9		nne.	0	0		The Observatory.
Valona			30.04	763.1	68.4	20.2		se.			2		5			0.20	5.	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.95	760.7	80.1	26.7	58	n.			3	0	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Albany, New York	30.11	764.8	30.19	766.8	72.5	22.5	76	s.	7	3.1		5 c	0			0	0	fair	
Alpena, Michigan	29.57	751.1	30.26	768.6	52	11.1	93	w.	6	2.7			10 s			0.17	4.3	cloudy	
Atlanta, Georgia	29.12	739.6	30.34	770.6	69.8	21.0	94	e.	14	6.3			10 s		calm	0.69	17.5	cloudy	
Atlantic City, New Jersey	30.31	769.9	30.32	770.1	72.9	22.7	97	s.	4	1.8		6 ck	0	w.		0	0	fair	
Augusta, Georgia	30.15	765.8	30.35	770.9	73.1	22.8	84	e.	1	0.4		3 ck	3 s	e.		0	0	fair	
Baltimore, Maryland	30.28	769.1	30.33	770.4	73	22.8	84	sw.	4	1.8		0	7 ks		sw.	0	0	fair	
Barnegat, New Jersey	30.27	768.8	30.29	769.4	73.0	22.8	97	sw.	12	5.4		5 k	4 k	sw.	sw.	0	0	cloudy	
Bismarck, Dakota	28.10	713.7	30.02	762.5	38	3.3	82	e.	8	3.6		1 k	0	calm		0	0	clear	
Boise City, Idaho	27.16	689.9	30.08	764.0	34	1.1	88	s.	2	0.9		0	0			0	0	clear	
Boston, Massachusetts	30.02	762.5	30.18	766.6	69.3	20.7	82	sw.	20	8.9		0	0			0	0	clear	
Brackettville, Texas	28.70	729.0	29.71	754.6	74	23.3	100	e.	14	6.3			10 n		se.	13.12	333.2	heavy rain	
Brownsville, Texas	29.80	756.9	29.85	758.2	79	26.1	91	se.	2	0.9		5 cs	3 ks		se.	0.05	1.3	fair	
Buffalo, New York	29.48	748.8	30.22	767.6	70	21.1	76	w.	8	3.6			10 s		sw.	0	0	cloudy	
Burlington, Vermont	29.83	757.7	30.13	765.3	69.7	20.9	82	s.	3	1.3			10 s		w.	0	0	cloudy	
Cairo, Illinois	29.76	755.9	30.17	766.3	67.6	19.8	89	ne.	2	0.9			10 s		calm	0.01	0.3	cloudy	
Campo, California	27.36	694.9	29.93	760.2	37.8	3.2	82	w.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.18	690.4			47	8.3	71	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.35	770.9	30.37	771.4	74	23.3	90	s.	4	1.8		6ck;cs	0	sw.		0	0	fair	
Cape May, New Jersey	30.29	769.4	30.32	770.1	73	22.8	84	sw.	19	8.5		0	0			0	0	clear	
Castroville, Texas	29.11	739.4	29.78	756.4	77	25.0	85	se.	7	3.1			10 s		se.	1.03	26.2	threatening	
Cedar Keys, Florida	30.14	765.5	30.16	766.1	77	25.0	90	e.	12	5.4		4 c	1 ks		se.	1.11	28.2	fair	
Champaign, Illinois	29.39	746.5	30.18	766.6	60.0	15.6	93	ne.	7	3.1			10 n		ne.	1.33	33.8	light rain	
Charleston, S. Carolina	30.24	768.1	30.30	769.6	81	27.2	67	se.	12	5.4		0	hz.			0.01	0.3	clear	
Charlotte, N. Carolina	29.46	748.3	30.37	771.4	72.0	22.2	84	s.	1	0.4		hz.	hz.	calm	calm	0	0	dense haze	
Chattanooga, Tennessee	29.45	748.0	30.30	769.6	71.0	21.7	87	se.	7	3.1		0	6 k		se.	0	0	fair	
Cheyenne, Wyoming	24.01	609.8	30.14	765.5	35.5	1.9	43	w.	2	0.9		0	0			0	0	clear	
Chicago, Illinois	29.51	749.5	30.25	768.3	57.1	13.9	86	ne.	6	2.7			10 s			0.25	6.3	cloudy	
Chincoteague, Virginia	30.34	770.6	30.36	771.1	74	23.3	97	sw.	14	6.3		0	hz.			0	0	clear	
Cincinnati, Ohio	29.57	751.1	30.25	768.3	71.7	22.1	76	s.	3	1.3		7 c	0	w.		0	0	fair	
Cleveland, Ohio	29.51	749.5	30.28	769.1	68	20.0	84	w.	4	1.8			10 s		w.	0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.38	746.2	30.27	768.8	68	20.0	70	s.	3	1.3		1 ck	0	sw.		0	0	clear	
Concho, Texas	28.07	713.0	30.07	763.8	62	16.7	93	n.	12	5.4			10 n			1.40	35.6	light rain	
Corsicana, Texas	29.51	749.5	29.99	761.7	77	25.0	85	s.	4	1.8			10 s			0	0	cloudy	
Davenport, Iowa	29.58	751.3	30.26	768.6	56	13.3	74	nw.	3	1.3		3 cs	4 s	sw.	nw.	0.46	11.7	clearing	
Dayton, Washington T'y	28.22	716.8	30.08	764.0	37	2.8	82	s.	2	0.9		0	0			0.04	1.0	clear	
Deadwood, Dakota	25.19	639.8	30.05	763.3	52	11.1	28	s.	16	7.2		0	0			0	0	clear	
Decatur, Texas	28.81	731.8	29.95	760.7	65	18.3	100	n.	8	3.6			fg.			5.61	142.5	dense fog	
Delaware Breakwater, Del.	30.30	769.6	30.32	770.1	72	22.2	90	s.	16	7.2		0	3 s		w.	0	0	fair	
Denison, Texas	29.19	741.4	30.02	762.5	65	18.3	93	e.	4	1.8			10 n		e.	4.37	111.0	light rain	
Denver, Colorado	24.73	628.1	30.10	764.5	39.3	4.1	46	s.	8	3.6		0	0			0	0	clear	
Des Moines, Iowa	29.30	744.2	30.25	768.3	48	8.9	100	calm	0	0			fg.			0	0	dense fog	
Detroit, Michigan	29.55	750.6	30.29	769.4	61.5	16.4	84	n.	5	2.2			10n;fog		calm	0.71	18.0	light rain	
Dodge City, Kansas	27.52	699.0	30.21	767.3	41.8	5.4	93	calm	0	0		1 cs	1 s			0	0	clear	
Dubuque, Iowa	29.54	750.3	30.28	769.1	51.2	10.7	93	w.	1	0.4			fg.			0	0	dense fog	
Duluth, Minnesota	29.47	748.5	30.20	767.1	46	7.8	77	nw.	1	0.4		0	0			0	0	clear	
Eagle Pass, Texas	29.12	739.0	29.97	761.2	70.0	21.1	100	n.	5	2.2			10 n		calm	4.74	120.4	light rain	
Eagle Rock, Idaho	25.22	640.6	30.21	767.3	30	— 1.1	54	sw.	12	5.4		0	0			0	0	clear	
Eastport, Maine	29.97	761.2	30.04	763.0	60.5	15.8	96	sw.	8	3.6			fg.			0	0	dense fog	
El Paso, Texas	26.29	667.8	30.13	765.3	56.2	13.4	47	e.	4	1.8		0	2 s			0	0	clear	
Erie, Pennsylvania	29.45	748.0	30.21	767.3	67	19.4	90	calm	0	0			10 s			0	0	cloudy	
Escanaba, Michigan	29.55	750.6	30.23	767.8	47	8.3	77	w.	5	2.2		0	0			0.05	1.3	clear	
Florence, Arizona	28.40	721.3	30.00	762.0	56	13.3	60	w.	3	1.3		0	0			0	0	clear	
Fort Apache, Arizona	25.02	635.5	30.06	763.5	39	3.9	76	e.	1	0.4		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.10	688.3	30.04	763.0	37	2.8	92	ne.	9	4.0			10 n		ne.	0.21	5.3	light rain	
Fort Bennett, Dakota	28.26	717.8	29.87	758.7	44	6.7	68	se.	12	5.4		0	0			0	0	clear	
Fort Benton, Montana	27.14	689.3	30.12	765.0	36	2.2	82	w.	7	3.1			10 s		calm	0.57	14.5	cloudy	
Fort Buford, Dakota	27.88	708.1	29.99	761.7	43	6.1	76	ne.	14	6.3			10 s		calm	0	0	cloudy	
Fort Custer, Montana	26.80	680.7	30.19	766.8	45	7.2	54	calm	0	0		0	0			0.02	0.5	clear	
Fort Davis, Texas	25.11	637.8	30.07	763.8	57	13.9	72	e.	2	0.9		4 k	0			0	0	fair	
Fort Elliott, Texas	27.36	694.9	30.66	778.7	52	11.1	74	e.	8	3.6			fg.			0	0	dense fog	
Fort Gibson, Indian T'y	29.50	749.3	30.07	763.8	63.5	17.5	100	ne.	2	0.9			10 n		calm	3.73	94.7	heavy rain	
Fort Grant, Arizona					51	10.6	69	calm	0	0		0	0			0	0	clear	
Fort Griffin, Texas	28.73	729.7	29.97	761.2	63.6	17.6	97	sw.	8	3.6			10 n			2.17	55.1	light rain	
Fort Keogh, Montana	27.33	694.2	30.00	762.0	44	6.7	56	s.	9	4.0		6 cs	0	sw.		0	0	fair	
Fort Macon, North Carolina	30.34	770.6	30.35	770.9	78	25.6	76	se.	12	5.4		2 k	4 ks	se.	se.	0	0	fair	
Fort McKavett, Texas	27.79	705.9	29.66	753.4	66.1	18.9	89	ne.	7	3.1			10 n			2.70	68.6	light rain	
Fort Missoula, Montana	26.68	677.7	30.33	770.4	32	0.0	100	calm	0	0		0	2 s			0	0	clear	
Fort St. Michaels	29.81	757.2	29.84	757.9	52	11.1	86	s.	40	17.9		0	5 s		s.	0.48	12.2	fair	
Fort Shaw, Montana	26.34	669.0	30.08	764.0	35	1.7	89	nw.	5	2.2			10 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.83	732.3	30.12	765.0	61.7	16.5	100	n.	10	4.5			10 n			1.32	33.5	light rain	
Fort Stevenson, Dakota	28.09	713.5	30.05	763.3	50	10.0	58	e.	8	3.6		6 k	0	calm		0	0	fair	
Fort Verde, Arizona					47.2	8.4	52	w.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.20	716.3	29.69	754.1	73	22.8	97	s.	5	2.2			10 ks		s.	0.16	4.1	cloudy	
Galveston, Texas	29.94	760.5	29.98	761.5	81	27.2	83	se.	8	3.6		0	2 ks			0.14	3.6	clear	
Grand Haven, Michigan	29.58	751.3	30.28	769.1	56.0	13.3	80	calm	0	0			10 s		sw.	0.39	9.9	cloudy	
Hatteras, North Carolina	30.35	770.9	30.37	771.4	79	26.1	74	se.	12	5.4		5 k	0	se.		0	0	fair	
Helena, Montana	25.72	653.3	30.31	769.9	37	2.8	82	s.	8	3.6		2 k	0	calm		0	0	fair	
Henrietta, Texas	29.08	738.0	30.00	762.0	58	14.4	70	s.	2	0.9		0	0			2.33	59.2	clear	
Huron, Dakota	28.59	726.2	30.05	763.3	43	6.1	80	se.	18	8.0		0	1 ks			0	0	clear	
Indianapolis, Indiana	29.39	746.5	30.22	767.6	67.5	19.7	85	ne.	2	0.9			10 s		sw.	0.22	5.6	cloudy	
Indianola, Texas	29.90	759.4	29.93	760.2	79.8	26.6	91	se.	10	4.5		5 cs	1 ks	calm	calm	1.14	29.0	fair	
Jacksboro, Texas	28.82	732.0	29.92	760.0	63	17.2	100	n.	5	2.2			10 n		calm	3.94	100.1	light rain	
Jacksonville, Florida	30.17	766.3	30.21	767.3	78	25.6	90	ne.	3	1.3		4 cs	0	w.		1.05	26.7	fair	
Keokuk, Iowa	29.52	749.8	30.20	767.1	55.5	13.1	93	ne.	6	2.7			10 s		ne.	1.07	27.2	cloudy	
Key West, Florida	30.01	762.2	30.04	763.0	80.8	27.1	82	e.	14	6.3		2 c	2 k	calm	e.	0.49	12.4	fair	
Kittyhawk, North Carolina	30.36	771.1	30.38	771.6	75	23.9	90	se.	5	2.2		0	hz;1 s			0	0	clear	
Knoxville, Tennessee	29.28	743.7	30.35	770.9	64.2	17.9	91	se.	3	1.3		0	1 s		calm	0	0	clear	
La Crosse, Wisconsin	29.42	747.3	30.22	767.6	51.4	10.8	86	s.	4	1.8		0	0			0	0	clear	
La Mesilla, New Mexico	26.13	663.7	30.28	769.1	47.8	8.8	66	calm	0	0		0	0			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	29.24	742.7	30.18	766.6	52	11.1	93	calm	0	0			fg.			0	0	dense fog	
Lewiston, Idaho	29.17	740.9	30.05	763.3	39	3.9	73	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.76	755.9	30.08	764.0	67	19.4	100	e.	4	1.8			10 s			1.41	35.8	cloudy	
Los Angeles, California	29.49	749.0	29.87	758.7	54.2	12.3	80	s.	1	0.4		0	0			0	0	clear	
Louisville, Kentucky	29.62	752.3	30.20	767.1	72.5	22.5	71	s.	5	2.2		2 cs	0			0	0	clear	
Lynchburg, Virginia	29.65	753.1	30.36	771.1	73.5	23.1	75	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	29.23	742.4	30.30	769.6	52	11.1	93	nw.	1	0.4		3 c	1 s	sw.	sw.	0	0	fair	
Marquette, Michigan	29.46	748.3	30.22	767.6	51	10.6	66	sw.	8	3.6		0	0			0	0	clear	
Mason, Texas	28.30	718.8	30.00	762.0	69.6	20.9	97	calm	0	0			10 n		nw.	3.64	92.5	light rain	
Memphis, Tennessee	29.81	757.2	30.16	766.1	75	23.9	76	calm	0	0		0	5 s			0	0	fair	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.51	749.5	30.29	769.4	53	11.7	93	calm	0	0		3 c	6 s; fg	sw.	w.	0.27	6.9	cloudy	
Mobile, Alabama	30.06	763.5	30.13	765.3	77.0	25.0	85	e.	9	4.0			10 s		e.	0.03	0.8	cloudy	
Montgomery, Alabama	29.97	761.2	30.21	767.3	75.4	24.1	87	e.	6	2.7			10 ks		e.	0	0	cloudy	
Moorhead, Minnesota	29.06	738.1	30.12	765.0	36	2.2	79	e.	3	1.3			10 s			0	0	clear	
Morgantown, W. Virginia	29.28	743.7	30.26	768.6	62.5	16.9	87	calm	0	0		hz	0			0	0	clear	
Mt. Washington, N. H.	23.96	608.6	30.33	770.4	51.0	10.6	100	nw.	68	30.4			fg		nw.	0.12	3.0	dense fog	
Nashville, Tennessee	29.68	753.9	30.24	768.1	70.2	21.2	82	se.	2	0.9		1 cs	sk			0	0	dense smoke	
New Haven, Connecticut	30.14	765.5	30.25	768.3	72	22.2	84	sw.	9	4.0		0	5 s		sw.	0	0	fair	
New London, Connecticut	30.23	767.8	30.28	769.1	72	22.2	90	w.	8	3.6			10 s		w.	0	0	cloudy	
New Orleans, Louisiana	29.98	761.5	30.04	763.0	77.2	25.1	90	e.	6	2.7		4 c	1 s		e.	0.02	0.5	fair	
Newport, Rhode Island	30.21	767.3	30.26	768.6	69.0	20.6	97	sw.	12	5.4		1 k	1 s	sw.	calm	0	0	fair	
New River, N. Carolina																0.14	3.6		
New Shoreham, Rhode I'd.	30.24	768.1	30.27	768.8	68.5	20.3	90	sw.	16	7.2		0	fg		sw.	0.03	0.8	clear	
New York, New York	30.12	765.0	30.30	769.6	70	21.1	100	sw.	11	4.9			10s; fg		sw.	0	0	cloudy	
Norfolk, Virginia	30.34	770.6	30.37	771.4	73	22.8	97	s.	4	1.8		2 ck	0	sw.		0	0	clear	
North Platte, Nebraska	27.12	688.8	30.18	766.6	49	9.4	49	s.	12	5.4		0	0			0	0	clear.	
Olympia, Washington T'y	29.88	758.9	29.92	760.0	46.0	7.8	93	s.	4	1.8		7 ck	0	calm		0	0	cloudy	
Omaha, Nebraska	29.02	737.1	30.26	768.6	48	8.9	93	calm	0	0			fg			0	0	dense fog	
Oswego, New York	29.84	757.9	30.18	766.6	68.0	20.0	90	w.	6	2.7			10 s		w.	0	0	cloudy	
Pensacola, Florida	30.10	764.5	30.13	765.3	73	22.8	90	e.	17	7.6		0	7 s		e.	0.01	0.3	fair	
Philadelphia, Pa.	30.26	768.6	30.32	770.1	73	22.8	90	w.	8	3.6		10 ck	hz	sw.		0	0	cloudy	
Phœnix, Arizona	28.66	728.0	30.43	772.9	58	14.4	29	e.	2	0.9		0	0			0	0	clear	
Pike's Peak, Colorado	17.83	452.9	30.04	763.0	25	— 3.9	56	sw.	28	12.5		0	0			0	0	clear	
Pioche, Nevada	24.02	610.1	30.21	767.3	47	8.3	31	s.	6	2.7		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.42	747.3	30.27	768.8	70	21.1	66	s.	7	3.1		1 ck	0	w.		0	0	clear	
Port Eads, Louisiana	30.04	763.0	30.05	763.3	79.6	26.4	82	e.	17	7.6		0	2 k; hz		e.; e.	0	0	fair	
Port Huron, Michigan	29.56	750.8	30.26	768.6	57.0	13.9	95	ne.	1	0.4			10 s		calm	1.33	33.8	cloudy	
Portland, Maine	30.06	763.5	30.11	764.8	66	18.9	90	sw.	12	5.4		0	2 s		calm	0	0	clear	
Portland, Oregon	29.92	760.0	29.98	761.5	47.2	8.4	93	s.	1	0.4			fg			0.03	0.8	dense fog	
Portsmouth, N. Carolina					78	25.6	74	sw.	12	5.4		3 k	3 ks	s.	sw.	0.13	3.3	fair	
Prescott, Arizona	24.74	628.4	30.05	763.3	43	6.1	70	s.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	30.00	763.5	30.07	763.8	78	25.6	88	e.	10	4.5		4 ck	0	calm		0.06	1.5	fair	
Red Bluff, California	29.41	747.0	29.76	755.9	54.5	12.5	63	nw.	1	0.4		0	0			0	0	clear	
Rio Grande City, Texas	29.06	753.4	29.86	758.4	78	25.6	90	s.	5	2.2		3 c	2 s	calm	se.	0	0	fair	
Rochester, New York	29.56	750.8	30.22	767.6	65	18.3	90	n.	7	3.1			10 ks		n.	0	0	cloudy	
Roseburg, Oregon	29.38	746.2	29.98	761.5	35	1.7	89	calm	0	0		0	0			0	0	clear	
Sacramento, California	29.71	754.6	29.79	756.7	56.0	13.3	62	se.	7	3.1		0	0			0	0	clear	
St. Louis, Missouri	29.59	751.6	30.22	767.6	64.0	17.8	100	n.	6	2.7			10 n		n.	2.10	53.3	light rain	
St. Paul, Minnesota	29.30	744.2	30.22	767.6	45.8	7.7	86	ne.	3	1.3		0	0			0	0	clear	
Salt Lake City, Utah	25.51	647.9	29.96	761.0	54	12.2	31	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.20	741.7	29.92	760.0	75.8	24.3	97	se.	4	1.8			9 ks; n		se.	0.63	16.0	cloudy	
San Diego, California	29.78	756.4	29.85	758.2	64.0	17.8	78	se.	2	0.9			10 s			0	0	cloudy	
Sandusky, Ohio	29.55	750.6	30.26	768.6	68	20.0	90	w.	6	2.7			10 n			0.08	2.0	light rain	
Sandy Hook, New Jersey	30.25	768.3	30.28	769.1	74.1	23.4	97	w.	10	4.5		8 k	0	w.		0	0	cloudy	
San Francisco, California	29.70	755.9	29.83	757.7	53	11.7	86	sw.	7	3.1		0	fg		sw.	0	0	clear	
Santa Fé, New Mexico	23.34	592.8	30.32	770.1	41.5	5.3	58	ne.	1	0.4		0	0			0	0	clear	
Savannah, Georgia	30.17	766.3	30.26	768.6	79	26.1	85	e.	7	3.1		3 cs	4 ks		e.	0.10	2.5	fair	
Shreveport, Louisiana	29.80	756.9	30.03	762.7	76	24.4	90	s.	6	2.7			10 s		s.	0	0	cloudy	
Silver City, New Mexico	24.30	617.2	29.98	761.5	44	6.7	65	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	30.12	765.0	30.20	767.1	40.2	4.6	73	w.	12	5.4		0	0			0	0	clear	
Smithville, North Carolina	30.30	769.6	30.34	770.6	79	26.1	77	se.	6	2.7		4 k	1 ks	se.	calm	0.01	0.3	fair	
Spokane Falls, Wash. Ter.	27.93	709.4	30.00	762.0	34	1.1	81	nw.	1	0.4			fg		calm	0.04	1.0	dense fog	
Springfield, Illinois	29.52	749.8	30.24	768.1	65	18.3	93	ne.	2	0.9			10s; fg		ne.	2.12	53.8	cloudy	
Springfield, Massachusetts	30.09	764.3	30.22	767.6	69.1	20.6	90	s.	7	3.1		0	fg			0	0	clear	
Stockton, Texas	27.05	687.1	30.20	767.1	57.2	14.0	100	n.	6	2.7			10 n		calm	0.09	2.3	light rain	
St. Vincent, Minnesota	29.20	743.2	30.19	766.8	32	0.0	68	calm	0	0		0	0			0	0	clear	
Thatcher's Island, Mass.	30.14	765.5	30.19	766.8	64.3	17.9	100	sw.	18	8.0			fg	sw.	sw.	0	0	light fog	
Toledo, Ohio	29.52	749.8	30.24	768.1	62	16.7	93	nw.	8	3.6			10 n			0.15	3.8	light rain	
Tucson, Arizona	27.42	696.5	29.86	758.4	58	14.4	55	se.	2	0.9		0	0			0	0	clear	
Umatilla, Oregon	29.62	752.3	30.05	763.3	38.7	3.7	86	se.	6	2.7		0	0			0.01	0.3	clear	
Uvalde, Texas	28.93	734.8	29.72	754.9	75	23.9	100	se.	3	1.3			10 n		se.	0.29	7.4	light rain	
Vicksburg, Mississippi	29.84	757.9	30.10	764.5	73	22.8	97	e.	4	1.8		0	5 s		s.	0.65	16.6	fair	
Visalia, California	29.40	746.7	29.77	756.1	51.5	10.8	77	s.	1	0.4		0	0			0	0	clear	
Washington, D. C.	30.21	767.3	30.33	770.4	74	23.3	85	s.	1	0.4		3 k	0	w.		0	0	clear	
West Los Animas, Colorado	26.03	661.2	30.11	764.8	42	5.6	82	e.	4	1.8		0	0			0	0	clear	
Wickenburg, Arizona					48	8.9	68	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.29	769.4	30.35	770.9	74	23.3	82	calm	0	0			10 k; fg		se.; e.	0.03	0.8	cloudy	
Winnemucca, Nevada	25.50	647.7	29.96	761.0	37	2.8		nw.	4	1.8		0	0			0	0	clear	
Wood's Holl, Mass.	30.21	767.3	30.25	768.3	70	21.1	92	sw.	25	11.2		5 k	0	sw.		0	0	fair	
Yankton, Dakota	28.77	730.7	30.14	765.5	47	8.3	86	calm	0	0		0	0			0	0	clear	
Yuma, Arizona	29.04	752.8	29.78	756.4	62.0	16.7	78	se.	1	0.4		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I. ‡	29.92	760.0	29.95	760.7	79	26.1	95	e.	1	0.4		8 k	10 ks	e.	e.	1.36	34.5	cloudy	J. A. Racker.
Bogota, U. S. Columbia	22.03	559.6			53.0	11.7	82	calm	0	0			8 n; s			0.01	0.3	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.80	758.4	29.86	758.4	81	27.2	87	e.				0	5 ks		e.	0	0		B. Bigar.
Havana, Cuba, W. I.	29.97	761.2	30.02	762.5	79	26.1	88	se.	2.4	1.1		8 cs	2 ks	calm	se.	0.72	18.3	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.93	760.2	29.94	760.5	77.8	25.4	89	calm	0	0			10 s		e.	0.34	8.6		Robert Johnstone.
Navassa, W. I.	29.85	758.2	29.93	760.2	81	27.2	78	e.	10	4.5		8 cs; k	2 ks	e.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.90	761.0	29.96	761.0	81	27.2	83	se.			2	3 c	4 k	e.		0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.42	747.3	29.98	761.5	76	24.4	94	calm				2 c	8 ks	calm	n.	0.19	4.8	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					74.3	23.5	95	sw.			1	5 cs	1 ks	sw.	sw.	0	0		Earl Flint.
Santiago de Cuba, W. I.	29.94	760.5	29.97	761.2	81	27.2	82	calm	0	0		4 c	0			0	0	fair	Robert Mason.
St. Thomas, W. I. ‡	29.88	758.9	29.99	761.7	80	26.7	79	ne.	4	1.8		0	1 ks		ne.	0.07	1.8	clear	G. O. Gyllich.
York Factory, B. A.	29.91	759.7	29.96	761.0	28.0	— 2.2	94	nw.	14	6.3		3 k	3 s	nw.	nw.	inap.	inap.	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert																			Capt. J. P. Maclear.
H. M. S. Alexandra, Gibraltar, Mediterranean	30.19	766.8	71	21.7	85	calm			0									misty	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	30.22	767.6	61	16.1		ne.			2		5	nne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 44° 12′, W. 63° 18′	30.14	765.5	62	16.7	100	wsw.			4–5		10					2	wsw.	misty	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 16° 12′, E. 7° 34′	29.99	761.7	64.5	18.1	76	w.			1–2		10	wsw.				3	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion																			Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile																			Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 11′, E. 20° 28′	30.01	762.2	65	18.3		var.			1		9	calm						raining	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.05	763.3	73	22.8		nne.			2		1							blue sky	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.27	768.8	78	25.6	88	nne.			1–2		3	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	29.67	753.6	62.5	16.9	91	wsw.			2–3		10	w.						squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 25° 38′, E. 57° 46′	29.70	754.4	90	32.2		sw.			1		5	s.				2	sw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.78	756.4	85	29.4		se.			1–2		3	se.						d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 17° 41′, E. 178° 51′	29.87	758.7	78	25.6	95	ese.			3		8	se.						showery	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.80	756.9	85	29.4	79	ese.			2		3	sse.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 048 54′, W. 57° 57′	29.84	757.9	59	15.0		s.			1		8	sse.				sm'h		showery	Capt. W. C. Karslake
H. M. S. Fawn, S. 24° 54′, E. 35° 19′	30.26	768.6	72	22.2	71	s.			3		3	s.				3	sse.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 21° 08′, W. 157° 51′	30.00	762.0	73	22.8	81	ne.			1		4							d. clouds	Comm. E. J. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	30.22	767.6	55	12.8	80	ne.			2		6	n.						d. clouds.	Capt. L. F. Jones
H. M. S. Griffon, N. 18° 11′, W. 76° 27′	29.94	760.5	81	27.2	87	se.			1		10							raining	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 13° 00′, E. 159° 30′	29.93	760.2				ne.			3–4		3	ne.				2	ne.	d. clouds	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 35° 26′ E. 139° 38′	29.89	759.2	69	20.6		calm			0									d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, S. 3° 01′, W. 80° 41′	29.97	761.2	76	24.4		wsw.			2		7	w.				2	sw.	d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 27° 40′, E. 46° 30′	30.20	767.1	71	21.7		sse.			5		3	sse.				2	sse.	d. clouds	Comm. F. H. Haygarth.
H. M. S. Lark, S. 32° 58′, W. 18° 50′	29.94	760.5	65	18.3	94	w.			6		10					3	ne.	drizzling	Lieut. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, Hoi How Bay, China	29.85	758.2	80.8	27.1	82	ene.			3–4		6					2	ne.	misty	Lieut. A. Balfour.
H. M. S. Malabar, N. 34° 57′, E. 19° 29′	30.01	762.2	78	25.6	90	e.			3–4		5	se.				3	sse.	d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	29.93	760.2	67.5	19.7	82	calm			0		0							blue sky	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.05	763.3	55	12.8	90	calm			0		10							overcast	Comm. F. Edwards.
H. M. S. Nelson, N. 49° 57′, W. 4° 28′	30.22	767.6	59	15.0	84	ne.			3–4		5	ese.				2	ne.	misty	Capt. J. E. Erskine.
H. M. S Northampton, Halifax, Nova Scotia	30.06	763.5	64.5	18.1	92	calm			0		7	wsw.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′			45	7.2		calm			0									d. clouds	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 12° 29′, E. 50° 49′	29.84	757.9	79.3	26.3	82	e.			2		0							blue sky	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 13° 20′, E. 47° 40′	29.62	752.3	84	28.9	64	w.			1–2		0							blue sky	Comm. W. Byles.
H. M. S. Serapis, S. 18° 10′, E. 6° 55′	30.00	762.0	64	17.8	89	calm			0		9	se.				4	se.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, N. 0° 55′, W. 14° 42′	30.00	762.0	79	26.1	82	se.			3		10	se.				3	se.	overcast	Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer, Sfax, Tunis	30.03	762.7	78	25.6	43	e.			2		6					2		d. clouds	Capt. C. F. Hotham.
H. M. S. Triumph, Callao, Peru	29.94	760.5	60	15.6	88	calm			0		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.95	760.7	81	27.2		n.			2		6							raining	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.97	761.2	65	18.3	83	calm			0		0							blue sky	Com. J. C. Wilson, A.D.C
H. M. S. Woodlark, N. 26° 07′, E. 56° 15′	29.73	755.1	91.5	33.1	70	wsw.			2–4		2							misty	Capt. T. P. Nesham.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.98	761.6	77.4	25.2	76	nnw.			2		3					1		d. clouds	Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, Brava, Cape Verd Id's	29.92	760.0	83.3	28.5	69	se.			1		6		nw.			2	se.	drizzling	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.91	759.7	80.2	26.8	77	e.			3									blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

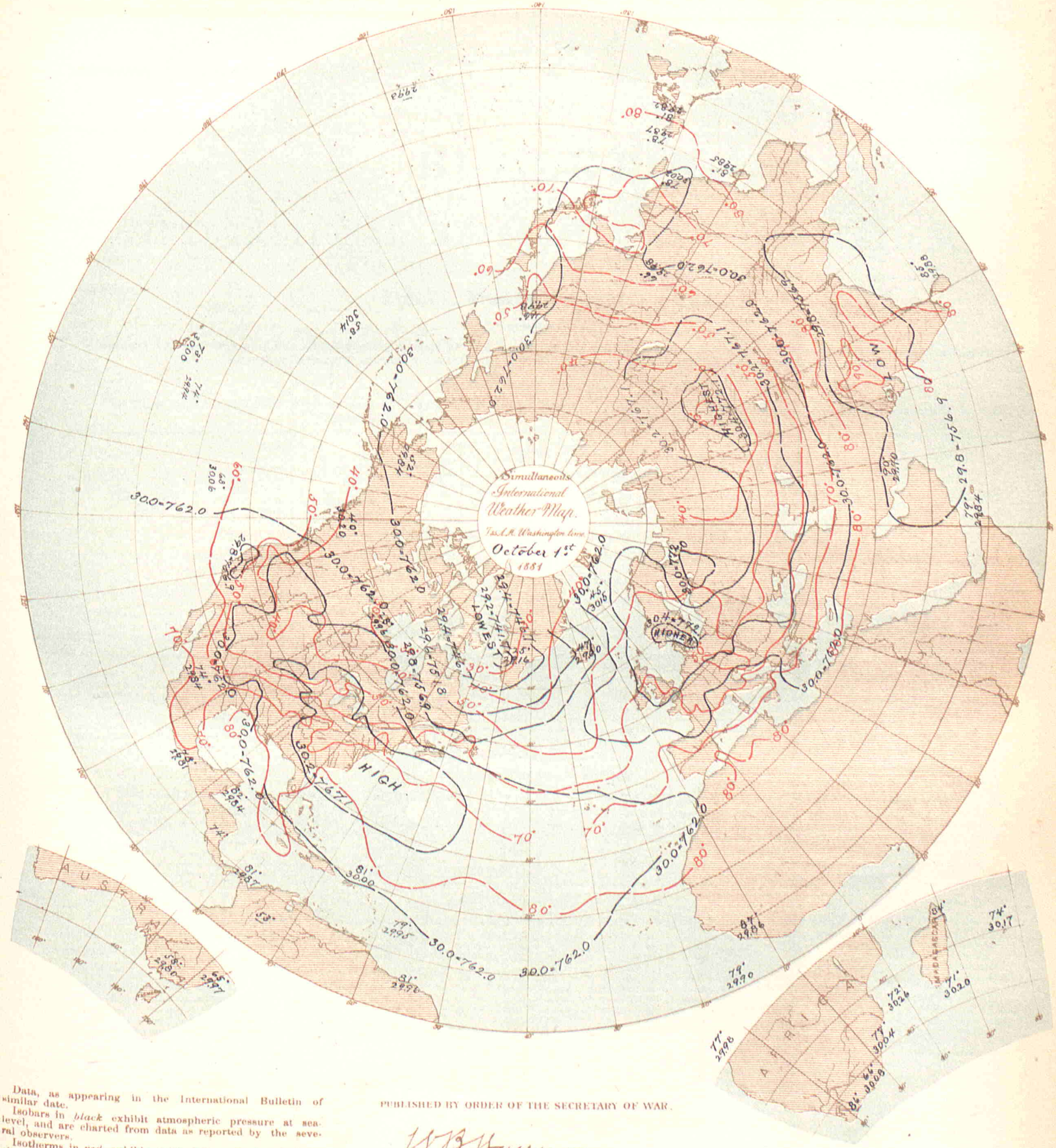
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.				Character.	Dir'n from.		
										Up'er	Lo'er	Upper.	Lower.						
	Inch.	Mill.	Fah	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	30.12	765.0	77	25.0	91	ne.	6	2.7			5		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.13	765.3	70	21.1	80	sw.	12	5.4		2 c	0			0	0			hazy	
Naval Hospital, Yokohama, Japan	29.79	756.7	65.5	18.6	78	e.			1		8		n.	0.19	4.8			clearing	
Adams, [S. A. Guayaquil River, Equador,	29.71	754.6	74	23.3	86	ssw.			3		10							cloudy	
Alaska, Callao, Peru	29.95	760.7	60	15.6	100	calm			0		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.81	757.2	69	20.6	75	ne.			2		8		n.			sm'h		cloudy	
Alliance, N. 70° 12′, W. 2° 30′	30.15	765.8	45	7.2	92	wsw.			5		10			0	0	long	wsw.	cloudy	
Ashuelot, Kobe, Japan	30.02	762.5	65	18.3	58	nw.			2		2		nw.					fair	
Colorado, New York, N. Y.	30.26	768.6	72	22.2	95	sw.	12	5.4			10		sw.					cloudy	
Constitution, Newport, R. I.	30.20	767.1	68	20.0	?	wsw.	12	5.4			2		w.					clear	
Franklin, Norfolk, Va.	30.30	769.6	73	22.8	100	sse.	5	2.2			5		sw.	0	0			fair	
Galena, Leghorn, Italy	29.86	758.4	61	16.1	82	e.			1		8		e.			sm'h		cloudy	
Independence, N. Yard, Mare I'd, Cal.	29.68	753.9	56	13.3	75	sw.	8.4	3.8			0							clear	
Kearsarge, Hudson River, N. Y. *†	30.40	772.1	74	23.3	86	sw.			3		10					sm'h		cloudy	
Lackawanna, San Francisco, Cal. †	29.99	761.7	54	12.2	100	sw.			2		0							clear	
Lancaster, New York, N. Y.	30.25	768.3	74	23.3	95	wsw.	18	8.0			5		wsw.	0	0			misty	
Marion, Montevideo, Uruguay	30.03	762.7	55	12.8		nne.			2		10		nne.			sm'h		fair	
Michigan, Erie, Pa.	30.14	765.5	79	26.1	58	sw.			1		10		sw.					cloudy	
Minnesota, Newport, R. I.	30.25	768.3	70	21.1	95	sw.			4		2		sw.			mod.	sw.	clear	
Monocacy, Yokohama, Japan	29.95	760.7	69	20.6	85	ne.			1		10		calm					cloudy	
Nipsic, Genoa, Italy	29.91	759.7	65	18.3	53	n.			3		8		n.			sm'h		d. clouds	
Onward, Callao, Peru †	29.97	761.2	60	15.6	94	s.			1		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.93	760.2	80	26.7	66	e.			2		2		n;e.					fair	
Passaic, Washington, D. C.	30.27	768.8	74	23.3	95	sw.			1		2							fair	
Pensacola. S. 10° 34′, W. 78° 20′	30.00	762.0	61	16.1	88	se.			2		10		se.	0	0	mod.		cloudy	
Portsmouth, Newport, R. I.	30.25	768.3	68	20.0	100	wsw.			3		5		sw.			sm'h		cloudy	
Powhatan. N. 11° 02′, W. 80° 20′	29.86	758.4	86	30.0	64	sse.			2		5		se.			sm'h		fair	
Quinnebaug, Marseilles, France	29.91	759.7	63	17.2	78	nnw.			1		8		wnw.			sm'h		raining	
Ranger, Mare Island, Cal. *	29.74	755.4	57	13.9	81	sw.			4		2		sw.					clear	
Richmond, Panama, Panama	29.87	758.7	81	27.2	83	se.			3		5			0.15	3.8			fair	
Saratoga, Newport, R. I.	30.23	767.8	69	20.6	100	sw.			3-4		8		sw.	0	0	sm'h		cloudy	
Shenandoah, Montevideo, Uruguay *	30.26	768.6	56	13.3	69	nne.			2		2					sm'h		fair	
St. Louis, League Island, Pa.	30.01	762.2	74	23.3	86	sw.	4	1.8			8		sw.	0	0			misty	
Swatara, Chefoo, China †	30.04	763.0	74	23.3	68	s.			2		2		calm			sm'h		hazy	
Tennessee, New York, N. Y.	30.30	769.6	73	22.8	100	wsw.	10	4.5			8		wsw.	0	0			cloudy	
Trenton, N. 22° 30′, W. 45° 58′ *	30.10	764.5	81	27.2	83	e.			4		5			0	0	sm'h		fair	
Vandalia, New York, N. Y.	30.26	768.6	73	22.8	95	w.			3		8		w.					cloudy	
Wabash, Boston, Mass.	30.16	766.1	70	21.1	85	sw.	14	6.3			2		sw.	0	0			clear	
Wachusetts, Sitka, Alaska	30.14	765.5	45	7.2	46	ne.			1		0					sm'h		clear	
Wyoming, Port Royal, S. C.	30.26	768.6	78	25.6	78	e.	10	4.5			2		e.	0	0			fair	
Yantic, New York, N. Y. *	30.18	766.6	72	22.2	95	wsw.			3		5		wsw.					hazy	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 56° 45′, W. 19° 35 *†‡	29.93	760.2				wnw.	4		5		w.			mod.	w.	fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith N. 56° 00′, W. 13° 45′	30.13	765.3	57	13.9	100	ssw.	6		10		sw.	3 h'r	3 h'r	4	sw.	raining	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 52° 17′, W. 27° 29′	29.99	761.7	43	6.1		w.	3		2		wsw.			hv'y	w.	clear	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, Agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shuckford, Liverpool, England †	30.24	768.1	63	17.2	94	e.	3		2		e.					fair	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Philadelphia, Penn †	30.34	770.6	84	28.9	64	wsw.	5		2		sw.	0	0			fair	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 41° 28′, W. 65° 52′ *†	30.40	772.1	66	18.9	93	wsw.	2		8		se.			sm'h	s.	foggy	
S. S. Pennsylvania, Capt G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall																	
S. British Merchant, Capt. E. J. Moloney,																	
S. S. Cipero, Capt. W. N. Lailey, Off Belize, Honduras, C. A.	29.84	757.9	82	27.8	91	e.	3		10							overcast	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, S. 15° 16′, W. 32° 56	30.08	764.0	76.7	24.8	65	se.	3		3							d. clouds	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 38° 00′, E. 79° 10′	29.96	761.0	56.2	13.4	93	wnw.	8		9							squally	
Bk. Mertola, Capt. E. W. Turner, N. 41°. 27′ W. 14° 33′	30.06	763.5	66.6	19.2	90	nne.	1		3							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant, S. 44° 07′. E. 62° 16	29.62	752.3	46.5	8.1	76	wsw.	6		4							d. clouds	
Queen of Cambria, Capt. M. Parry N. 14° 14′, W. 26° 47′	29.97	761.2	83	28.3	83	ne.	5		6							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow																	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 26° 53′, W. 37° 34′	30.28	769.1	77.5	25.3	72	n.	3		3						ne.	d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, Yokohama, Japan	29.89	759.2	68.5	20.3	90	ne.	4		6							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin, S. 6° 00′, E. 104° 10′	29.72	754.9	80	26.7		se.	4		9							gloomy	
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, Agent, San Francisco.																	
S. S. Newbern, Capt. E. Rogers,																	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., Agents, New York.																	
S. S. Gallia, Capt. W. H. P. Hains																	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.																	
S. S. Braunschweig, Capt. C. Pohle, N. 50° 15′, W. 10° 40′	30.00	762.0	68.0	20.0	67	sse.	3		8		sse.			long	nw.	cloudy	
S. S. Hermann, Capt. H. Baur N. 38° 26′, W. 70° 01′	30.41	772.4	75.2	24.0		w.	3		1		e.	0	0	mod.	w.	fair	E. Schmidt, 3d Officer
S. S. Köln. Capt. T. Jüngst, Off Cape Henry, Va	30.43	772.9	77.0	25.0	91	sw.	1-2		2		sw.	0	0	sm'h	sw.	clear	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbrouch, N. 49° 05′, W. 43° 34′	29.97	761.2	50.5	10.3	68	sw.	6		10		wsw.	6 h'r	6 h'r	r'gh	wsw.	raining	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, N. 23° 19′, E. 117° 10′ †	30.12	765.0	78	25.6	91	ne.	5		2		se.	0	0	mod.	ne.	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley. N. 42° 00′, W. 176° 02′ *†	30.14	765.5	58	14.4	70	wnw.	6		5?		wnw.			ho'vy	wnw.	clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf,																	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Otterendorp, Agent, San Francisco.																	
S. S. City of Chester, Capt. G. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. E. Polemann																	O. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Upper	Lower	Upper.	Lower			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 36° 20′, W. 121° 50′ †	29.84	757.9	54	12.2	93	nnw.	2		10					mod.	nw.	dense haze.	J. W. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, N. 38° 43′, W. 123° 41′ †	29.76	755.9	50	10.0	93	nw.	5		0					h'vy	nw.	clear	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 35° 11′, W. 120° 44′ †	29.96	761.0	57	13.9	81	se.	3		fg.		se.			long	sw.	foggy	G. H. Harrison.
S. S. Senator. Capt. Wallace, N. 38° 53′, W. 123° 46′ †	29.95		52	11.1	93	n.	1		0					mod.	nw.	clear	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †	29.95	760.7	53	11.7	93	n.	2		10		w.					cloudy	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 46° 50′, W. 124° 12 †	29.98	761.5	55	12.8	100	nw.	2		10		n.			sm'h		cloudy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. —— N. 33° 34′, W. 137° 36′	30.06	763.5	63	17.2	94	ene.	1		10					sm'h		raining	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W. †	30.01	762.2	66	18.9	84	nw.	2		0							clear	W. H. Hawes, 2d Off. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,																	
S. S. City of Peking, Capt. G. G. Barry, N. 30° 09′, E. 129° 09′ †*	30.14	765.5	74	23.3	72	n.	3		5		nw.	0	0	sm'h		fair	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——																	
S. S. City of Sidney, Capt. H. C. Dearborn, N. 25° 12′ W. 150° 53′ †	29.94	760.5	74	23.3	76	ene.	2		5		ne.	0	0	mod.	ene.	fair	E. L. Saik. A. L. Richie, 2d Off.
S. S. City of Tokio, Com. J. Maury																	
S. S. Colima, Capt. R. R. Searle, N. 15° 00′, W. 95° 25′ †	29.81	757.2	78	25.6	95	se.	3		10		ese.	0.80	20.3	mod.	var.	threatening	R. R. Searle.
S. S. Grenada. Capt. M. Connolly N. 7° 20′, W. 80° 02′ †	29.78	756.4	79	26.1	100	sw.	7		10		sw.	6 h'r	6 h'r	r'gh	ssw.	squally	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.08	764.0	64	17.8	73	w.	2		2?		w.					cloudy?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Jersey City, N. J †	30.46	773.7	75	23.9													C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 50° 22′, W. 30° 39′ †	29.95	760.7	47	8.3		wnw.	4		8		nw.	6 h'r	6 h'r	h'vy	nw.	squally	R. Horsfall.
S. S. Britannic, Capt. H. Perry																	
S. S. Celtic, Capt. B. Gleadell, N. 41° 20, W. 60° 32′ †	30.29	769.4	69	20.6		wsw.	3		8		sw.	0	0	sm'h		fair	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, Liverpool, England †	30.44	773.2	53	11.7	93	s.	3		5		s.	0	0			d. clouds	
S. S. Republic. Capt. P. J. Irving																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, New Bedford, Mass †	30.27	768.8	70	21.1	100	sw.	5	0	2 k			0	0			fine	
Golden Fleece																	
Hassler, Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	W. Randall.
S. Pawashick Capt. E. Fry. N. 40° 02′, W. 14° 41′ *†	29.93	760.2	66.5	19.2	91	nne.	2		8		ne.			sm'h	n.	fine	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	29.97	761.2	76	24.4	73	w.	5		0			0	0			clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

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Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 2, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.93	760.2	70.5	21.4	93	e.			1		1			0	0	very fair	Moiroud.
Algiers ‡			29.89	759.2	73.8	23.2	73	nne.			2		0			0	0	clear	Nicolas.
La Calle ‡			29.89	759.1	72.7	22.6	84	ene.			6		4			0.256	6.5	cloudy	Fonfrède.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			29.91	759.6	81.0	27.2	23	nnw.			1		0			0	0	clear	Dumas.
Tebessa ‡			29.93	760.2	72.0	22.2	66	ssw.			5		4			0	0	cloudy	Derché.
Geriville ‡					83.1	28.4	12	nnw.			6		2			0	0	fair	Lonchamp.
Laghouat ‡			29.96	760.9	78.4	25.8	21	nw.			2		0			0	0	clear	Herbin.
Biskra ‡			29.94	760.4	88.9	31.6	23	se.			1		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.94	760.5	30.03	762.7	49.0	9.4	78	e.	5	2.2			0			0.01	0.3	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.39	746.6	29.95	760.8	47.8	8.8	83	calm			0		10			0.197	5.0	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.31	744.4	30.08	764.1	49.6	9.8	60	ene.	8.1	3.6			1			0	0		Dr. Wiersbicki.
Eperies	29.11	739.5	30.00	762.1	48.2	9.0	77	n.			2		10 n			0	0		Julius Mikolik.
Gratz ‡	28.71	729.3	29.97	761.2	51.3	10.7	90	s.			2		10			0.177	4.5		Andreas Rospini.
Hermannstadt	28.45	722.5	29.84	758.0	60.3	15.7	63	se.			5		5			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.61	726.7	29.95	760.8	51.4	10.8	84	e.			3		10			0.126	3.2	rainy	The Staff.
Lemberg	29.02	737.2	30.02	762.6	47.5	8.6	73	ne.			1		10			0	0		Dr. T. Stanecki.
Pola	29.77	756.2	29.88	759.0	57.0	13.9	82	ene.			3		10			0.346	8.8		I. R. Hydrographic Office.
Szathmar	29.46	748.3	29.92	760.0	56.8	13.8	68	ne.			2		10			0.201	5.1		Jozsef Midlinszky, S. J.
Szegedin	29.66	753.4	29.95	760.6	49.1	9.5	94	calm			0		10			0.236	6.0		Karl Stancel.
Trieste	29.80	756.8	29.90	759.4	60.1	15.6	55	ene.			4		6			0	0		Rieder.
Vienna	29.30	744.1	30.02	762.4	51.1	10.6	73	n.			1		8			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 5, 1882.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.23	767.8	30.33	770.4	54.0	12.2	74	s.	14	6.3			9			0	0	overcast	W. Boswell.
Armagh, Observatory	29.98	761.5	30.21	767.3	57.0	13.9	74	se.	10	4.5									S. Call.
Bidston, Liverpool Obs'y			30.22	767.6	57.6	14.2	64	ese.	11	4.9			1					blue sky	John Hartnup.
Bolton, Sharples	29.74	755.4	30.28	769.1	56.9	13.8	62	e.	6	2.7			6					d. clouds	Thomas Mackereth, A.S.
Bradford, Yorkshire																0	0		J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.06	763.5	58.0	14.4	67	e.			0.6		0					blue sky	John McLaren.
Chatham, School M. E.	30.04	763.0	30.17	766.3	56.6	13.7	79	ne.			1		5					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.90	759.4	30.13	765.3	55.2	12.9	73	e.			2		9					overcast	The Staff.
Fort Napier, Natal	27.69	703.3	29.91	759.7	87.0	30.6	83	e.			1		0					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.74	755.4	29.97	761.2	88.0	31.1	91	w.			1		3					showery	Sergt. John Robinson.
Galway, Queen's College			30.05	763.3	61	16.1	66	nw.			2		4					blue sky	J. O'Donughue.
Gibraltar, Mediterranean	29.88	758.9	29.93	760.2	79.0	26.1	82	ne.			2		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.98	761.5	30.18	766.6	53.1	11.7	73	ene.			5							misty	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.99	761.7	30.16	766.1	59.3	15.2	68	ne.			2		6					d. clouds	The Staff.
Guernsey	29.83	757.7	30.04	763.0	59	15.0	67	ene.			3		0					blue sky	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.13	765.3	30.17	766.3	55.9	13.3	62	ene.	16	7.2			5					d. clouds	The Staff.
Leicester, Museum	29.93	760.2	30.18	766.6	60.0	15.6	55	ne.			1		0					blue sky	J. C. Smith.
Malta, Mediterranean	29.84	757.9	29.92	760.0	71.0	21.7	75	sw.			2		6			0.32	8.1	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.06	763.5	30.11	764.8	81.5	27.5	70	e.			4		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.68	753.9	30.20	767.1	59.8	15.4	59	ene.			2		1					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.94	760.5	30.17	766.3	59.1	15.1	62	ene.			3		2					blue sky	The Staff.
Plymouth	30.06	763.5	30.13	765.3	55.0	12.8	73	e.			2		5					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.23	767.8	53.2	11.8	77	se.	30	13.4			0					blue sky	Rev. C. Clouston, L.L.D.
Scutari Cemetery, Turkey	29.86	758.4	29.92	760.0	69.4	20.8	58	ne.			2		9					d. clouds	Serg't W. H. Lyne.
Sheffield	29.99	761.7	30.27	768.8	57.3	14.1	74	e.			1		5			0	0	d. clouds	W. F. Cooper.
Silloth Rectory	30.20	767.1	30.24	768.1	59.0	15.0	61	e.			4		0			0.015	0.3	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.25	768.3	55.7	13.2	66	e.	12	5.4			5					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.94	760.5	30.16	766.1	58.8	14.9	70	ne.			1		0					blue sky	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	30.12	765.0	30.15	765.8	62	16.7	71	e.			4		6					d. clouds	W. Newcombe.
Valencia, Observatory	30.05	763.3	30.07	763.8	60.4	15.8	70	se.	24	10.7			6					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.35	770.9	30.39	771.9	53	11.7	77	sw.	3	1.3		2 c	2 s	sw.	sw.	0	0	fair	H. J. Cundall, C. E.
Chatham, N. B.*	30.37	771.4	30.43	772.9	48	8.9	80	w.	4	1.8		0	0			0	0	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.41	747.0	30.43	772.9	47	8.3	89	w.	5	2.2		0	0			0	0	clear	J. McWilliams.
Fort Garry, Manitoba*	29.31	744.5	30.16	766.1	38	3.3	96	n.	6	2.7		5 k	5 ks	n.	n.	0.190	4.8	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.29	769.4	30.42	772.7	55	12.8	80	n w.	5	2.2		8 cs	0	w.		0	0	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	30.11	764.8	30.44	773.2	56	13.3	100	ne.	4	1.8			10 ks		ne.	0.02	0.5	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	30.25	768.3	30.45	773.4	52	11.1	96	s.	3	1.3		2 c	2 s	w.		0.04	1.0	fair	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nuson.
Parry Sound, Ontario*	29.70	754.4	30.41	772.4	45	7.2	100	se.	4	1.8		0	0			0	0	clear	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.66	753.4	30.35	770.9	58	14.4	100	ne.	6	2.7			10 n		nw.	0.20	5.1	threatening	H. Morgan.
Port Stanley, Ontario	29.68	753.9	30.32	770.1	59	15.0	90	e.	10	4.5			10 n		se.	0.27	6.9	cloudy	M. Payne.
Quebec, Quebec*	30.13	765.3	30.46	773.7	47	8.3	86	sw.			1	0	2 n		w.	0	0	clear	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.96	761.0	30.43	772.9	41	5.0	93	calm	0	0			fg.			0	0	dense fog	W. H. McIntyre.
Saugeen, Ontario*	29.62	752.3	30.34	770.6	50	10.0	93	se.	7	3.1		2 cs	0			inap.	inap.	clear	K. Stewart.
St. Andrews, N. B.	30.38	771.6	30.43	772.9	53	11.7	79	nw.	1	0.4		2c	2 s	nw.		0	0		
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.27	768.8	30.33	770.4	55	12.8	64	w.	8	3.6		10 cs	0	w.		0	0		T. C. Hill, C. E.
Toronto, Ontario*	30.02	762.5	30.40	772.1	57	13.9	90	e.	9	4.0			10 ks		se.	0.03	0.8	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.40	772.1	30.46	773.7	55	12.8	86	ne.	4	1.8		8 k	0	w.		0.03	0.8	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.93	760.2	30.18	766.6	55	12.8	68	w.	2	0.9		0	0			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	29.79	756.7	29.82	757.4	68.0	20.0	88	ne.	4.8	2.1		6 c	0			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.08	738.6			92	33.3	21	w.			1	2	3			0	0	light clouds	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.09	764.2	30.11	764.8	68.7	20.4	92	e.	4.9	2.2		9 ck	0	wnw.		0	0	covered	M. Marc Dechevrens, S.J

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.34	770.5	30.38	771.7	50.5	10.3	81	ene.	11	5			10						Oversergent Fischer.
Fanöe	30.29	769.4	30.31	769.9	54.7	12.6	61	ene.			4		7						Overloerer Lauridsen.
Godthaab, Greenland	29.00	736.6	29.04	737.7	31.3	—0.4	76	n.			2		10						S. Kleinschmidt.
Stykkisholm, Iceland	29.69	754.0	29.73	755.1	46.0	7.8	78	s.			7		10					raining	A. O. Thorlacius.
Thorshavn	30.08	764.0	30.11	764.9	54.0	12.2	86	ese.	9	4			6						Overloerer Bergh.
Vestervig	30.28	769.2	30.37	771.5	52.7	11.5	66	ene.			4		1						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.32	744.8	29.97	761.2	60.8	16	53	nne.			1		2 k		n.			slightly cl'dy	M. Labroue, Director.
Alençon Normal School	29.55	750.5	30.15	765.9	55.4	13	66	n.			3		hz			0	0	hazy	M. Nicot, Director.
Arras, Engineer School																			M. Klein, Commandant.
Avignon, Normal School	29.84	758.0	29.92	760.0	63.7	17.6	59	nw.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.44	747.8	30.00	761.9	56.8	13.8	72	e.			1		5 kn		e.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.82	757.4	30.09	764.2	52.3	11.3	70	ne.			1		0			0	0	clear	M. Frère Eugène Marie.
Besançon, Normal School	29.07	738.3	29.95	760.8	56.8	13.8	65	sse.			1		2		se.	0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	29.72	754.8	29.98	761.4	60.3	15.7	52	nw.			1	1	2		n.			slightly cl'dy	M. Rayet, Director.
Bourges, Normal School	29.48	748.8	30.03	762.7	59.0	15	45	ne.			1	ck	0	ne.		0	0		M. Postel, Director.
Brest, Naval Observatory	29.83	757.6	30.07	763.8	59.0	15.0	61	ne.			1		1		ne.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.02	762.4	30.09	764.3	59.0	15	63	nne.			1		0			0	0	clear	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.68	753.8	29.99	761.8	58.3	14.6	96	e.			2		0			0	0	clear	M. Jadot, Director.
Charleville, Normal School	29.52	749.9	30.03	762.7	62.6	17	53	ese.			1		0			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.60	726.4	29.94	760.4	58.8	14.9	56	ne.			1		2			0	0	¼ covered	M. Alluard, Director.
Cluny, Normal School	29.15	740.3	29.98	761.4	58.6	14.8	89	n.			2		4		n.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.18	741.2	30.05	763.2	53.6	12	72	e.			3		5 kn	e.	e.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.37	695.1	29.85	758.2	61.2	16.2	61	w.			1		1 k		e.	0.08	2.		M. Jeangirard, Director.
Gréasque, du. Rhone	28.87	733.3	30.01	762.3	61.2	16.2	81	s.			1		5		s.	0.43	11.	½ covered	M. Kina, Director.
Grenoble, Normal School	29.22	742.1	29.98	761.4	59.5	15.3	67	nw.			1		n			0	0		M. Ablard, Director.
Guéret, Normal School	28.39	721.0	29.97	761.3	55.2	12.9	66	ne.			1		5 ck	0	s.	0	0	cloudy	M. Rivoire, Director.
Lamballe, Normal School	29.83	757.6	30.10	764.6	59.4	15.2	66	ne.			1		1		ne.	0	0	clear	M. Ollitrault, Director.
Lescar, Normal School																			M. Chauvin, Director.
Lorient, Naval Observatory	29.94	760.4	30.04	763.0	64.4	18	53	ne.			1		0			0	0	clear	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.92	734.5	29.98	761.5	54.7	12.6	72	nw.			1		5		nne.	0.016	0.4	cloudy	M. André, Director.
Mans, Normal School	29.78	756.5	30.10	764.5	55.9	13.3	61	ne.			1		0			0	0	clear	M. Piboen, Director.
Marseille, Observatory	29.65	753.1	29.92	759.9	63.5	17.5	52	wsw.			1		5		sw.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.74	628.3	29.97	761.3	51.8	11.0	62	e.	5.6	2.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.85	758.1	29.95	760.8	66.2	19	55	nw.			2		5		e.	0	0	cloudy	M. Pourle, Director.
Nancy, Normal School	29.25	742.9	30.02	762.5	50.9	10.5	76	nnw.			1		5 kn			0	0	cloudy	M. Hasse.
Nantes, Observatory	29.91	759.7	30.07	763.8	59.7	15.4	59	n.			1–2		0			0	0		M. Larocque, Director.
Nice	29.86	758.5	29.89	759.3	66.2	19.0	63	e.			3		10	e.	e.	0.063	1.6	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.79	756.6	29.89	759.3	64.9	18.3	36	ne.	3.8	1.7			1		ssw.	0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					59.7	15.4	50	calm			0		8			0	0	very cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.08	636.9			39.2	4.0	93	e.			1		5 k			0.012	0.3	½ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.01	762.2	30.04	763.0	61.2	16.2	100	nne.			1		0			0	0	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.85	758.3	30.07	763.8	53.2	11.8	78	ese.			1		0			0	0	clear	M. Moullot, Director.
Rodez, Normal School	27.75	704.8	29.89	759.1	53.6	12	74	s.			1	c	0			0	0		M. Richard, Director.
Rouen, Normal School	30.01	762.2	30.10	764.4	55.4	13	63	e.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School																			M. Delaplanche, Dir.
Saint Maur, Observatory	29.88	759.0	30.04	763.0	56.7	13.7	63	nne.			2		1		ene.	0	0		M. Renou, Director.
Toulouse, Observatory	29.30	744.3	30.03	762.7	61.3	16.3	56	nw.			2		2	nw.		0	0	slightly cl'dy	M. Bailland, Director.
Tours	29.83	757.6	30.02	762.6	59.0	15.0	58	e.			2		2	calm	e.	0	0	¼ covered	M. de Tastes.
Versailles, Observatory	29.56	750.8	30.05	763.3	54.3	12.4	65	n.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.77	756.2	30.06	763.6	54.9	12.7	63	nne.			1		2		ne.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.24	742.8	30.10	764.6	57.7	14.3	50	ne.			2	0	3 s			0	0		Prof. Dr. Hoh.
Berlin	30.01	762.2	30.18	766.6	51.6	10.9	89	ne.			2		10			0.051	1.3	heavy rain	Prof. Dr. Arndt.
Breslau	29.62	752.4	30.15	765.9	47.5	8.6	55	ne.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.61	752.2	30.04	763.1	53.2	11.8	71	ne.			1		10	e.		0	0		Albert Senz.
Cassel	29.40	746.8	30.12	765.1	54.7	12.6	46	ene.			3		3	n.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.70	754.3	30.06	763.5	57.6	14.2	47	ene.			2		3			0	0		Physical Society.
Friedrichshafen	28.56	725.5	30.01	762.3	48.6	9.2	80	nne.			4		10	ne.		0.102	2.6		Wilhelm, Chief Tel.
Hamburg	30.17	766.2	30.26	768.6	54.7	12.6	68	nnw.			4		5			0	0		E. Preller.
Kiel	30.26	768.7	30.28	769.1	53.6	12.0	65	e.			4		5			0.024	0.6		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.78	756.3	30.20	767.1	52.0	11.1	45	ne.			3		0			0	0		H. Leppig, Asst.
Magdeburg	30.00	762.0	30.19	766.9	48.7	9.3	86	nne.			3		10 s		nne.	0	0		Dr. Assmann.
Memel	30.26	768.6	30.31	769.8	51.4	10.8	82	e.			4.5	0	5 k						Issermann.
Munich	28.17	715.6	30.04	762.9	45.9	7.7	80	ne.			3		10	w.		0	0		Central Station.
Neufahrwasser	30.22	767.6	30.24	768.0	54.0	12.2	70	ene.			4		10			0.146	3.7		A. Lothes.
Neustadt, Palatinate	29.50	749.4	30.07	763.8	53.8	12.1	61	nne.			1		4	nne.		0	0		Dicknether.
Stuttgart	29.06	738.1	29.96	761.0	50.7	10.4	75	n.			1		7	n.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.52	724.3	30.02	762.6	53.6	12.0	62	ne.			4		8	e.		0	0		Fischer.
Wustrow	30.27	768.9	30.30	769.6	52.3	11.3	76	ene.			4		10 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.57	751.1	29.95	760.8	74.5	23.6		sw.			1.5		6			0.004	0.1		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.72	754.8	29.77	756.1	83.7	28.7	73	sw.	30.0	13.4			0			0	0	blue sky	
Deesa	29.24	742.6	29.70	754.3	92.8	33.8	43	nw.					1		nw.	0	0	d. clouds	
Bombay	29.71	754.6	29.75	755.6	82.1	27.8	85	wnw.	13.0	5.8			7		wnw.	1.88	47.8	d. clouds	
Poona, Yarrowda	27.87	707.9	29.70	754.5	82.2	27.9	68	w.	17.0	7.6			5	wsw.		0.09	2.3	d. clouds	
Belgaum	27.22	691.4	29.77	756.2	71.9	22.2	89	w.	8.0	3.6			8	sw.	nw.	0	0	d. clouds	
Lahore	28.92	734.6	29.65	753.0	90.1	32.3	43	sw.	0.9	0.4			0			0	0	blue sky	
Roorkee	28.70	730.0	29.65	753.1	87.0	30.6	55	w.	2.0	0.9			2			0	0		
Agra	29.13	739.8	29.68	753.8	90.2	32.3	57	nw.	3.3	1.5			0			0	0		
Nagpur	28.69	728.7	29.74	755.3	78.2	25.7	81	calm	2.9	1.3			8		sw.	0	0	d. clouds	
Jubbulpore	28.38	720.7	29.72	754.8	83.6	28.7	74	e.	1.4	0.6			0			0.02	0.5	blue sky	
Lucknow	29.33	744.9	29.70	754.2	90.6	32.6	42	calm	5.3	2.4			0			0	0	blue sky	
Allahabad	29.40	746.7	29.71	754.6	82.5	28.1	80	calm	0.4	0.2			6			0	0	d. clouds	
Patna	29.54	750.4	29.62	752.4	85.4	29.7	71	n.	2.2	1.0			10	n.	n.	0	0	overcast	
Hazaribagh	27.74	704.6	29.75	755.5	78.8	26.0	66	calm	4.4	2.0			8	e.	w.	0.10	2.5	thund'rst'm.	
Cuttack	29.05	753.0	29.73	755.1	87.0	30.6	79	calm					2			0	0	d. clouds	
Calcutta, Alipore	29.70	754.3	29.72	754.9	82.8	28.2	91	sw.	2.0	0.9			3			0.04	1.0	d. clouds	
Dhubri	29.60	752.0	29.73	755.0	80.0	26.7	85	calm	3.2	1.4			0			0.07	1.8	blue sky	
Chittagong	29.65	753.0	29.74	755.3	83.5	28.6	80	se.	1.1	0.5			4			0	0	blue sky	
Sibsagar	29.38	746.4	29.72	754.8	84.2	29.0	78	se.	2.8	1.2			4			0	0	blue sky	
Jeypore	28.29	718.4	29.69	754.0	93.7	34.3	32	n.	1.8	0.8			4		n.	0	0	d. clouds	
Zanzibar, Africa			29.99	761.7	82.0	27.8	67	w.	4	1.8			6			0.15	3.8	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.52	749.7	29.93	760.1	57.9	14.4	59	ne.	3.1	1.4			10			0	0		Prof. Giovanni Clodig.
Milan	29.44	747.8	29.94	760.5	59.7	15.4	65	sw.	1.3	0.6			9	nne.		0.039	1.0		Prof. Schiaparelli.
Padua	29.82	757.3	29.93	760.1	56.8	13.8	67	n.	7.4	3.3			10	sw.		0.098	2.5		Prof. Dott. Lorenzoni.
Moncalieri	28.99	736.4	29.90	759.4	61.5	16.4	62	se.	3.1	1.4			6	ne.		0	0		Prof. P. F. Denza.
Genoa	29.72	754.8	29.91	759.6	64.6	18.1	47	e.	2.5	1.1			2	ne.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.01	711.4	29.93	760.2	56.1	13.4	63	nne.			2		3			0.047	1.2		Prof. D. C. Bruno.
Pesaro	29.85	758.1	29.89	759.3	56.1	13.4	78	nw.	12.5	5.6			10	w.		0	0		Prof. Luigi Guidi.
Florence	29.64	752.9	29.89	759.3	61.2	16.2	59	ne.			2		10	w.		0.020	0.5		Prof. Costantino Pitter.
Leghorn	29.83	757.6	29.91	759.8	65.5	18.6	62	s.	0.7	0.3			9			0	0		Prof. P. Monte.
Rome	29.72	754.9	29.89	759.3	68.5	20.3	52	wsw.	6.9	3.1			10			0.039	1.0		Prof. P. S. Ferrari.
Lecce	29.64	752.8	29.89	759.1	69.8	21.0	65	w.	8.0	3.6			7	w.		0.059	1.5		Prof. C. de Giorgi.
Cosenza	29.05	737.8	29.93	760.1	65.5	18.6	57	ese.	1.8	0.8			9	se.		0.551	14.0		Prof. D. Conti.
Cagliari	29.71	754.7	29.90	759.4	71.1	21.7	52	s.			2		2			0	0		Prof. A. Pacinotti.
Palermo	29.67	753.5	29.91	759.7	69.8	21.0	51	ene.	3.8	1.7			6	wsw.		0.260	6.6		Prof. G. Cincciatore.
Syracuse	29.89	759.1	29.93	760.2	70.9	21.6	67	sw.	6.3	2.8			8	sw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.36	745.7	29.88	758.9	65.3	18.5	76	wsw.	3.1	1.4			3	w.		0.220	5.6		Prof. F. Brioschi.
Stelvio	22.06	560.2			36.9	2.7	59	e.			2	3 cs	0	se.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.11	561.5			39.2	4.0	88	se.			2		9 k	e.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.11	764.8	30.12	765.0	60.4	15.8	63	nne.	7.6	3.4		1cs;ck	0			0	0	clear	K. Sasaki.
Kioto	29.94	760.5	30.12	765.0	57.7	14.3	79	nw.	2.1	0.9		1 cs	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.95	760.7	30.15	765.8	64.3	17.9	65	nne.	4.0	1.8		5ck;cs	0			0	0	fair	S. Takehayashi.
Nemuro	30.00	762.0	30.06	763.5	61.7	16.5	88	n.	8.4	3.8		2	1			0	0		
Niigata	30.10	764.5	30.14	765.5	63.6	17.6	66	n.	6.1	2.7		ck	8 ks		n.	0.540	13.7	cloudy	
Nobiru	30.03	762.7	30.05	763.3	59.3	15.2	81	nnw.	9.8	4.4		ck	4s;ks			0	0	fair	
Sapporo	29.90	761.0	30.02	762.5	51.2	10.7	93	w.	1.2	0.5			4			0	0		
Tokei Obs'y, Yeddo	30.01	762.2	30.08	764.0	60.9	16.1	68	nnw.	4.0	1.8		2ck;cs	0	w.		0	0	clear	The Staff.
Wakayama	30.07	763.8	30.12	765.0	63.6	17.6	68	nne.	6.9	3.1		ck;cs	5 ks			0	0	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.98	761.5	30.18	766.6	75.0	23.9	57	ese.	15.0	6.7		0	3 k		e.	0	0	fair	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.65	600.8	29.87	758.8	60.8	16.0	79	ene.	6.7	3.0		0	6 k		e.	inap	inap.	fair	Vicente Fernandez.
Leon	24.41	620.0	30.01	762.2	65.5	18.6	80	se.			2	5 c	2 k	nw.		0	0	cloudy	Prof. M. Leal.
Mazatlan	29.58	751.4	29.84	757.9	78.0	25.6	93	se.	0.9	0.4			10 n		se.	0	0	covered	F. Quijano, C. E.
Mexico, Central Obs'y	23.09	586.6	30.12	765.1	54.3	12.4	89	w.				3 c	3 ks			0.460	11.7	½ cloudy	The Staff.
Morelia	24.14	613.2	30.22	767.5	59.4	15.2	67	ne.			3	6	2	s.	se.	0.090	2.4	cloudy	M. Tena, M. D.
Pabellon, Aguascallientes	23.92	606.6	29.86	758.4	63.5	17.5	78	nne.			1	1 c	7 ks	ene.	ene.	0.059	1.5	cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	594.8	30.18	766.7	54.5	12.5	63	calm	0	0		0	4		e.	0	0		Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.16	766.1	30.16	766.1	53.1	11.7		ene.			4					0	0		
Groningen	30.20	767.1	30.26	768.5	51.1	10.6		ene.			1					0	0		
Helder	30.22	767.7	30.22	767.7	51.8	11.0		ene.			4					0	0		
Hellevoetsluis	30.16	766.0	30.16	766.0	53.1	11.7	67	ene.			4					0	0		
Utrecht	30.14	765.5	30.19	766.7	55.4	13.0	42	ene.			4		2			0	0	lightly cl'dy	H. van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.37	771.5	30.44	773.1	55.4	13.0	80	nnw.	1.1	0.5			7			0	0		
Christiania	30.30	769.6	30.45	773.4	55.4	13.0	61	se.	7	3			1			0	0		
Gjæsvær	30.41	772.4	30.43	773.0	45.7	7.6		sw.			4		10						
Lodingen	30.39	771.9	30.44	773.1	49.3	9.6	75	ne.			1		0			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.96	760.9	30.11	764.8	66.2	19.0	72	ene.	12.5	5.6			4			0	0		Dr. J. A. Sampaio.
Campo Major	28.91	734.2	29.85	758.3	82.6	28.2	21	wnw.	3.1	1.4			0			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.95	760.8	30.04	763.0	73.2	22.9	66	sw.	2.5	1.1			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.60	751.7	29.95	760.6	72.5	22.5	52	s.	7.4	3.3			0			0	0		The Staff.
Ponta Delgada, Azores	30.04	763.0	30.11	764.8	66.9	19.4	79	ene.	13.0	5.8			3			0.031	0.8	light rain	
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.10	739.2	30.22	767.5	38.5	3.6	58	s.	4	2		1 c	0						Capt. Lasarew.
Archangel	30.19	766.7	30.21	767.2	38.1	3.4	63	nw.	13	6			9 ks						Capt. Sselliwerstow.
Astrakhan	30.22	767.7	30.14	765.6	53.4	11.9	48	s.	7	3		0	0						Capt. Wieganow.
Barnaul ‡	29.90	759.4	30.43	772.8	32.9	0.5	62	calm	0	0			4						Meteorological Obs'y.
Dorpat	30.06	763.4	30.31	769.8	44.6	7.0	75	nne.	4	2			10 ks						Observatory.
Ekaterinburg	28.91	734.3	29.89	759.3	35.1	1.7	93	ssw.	9	4			10					snowing	Meteorological Obs'y.
Kasan	29.50	749.4	29.78	756.5	36.3	2.4	93	sw.	2	1			10 n					light rain	Observatory.
Kertch	30.02	762.5	30.04	763.0	57.0	13.9	88	calm	0	0			10 n			0	0		Lagorio & Sastyrez.
Kieff	29.37	746.0	30.02	762.4	50.7	10.4	41	nw.	4	2		c;cs	9 ks					solar corona	Observatory.
Lugan	29.82	757.3	30.02	762.4	56.5	13.6	69	wsw.	13	6			9						Meteorological Obs'y.
Moscow	29.43	747.6	29.92	759.9	42.4	5.8	76	n.	7.8	3.5		0	3 ks						Meteorological Obs'y.
Nikolaiev	30.04	763.0	30.11	764.8	52.7	11.5	75	calm	0	0			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.82	757.4	29.91	759.6	50.9	10.5	95	calm			0	10 cs	0			0	0		Lieut. Iwanow.
Pekin, China	29.87	758.6	30.01	762.2	69.6	20.9	67	calm	0	0		2 c	0			0.035	0.9		Physical Observatory.
St. Petersburg	30.20	767.0	30.21	767.4	41.0	5.0	78	n.	16	7			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.56	725.4	30.15	765.7	52.5	11.4	78	calm	0	0			10			0	0		Teich, A. M.
Tiflis	28.72	729.6	30.11	764.9	67.6	19.8	54	se.	4	2		0	4 k						Physical Observatory.
Warsaw	29.72	754.8	30.15	765.8	46.0	7.8	96	ene.	4	2			10 n					raining	Astronomical Obs'y.
Wilna	29.79	756.6	30.22	767.5	48.4	9.1	80	n.	7	3			10					heavy cld's	Berg, Assistant.
Yeniseisk	30.18	766.6	30.48	774.2	30.0	— 1.1	80	w.	4	2			6						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.28	769.1	58.0	14.4	64	se.			2	0	2 k			0	0	light clouds	Andrew Gibb.
Monach Lt. House, Hebrides			30.13	765.3	55	12.8	93	s.			7		10			0	0	hazy	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.80	756.9	29.81	757.2	65.5	18.6	65	se.	4.3	1.9			1			2.551	64.8	hazy	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.94	760.4	29.99	761.8	69.1	20.6	56	se.	2.2	1.0		2	0	n.		0	0	almost clear	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.03	686.5			63.3	17.4	56	ne.	3.4	1.5		0	0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.72	704.1	29.88	758.9	70.2	21.2	41	se.	1.6	0.7		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	29.76	755.9	29.91	759.6	84.0	28.9	46	ese.	1.6	0.7		2	4	ene.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.98	736.2	29.85	758.1	73.0	22.8	60	sw.	0	0			0			0	0	clear	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.95	760.8	30.02	762.5	78.2	25.7	89	e.	8.3	3.7		3 c;cs	k	nw.	ene.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.82	757.5	29.87	758.8	77.9	25.5	92	ne.	6.2	2.8			9 kn		sw.	0.74	18.7	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.86	758.4	29.95	760.8	73.8	23.2	68	s.	6.1	2.7		0	1		sw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.88	759.0	29.97	761.3	78.4	25.8	94	calm	0	0		5 k	5 s			0.591	15.0	cloudy	E. Cadea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.78	756.4	29.91	759.8	77.1	25.1	92	se.	4.1	1.8			10 kn		ese.	0.70	17.8	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.47	774.0	30.51	775.0	43.2	6.2	76	ne.			2		2			0	0		
Umea	30.45	773.3	30.50	774.6	51.1	10.6	72	ene.			2		9			0	0		
Hernosand	30.43	773.0	30.48	774.3	50.9	10.5	59	ne.			2		1			0	0		
Stockholm	30.27	768.9	30.44	773.1	48.6	9.2	61	nne.			2		2			0.016	0.4		
Wisby	30.30	769.0	30.36	771.1	52.2	11.2	61	ene.			4		7			0	0		
Sub-Series.																			
Upsala	30.36	771.1	30.45	773.3	49.1	9.5	63	n.	9.4	4.2			3		ne.	0.012	0.3		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.56	725.5	30.00	761.9	52.2	11.2	66	n.			1		10			0	0	covered	The Observatory.
Zurich ‡	28.37	720.8	30.03	762.7	47.8	8.8	85	e.			1		10			0.031	0.8	covered	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.98	761.5	66.0	18.9	66	ne.	8	3.5			10		n.	0	0		The Observatory.
Valona			29.97	761.3	68.4	20.2		sw.			1		5			0.59	15.	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.89	759.1	81.7	27.6	59	n.			1	0	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.37	771.4	30.45	773.4	62.5	16.9	60	n.	3	1.3			10 s		w.	0	0	cloudy	
Alpena, Michigan	29.63	752.6	30.32	770.1	45	7.2	93	calm	0	0		10 k	fg.	sw.		0	0	cloudy	
Atlanta, Georgia	29.19	741.4	30.41	772.4	67.0	19.4	93	e.	6	2.7		0	0			0.15	3.8	clear	
Atlantic City, New Jersey	30.37	771.4	30.38	771.6	72.6	22.6	97	sw.	1	0.4			10 s		calm	0	0	cloudy	
Augusta, Georgia	30.20	767.1	30.40	772.1	71.3	21.8	90	calm	0	0		0	0			0	0	clear	
Baltimore, Maryland	30.32	770.1	30.38	771.6	73	22.8	84	w.	1	0.4		3 ck	7 s	n.	w.	0	0	cloudy	
Barnegat, New Jersey	30.35	770.9	30.37	771.4	69.2	20.7	97	sw.	3	1.3			10s;fg		calm	0	0	cloudy	
Bismarck, Dakota	28.29	718.6	30.21	767.3	39	3.9	92	n.	4	1.8			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.09	688.1	30.01	762.2	33	0.6	81	nw.	4	1.8		0	0			0	0	clear	
Boston, Massachusetts	30.33	770.4	30.49	774.4	60.5	15.8	71	ne.	13	5.8		10 k	0	w.		0.05	1.3	cloudy	
Brackettville, Texas	28.88	733.5	29.90	759.4	74	23.3	97	e.	10	4.5			10 s		se.	2.05	52.1	threatening.	
Brownsville, Texas	29.97	761.2	30.02	762.5	80	26.7	91	calm	0	0		0	6 s		se.	0.28	7.1	fair	
Buffalo, New York	29.63	752.6	30.37	771.4	57.5	14.2	73	e.	9	4.0			10 s		w.	0.13	3.3	cloudy	
Burlington, Vermont	30.19	766.8	30.49	774.4	53.0	11.7	86	e.	4	1.8			10 s		w.	0.02	0.5	cloudy	
Cairo, Illinois	29.84	757.9	30.25	768.3	73.8	23.2	92	s.	9	4.0		2 ck	4 s	s.	s.	inap.	inap.	fair	
Campo, California	27.34	694.4	29.91	759.7	38.2	3.4	82	w.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.39	771.9	30.41	772.4	71	21.7	94	sw.	4	1.8		4 cs	0			0	0	fair	
Cape May, New Jersey	30.33	770.4	30.36	771.1	74	23.3	90	sw.	7	3.1		4 k	0	sw.		0	0	fair	
Castroville, Texas	29.26	743.2	29.93	760.2	79	26.1	82	se.	1	0.4			10 s		se.	0.01	0.3	cloudy	
Cedar Keys, Florida	30.20	767.1	30.22	767.6	76	24.4	82	ne.	10	4.5		0	0			0	0	clear	
Champaign, Illinois	29.30	744.2	30.07	763.8	68.8	20.4	93	sw.	15	6.7			10 n		sw.	1.21	30.7	light rain	
Charleston, S. Carolina	30.28	769.1	30.34	770.6	76	24.4	85	ne.	6	2.7		0	0			0	0	clear	
Charlotte, N. Carolina	29.49	749.0	30.40	772.1	70.0	21.1	84	calm	0	0		hz.	sk.	calm	calm	0	0	dense haze	
Chattanooga, Tennessee	29.54	750.3	30.39	771.9	70.0	21.1	90	se.	5	2.2		1 k	0	se.		0	0	clear	
Cheyenne, Wyoming	24.06	611.1	30.19	766.8	41.2	5.1	48	nw.	12	5.4		0	c			0	0	clear	
Chicago, Illinois	29.46	748.3	30.20	767.1	61.9	16.6	96	e.	5	2.2			10 n			0.28	7.1	light rain	
Chincoteague, Virginia	30.37	771.4	30.39	771.9	73	22.8	97	sw.	11	4.9		2 c	0	calm		0	0	fair	
Cincinnati, Ohio	29.61	752.0	30.29	769.4	72.5	22.5	84	se.	4	1.8			10 s		sw.	0	0	cloudy	
Cleveland, Ohio	29.57	751.1	30.34	770.6	65	18.3	93	s.	7	3.1			10 n		w.	0.37	9.4	light rain	
Coleman City, Texas																			
Columbus, Ohio	29.43	747.5	30.32	770.1	68	20.0	90	e.	3	1.3			10 s		s.	2.78	70.6	cloudy	
Concho, Texas	28.16	715.3	30.16	766.1	70	21.1	97	e.	4	1.8		5 ck	3 s	se.		0.43	10.9	cloudy	
Corsicana, Texas	29.63	752.6	30.11	764.8	77	25.0	90	s.	4	1.8			10 s			0.14	3.6	cloudy	
Davenport, Iowa	29.47	748.5	30.15	765.8	62	16.7	93	ne.	4	1.8			10 n		calm	0.07	1.8	light rain	
Dayton, Washington T'y	28.18	715.8	30.04	763.0	43	6.1	83	calm	0	0			8 ks		calm	0	0	cloudy	
Deadwood, Dakota	25.41	645.4	30.27	768.8	46	7.8	53	calm	0	0		0	0			0	0	clear	
Decatur, Texas	28.98	736.1	30.12	765.0	70	21.1	100	ne.	8	3.6			10 n			0.23	5.8	light rain	
Delaware Breakwater, Del.	30.34	770.6	30.36	771.1	73	22.8	97	sw.	14	6.3		7 c;ck	0	w.		0	0	fair	
Denison, Texas	29.29	744.0	30.12	765.0	74	23.3	97	s.	6	2.7		0	6 s		se.	0.31	7.9	fair	
Denver, Colorado	24.80	629.9	30.17	766.3	46.4	8.0	35	s.	9	4.0		0	0			0	0	clear	
Des Moines, Iowa	29.21	741.9	30.16	766.1	63	17.2	93	s.	4	1.8			10 n		s.	0.01	0.3	light rain	
Detroit, Michigan	29.58	751.3	30.32	770.1	64.1	17.8	90	e.	2	0.9			10 s		calm	0.06	1.5	cloudy	
Dodge City, Kansas	27.45	697.2	30.14	765.5	62.1	16.7	93	sw.	14	6.3			9 s		sw.	0	0	cloudy	
Dubuque, Iowa	29.44	747.8	30.18	766.6	56.9	13.8	86	se.	2	0.9			10 s		calm	0	0	cloudy	
Duluth, Minnesota	29.35	745.5	30.08	764.0	54	12.2	86	calm	0	0			10 s		calm	0	0	cloudy	
Eagle Pass, Texas	29.26	743.2	30.11	764.8	75.0	23.9	97	n.	3	1.3			10 s		n.	0.11	2.8	cloudy	
Eagle Rock, Idaho	25.18	639.6	30.17	766.3	27	— 2.8	70	n.	4	1.8		0	0			0	0	clear	
Eastport, Maine	30.39	771.9	30.46	773.7	53.5	11.9	74	nw.	3	1.3		6 c	0	sw.		0	0	fair	
El Paso, Texas	26.29	667.8	30.13	765.3	64.2	17.9	67	ne.	1	0.4			10 s		e.	0	0	cloudy	
Erie, Pennsylvania	29.59	751.6	30.35	770.9	64	17.8	93	ne.	1	0.4			10 n			0.21	5.3	light rain	
Escanaba, Michigan	29.55	750.6	30.23	767.8	55	12.8	93	s.	4	1.8			10 s		s.	0	0	cloudy	
Florence, Arizona	28.41	721.6	30.01	762.2	59	15.0	60	w.	1	0.4		0	0			0	0	clear	
Fort Apache, Arizona	25.06	636.5	30.10	764.5	45	7.2	93	e.	3	1.3		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.32	693.9	30.26	768.6	32	0.0	100	ne.	9	4.0			fg.			inap.	inap.	dense fog	
Fort Bennett, Dakota	28.46	722.9	30.07	763.8	37	2.8	92	nw.	2	0.9		2 c	0	sw.		0	0	clear	
Fort Benton, Montana	27.32	693.9	30.30	769.6	34	1.1	100	e.	8	3.6			10 n		e.	0.21	5.3	light rain	
Fort Buford, Dakota	28.17	715.5	30.28	769.1	40	4.4	92	n.	8	3.6			10 s		calm	0	0	cloudy	
Fort Custer, Montana	26.90	683.2	30.30	769.6	39	3.9	90	n.	8	3.6		0	1 s		calm	0	0	clear	
Fort Davis, Texas	25.08	637.0	30.04	763.0	61	16.1	78	se.	6	2.7		0	0			0	0	clear	
Fort Elliott, Texas	27.33	694.2	30.63	778.0	64	17.8	84	s.	8	3.6			10 s		s.	0	0	cloudy	
Fort Gibson, Indian T'y	29.53	750.0	30.10	764.5	72.9	22.7	97	s.	4	1.8			10 s		sw.	2.44	36.6	cloudy	
Fort Grant, Arizona					60	15.6	67	ne.	5	2.2		0	0			0	0	clear	
Fort Griffin, Texas	28.80	731.5	30.02	762.5	71.5	21.9	97	calm	0	0			10 s			0.04	1.0	cloudy	
Fort Keogh, Montana	27.60	701.0	30.27	768.8	42	5.6	82	ne.	6	2.7		9 cs	0			0	0	cloudy	
Fort Macon, North Carolina	30.37	771.4	30.38	771.6	75	23.9	90	ne.	4	1.8		hz.	2 k	calm	ne.	0	0	clear	
Fort McKavett, Texas	27.91	708.9	29.78	756.4	70.1	21.2	90	e.	8	3.6			8 ks		sw.	2.01	51.1	cloudy	
Fort Missoula, Montana	26.76	679.7	30.41	772.4	36	2.2	82	se.	1	0.4		0	0			0	0	clear	
Fort St. Michaels	29.72	754.9	29.75	755.6	50	10.0	86	s.	26	11.6			10 s		s.	0	0	cloudy	
Fort Shaw, Montana	26.46	672.1	30.20	767.1	35	1.7	100	ne.	4	1.8			10 n		calm	0.07	1.8	light rain	
Fort Sill, Indian Territory	28.83	732.3	30.12	765.0	70.3	21.3	100	s.	5	2.2			10 s			0.27	6.9	cloudy	
Fort Stevenson, Dakota	28.32	719.3	30.28	769.1	42	5.6	93	e.	8	3.6			10 s		e.	0	0	cloudy	
Fort Verde, Arizona					47.2	8.4	66	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.35	720.1	29.86	758.4	72	22.2	97	s.	4	1.8		0	9 ks		s.	1.72	43.7	cloudy	
Galveston, Texas	30.06	763.5	30.10	764.5	81	27.2	78	se.	12	5.4		0	3 ks		se.	0	0	clear	
Grand Haven, Michigan	29.55	750.6	30.25	768.3	60.0	15.6	93	e.	5	2.2			10 s		calm	0.05	1.3	cloudy	
Hatteras, North Carolina	30.37	771.4	30.39	771.9	76	24.4	85	se.	4	1.8		6 k	0	s.		0	0	fair	
Helena, Montana	25.82	655.8	30.41	772.4	37	2.8	92	s.	4	1.8			10 n		calm	0.08	2.0	light rain	
Henrietta, Texas	28.98	736.1	29.85	758.2	82	27.8	74	s.	8	3.6		0	0			0	0	clear	
Huron, Dakota	28.65	727.7	30.11	764.8	37	2.8	85	w.	6	2.7		1 cs	0			0	0	clear	
Indianapolis, Indiana	29.39	746.5	30.22	767.6	70	21.1	90	se.	7	3.1			10 s		sw.	1.88	47.8	cloudy	
Indianola, Texas	30.03	762.7	30.06	763.5	79.2	26.2	82	se.	12	5.4		0	3 ks		calm	0	0	fair	
Jacksboro, Texas	28.92	734.6	30.02	762.5	71	21.7	90	s.	3	1.3			10 s		calm	inap.	inap.	cloudy	
Jacksonville, Florida	30.22	767.6	30.26	768.0	78	25.6	76	ne.	8	3.6		0	0			0.18	4.6	clear	
Keokuk, Iowa	29.42	747.3	30.10	764.5	63.8	17.7	100	ne.	2	0.9			fg.			inap.	inap.	dense fog	
Key West, Florida	30.03	762.7	30.06	763.0	80.4	26.9	88	e.	7	3.1		0	3 k;hz		e;calm	0.01	0.3	fair	
Kittyhawk, North Carolina	30.39	771.9	30.41	772.4	71	21.7	94	calm	0	0		0	1 ks		sw.	0	0	clear	
Knoxville, Tennessee	29.34	745.2	30.41	772.4	66.7	19.3	92	n.	1	0.4		0	0			0	0	clear	
La Crosse, Wisconsin	29.40	746.7	30.19	766.8	59	15.0	81	s.	8	3.6			fg.			0	0	dense fog	
La Mesilla, New Mexico	26.15	664.2	30.30	769.6	57.8	14.3	65	calm	0	0		3 ck	3 s			0	0	fair	
Laredo, Texas																			
Leavenworth, Kansas	29.22	742.2	30.15	765.8	64	17.8	93	calm	0	0			fg.			inap.	inap.	dense fog	
Lewiston, Idaho	29.09	738.9	29.97	761.2	44	6.7	68	calm	0	0		0	8 s		calm	0	0	cloudy	
Little Rock, Arkansas	29.83	757.7	30.15	765.8	72	22.2	97	se.	4	1.8		5 cs	0	se.		0.03	0.8	fair	
Los Angeles, California	29.60	751.8	29.98	761.5	55.2	12.9	80	ne.	4	1.8		0	3 s		nw.	0	0	clear	
Louisville, Kentucky	29.66	753.4	30.24	768.1	72.0	22.2	84	se.	16	7.2			10 s		calm	0	0	cloudy	
Lynchburg, Virginia	29.68	753.9	30.40	772.1	69.5	20.8	78	calm	0	0		0	fg.			0	0	clear	
Madison, Wisconsin	29.15	740.4	30.22	767.6	58	14.4	93	e.	6	2.7			fg.		calm	0.01	0.3	dense fog	
Marquette, Michigan	29.45	748.0	30.21	767.3	52	11.1	80	sw.	10	4.5		2 c	2 ks	w.	sw.	0	0	fair	
Mason, Texas	28.55	725.2	30.26	768.6	73	22.8	90	se.	1	0.4			10 s		se.	0.18	4.6	cloudy	
Memphis, Tennessee	29.89	759.2	30.24	768.1	74	23.3	82	se.	2	0.9		5 cs	0			0	0	fair	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.44	747.8	30.22	767.6	57	13.9	100	calm	0	0			fg			0.06	1.5	dense fog	
Mobile, Alabama	30.16	766.1	30.23	767.8	75.0	23.9	90	e.	6	2.7		0	0			0.27	6.9	clear	
Montgomery, Alabama	30.06	763.5	30.30	769.6	72.6	22.6	88	e.	7	3.1		0	0			0.02	0.5	clear	
Moorhead, Minnesota	29.10	739.1	30.16	766.1	43	6.1	93	n.	6	2.7			10 s			0	0	cloudy	
Morgantown, W. Virginia	29.32	744.7	30.29	769.4	69.8	21.0	84	calm	0	0		5 ck	fg	sw.		inap.	inap.	fair	
Mt. Washington, N. H.	24.24	615.7	30.61	777.5	40.0	4.4	25	nw.	20	8.9		7 c	0	nw.		0.45	11.4	fair	
Nashville, Tennessee	29.74	755.4	30.30	769.6	74.2	23.4	87	se.	6	2.7		5 ck	3 ks	s.	s.	0	0	fair	
New Haven, Connecticut	30.33	770 4	30.45	773.4	66	18.9	70	n.	10	4.5		10 cs	0			0	0	cloudy	
New London, Connecticut	30.43	772.9	30.48	774.2	67	19.4	73	ne.	5	2.2			10 s		ne.	0	0	cloudy	
New Orleans, Louisiana	30.10	764.5	30.16	766.1	78.0	25.6	91	e.	8	3.6		0	1 s			1.22	31.0	clear	
Newport, Rhode Island	30.41	772.4	30.46	773.7	64.3	17.9	74	ne.	8	3.6			10 s		ne.	0	0	cloudy	
New River, N. Carolina																			
New Shoreham, Rhode I'd	30.41	772.4	30.44	773.2	65.0	18.3	73	ne.	20	8.9		6 ck	0	ne.		0	0	fair	
New York, New York	30.24	768.1	30.42	772 7	69	20.6	78	ne.	15	6.7			10 s		w	0	0	cloudy	
Norfolk, Virginia	30.37	771.4	30.40	772.1	71	21.7	94	s.	2	0.9		0	hz.			0	0	clear	
North Platte, Nebraska	27.08	687.8	30.14	765.5	59.5	15.3	93	se.	4	1.8			10 s		se.	0	0	cloudy	
Olympia, Washington T'y	29.88	758 9	29.92	760.0	43 0	6.1	93	s.	2	0.9			fg			0	0	dense fog	
Omaha, Nebraska	28.94	735.1	30.18	766.6	62.8	17.1	94	s.	3	1.3			10 n			inap.	inap.	light rain	
Oswego, New York	30.10	764.5	30.44	773.2	58.0	14.4	90	s.	1	0.4		9 cs	hz	w.		inap.	inap.	cloudy	
Pensacola, Florida	30.20	767.1	30.22	767.6	71	21.7	85	ne.	8	3.6		0	0			0.45	11.4	clear	
Philadelphia, Pa	30.34	770.6	30.40	772.1	70.5	21.4	79	e.	12	5.4		8 cs	hz	w.		0	0	cloudy	
Phœnix, Arizona	28.66	728.0	30.44	773.2	55	12.8	17	calm	0	0		0	0			0	0	clear	
Pike's Peak, Colorado	17.90	454.7	30.12	765.0	27	— 2.8	67	sw.	32	14.3		0	0			0	0	clear	
Pioche, Nevada	24.06	611.1	30.25	768.3	52	11.1	41	s.	5	2.2		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.53	750.0	30.38	771.6	68.2	20.1	90	ne.	5	2.2			10 n		se.	0.49	12.4	light rain	
Port Eads, Louisiana	30.15	765.8	30.16	766.1	80.0	26.7	90	e.	17	7.6		0	1 k;hz		c; e.	0.20	5.1	dense haze.	
Port Huron, Michigan	29.62	752.3	30.32	770.1	58.8	14.9	87	e.	7	3.1			10 s		s.	0	0	cloudy	
Portland, Maine	30.44	773.2	30.49	774.4	58	14.4	69	n.	7	3.1			10 s		w.	inap.	inap.	cloudy	
Portland, Oregon	29.83	757.7	29.90	759.4	48.2	9.0	93	w.	2	0.9			10 s			0	0	cloudy	
Portsmouth, N. Carolina					78	25.6	77	e.	4	1.8		6 k	0	ne.		0	0	fair	
Prescott, Arizona	24.79	629.7	30.10	764.5	43	6.1	70	s.	4	1.8		0	0			0	0	clear	
Punta Rassa, Florida	30.10	764.5	30.11	764.8	79	26.1	82	e.	12	5.4		0	1 ks; hz		e.; c.	0.07	1.8	clear	
Red Bluff, California	29.47	748.5	29.82	757.4	52.0	11.1	80	s.	4	1.8		0	0			0	0	clear	
Rio Grande City, Texas	29.81	757.2	30.02	762.5	77	25.0	90	se.	2	0.9		3 cs	0	se.		0	0	clear	
Rochester, New York	29.78	756.4	30.44	773.2	56	13.3	93	se.	9	4.0			10 s		se.	0.03	0.8	cloudy	
Roseburg, Oregon	29.31	744.5	29.90	759.4	37	2.8	89	calm	0	0		0	0			0	0	clear	
Sacramento, California	29.79	756.7	29.87	758.7	51.0	10.6	86	s.	12	5.4		0	0			0	0	clear	
St. Louis, Missouri	29.54	750.3	30.10	766.1	71.8	22.1	90	s.	10	4.5			10 ks		s.	1.54	39.1	cloudy	
St. Paul, Minnesota	29.22	742.2	30.14	765.5	57.8	14.3	93	se.	6	2.7			10 s			0	0	cloudy	
Salt Lake City, Utah	25.53	648.5	29.98	761.5	58	14.4	31	e.	4	1.8		0	0			0	0	clear	
San Antonio, Texas	29.37	746.0	30.09	764.3	75.0	23.9	97	e.	3	1.3			10 s		se.	0.32	8.1	cloudy	
San Diego, California	29.79	756.7	29.86	758.4	63.2	17.3	73	n.	4	1.8			10 s			0	0	cloudy	
Sandusky, Ohio	29.59	751.6	30.30	769.6	67	19.4	90	se.	4	1.8			10 n			0.48	12.2	light rain	
Sandy Hook, New Jersey	30.30	771.1	30.39	771.9	72.0	22.2	82	ne.	10	4.5		0	9 ks		ne.	inap.	inap.	cloudy	
San Francisco, California	29.85	758.2	29.92	760.0	54	12.2	86	sw.	7	3.1			fg		sw.	0	0	foggy	
Santa Fé, New Mexico	23.40	594.3	30.38	771.6	47	8.3	61	ne.	1	0.4		0	0			0	0	clear	
Savannah, Georgia	30.23	767.8	30.32	770.1	76	24.4	85	ne.	3	1.3		6 ck	0	ne.		0	0	fair	
Shreveport, Louisiana	29.92	760.0	30.15	765.8	75.5	24.2	90	se.	5	2.2			10 s		se.	inap.	nap.	cloudy	
Silver City, New Mexico	24.33	618.0	30.01	762.2	46	7.8	80	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	30.34	770.6	30.42	772.7	42.2	5.7	83	ne.	2	0.9		0	0			0	0	clear	
Smithville, North Carolina	30.33	770.4	30.37	771.4	72	22.2	84	e.	3	1.3		0	hz			0	0	clear	
Spokane Falls, Wash. Ter.	27.94	709.7	30.01	762.2	40	4.4	67	ne.	4	1.8		6 ck	0	e.	e.	0.01	0.3	fair	
Springfield, Illinois	29.44	747.8	30.14	765.5	70.1	21.2	100	sw.	12	5.4			10 n		s.	2.53	64.3	light rain	
Springfield, Massachusetts	30.36	771.1	30.49	774.4	63.1	17.3	68	n.	4	1.8			10 s			0	0	cloudy	
Stockton, Texas	27.06	687.3	30.21	767.3	62.6	17.0	100	calm	0	0			10 n		e.	0.23	5.8	light rain	
St. Vincent, Minnesota	29.26	743.2	30.19	766.8	38	3.3	100	nw.	12	5.4			10 s		calm	inap.	inap.	cloudy	
Thatcher's Island, Mass	30.42	772.7	30.47	773.9	60.2	15.7	75	ne.	20	8.9			10 s		ne.	0	0	cloudy	
Toledo, Ohio	29.56	750.8	30.28	769.1	66	18.9	93	se.	3	1.3			10 n			0.37	9.4	light rain	
Tucson, Arizona	27.41	696.2	29.85	758.2	60	15.6	62	se.	6	2.7		0	0			0	0	clear	
Umatilla, Oregon	29.62	752.3	30.05	763.3	49.0	9.4	63	s.	12	5.4		0	7 s		sw.	0	0	cloudy	
Uvalde, Texas	29.09	738.9	29.89	759.2	75	23.9	97	se.	3	1.3			10 s		se.	0.25	6.3	cloudy	
Vicksburg, Mississippi	29.95	760.7	30.21	767.3	72	22.2	97	se.	7	3.1			fg			0	0	dense fog	
Visalia, California	29.47	748.5	29.84	757.9	44	6.7	68	calm	0	0		0	0			0	0	clear	
Washington, D. C.	30.26	768.6	30.38	771.6	71	21.7	84	calm	0	0		4 cs	0	w.		0	0	fair	
West Los Animas, Colorado	26.01	660.6	30.09	764.3	49	9.4	46	nw.	4	1.8		0	0			0	0	clear	
Wickenburg, Arizona					51	10.6	80	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.31	769.9	30.37	771.4	75	23.9	79	e.	2	0.9		0	3ks;fg		calm	0	0	fair	
Winnemucca, Nevada	25.46	646.7	29.92	760.0	38	3.3	51	s.	6	2.7		0	0			0	0	clear	
Wood's Holl, Mass	30.41	772.4	30.45	773.4	64	17.8	78	ne.	12	5.4			10 s		nw.	0	0	cloudy	
Yankton, Dakota	28.74	730.0	30.12	765.0	46	7.8	93	calm	0	0		0	0			0	0	clear	
Yuma, Arizona	29.65	753.1	29.79	756.7	64.0	17.8	90	sw.	1	0.4		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.93	760.2	29.95	760.7	80	26.7	96	e.	4	1.8		5	5	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.06	560.3			54.0	12.2	82	calm	0	0			10 ks			0.01	0.3	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.81	757 2	29.81	757.2	81	27.2	90	e.				0	5 ks		e.	0	0		B. Bigar.
Havana, Cuba, W. I.	30.00	762.0	30.06	763.5	80	26.7	88	e.	1.2	0.5		8 cs	2 ks	calm	calm	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.97	761.2	29.98	761.5	77.0	25.0	79	calm	0	0		2ck;cs	6 s		e.	0	0	cloudy	Robert Johnstone.
Navassa, W. I.	29.87	758.7	29.95	760.7	81	27.2	82	e.	6	2.7			10		e.	0.59	15.0	threatening.	F. M. Everett.
Paramaribo, S. A.	29.99	761.7	30.00	762.0	83	28.3	71	se.			3	5 k	4 k	e.	e.	0.220	5.6	fair	Dr. O. J. Hering.
Puerto Berrio, U. S. Col'mba	29.48	748.8	30.04	763.0	72	22.2	100	calm					10 ks		calm	2.76	70.1	raining	Francesco J. Cisneros.
Rivas, Nicaragua					74.4	23.6	98	nw.			1		10 n		nw.	2.76	70.		Earl Flint.
Santiago de Cuba, W. I.	30.00	762.0	30.02	762.5	79	26.1	78	ne.	6	2.7		8 c	3 s	n.	ne.	inap.	inap.	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.86	758.4	29.97	761.2	83	28.3	80	ne.	3	1.3		0	2 ks		ne.	0	0	clear	G. O. Gyllich.
York Factory, B. A.	29.93	760.2	29.98	761.5	21.0	— 6.1	93	nw.	16	7.2			10 s		nw.			snowing	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatros																			
H. M. S. Alert, West Island, Torres St	30.00	762.0	75.5	24.2	76	ese.			4		3							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibraltar, Mediterranean	30.18	766.6	73	22.8	85	ene.			1		4	ene.						misty	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	30.02	762.5	63	17.2		ne.			2		10	nne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche																			Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 16° 39′, E. 5° 02′	29.98	761.5	65.5	18.6	70	calm			0		2	calm				2	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	30.05	763.3	61	16.1	88	sse.			3		10					2	sse.	d. clouds	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A. T. Bruce.
H. M. S. Crocodile																			Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 11′, E. 20° 28′	29.85	758.2	68	20.0		ese.			1		6	calm						d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido, S. 15° 55′ W. 5° 42′	30.04	763.0	73	22.8		ssw.			1		2	ssw.						d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.28	769.1	76	24.4	79	nne.			1–2		2	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	30.11	764.8	49	9.4	63	w.			1		0							blue sky	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 25° 38′, E. 57° 46′	29.71	754.6	88	31.1		ssw.			1		3	s.				2	sw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.69	754.1	91	32.8		sw.			2–4		6	sw.						squally	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 17° 41′, E. 178° 51′	29.81	757.2	78	25.6	?	se.			1		7	se.						d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.74	755.4	89	31.7	66	sw.			1–2		3	sw.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 48° 54′, W. 57° 57′	30.13	765.3	52	11.1		w.			2–4		5	w.				sm'h		squally	Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 50′, E. 32° 53′	30.11	764.8	74.5	23.6	72	ese.			2		1					1	ese.	blue sky	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 21° 08′, W. 157° 51′	30.00	762.0	73	22.8	85	calm			0		1							blue sky	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	30.09	764.3	61	16.1	82	ne.			4		8	n.						d. clouds	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 11′, W. 76° 27′	29.95	760.7	76	24.4	90	se.			1		10							raining	Comm. J. Ingles.
H. M. S. Hunter																			Capt. J. L. Way.
H. M. S. Inconstant, N. 15° 00′, E. 158° 00′	29.98	761.5				ne.			3		4	ese.				3	ne.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 34° 30′, E. 139° 00′	30.05	763.3	65	18.3		nnw.			1–2		3	nw.				1	n.	d. clouds	Capt. R. E. Tracey.
H. M. S. Kestrel																			
H. M. S. Kingfisher, S. 1° 33′, W. 81° 09′	29.98	761.5	70	21.1		s.			2		3	s.				1	sw.	d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 28° 40′, E. 43° 40′	30.21	767.3	69	20.6		ese.			4		3	sse.				2	sse.	d. clouds	Comm. F. H. Haygarth.
H. M. S. Lark, S. 32° 46′, W. 16° 38′	30.00	762.0	61	16.1	94	e.			5–6		10					4	sse.	drizzling	Lieut. C. F. Oldham.
H. M. S. Magpie, Hoi How Bay, China	29.77	756.1	81.5	27.5	83	ne.			3–5		8					3	ne.	misty	Lieut. A. Balfour.
H. M. S. Malabar, N. 33° 58′, E. 24° 21′	29.99	761.7	77	25.0	82	s.			2		0					1	s.	blue sky	Capt. I. D. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	29.85	758.2	66	18.9	81	wsw.			1		0							blue sky	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo Chili,	30.03	762.7	54.5	12.5	90	nnw.			1		10							misty	Comm. F. Edwards.
H. M. S. Nelson, N. 46° 38′, W. 7° 59′	30.01	762.2	61.5	16.4	80	se.			4-5		3	eso.				4	w.	d. clouds	Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.31	769.9	57.5	14.2	75	nnw.			1		6	nnw.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Rendy																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow
H. M. S. Rocket, N. 48° 26′, W. 123° 27′			48	8.9		n.			1									raining	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 13° 29′, E. 52° 35′	29.80	756.9	78.3	25.7	69	calm			0		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 12° 40′, E. 46° 08′	29.67	753.6	78	25.6	82	nnw.			2		0					4	nne.	blue sky	Comm. W. Byles.
H. M. S. Serapis, S. 21° 40′, E. 9° 15′	29.98	761.5	61	16.1	100	calm			0		9	se.				sm'h		d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, S. 1° 50′, W. 12° 30′	29.99	761.7	80	26.7	78	se.			3		4	se.				2	se.	d. clouds	Capt. T. H. Boyse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer, Sfax Roads, Tunis	29.93	760.2	77	25.0	77	e.			2		4					2		d. clouds	Capt. C. F. Hotham.
H. M. S. Triumph, S. 12° 30′, W. 76° 50′	30.09	764.3	61	16.1	88	s.			1		10	calm				2	s.	overcast	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.92	760.0	78	25.6		nne.			1		4							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.83	757.7	61	16.1	82	s.			1-4		5	s.						squally	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo																			Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, Brava, Cape Verd Ids.	29.96	761.0	82.4	28.0	67	se.			2		5		nw.	15 h'r	15 h'r	2	se.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.89	759.3	80.6	27.0	77	e.			3		5		e.	2 h'r	2 h'r			d. clouds	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

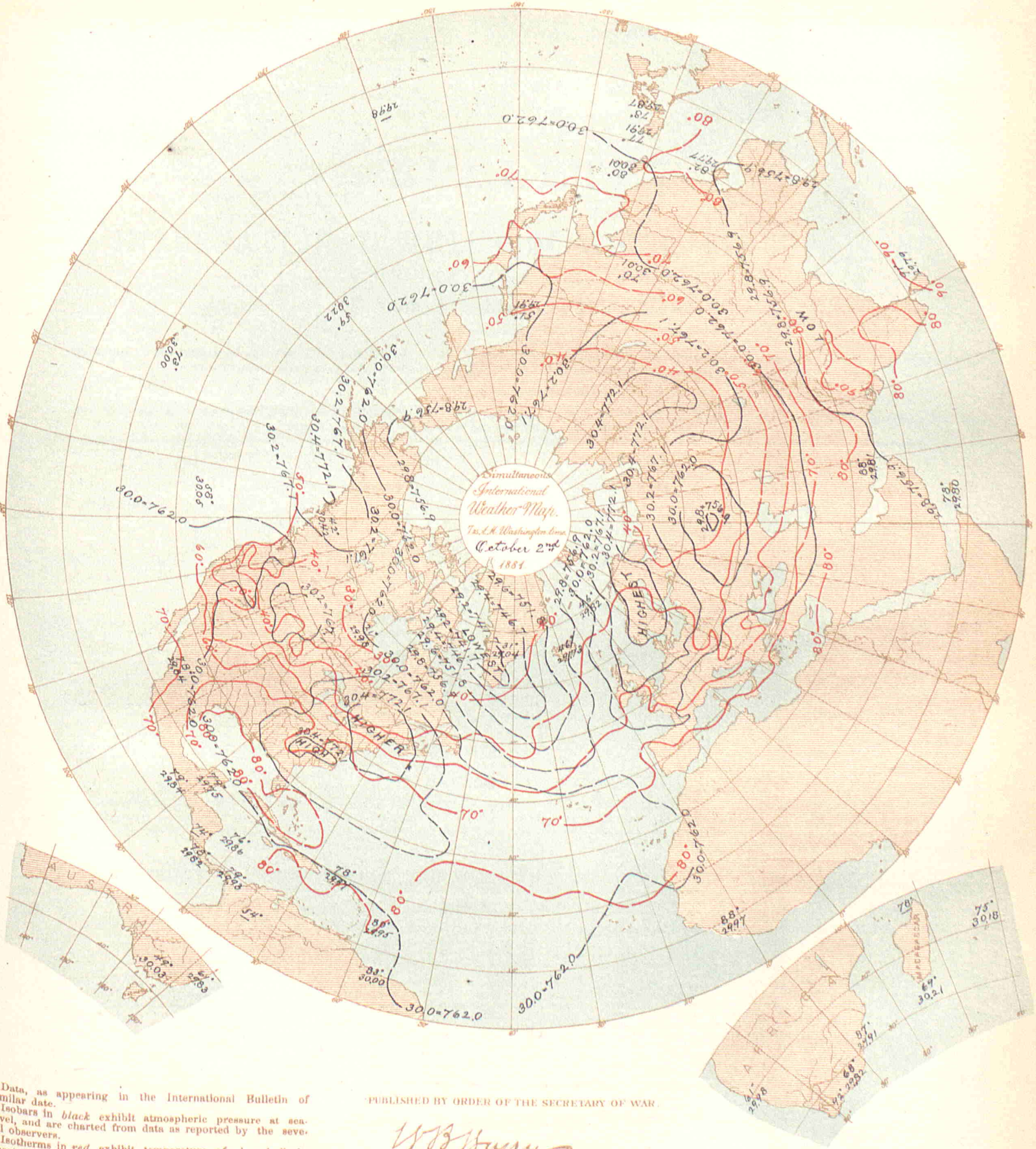
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.24	768.1	77	25.0	91	ne.	6	2.7			8		se.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.45	774.2	58	14.4	88	ne.	5	2.2			8			0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.89	759.2	64	17.8	60	nnw.			2		8		nnw.	0.11	2.8			cloudy	
Adams, S. 4° 18′, W. 81° 19′	29.81	757.2	67	19.4	95	ssw.			3		8					sm'h		cloudy	
Alaska, Callao, Peru	30.00	762.0	60	15.6	100	sse.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.87	758.7	68	20.0	65	nnw.			2		8		nnw.	0	0	sm'h		cloudy	
Alliance, N. 69° 02′, W. 6° 27′	29.82	757.4	46	7.8	100	sw.			6		10			light	light	mod.		foggy	
Ashuelot, Kobe, Japan	30.09	764.3	66	18.9	54	nnw.			5–6		2		nw.					squally	
Colorado, New York, N. Y.	30.29	769.4	70	21.1	85	ne	3	1.3			10		calm					hazy	
Constitution, Newport, R. I.	30.38	771.6	65	18.3	89	ne.	8	3.6			8		sw.					fair	
Franklin, Norfolk, Va	30.28	769.1	72	22.2	100	sse.	3	1.3			2			0	0			clear	
Galena, Leghorn, Italy	29.89	759.2	68	20.0	60	calm			0		2		calm					clear	
Independence, N. Yard, Mare I'd, Cal.	29.75	755.6	55	12.8	74	wsw.	10.8	4.8			5		wsw.					cloudy	
Kearsarge, Hudson River, N. Y. *†	30.52	775.2	71	21.7	75	nne.			3		8					sm'h		fair	
Lackawanna, San Francisco, Cal. †	30.07	763.8	55	12.8	100	sw.			3		10							cloudy	
Lancaster, New York, N. Y.	30.36	771.1	71	21.7	95	ne.	10.5	4.7			10		wsw.	0	0			misty	
Marion, Montevideo, Uruguay	29.89	759.2	63	17.2		ne.			2		8		ne.			sm'h		fair	
Michigan, Erie, Pa	30.14	765.5	63	17.2	?	e.			2		10		e.					raining	
Minnesota, Newport, R. I.	30.44	773.2	65	18.3	78	ne.			2		10			0	0	sm'h		cloudy	
Monocacy, Yokohama, Japan	30.07	763.8	66	18.9	79	nw.			2		10		nw.					cloudy	
Nipsic, Genoa, Italy	29.91	759.7	66	18.9	64	s.			3		8		s.			sm'h		d. clouds	
Onward, Callao, Peru †	30.03	762.7	59	15.0	100	sse.			3		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.88	758.9	80	26.7	78	e.			5		8		n;e.					fair	
Passaic, Washington, D. C.	30.37	771.4	74	23.3	90	calm			0		2							fair	
Pensacola, Callao, Peru	30.03	762.7	63	17.2	72	se.			2		10		sse.	0	0	mod.		cloudy	
Portsmouth, Long Island, N. Y.	30.43	772.9	66	18.9	84	ne.			3		8		e.			sm'h		cloudy	
Powhatan, N. 13° 15′, W. 82° 04′	29.86	758.4	76	24.4	100	se.			3		10		e.				e.	cloudy	
Quinnebaug, Marseilles, France	29.92	760.0	62	16.7	72	ssw.			2		2		ssw.	light	light	sm'h		fair	
Ranger, Mare Island, Cal. *	29.85	758.2	58	14.4	70	sw.			3		2		sw.					clear	
Richmond, Panama, Panama	29.93	760.2	79	26.1	95	sse.			2		8			0.28	7.1	mod.		rainy	
Saratoga, N. 41° 07′, W. 72° 35′	30.40	772.1	65	18.3	94	ne.			2–3		8		w.	0	0	sm'h		cloudy	
Shenandoah, Montevideo, Uruguay *	30.11	764.8	62	16.7	85	nne.			3		10					sm'h		cloudy	
St. Louis, League Island, Pa	30.11	764.8	71	21.7	80	nne.	8	3.6			8		ne.	0	0			cloudy	
Swatara, Chefoo, China †	30.12	765.0	73	22.8	58	sw.			2		0					sm'h		clear	
Tennessee, New York, N. Y.	30.42	772.7	72	22.2	?	ne.	12	5.4			10			0	0			overcast	
Trenton, N. 22° 36′, W. 48° 28′ *	30.11	764.8	83	28.3	79	ese.			4		0			0	0	sm'h		clear	
Vandalia, New York, N. Y.	30.39	771.9	70	21.1	80	ne.			2		10		nw.					cloudy	
Wabash, Boston, Mass.	30.45	773.4	62	16.7	77	ne.	5	2.2			10		ne.	0.10	2.5			overcast	
Wachusetts, Sitka, Alaska	30.39	771.9	41	5.0	91	ne.			1		0							clear	
Wyoming, Port Royal, S. C.	30.33	770.4	76	24.4	86	ne.	6	2.7			5		ne.	0	0			fair	
Yantic, New York, N. Y. *	30.35	770.9	69	20.6	85	nne.			2		10							cloudy	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 56° 37′, W. 26° 00′ *†	29.44	747.8	.....	.....	.....	sse.	7	.....	10	.....	s.	.....	.....	r'gh	w.	stormy	N. McLean.
S. S. Circassian, Capt. W. H. Smith ‡ N. 56° 35′, W. 20° 45′	30.02	762.5	50	10.0	93	s.	6	.....	10	.....	sw.	4 h'r	4 h'r	5	sw.	raining	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, N. 52° 05′, W. 34° 09′	29.46	748.3	52	11.1	.....	w.	5	.....	10	.....	w.	.....	.....	con.	w; sw	cloudy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Liverpool, Eng. †	30.18	765.6	64	17.8	94	e.	1	.....	2	.....	e.	.....	.....	.....	.....	fair	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Philadelphia, Penn. †	30.31	769.9	71	21.7	80	nne.	3	.....	2	.....	ne.	0	0	.....	.....	fair	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Delaware River, Del. *†	30.48	774.2	74	23.3	95	e.	1	.....	8	.....	se.	.....	.....	mod.	sse.	foggy	
																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDougall,																	
S. British Merchant, Capt. E. J. Moloney																	
Bq. Caldew, Capt. N. W. Petersen S. 38° 45′, W. 56° 17′	30.16	766.1	53	11.7	.....	ne.	3	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Olpero, Capt. W. N. Lailey, Off Belize, Honduras, C. A.	29.75	755.6	79	26.1	90	nne.	3	.....	10	.....	.....	.....	.....	.....	.....	raining	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, S. 16° 23′, W. 33° 46′	30.14	765.5	74.6	23.7	76	sse.	3	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 35° 45′, E. 84° 05′	29.93	760.2	57	13.9	97	nw.	9	.....	10	.....	.....	.....	.....	.....	.....	heavy rain	
Bk. Mertola, Capt. E. W. Turner N. 41° 44′, W. 14° 28′	29.98	761.5	69.1	20.6	95	sw.	4	.....	10	.....	.....	.....	.....	.....	.....	overcast	
Bk. Moorhill, Capt. J. Brown, S. 56° 30′, W. 64° 26′	29.77	756.1	39.2	4.0	91	ssw.	8	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry N. 12° 07′, W. 26° 58′	29.97	761.2	82	27.8	78	ne.	5	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 27° 11′, W. 38° 04′	30.12	765.0	78.5	25.8	69	var.	1–2	.....	6	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Strathleven, Capt. C. W. Pearson N. 33° 27′, E. 136° 16′	30.00	762.0	70.0	21.1	87	nw.	4	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Thames, Capt. Luckhurst																	
S. S. Wyberton, Capt R. J. Blacklin S. 60 20′, E. 101° 01′	29.72	754.9	80.5	26.9	.....	sse.	4	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	R. Ladd, 1st Officer.
CALIFORNIA, AND MEXICAN S.S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers																	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains,																	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., agents, Baltimore, and Oetrich & Co., agents, New York.*																	
Braunschweig, Capt. C. Pohle N. 51° 01′, W. 17° 35′	29.93	760.2	67.0	19.4	52	nnw.	3	.....	8	.....	nnw.	.....	.....	r'gh	nw.	fair	
S. S. Hermann, Capt. H. Baur N. 39° 52′, W. 64° 49′	30.42	772.7	73.4	23.0	.....	wnw.	3	.....	8	.....	e.	0	0	mod	wnw.	fair	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jungst,																	T. Jüngst.
S. S. Leipsic, Cept. F. Pfeiffer.																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 48° 22′, W. 47° 08′	29.90	759.4	52.5	11.4	79	wnw.	5	.....	2	.....	w.	8 h'r	8 h'r	mod.	wnw.	clear	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 25° 03′, E. 120° 06′ †	30.11	764.8	80	26.7	87	ne.	5	.....	2	.....	ne.	0	0	mod.	ne.	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 42° 09′, E. 179° 14′ *†	30.22	767.6	59	15.0	82	se.	6	.....	8	.....	s.	.....	.....	mod.	s.	hazy	W. H. Kidley.
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann N. 46° 02′, W. 124° 10′ *†	29.90	759.4	58	14.4	94	ene.	3	.....	5	.....	se.	.....	.....	light	wnw.	fair	G. Reichmann.
S. S. Columbia, Capt. F. Bolles,																	
S. S. Oregon, Capt. Pollmann,																	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lb'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO.																	
Goodal, Perkins & Co., Agents, San Francisco.																	
S. S. Ancon, Capt. J. W. Ingalls, San Francisco, Cal.....†	29.88	758.9	55	12.8	80	w.	2		10							dense haze	J. W. Ingalls.
S. S. Dakota, Capt. ——,																	
S. S. Idaho, Capt. T. Huntington, N. 41° 47′, W. 124° 47′.....†	29.86	758.4	52	11.1	93	calm	0		0					mod.	nw.	clear	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 33° 42′, W. 118° 15′.....†	29.92	760.0	66	18.9	89	sw.	3		8		sw.			long	wsw.	cloudy	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal.....†	29.96	761.0	55	12.8	80	sw.	1		10							cloudy	T. Wallace.
S. S. State of California, Capt. Debney, N. 43° 20′, W. 124° 20′.....†	29.76	755.9	53	11.7	93	se.	3		10		se.			sm'h	sw.	cloudy	G. Debney.
S. S. Victoria, H. M. Hayward, Strait of Fuga.....†	30.02	762.5	53	11.7	93	var.	2		0					sm'h		clear	J. C. Hunter.
PACIFIC MAIL S. S. CO.																	
Williams, Dimond & Co., Agents, San Francisco, and H. J Bulloy, Supt. New York.																	
S. S. Australia, Capt. ——, N. 35° 15′, W. 131° 59′	30.05	763.3	58	14.4	100	ene.	1		10					sm'h		showery	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb. Sydney, N. S. W.....†	30.01	762.2	67	19.4	79	s.	2		0							clear	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 27° 59′. E. 124° 46 .....†*	30.16	766.1	76	24.4	82	ne.	2		3		n.	0	0	sm'h		fair	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——....																	
S. S. City of Sydney, Capt. H. C. Dearborn, N. 22° 31′, W. 155° 29′.....*†..	29.88	758.9	75	23.9	77	ene.	3		8		ne.	0	0	mod.	ene.	cloudy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury																	A. L. Ritchie, [2d Off.]
S. S. Colima, R. R. Searle N. 14° 00′, W 91° 38′.....†	29.84	757.9	79	26.1	?	nne.	4		10		ne.	1.26	32.0	mod.	nw.	raining	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 7° 50′, W. 83° 00′.....†	29.82	757.4	78	25.6	91	wsw.	4		8		sw.	6 h'r	6 h'r	mod.	sw.	cloudy	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.00	762.0	66	18.9	74	w.	1		2?		w.					cloudy ?	H. Webber.
RED STAR LINE.																	
Peter Wright & Sons, Agents.																	
S. S. Nederland, Capt. Ueberweg,																	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Jersey City, N. J.....†	30.64	778.2	75	23.9													C. H. Grant, 2d Off.
WHITE STAR LINE.																	
R. J. Cortis, Agent.																	
S. S. Adriatic, Capt. J. W. Jennings N. 49° 03′, W. 37° 17′.....†	30.04	763.0	46	7.8		w.	6		5		nw.	sh'rs	sh'rs	h'vy	nw.	fair	A. Horsfall.
S. S. Britannic, Capt. H. Perry,																	
S. S. Celtic, Capt. B. Gleadell, N. 42° 10′, W. 52° 38′.....†	30.11	764.8	65	18.3		nw.	4		8		nw.	2 h'rs	driz	light	nw.	misty	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, Liverpool, Eng.....†	30.31	769.9	53	11.7	93	s.	3		2		s.	sh's	sh's			showery	W. A. Ward.
S. S. Republic, Capt. P. J. Irving																	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass .....†	30.19	766.8	62	16.7	89	ne.	2	2 c?	2 n?			0	0			cloudy	
Golden Fleece																	
Hassler Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	W. Randall.
S. Pawashick, Capt. E. Fry, N. 39° 02′, W. 12° 46′.....*†..	29.86	758.4	67.5	19.7	92	nne.	3		1		nne.			sm'h	nne.	clear	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal.....†	29.98	761.5	75	23.9	77	w.	6		0			0	0			clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 3, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.93	760.2	72.5	22.5	81	nw.			3		0			0	0	clear	Moiroud.
Algiers ‡			29.84	757.9	75.2	24.0	66	ne.			1		0			0	0	clear	Nicolas.
La Calle ‡			29.84	758.0	78.4	25.8	70	nw.			2		3			0	0	pretty fair	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			29.89	759.2	77.0	25.0	28	nne.			2		0			0	0	clear	Dumas.
Tebessa ‡			29.89	759.2	74.5	23.6	33	nw.			2		6			0	0	very cloudy	Derché.
Geriville ‡					78.4	25.8	27	nnw.			2		0			0	0	clear	Lonchamp.
Laghouat ‡			29.90	759.2	77.7	25.4	28	e.			1		2			0	0	fair	Herbin.
Biskra ‡			29.89	759.3	73.4	23.0	39	nnw.			1		3			0	0	pretty fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.65	753.1	29.74	755.4	49.0	9.4	72	nw.	19	8.5			10			0.01	0.3	showery	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.39	746.4	29.94	760.5	48.2	9.0	71	ne.			2		10			inap.	inap	rainy	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.28	743.7	30.06	763.5	45.9	7.7	84	ne.	9.8	4.4			1			0.071	1.8		Dr. Wiersbicki.
Eperies	29.04	737.6	29.93	760.1	47.8	8.8	63	n.			3		10 s		s.	0	0		Julius Mikolik.
Gratz ‡	28.68	728.4	29.89	759.2	53.1	11.7	82	s.			2		8			0.067	1.7		Andreas Rospini.
Hermannstadt	28.39	721.0	29.81	757.1	56.1	13.4	82	se.			2		10			0.201	5.1	raining	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.68	728.4	30.03	762.8	48.2	9.0	74	e.			1		2			0	0	clear	The Staff.
Lemberg	28.96	735.6	29.97	761.2	42.4	5.8	94	ne.			1		10			0.594	15.1		Dr. T. Stanecki.
Pola	29.74	755.4	29.85	758.2	61.9	16.6	59	e.			3		7			0.039	1.0		I. R. Hydrographic Office.
Szathmar	29.36	745.7	29.82	757.5	51.6	10.9	77	n.			2		10			0.335	8.5		Jozsef Midlinszky, S. J.
Szegedin	29.56	750.9	29.85	758.1	51.4	10.8	86	calm			0		10			0.039	1.0		Karl Stancel.
Trieste	29.78	756.3	29.88	758.9	58.6	14.8	55	e.			5		2			0	0		Rieder.
Vienna	29.28	753.7	30.00	762.2	48.6	9.2	56	n.			2		10			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 5, 1882.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.18	766.6	30.28	769.1	55.0	12.8	87	sse.	17	7.6			9			0.075	1.9	overcast	W. Boswell.
Armagh, Observatory	29.96	761.0	30.19	766.8	55.5	13.1	76	se.	10	4.5			3					d clouds	S. Call.
Bidston, Liverpool Obs'y			30.19	766.8	55.4	13.0	73	ese.	17	7.6			9					misty	John Hartnup.
Bolton, Sharples	29.66	753.4	30.20	767.1	53.4	11.9	76	ese.	8	3.6			10					overcast	Thomas Mackereth. [A.S.
Bradford, Yorkshire	29.80	756.9	30.20	767.1	50.1	13.4	63	se.			3		6			0	0	d. clouds	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington.			30.17	766.3	58.0	14.4	64	e.			1.0		8					overcast	John McLaren.
Chatham, School M. E.	30.04	763.0	30.17	766.3	59.0	15.0	72	e.			2		4					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.87	758.7	30.09	764.3	56.5	13.6	78	e.			4		7?					overcast ?	The Staff.
Fort Napier, Natal	27.53	699.2	29.75	755.6	90.2	32.3	99	e.			2		3					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.71	754.6	29.94	760.5	86.0	30.0	83	w.			1		3					blue sky	Sergt. John Robinson.
Galway, Queen's College.			30.04	763.0	59	15.0	70	sw.			2		6					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	29.86	758.4	29.92	760.0	76.5	24.7	90	sw.			4		4					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	30.02	762.5	30.23	767.8	56.0	13.3	68	ese.			4		5					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.01	762.2	30.18	766.6	59.1	15.1	68	ene.			4		4					d. clouds	The Staff.
Guernsey	29.83	757.7	30.05	763.3	60	15.6	68	ne.			3		0					blue sky	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.14	765.5	30.18	766.6	57.0	13.9	60	e.	23	10.3			5					d. clouds	The Staff.
Leicester, Museum	29.96	761.0	30.22	767.6	57.0	13.9	58	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.70	754.4	29.77	756.1	74.0	23.3	81	ne.			3		4			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.01	762.2	30.06	763.5	81.0	27.2	74	ne.			3		5					d clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.68	753.9	30.20	767.1	54.9	12.7	73	e.			2		7					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.96	761.0	30.18	766.6	55.7	13.2	65	e.			4		7					squally	The Staff.
Plymouth	30.03	762.7	30.10	764.5	57.7	14.3	71	ene.			3		0					blue sky	John Merrifield.
Sandwick Manse, Orkneys			30.24	768.1	56.4	13.6	83	s.	25	11.2			0					blue sky	Rev. C. Clouston, L. L. D
Scutari Cemetery, Turkey	29.72	754.9	29.79	756.7	69.0	20.6	73	sw.			1		8			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	29.96	761.0	30.24	768.1	57.0	13.9	78	ese.			1		9			inap.	inap.	overcast	W. F. Cooper.
Silloth Rectory	30.19	766.8	30.22	767.6	56.6	13.7	76	e.			4		10			0	0	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.23	767.8	55.7	13.2	64	e.	9	4.0			10					misty	Rev. S. J. Perry.
Straifield Turgiss	29.95	760.7	30.17	766.3	59.4	15.2	68	ne.			3		0					blue sky	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.08	764.0	30.11	764.8	60	15.6	70	e.			2		4					d. clouds	W. Newcombe.
Valencia, Observatory	30.05	763.3	30.07	763.8	59.5	15.3	73	ese.	18	8.0			7					misty	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.10	764.5	30.14	765.5	56	13.3	81	s.	10	4.5		0	2 s			0	0	fair	H. J. Cundall, C. E.
Chatham, N. B. *	30.02	762.5	30.08	764.0	49	9.4	80	s.	7	3.1		2 k	8 ks	sw.	sw.	0	0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	29.89	759.2	29.92	760.0	53	11.7	93	sw.	15	6.7			10 n		sw.	inap.	inap.	light rain	J. McWilliams.
Fort Garry, Manitoba *	29.49	749.0	30.35	770.9	35	1.7	92	n.	3	1.3		5 cs	5 s	w.	n.	0	0	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	30.09	764.3	30.21	767.3	55	12.8	93	s.	6	2.7		0	8 ks			0	0	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.68	753.9	30.00	762.0	66	18.9	97	s.	3	1.3			10 s		s.	0.22	5.6	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.81	757.2	30.00	762.0	59	15.0	93	s.	6	2.7			10 s			inap.	inap.	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.39	746.5	30.07	763.8	62	16.7	93	w.	6	2.7			10 n		w.	0.05	1.3	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.42	747.3	30.09	764.3	67	19.4	100	nw.	6	2.7		10 k	0	nw.		1.37	34.8	fair	H. Morgan.
Port Stanley, Ontario	29.50	749.3	30.12	765.0	65	18.3	93	w.	7	3.1			10 n		nw.	1.09	27.7	cloudy	M. Payne.
Quebec, Quebec *	29.71	754.6	30.03	762.7	54	12.2	93	sw.			1		10 ks		sw.	0.02	0.5	light rain	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.58	751.3	30.03	762.7	58	14.4	93	calm	0	0			10 s		w.	0	0	cloudy	W. H. McIntyre.
Saugeen, Ontario *	29.40	746.7	30.10	764.5	62	16.7	100	w.	1	0.4			10 ks			0.01	0.3	cloudy	K. Stewart.
St. Andrews, N. B.	30.10	764.5	30.15	765.8	53	11.7	92	sw.	3	1.3			fg.			0	0	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	30.16	766.1	30.22	767.6	54	12.2	86	sw.	16	7.2		2 ck	0	w.		0	0	clear	T. C. Hill, C. E.
Toronto, Ontario *	29.71	754.6	30.08	764.0	64	17.8	97	ne.	3	1.3			10 n		w.	0.06	1.5	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	30.10	764.5	30.17	766.3	53	11.7	100	s.	6	2.7			10 s		se.	0.36	9.1	light rain	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.12	765.0	30.38	771.6	46	7.8	85	sw.	1	0.4		0	0			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House ‡	29.98	761.5	30.01	762.2	65.0	18.3	94	w.	16.8	7.5		0	3 s			0.020	0.5	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester * ‡	29.08	738.6			85	29.4	26	sw.			1	0	0			0	0		C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai.	30.16	766.1	30.19	766.8	67.1	19.5	91	e.	5.8	2.6		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.34	770.5	30.38	771.7	49.5	9.7	63	e.	11	5		.6							Oversergent Fischer.
Fanöe	30.33	770.3	30.35	770.8	51.3	10.7	62	e.			4	9							Overloerer Lauridsen.
Godthaab, Greenland	29.17	740.9	29.21	742.0	31.8	—0.1	78	nnw.			5	10							S. Kleinschmidt.
Stykkisholm, Iceland	29.35	745.4	29.39	746.5	50.0	10.0	67	se.			7	10						raining	A. O. Thorlacius.
Thorshavn	30.06	763.4	30.09	764.3	52.5	11.4	93	s.	13	6		10							Overloerer Bergh.
Vestervig	30.30	769.6	30.39	771.9	49.1	9.5	78	ne.			2	9							Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.27	743.4	29.90	759.5	64.8	18.2	55	n.			1		2 k					clear	M. Labroue, Director.
Alençon Normal School	29.53	750.1	30.14	765.5	55.4	13	97	n.			4		k			0	0		M. Nicot, Director.
Arras, Engineer School	29.86	758.4	30.12	765.0	52.7	11.5	66	e.					kn		e.				M. Klein, Commandant.
Avignon, Normal School	29.75	755.6	29.83	757.6	62.6	17	52	n.			2		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.45	747.9	30.00	762.0	56.3	13.5	60	ese.			1		5 k		ese.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.84	757.8	30.10	764.6	52.7	11.5	66	ene.			2		5		ene.	0	0	cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.14	740.1	30.03	762.8	54.7	12.6	93	n.			1		n		n.	0	0		M. Gobin, Director.
Bordeaux, Observatory	29.66	753.3	29.91	759.8	64.8	18.2	42	e.			1		0			0	0	clear	M. Rayet, Director.
Bourges, Normal School	29.42	747.2	29.96	761.0	61.7	16.5	41	n.			2		1		n.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	29.80	756.8	30.04	763.0	61.2	16.2	64	e.			1		3		e.	0	0	light haze	M. de Kermaree, Dir.
Caen, Normal School	29.98	761.5	30.05	763.3	64.4	18	57	nne.			1		0			0	0	clear	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.67	753.5	29.98	761.6	59.0	15.0	61	e.			2		2		e.	0	0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.55	750.6	30.06	763.4	57.6	14.2	52	e.			1		1			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.58	725.9	29.94	760.4	51.8	11.0	71	n.			1		10		n.	0	0	covered	M. Alluard, Director.
Cluny, Normal School	29.13	739.8	29.94	760.5	54.7	12.6	78	n.			3		2		n.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.19	741.4	30.06	763.4	55.8	13.2	64	e.			1		2 n		e.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.32	693.9	29.82	757.5	59.0	15	68	nw.			2		2 kn		ne.	0.004	0.1		M. Jeangirard, Director.
Grésque, du. Rhone	28.80	731.5	29.94	760.5	66.2	19	57	sw.			1		5		sw.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.12	739.7	29.89	759.2	52.5	11.4	70	nw.			1		1g			0	0	foggy	M. Ablard, Director.
Guéret, Normal School	28.37	720.6	29.96	760.9	52.5	11.4	75	ne.			1		10 n			0	0	covered	M. Rivoire, Director.
Lamballe, Normal School	29.76	755.8	30.03	762.8	61.2	16.2	69	ne.			1		1 k		ne	0	0	clear	M. Ollitrault, Director.
Lescar, Normal School ‡	29.27	743.5	29.85	758.1	44.6	7	52	s.			1					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	29.97	761.1	30.07	763.7	64.4	18	71	ene.			2		2		e.	0	0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.87	733.2	29.93	760.1	51.3	10.7	81	n.			2		5		n.	0	0	misty	M. André, Director.
Mans, Normal School	29.75	755.7	30.06	763.5	56.5	13.6	62	ne.			1		5		e.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.54	750.2	29.80	757.0	64.9	18.3	60	sw.			1		0			0	0		M. Stephan, Director.
Montlouis l'instituteur	24.69	627.0	29.92	760.0	51.8	11.0	52	ne.	11.2	5.0			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.67	753.6	29.78	756.3	68.0	20	57	w.			2		0			0	0	clear	M. Pourie, Director.
Nancy, Normal School	29.28	743.7	30.05	763.3	50.9	10.5	62	nw.			2		10 kn			0	0	covered	M. Hasse.
Nantes, Observatory	29.88	758.9	30.04	763.0	63.1	17.3	52	ene.			2.3		4 k		ene.	0	0		M. Larocque, Director.
Nice	29.77	756.2	29.81	757.1	65.5	18.6	63	sw.			3		10		e.	0	0	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.73	755.1	29.84	757.8	65.1	18.4	38	nw.	5.6	2.5			0			0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					53.6	12	53	n.			2		1c	n.	n.	0	0	covered	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.02	635.0			33.8	1.0	100	ne.			3		10			0.008	0.2	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.97	761.2	30.00	762.0	61.3	16.3	84	ne.			1		0			0	0	clear	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.75	755.7	29.97	761.1	61.2	16.2	58	ene.			3		0			0	0	clear	M. Mouillot, Director.
Rodez, Normal School	27.79	705.9	29.92	760.0	54.9	12.7	63	nw.			1		0			0	0	clear	M. Richard, Director.
Rouen, Normal School	30.01	762.3	30.10	764.5	55.4	13	68	se.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School																			M. Delaplanche, Dir.
Saint Maur, Observatory	29.89	759.2	30.09	763.4	55.0	12.8	65	nne.			2		1		ne.	0	0		M. Renou, Director.
Toulouse, Observatory	29.22	742.1	29.94	760.4	63.9	17.7	41	nnw.			1		1	w.		0	0	clear	M Baillaud, Director.
Tours	29.80	757.0	30.00	762.0	60.8	16.0	50	ne.			2		2	calm	e.	0	0	¼ covered	M. de Tastes.
Versailles, Observatory	29.57	751.0	30.06	763.4	55.0	12.8	59	e.			3					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.78	756.3	30.07	763.7	53.8	12.1	66	ne.			2		3		ene.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.24	742.7	30.07	763.7	50.0	10.0	70	ne.			3	0	6 ks			0	0		Prof. Dr. Hoh.
Berlin	30.02	762.6	30.20	767.0	52.3	11.3	53	ne.			1		10			0.071	1.8		Prof. Dr. Arndt.
Breslau	29.61	752.0	30.14	765.5	47.3	8.5	73	nne.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.63	752.5	30.06	763.4	52.7	11.5	65	ne.			2		10	ne.		0	0		Albert Senz.
Cassel	29.44	747.7	30.16	766.1	52.2	11.2	62	ne.			5		7	n.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.74	755.5	30.11	764.9	54.7	12.6	47	ene.			2		8			0	0		Physical Society.
Friedrichshafen	28.52	724.5	29.97	761.1	50.7	10.4	52	ne.			6		8	ne.				raining	Wilhelm, Chief Tel.
Hamburg	30.19	766.9	30.29	769.3	50.7	10.4	72	ene.			4		10			0	0		E. Preller.
Kiel	30.29	769.4	30.31	769.8	50.2	10.1	64	ne.			5		10			0.039	1.0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.76	755.9	30.19	766.8	48.9	9.4	79	ne.			2		10	ne.		0	0		H. Leppig, Asst.
Magdeburg	30.02	762.4	30.21	767.3	51.4	10.8	55	ne.			3		1c s		ne.				Dr. Assmann.
Memel	30.34	770.5	30.38	771.7	37.9	3.3	66	ne.			3	0	1 k						Issermann.
Munich	28.21	716.4	30.07	763.8	46.8	8.2	55	ne.			4		5	n.		0.157	4.0		Central Station.
Neufahrwasser	30.21	767.4	30.23	767.8	46.4	8.0	68	ene.			4		10			0.067	1.7	raining	A. Lothes.
Neustadt, Palatinate	29.54	750.3	30.07	763.7	53.4	11.9	63	e.			4		10			0	0		Dicknether.
Stuttgart	29.09	738.8	29.99	761.7	50.9	10.5	59	n.			1		6	n.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.56	725.5	30.09	764.2	47.5	8.6	70	ne.			6		9	ne.		0	0		Fischer.
Wustrow	30.28	769.2	30.31	769.8	50.2	10.1	74	ne.			4		10 ks			0.039	1.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.46	748.3	29.84	758.0	77.5	25.3		sw.			1.0		3			0.008	0.2		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.71	754.7	29.76	756.0	84.0	28.9	73	sw.	12.0	5.4			0			0	0	blue sky	
Deesa	29.24	742.8	29.71	754.6	91.5	33.1	49	wnw.	7.8	3.5			3	w.	w.	0	0	d. clouds	
Bombay	29.71	754.6	29.74	755.5	80.4	26.9	90	nnw.	13.0	5.8			10		nnw.	2.19	55.6	overcast	
Poona, Yarrowda.	27.91	709.0	29.78	756.3	74.1	23.4	93	w.	8.0	3.6			10		w.	1.59	40.4	raining	
Belgaum	27.23	691.6	29.78	756.5	71.1	21.7	95	wsw.	10.0	4.5			10			0.07	1.8	showery	
Lahore	28.94	735.0	29.66	753.5	89.6	32.0	41	calm	2.1	0.9			0			0	0	blue sky	
Roorkee	28.77	730.8	29.65	753.2	87.6	30.9	47	w.	1.9	0.8			0			0	0		
Agra	29.13	739.9	29.68	753.9	92.2	33.4	43	w.	1.6	0.7			0			0	0		
Nagpur	28.66	728.1	29.70	754.3	82.5	28.1	66	ene.	2.2	1.0			9		se.	0	0	gloomy	
Jubbulpore	28.39	721.0	29.72	755.0	85.3	29.6	71	e.	2.8	1.2			0			0	0	blue sky	
Lucknow	29.30	744.2	29.66	753.5	92.6	33.7	43	calm	3.3	1.5			0			0	0	blue sky	
Allahabad	29.37	746.0	29.68	753.9	84.4	29.1	77	calm	0.7	0.3			0			0	0	blue sky	
Patna	29.54	750.2	29.62	752.3	84.4	29.1	71	e.	1.7	0.8			4	e.	e.	0	0	d. clouds	
Hazaribagh	27.67	702.8	29.66	753.4	79.8	26.6	67	e.	3.6	1.6			9	e.	w.	0	0		
Cuttack	29.60	751.7	29.68	753.8	86.9	30.5	69	se.	0.9	0.4			3			0	0	d. clouds	
Calcutta, Alipore	29.69	754.1	29.71	754.6	85.6	29.8	80	ese.	3.0	1.3			7		e.	0	0	d. clouds	
Dhubri	29.60	752.0	29.73	755.0	80.2	26.7	86	calm	0.5	0.2			0			0	0	blue sky	
Chittagong	29.66	753.4	29.75	755.7	84.0	28.9	79	w.	3.2	1.4			5			0	0	blue sky	
Sibsagar	29.43	747.5	29.77	756.0	80.8	27.1	84	ne.	3.9	1.7			2			0.05	1.3	blue sky	
Jeypore	28.31	719.0	29.71	754.7	92.2	33.4	28	nne.	2.7	1.2			4		ne.	0	0	d. clouds	
Zanzibar, Africa			29.98	761.5	80.3	26.8	69	nnw.	3	1.3			4			0.09	2.3	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.47	748.6	29.88	759.0	61.7	16.5	48	calm	0	0			7			0.016	0.4		Prof. Giovanni Clodig.
Milan	29.39	746.6	29.89	759.3	57.6	14.2	78	ne.	6.3	2.8			10	e.		0	0		Prof. Schiaparelli.
Padua	29.78	756.4	29.89	759.2	61.0	16.1	54	ese.	11.9	5.3			5	ene.		0.012	0.3		Prof. Dott. Lorenzoni.
Moncalieri	28.96	735.5	29.86	758.5	54.5	12.5	94	e.	0.2	1.1			10	n.		0.185	4.7		Prof. P. F. Denza.
Genoa	29.66	753.3	29.85	758.1	60.3	15.7	66	se.	1.8	0.8			10	se.		0	0		Prof. G. M. Garibaldi.
Mondovi	27.91	709.6	29.86	758.4	55.9	13.3	78	wnw.			4		9			0	0		Prof. D. C. Bruno.
Pesaro	29.80	756.9	29.85	758.1	59.5	15.3	75	n.	8.7	3.9			9			0	0		Prof. Luigi Guidi.
Florence	29.56	750.8	29.81	757.2	65.1	18.4	48	ne.			2		9			0	0		Prof. Costantino Pitter.
Leghorn	29.74	755.4	29.83	757.6	63.3	17.4	65	n.	1.3	0.6			6			0	0		Prof. P. Monte.
Rome	29.63	752.6	29.80	757.0	68.4	20.2	51	nw.					7			0	0		Prof. P. S. Ferrari.
Lecce	29.59	751.6	29.84	757.9	69.6	20.9	61	nnw.	9.4	4.2			6	w.		0	0		Prof. C. de Giorgi.
Cosenza	28.97	735.7	29.84	758.0	66.2	19.0	59	sse.	3.1	1.4			9	se.		0	0		Prof. D. Conti.
Cagliari	29.63	752.6	29.82	757.3	67.3	19.6	52	calm	0	0			10			0	0		Prof. A. Pacinotti.
Palermo	29.58	751.2	29.82	757.4	68.0	20.0	64	ese.	5.6	2.5			6	w.		0	0		Prof. G. Ciacciatore.
Syracuse	29.78	756.3	29.82	757.4	70.5	21.4	68	wsw.	3.8	1.7			3	w.		0.020	0.5		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.30	744.1	29.81	757.1	65.5	18.6	75	sw.	0.7	0.3			7	w.		0.264	6.7		Prof. F. Brioschi.
Stelvio	22.01	559.0			33.8	1.0	83	e.			2		10	se.		0	0	covered	Prof. P. F. Denza.
Valdobbia	22.04	559.7			29.5	— 1.4	91	e.			6		10 n			0.472	12.0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.16	766.0	30.18	766.6	64.3	17.9	61	ne.	8.9	4.0		1 ck;cs	0			0	0	clear	K. Sasaki.
Kioto	30.04	763.0	30.21	767.3	55.3	12.9	91	nw.	0.6	0.3		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	30.02	762.5	30.22	767.6	64.8	18.2	66	ne.	4.7	2.1		0	0			0	0	clear	S. Takehayashi.
Nemuro	30.24	768.1	30.31	769.9	52.0	11.1	96	ese.	5.4	2.4		2	7			0	0		
Niigata	30.21	767.3	30.24	768.1	62.9	17.2	86	se.	2.6	1.2		ck	10 n			0.035	0.9	cloudy	
Nobiru	30.23	767.8	30.24	768.1	56.7	13.7	96	nnw.	6.1	2.7		ck	7 s			0.110	2.8	fair	
Supporo	30.13	765.3	30.19	766.8	53.6	12.0	88	sse.	2.4	1.1			1			0.005	0.1		
Tokei Obs'y, Yeddo	30.17	766.3	30.24	768.1	58.6	14.8	91	e.	1.8	0.8		ck	8 s		ne.	0	0	fair	The Staff.
Wakayama	30.16	766.0	30.21	767.3	65.3	18.5	64	n.	4.9	2.2		4 ck	0	nw.		0	0	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.99	761.7	30.18	766.6	75.0	23.9	60	e.	17.5	7.8		2 c;cs	4 k;n	nw.	ese.	0	0	fair	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.71	602.2	29.93	760.2	59.0	15.0	88	calm	0	0			10 n			inap.	inap.	raining	Vicente Fernandez.
Leon	24.45	621.0	30.08	763.9	63.8	17.7	80	ne.			4	2 c	5 k	ne.		0	0	cloudy	Prof. M. Leal.
Mazatlan	29.65	753.1	29.91	759.7	75.5	24.2	86	ese.	0.9	0.4		8 cs	2 n	sw.	ese.	0.276	7.0	covered	F. Quijano, C. E.
Mexico, Central Obs'y	23.12	587.2	30.13	765.3	57.2	14.0	77	n.	5.6	2.5			10 kn			0	0	overcast	The Staff.
Morelia	24.16	613.8	30.24	768.3	61.2	16.2	68	ne.			3	2	3	se.	se.	0	0	½ cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	24.00	609.5	29.98	761.5	61.9	16.6	86	n.			2	0	9 ns		e.	inap.	inap.	covered	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.7	30.13	765.4	58.6	14.8	47	calm	0	0			10		se.	0	0	overcast	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.21	767.2	30.21	767.2	53.1	11.7		ne.			4					0.008	0.2		
Groningen	30.23	767.8	30.28	769.2	53.1	11.7		e.			2					0	0		
Helder	30.26	768.6	30.26	768.6	50.4	10.2		e.			3					0	0		
Hellevoetsluis	30.21	767.3	30.21	767.3	51.3	10.7	82	ene			3					0	0		
Utrecht	30.19	766.7	30.23	767.9	51.3	10.7	84	ene.			3		5			0	0	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.37	771.3	30.43	772.9	53.6	12.0	82	sse.	2.2	1.0			8			0	0		
Christiania	30.39	771.9	30.54	775.7	47.8	8.8	55	e.	4	2			8			0	0		
Gjæsvær	30.19	766.7	30.21	767.3	49.3	9.6		sw.			6		10						
Lodingen	30.37	771.4	30.42	772.6	49.6	9.8	65	w.			3		10			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.93	760.3	30.09	764.2	65.5	18.6	72	ne.	4.3	1.9			2			0	0		Dr. J. A. Sampaio.
Campo Major	28.86	733.0	29.82	757.4	77.5	25.3	28	sw.	11.2	5.0			7			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.95	760.7	30.04	762.9	73.8	23.2	59	sw.	6.3	2.8			7			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.54	750.4	29.89	759.3	68.5	20.3	65	sw.	10.5	4.7			9			0	0		The Staff.
Ponta Delgada, Azores	30.04	762.9	30.11	764.7	69.4	20.8	57	ne.	5.6	2.5			5			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.02	737.0	30.13	765.2	39.9	4.4	57	sw.	45	20		0	8 k						Capt. Lasarew.
Archangel	30.50	774.8	30.52	775.3	40.5	4.7	60	n.	4	2		0	5 ks						Capt. Sseliwerstow.
Astrakhan	30.03	762.7	29.95	760.6	64.4	18.0	50	s.	7	3			10 s						Capt. Wisganow.
Barnaul ‡	29.76	755.8	30.27	768.9	40.5	4.7	44	calm	0	0			2					light clouds	Meteorological Obs'y.
Dorpat	30.18	766.6	30.43	773.0	41.9	5.5	77	ne.	13	6			10 k						Observatory.
Ekaterinburg	28.94	735.0	29.93	760.2	34.0	1.1	96	calm	0	0			10					snowing	Meteorological Obs'y.
Kasan	29.73	755.2	30.01	762.2	39.4	4.1	80	calm	0	0			10						Observatory.
Kertch	29.79	756.6	29.81	757.1	56.3	13.5	86	ese.	4	2		0	8 n			0	0		Lagorio & Sastyrea.
Kieff	29.31	744.4	29.95	760.8	44.1	6.7	73	nne.	4	2		c,cs	10n;ks					raining	Observatory.
Lugan	29.72	755.0	29.93	760.2	53.1	11.7	62	e.	9	4			9						Meteorological Obs'y.
Moscow	29.58	751.2	30.07	763.7	38.8	3.8	83	nnw.	7.8	3.5			10 s						Meteorological Obs'y.
Nikolaiev	29.85	758.3	29.93	760.1	50.2	10.1	88	calm	0	0			10 n					raining	Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.74	755.3	29.82	757.5	52.0	11.1	86	calm			0		10 n			0	0		Lieut. Iwanow.
Pekin, China	29.99	761.8	30.13	765.4	67.8	19.9	77	calm	0	0		0	7 n			0	0		Physical Observatory.
St. Petersburg	30.45	773.3	30.46	773.7	42.4	5.8	78	ne.	9	4			9 kn						Central Physical Obs'y.
Tashkend, Laboratory	28.60	726.3	30.17	766.2	58.1	14.5	81	calm	0	0			0			0	0		Teich, A. M.
Tiflis	28.52	724.4	29.89	759.1	71.4	21.9	49	e.	4	2		0	0						Physical Observatory.
Warsaw	29.71	754.6	30.14	765.6	43.0	6.1	57	nne.	9	4			10 ks						Astronomical Obs'y.
Wilna	29.79	756.7	30.22	767.7	40.3	4.6	57	ne.	9	4			8					heavy cl'ds.	Berg, Assistant.
Yeniseisk	30.17	766.2	30.47	766.2	32.4	0.2	70	s	2	1			9						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.27	768.8	56.5	13.6	78	e.			1		10 k			0	0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.13	765.3	56	13.3	94	s.			7		10			0	0	hazy	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.73	755.1	29.84	757.8	65.1	18.4	65	ene.	2.7	1.2			0			0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.88	759.0	29.94	760.4	68.2	20.1	57	se.	2.2	1.0		2	2	n.		0	0		Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.96	684.8			65.1	18.4	48	n.	1.6	0.7		0	1			0	0	clear..	Domingo Martin.
Madrid, Royal Obs'y	27.66	702.5	29.80	756.9	73.4	23.0	29	s.	5.8	2.6		3	0	w.		0	0	light clouds	The Staff.
Murcia, Met. Obs'y ‡	29.69	754.0	29.83	757.7	82.2	27.9	55	ene.	1.8	0.8		0	1			0	0	almost clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.93	734.8	29.81	757.2	63.7	17.6	67	ne.	1.8	0.8			7			0.169	4.3	cloudy	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.93	760.3	30.00	761.9	75.7	24.3	86	ese.	4.0	1.8		c;ck	1 k;s	ese.	e.	0.028	0.7	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.89	759.2	29.94	760.5	81.2	27.3	89	sse.	4.4	2.0			9 kn		s.	0	0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.83	757.6	29.92	760.0	72.1	22.3	74	s.	6.3	2.8			10		s.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.84	757.8	29.93	760.1	79.9	26.6	89	calm	0	0		6 k	6 s			1.102	28.0	cloudy	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.86	758.5	30.00	761.9	75.9	24.4	88	ssw.	3.4	1.5			10 n		se.	0.15	3.8	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.61	777.6	30.65	778.6	41.7	5.4	69	sw.			2		8			0	0		
Umea	30.61	777.4	30.66	778.7	45.3	7.4	59	n.			2		0			0	0		
Hernosand	30.61	777.4	30.66	778.7	44.1	6.7	64	e.			2		8			0.012	0.3		
Stockholm	30.37	771.5	30.55	776.0	42.8	6.0	56	ene.			6		6			0	0		
Wisby	30.32	770.2	30.38	771.7	47.8	8.8	50	ene.			6		5			0.012	0.3		
Sub-Series.																			
Upsala	30.47	773.8	30.55	776.0	44.6	7.0	53	ne.	11.6	5.2			5		ene.	0.004	0.1		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.48	723.5	29.92	759.9	52.2	11.2	70	nne.			6		10			0	0	covered	The Observatory.
Zurich ‡	28.34	719.9	30.00	762.0	47.5	8.6	77	ne.			2		9			0	0	covered	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.82	757.5	67.5	19.7	70	nw.	3	1.5			10		wnw.	0.134	3.4		The Observatory.
Valona			29.72	754.9	67.6	19.8		w.			1		5			0.08	2.	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.91	759.6	83.5	28.6	54	sw.			1	0	2 k		sw.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.00	762.0	30.08	764.0	64	17.8	90	s.	8	3.6			10 s		s.	1.37	34.8	cloudy	
Alpena, Michigan	29.47	748.5	30.16	766.1	58	14.4	93	nw.	5	2.2		4 k	0	nw.		0.03	0.8	fair	
Atlanta, Georgia	29.14	740.1	30.36	771.1	67.2	19.9	90	e.	3	1.3		0	0			0	0	clear	
Atlantic City, New Jersey	30.19	766.8	30.20	767.1	71.7	22.1	97	sw.	11	4.9			10 s		calm	0	0	cloudy	
Augusta, Georgia	30.11	764.8	30.31	769.9	71.0	21.7	84	e.	1	0.4		0	0			0	0	clear	
Baltimore, Maryland	30.16	766 1	30.21	767.3	74	23.3	71	w.	4	1.8		3 k	7 s	sw.	w.	inap.	inap.	cloudy	
Barnegat, New Jersey	30.14	765.5	30.16	766.1	72.5	22.5	96	sw.	14	6.3			10 s		sw.	0	0	cloudy	
Bismarck, Dakota	28.50	723.9	30.42	772.7	34	1.1	88	n.	6	2.7		5 cs	0	calm		0	0	fair	
Boise City, Idaho	27.05	687.1	29.97	761.2	39	3.9	65	nw.	2	0.9		0	4 s		calm	0	0	fair	
Boston, Massachusetts	29.98	761.5	30.14	765.5	59.0	15.0	93	s.	3	1.3			10n;fg		s.	0.23	5.8	light rain	
Brackettville, Texas	28.95	735.3	29.97	761.2	74	23.3	97	se.	4	1.8			10 s		se.	0.06	1.5	cloudy	
Brownsville, Texas	30.01	762.2	30.06	763.5	75	23.9	97	calm	0	0		hz.	0			0	0	dense haze	
Buffalo, New York	29.37	746.0	30.11	764.8	67.4	19.7	89	nw.	7	3.1			10 n		nw.	3.10	78.7	light rain	
Burlington, Vermont	29.77	756.1	30.07	763.8	59.5	15.3	95	s.	5	2.2			10 n		s.	0.28	7.1	light rain	
Cairo, Illinois	29.87	758.7	30.28	769.1	73.8	23.2	92	s.	3	1.3		0	fg.			0	0	clear	
Campo, California	27.37	695.2	29.94	760.5	37	2.8	82	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.26	768.6	30.28	769.1	72	22.2	100	sw.	12	5.4		4 c	3 s		sw.	0	0	fair	
Cape May, New Jersey	30.17	766.3	30.20	767.1	74	23.3	84	sw.	20	8.9			10 ks		sw.	0	0	cloudy	
Castroville, Texas	29.33	745.0	30.00	762.0	78	25.6	82	se.	4	1.8			10 s		se.	0.50	12.7	cloudy	
Cedar Keys, Florida	30.16	766.1	30.18	766.6	74	23.3	90	ne.	10	4.5		0	0			0	0	clear	
Champaign, Illinois	29.35	745.5	30.12	765.0	70.3	21.3	97	sw.	5	2.2			10 s		w.	0.91	23.1	cloudy	
Charleston, S. Carolina	30.21	767.3	30.27	768.8	76	24.4	90	ne.	5	2.2		0	0			inap.	inap.	clear	
Charlotte, N. Carolina	29.43	747.5	30.34	770.6	69.0	20.6	90	s.	1	0.4		hz.	hz.	calm	calm	0	0	dense haze	
Chattanooga, Tennessee	29.51	749.5	30.36	771.1	65.0	18.3	100	calm	0	0			fg.		calm	0	0	dense fog	
Cheyenne, Wyoming	24.13	612.9	30.26	768.6	41.2	5.1	48	nw.	8	3.6		0	0			0	0	clear	
Chicago, Illinois	29.45	748.0	30.19	766.8	64.1	17.8	93	calm	0	0			fg.			0.28	7.1	dense fog	
Chincoteague, Virginia	30.23	767.8	30.25	768.3	73	22.8	97	sw.	16	7.2		2 c	4 ks	calm	calm	0	0	fair	
Cincinnati, Ohio	29.59	751.6	30.27	768.8	72.4	22.4	97	s.	3	1.3			10 n			1.71	43.4	heavy rain	
Cleveland, Ohio	29.46	748.3	30.23	767.8	69.2	20.7	86	w.	9	4.0		1 cs	9 s	w.	w.	2.17	55.1	clearing	
Coleman City, Texas																			
Columbus, Ohio	29.37	746.0	30.26	768.6	69	20.6	93	sw.	4	1.8			10 n			1.47	37.3	light rain	
Concho, Texas	28.23	717.0	30.23	767.8	70	21.1	97	se.	8	3.6		0	3 s			0	0	fair	
Corsicana, Texas	29.76	755.9	30.24	768.1	76	24.4	90	calm	0	0			fg.			0.12	3.0	dense fog	
Davenport, Iowa	29.51	749.5	30.19	766.8	67	19.4	93	s.	1	0.4			fg.			0.01	0.3	dense fog	
Dayton, Washington T'y	28.16	715.3	30.02	762.5	44.5	6.9	76	n.	3	1.3		2 k	0	calm		0	0	clear	
Deadwood, Dakota	25.59	650.0	30.45	773.4	41	5.0	86	e.	4	1.8			10 s		calm	0	0	cloudy	
Decatur, Texas	28.99	736.3	30.13	765.3	71	21.7	66	se.	10	4.5		0	0			0.03	0.8	clear	
Delaware Breakwater, Del.	30.16	766.1	30.18	766.6	73	22.8	97	sw.	25	11.2		4c;ck	6 s	w.	sw.	0	0	cloudy	
Denison, Texas	29.37	746.0	30.20	767.1	76	24.4	85	calm	0	0		0	0			0	0	clear	
Denver, Colorado	24.84	630.9	30.22	767.6	49.2	9.6	32	s.	8	3.6		0	0			0	0	clear	
Des Moines, Iowa	29.21	741.9	30.16	766.1	66	18.9	93	s.	4	1.8			10 s		s.	0.02	0.5	cloudy	
Detroit, Michigan	29.48	748.8	30.22	767.6	67.0	19.4	90	w.	5	2.2			10 s		calm	1.95	49.5	threatening	
Dodge City, Kansas	27.49	698.2	30.18	766.6	67.5	19.7	91	s.	12	5.4		2 ck	0	w.		0	0	clear	
Dubuque, Iowa	29.42	747.3	30.16	766.1	63.8	17.7	90	s.	1	0.4		1 cs	8 ks	calm	sw.	0	0	cloudy	
Duluth, Minnesota	29.53	750.0	30.26	768.6	50	10.0	86	nw.	10	4.5			10 s		nw.	0	0	cloudy	
Eagle Pass, Texas	29.34	745.2	30.19	766.8	75.3	24.1	90	se.	4	1.8			10 s		se.	0	0	cloudy	
Eagle Rock, Idaho	25.16	639.1	30.15	765.8	34	1.1	66	n.	5	2.2		0	0			0	0	clear	
Eastport, Maine	30.08	764.0	30.15	765.8	53.5	11.9	90	sw.	6	2.7			10 n		sw.	0.01	0.3	light rain	
El Paso, Texas	26.32	668.5	30.16	766.1	67.3	19.6	90	e.	3	1.3		0	2 s			0	0	clear	
Erie, Pennsylvania	29.41	747.0	30.17	766.3	69	20.6	93	w.	16	7.2			10 s		w.	0.85	21.6	cloudy	
Escanaba, Michigan	29.45	748.0	30.13	765.3	53	11.7	93	n.	7	3.1			10 s		n.	0.04	1.0	cloudy	
Florence, Arizona	28.41	721.6	30.01	762.2	68	20.0	70	w.	1	0.4			10 ks		w.	0	0	cloudy	
Fort Apache, Arizona	25.09	637.3	30.13	765.3	54	12.2	77	ne.	2	0.9			10 s		calm	0	0	cloudy	
Fort Assinnaboine, Montana	27.50	698.5	30.44	773.2	37	2.8	92	ne.	6	2.7			10 n		ne.	0.03	0.8	light rain	
Fort Bennett, Dakota	28.62	726.9	30.22	767.6	46	7.8	77	ne.	8	3.6			10 s		nw.	0	0	cloudy	
Fort Benton, Montana	27.48	698.0	30.46	773.7	38	3.3	92	se.	12	5.4			10 s		calm	0.20	5.1	cloudy	
Fort Buford, Dakota	28.37	720.6	30.48	774.2	41	5.0	92	ne.	12	5.4			10 s		calm	0	0	cloudy	
Fort Custer, Montana	27.03	686.5	30.42	772.7	40	4.4	95	n.	8	3.6			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.08	637.0	30.04	763.0	65	18.3	65	s.	11	4.9		0	0			0	0	clear	
Fort Elliott, Texas	27.38	695.4	30.68	779.3	66	18.9	75	s.	2	0.9		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.62	752.3	30.19	766.8	72.5	22.5	90	se.	4	1.8		0	0			inap.	inap.	clear	
Fort Grant, Arizona					71	21.7	68	ne.	8	3.6			10 s			0	0	cloudy	
Fort Griffin, Texas	28.87	733.3	30.10	764.5	74.2	23.4	90	calm	0	0			10 s			0	0	cloudy	
Fort Keogh, Montana	27.74	704.6	30.41	772.4	45	7.2	76	ne.	6	2.7		10 cs	0	ne.		0	0	cloudy	
Fort Macon, North Carolina	30.29	769.4	30.30	769.6	77	25.0	82	se.	8	3.6		2 k	0	se.		0	0	clear	
Fort McKavett, Texas	27.95	709.9	29.83	757.7	69.1	20.6	65	se.	6	2.7		3 k	0	sw.		0.02	0.5	fair	
Fort Missoula, Montana	26.77	680.0	30.42	772.7	44	6.7	56	ne.	12	5.4			10 s			0	0	cloudy	
Fort St. Michaels	29.80	756.9	29.83	757.7	40	4.4	82	s.	20	8.9			10 n			0.20	5.1	light rain	
Fort Shaw, Montana	26.62	676.1	30.36	771.1	35	1.7	100	ne.	6	2.7			10 n		calm	0.16	4.1	light rain	
Fort Sill, Indian Territory	28.92	734.6	30.21	767.3	71.2	21.8	97	s.	6	2.7			10 s		s.	0	0	cloudy	
Fort Stevenson, Dakota	28.48	723.4	30.44	773.2	42	5.6	76	n.	8	3.6			10 s		n.	0	0	cloudy	
Fort Verde, Arizona					54	12.2	62	w.			1	0	1 s		calm	0	0	clear	
Fredericksburg, Texas	28.42	721.9	29.94	760.5	72	22.2	97	s.	5	2.2		0	8 ks		s.	0	0	fair	
Galveston, Texas	30.10	764.5	30.14	765.5	81	27.2	87	se.	7	3.1		0	8 ks		se.	0.15	3.8	cloudy	
Grand Haven, Michigan	29.51	749.5	30.21	767.3	65.0	18.3	93	calm	0	0			10 s		calm	0.03	0.8	cloudy	
Hatteras, North Carolina	30.28	769.1	30.30	769.6	78	25.6	76	s.	7	3.1		3 k	hz.			0	0	fair	
Helena, Montana	25.94	658.9	30.53	775.4	38	3.3	82	calm	0	0		5 k	0	calm		0	0	fair	
Henrietta, Texas	29.11	739.4	30.01	762.2	70	21.1	50	s.	6	2.7		0	0			0	0	clear	
Huron, Dakota	28.76	730.5	30.22	767.6	49.3	9.6	86	n.	12	5.4			10 s		n.	0	0	cloudy	
Indianapolis, Indiana	29.39	746.5	30.22	767.6	71	21.7	94	s.	1	0.4			10 n		calm	1.46	37.1	light rain	
Indianola, Texas	30.10	764.5	30.13	765.3	81.4	27.4	82	se.	8	3.6		0	3 ks		calm	0.01	0.3	clear	
Jacksboro, Texas	29.01	736.8	30.11	764.8	70	21.1	90	sw.	8	3.6		0	1 ks		s.	0	0	clear	
Jacksonville, Florida	30.18	766.6	30.22	767.6	77	25.0	82	ne.	6	2.7		1 k	0			0.03	0.8	clear	
Keokuk, Iowa	29.47	748.5	30.15	765.8	70.5	21.4	100	ne.	4	1.8			10 n			0.78	19.8	light rain	
Key West, Florida	30.01	762.2	30.04	763.0	79.0	26.1	82	e.	13	5.8			9ks;s		e.	0.07	1.8	threatening	
Kittyhawk, North Carolina	30.29	769.4	30.31	769.9	76	24.4	85	se.	7	3.1		2 c;hz	0			0	0	clear	
Knoxville, Tennessee	29.32	744.7	30.39	771.9	64	17.8	97	calm	0	0			fg.		calm	0	0	dense fog	
La Crosse, Wisconsin	29.36	745.7	30.16	766.1	63	17.2	93	sw.	4	1.8			fg.			0	0	dense fog	
La Mesilla, New Mexico	26.20	665.5	30.35	770.9	62.4	16.9	84	calm	0	0		0	2 s			0	0	clear	
Laredo, Texas																			
Leavenworth, Kansas	29.24	742.7	30.17	766.3	73	22.8	97	s.	6	2.7			10 n		sw.	0.28	7.1	light rain	
Lewiston, Idaho	29 08	738.6	29.96	761.0	44	6.7	60	calm	0	0		0	8 s		calm	0	0	cloudy	
Little Rock, Arkansas	29.90	759.4	30.22	767.6	72	22.2	97	calm	0	0			fg.			0	0	dense fog	
Los Angeles, California	29.60	751.8	29.98	761.5	53.1	11.7	80	se.	5	2.2		0	0			0	0	clear	
Louisville, Kentucky	29.64	752.8	30.22	767.6	75.5	24.2	76	s.	6	2.7			10 s		calm	0	0	cloudy	
Lynchburg, Virginia	29.57	751.1	30.28	769.1	71	21.7	76	calm	0	0		2 c	0	w.		0	0	clear	
Madison, Wisconsin	29.13	739.9	30.20	767.1	64	17.8	93	e.	2	0.9			fg.		calm	0	0	light fog	
Marquette, Michigan	29.44	747.8	30.20	767.1	48	8.9	93	nw.	6	2.7			10 s		nw.	0.06	1.5	cloudy	
Mason, Texas	28.52	724.4	30.22	767.6	74.2	23.4	85	calm	0	0		0	5 s		calm	0.05	1.3	fair	
Memphis, Tennessee	29.92	760.0	30.27	768.8	74	23.3	82	calm	0	0		0	fg.			0	0	light fog	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.41	747.0	30.19	766.8	58	14.4	100	calm	0	0			fg			0.01	0.3	dense fog	
Mobile, Alabama	30.16	766.1	30.23	767.8	74.0	23.3	82	ne.	5	2.2		0	0			0	0	clear	
Montgomery, Alabama	30.06	763.5	30.30	769.6	70	21.1	90	e.	4	1.8		0	0			0	0	clear	
Moorhead, Minnesota	29.29	744.0	30.35	770.9	35	1.7	89	n.	8	3.6		0	0			0	0	clear	
Morgantown, W. Virginia	29.24	742.7	30.20	767.1	71.8	22.1	94	sw.	4	1.8			10 n		w.	0.12	3.0	light rain	
Mt. Washington, N. H	23.95	608.3	30.32	770.1	47.0	8.3	100	nw.	36	16.1			10n;fg		nw.	1.12	28.4	light rain	
Nashville, Tennessee	29.75	755.6	30.31	769.9	69.9	21.1	86	calm	0	0		3 ck	0	sw.		0	0	clear	
New Haven, Connecticut	29.99	761.7	30.10	764.5	70	21.1	93	sw.	6	2.7			10 n		sw.	0.67	17.0	light rain	
New London, Connecticut	30.08	764.0	30.14	765.5	69	20.6	100	sw.	13	5.8			10 n		sw.	0.71	18.0	light rain	
New Orleans, Louisiana	30.12	765.0	30.18	766.6	76.0	24.4	90	ne.	8	3.6		hz	hz			0.03	0.8	dense haze.	
Newport, Rhode Island	30.11	764.8	30.16	766.1	67.0	19.4	100	s.	6	2.7			10 n		calm	0.15	3.8	light rain	
New River, N. Carolina																			
New Shoreham, Rhode I'd	30.12	765.0	30.15	765.8	67.0	19.4	100	sw.	11	4.9			10 n		sw.	0.50	12.7	light rain	
New York, New York	30.00	762.0	30.18	766.6	68	20.0	100	sw.	9	4.0			10n;fg			0.10	2.5	light rain	
Norfolk, Virginia	30.26	768.6	30.29	769.4	72	22.2	97	w.	6	2.7			10 s			0	0	cloudy	
North Platte, Nebraska	27.11	688.6	30.17	766.3	54	12.2	94	ne.	6	2.7			fg			0	0	dense fog	
Olympia, Washington T'y	29.87	758.7	29.91	759.7	42.0	5.6	82	nw.	1	0.4		0	0			0	0	clear	
Omaha, Nebraska	28.92	734.6	30.16	766.1	69	20.6	97	s.	6	2.7			fg			inap.	inap.	dense fog	
Oswego, New York	29.69	754.1	30.03	762.7	65.0	18.3	97	s.	1	0.4		2 c	7 s	nw.		0.39	9.9	cloudy	
Pensacola, Florida	30.19	766.8	30.22	767.6	68	20.0	84	ne.	7	3.1		0	0			0	0	clear	
Philadelphia, Pa	30.13	765.3	30.19	766.8	72	22.2	97	w.	9	4.0			10 n			inap.	inap.	light rain	
Phœnix, Arizona	28.70	730.5	30.54	775.7	58	14.4	25	calm	0	0		6 k	0	s.		0	0	fair	
Pike's Peak, Colorado	18.01	457.4	30.22	767.6	30	— 1.1	71	sw.	18	8.0		0	0			0	0	clear	
Pioche, Nevada	24.03	610.4	30.22	767.6	56	13.3	31	s.	12	5.4		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.39	746.5	30.24	768.1	72	22.2	84	sw.	8	3.6			9 s			0.11	2.8	cloudy	
Port Eads, Louisiana	30.15	765.8	30.16	766.1	80.0	26.7	82	e.	14	6.3		0	1 ks;hz		e.; c.	0.02	0.5	clear	
Port Huron, Michigan	29.49	749.0	30.20	767.1	63.7	17.6	92	nw.	4	1.8			10 s		calm	0.20	5.1	cloudy	
Portland, Maine	30.08	764.0	30.13	765.3	56	13.3	86	se.	4	1.8			10 n		calm	0.69	17.5	light rain	
Portland, Oregon	29.83	757.7	29.90	759.4	51.2	10.7	97	nw.	4	1.8			10 n			0.02	0.5	light rain	
Portsmouth, N. Carolina					78	25.6	72	ne.	4	1.8		3 k	0	e.		0	0	clear	
Prescott, Arizona	24.79	629.7	30.10	764.5	47	8.3	61	s.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	30.07	763.8	30.08	764.0	77	25.0	82	ne.	14	6.3		1 c	hz	e.	calm	0.04	1.0	clear	
Red Bluff, California	29.50	749.3	29.85	758.2	54.5	12.5	92	sw.	10	4.5			10 n		calm	0.10	2.5	light rain	
Rio Grande City, Texas	29.92	760.0	30.13	765.3	75	23.9	85	se.	2	0.9			fg		s.	0.06	1.5	dense fog	
Rochester, New York	29.43	747.5	30.09	764.3	67	19.4	93	nw.	5	2.2			10ksfg		calm	0.61	15.5	threatening.	
Roseburg, Oregon	29.31	744.5	29.90	759.4	48	8.9	96	s.	3	1.3			10 n			0.30	7.6	light rain	
Sacramento, California	29.87	758.7	29.95	760.7	54.2	12.3	80	se.	11	4.9			10 s			0	0	cloudy	
St. Louis, Missouri	29.58	751.3	30.21	767.3	73.6	23.1	90	s.	11	4.9			10 ks		sw.	0.63	16.0	cloudy	
St. Paul, Minnesota	29.26	743.2	30.18	766.6	57.0	13.9	86	n.	10	4.5			10 s		n.	0	0	cloudy	
Salt Lake City, Utah	25.52	648.2	29.97	761.2	58	14.4	32	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.46	748.3	30.18	766.6	75.9	24.4	90	ne.	3	1.3			10 s		se.	0.03	0.8	cloudy	
San Diego, California	29.83	757.7	29.90	759.4	63.5	17.5	78	nw.	4	1.8			10 s			0	0	cloudy	
Sandusky, Ohio	29.50	749.3	30.21	767.3	69	20.6	90	nw.	4	1.8			10 s		w.	1.25	31.7	cloudy	
Sandy Hook, New Jersey	30.13	765.3	30.16	766.1	72.0	22.2	100	w.	6	2.7			10 n		w.	0.03	0.8	light rain	
San Francisco, California	29.88	758.9	29.95	760.7	57	13.9	86	sw.	6	2.7			fg		sw.	0	0	foggy	
Santa Fé, New Mexico	23.42	594.9	30.41	772.4	55	12.8	36	e.	2	0.9		0	5 s		s.	0	0	fair	
Savannah, Georgia	30.18	766.6	30.27	768.8	76	24.4	90	ne.	4	1.8		0	4 ks		ne.	0	0	fair	
Shreveport, Louisiana	29.99	761.7	30.22	767.6	73	22.8	94	se.	2	0.9		0	0			0	0	clear	
Silver City, New Mexico	24.42	620.3	30.10	764.5	62	16.7	75	calm	0	0		7 k	0	calm		0	0	fair	
Sitka, Alaska	30.28	769.1	30.35	770.9	45.1	7.3	84	ne.	6	2.7		0	0			0	0	clear	
Smithville, North Carolina	30.26	768.6	30.30	769.6	76	24.4	82	calm	0	0		0	1 ks		calm	0	0	clear	
Spokane Falls, Wash. Ter.	27.97	710.4	30.04	763.0	47	8.3	52	ne.	4	1.8			10 s		e.	0	0	cloudy	
Springfield, Illinois	29.49	749.0	30.20	767.1	72.3	22.4	100	sw.	2	0.9			10n;fg		nw.	2.53	64.3	light rain	
Springfield, Massachusetts	29.95	760.7	30.08	764.0	60.4	15.8	96	s.	3	1.3			10 s			0.98	24.9	cloudy	
Stockton, Texas	27.11	688.6	30.26	768.6	70.0	21.1	90	se.	16	7.2			10 s		se.	0.01	0.3	cloudy	
St. Vincent, Minnesota	29.47	748.5	30.40	772.1	38	3.3	89	nw.	4	1.8			10 s		calm	0	0	cloudy	
Thatcher's Island, Mass	30.04	763.0	30.09	764.3	60.2	15.7	100	s.	4	1.8			10 n		se.	0.28	7.1	light rain	
Toledo, Ohio	29.45	748.0	30.17	766.3	68	20.0	90	w.	4	1.8			10 ks		sw.	3.04	77.2	cloudy	
Tucson, Arizona	27.41	696.2	29.85	758.2	70	21.1	55	e.	2	0.9		0	7 ks			0	0	cloudy	
Umatilla, Oregon	29.57	751.1	30.00	762.0	54.0	12.2	33	ne.	24	10.7		0	9 ks		sw.	0	0	cloudy	
Uvalde, Texas	29.16	740.7	29.96	761.0	74	23.3	97	calm	0	0			10 s		calm	0.01	0.3	cloudy	
Vicksburg, Mississippi	29.97	761.2	30.23	767.8	72	22.2	84	se.	6	2.7		hz	0			0	0	clear	
Visalia, California	29.58	751.3	29.95	760.7	52	11.1	77	s.	3	1.3		0	6 s			0	0	fair	
Washington, D. C	30.09	764.3	30.21	767.3	73	22.8	76	s.	3	1.3		4 cs	4 ks	sw.	sw.	0	0	cloudy	
West Los Animas, Colorado	26.08	662.4	30.16	766.1	54.3	12.4	73	sw.	1	0.4		0	1 s		sw.	0	0	clear	
Wickenburg, Arizona					60	15.6	84	calm			0	3 k	0	w.		0	0	clear	
Wilmington, N. Carolina	30.23	767.8	30.29	769.4	75	23.9	85	calm	0	0		hz	fg	calm	calm	0	0	dense haze.	
Winnemucca, Nevada	25.44	646.2	29.90	759.4	46	7.8	47	s.	12	5.4		0	0			0	0	clear	
Wood's Holl, Mass	30.11	764.8	30.15	765.8	66	18.9	100	sw.	14	6.3			10 n		sw.	0.10	2.5	light rain	
Yankton, Dakota	28.77	730.7	30.14	765.5	64	17.8	93	calm	0	0			10 s			inap.	inap.	cloudy	
Yuma, Arizona	29.67	753.6	29.81	757.2	64.4	18.0	66	calm	0	0		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I‡	29.96	761.0	29.98	761.5	84	28.9	87	s.	4	1.8		5	5	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.05	560.1			53.0	11.7	74	se.	1	0.4		10 k	0	se.		0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.81	757.2	29.81	757.2	83	28.3	90	e.				2 c	5 ks		e.	0.10	2.5		B. Bigar.
Havana, Cuba, W. I	29.98	761.5	30.04	763.0	78	25.6	88	calm	0	0		2 cs	2 ks	calm	ne.	0.04	1.0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I	29.91	759.7	29.92	760.0	77.0	25.0	86	calm	0	0		10 ck;cs	0	sw.		0.02	0.5	cloudy	Robert Johnstone.
Navassa, W. I	29.80	756.9	29.88	758.9	82	27.8	74	ne.	13	5.8		5 k; cs	5 k	ne.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A	29.99	761.7	29.99	761.7	80	26.7	82	e.			2	4 c	5 k			0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.39	746.5	29.95	760.7	79	26.1	67	calm				2 c	8 ks	calm	n.	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					73.4	23.	98	sw.			1		10 n		sw.	3.35	85.		Earl Flint.
Santiago de Cuba, W I	29.92	760.0	29.96	761.0	76	24.4	86	n.	6	2.7		0	1 k		n.	0.27	6.9		Robert Mason.
St. Thomas, W. I.‡	29.81	757.2	29.92	760.0	82	27.8	79	ne.	3	1.3		2 c	3 ks	w.	ne.	0.45	11.4	fair	G. O. Gyllich.
York Factory, B. A	30.07	763.8	30.12	765.0	13 0	—10.6	91	n.	21	9.4			10 s		n.	inap.	inap.	squally	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.						Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.									
										Up'er	Lo'er	Upper	Lower.					Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.			Inch.	Mill.				
BRITISH NAVAL SERIES.																					
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																					
H. M. S. Alert, S. 10° 58′, E. 141° 39′	29.99	761.7	75.8	24.3	70	e.			2		1									blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibraltar, Mediterranean	30.17	766.3	72	22.2	77	sw.			3-5		2	sw.								squally	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.83	757.7	65	18.3		var.			1		5	nw.								showery	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																					Capt. R. W. Stopford.
H. M. S. Bacchante																					Capt. Lord C. Scott.
H. M. S. Beacon																					Comm. G. W. Hand.
H. M. S. Bittern																					Capt. E. B. Pusey.
H. M. S. Blanche																					Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 16° 49′, E. 2° 57′	29.99	761.7	64	17.8	76	s.			2		5	ssw.				3	ssw.	d. clouds			Capt. F. W. Richards.
H. M. S. Champion, Callao Bay, Peru	29.98	761.5	60	15.6	94	sse.			2		9							overcast			Capt. G. E. Hope.
H. M. S. Cockatrice																					Capt. H. Y. Grenfell.
H. M. S. Comus																					Capt. J. W. East.
H. M. S. Condor																					Comm. F. W. Egerton.
H. M. S. Coquette																					Lt. Comm. J. L. Barr
H. M. S. Cormorant																					Capt. Bruce.
H. M. S. Crocodile																					Capt. C. S. Cardell.
H. M. S. Cruiser																					Capt. F. A. Wetherall.
H. M. S. Curacoa																					Capt. S. Long.
H. M. S. Cygnet, N. 38° 11′, E. 20° 28′	29.75	755.6	75	23.9		sse.			1		4	calm						d. clouds			Capt. H. D. Ryder.
H. M. S. Danae																					Capt. J. C. Parvis.
H. M. S. Daring																					Capt. F. J. Elliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.05	763.3	73	22.8		sw.			2		0									blue sky	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.24	768.1	77	25.0	82	ene.			1-2		4	ene.						d. clouds			Capt. T. Barnardiston.
H. M. S. Dragon																					Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	30.12	765.0	43	6.1	87	sw.			1		10							overcast			Capt. W. R. Kennedy.
H. M. S. Dryad, N. 25° 38′, E. 57° 46′	29.69	754.1	88	31.1		wsw.			1		4	sw.				2	sw.	d. clouds			Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.70	754.4	91	32.8		sw.			1-2		4	sw.						d. clouds			Capt. E. St. J. Garforth.
H. M. S. Egeria																					Comm. C. Johnstone.
H. M. S. Emerald, S. 17° 41′, E. 178° 51′	29.80	756.9	78	25.6	100	se.			1		5	e.						d. clouds			Capt. W. H. Maxwell.
H. M. S. Encounter																					Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.74	755.4	89	31.7	63	sw.			1-2		6	sse.						d. clouds			Capt. R. D. King.
H. M. S. Falcon																					Capt. W. H. C. Selby.
H. M. S. Fantome, N. 048 54′, W. 57° 57′	30.08	764.0	44	6.7		sw.			1-2		4	sw.				sm'h		d. clouds			Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 58′, E. 32° 55′	29.93	760.2	77.5	25.3	77	ne.			3		0					1	ne.	blue sky			Capt. P. Aldrich.
H. M. S. Flamingo																					Comm. R. N. Custance.
H. M. S. Flying Fish																					Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 21° 08′, W. 157° 51′	30.02	762.5	73	22.8	90	nw.			2		9	s.						showery			Comm. E. J. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	29.99	761.7	60	15.6	94	ene.			4		10							misty			Capt. L. F. Jones
H. M. S. Griffon, N. 17° 51′, W. 76° 15′	29.91	759.7	82	27.8	78	nne.			1		2					3	ese.	d. clouds			Comm. J. Ingles.
H. M. S. Humber																					Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 16° 00′, E. 156° 30′	29.96	761.0				ne.			3		4	ne.				2	ne.	d. clouds			Capt. J. L. Way.
H. M. S. Iris, Tangier, Morocco	29.88	758.9	75	23.9	76	sw.			3-4		0					1-2	wsw.	blue sky			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 33° 20′ E. 135° 50′	30.15	765.8	69	20.6		ene.			3		3	e.				3	ne.	d. clouds			Capt. E. H. Seymour.
H. M. S. Kestrel																					Capt. W. M. Lang.
H. M. S. Kingfisher, N. 0° 12′, W. 80° 30′	29.99	761.7	74	23.3		sw.			3		2	sw.						d. clouds			Comm. R. H. Thornton.
H. M. S. Lapwing, S. 29° 50′, E. 40° 10′	30.03	762.7	72	22.2		nw.			3		2	nnw.				3	nnw.	d. clouds			Comm. F. H. Haygarth.
H. M. S. Lark, S. 33° 13′, W. 14° 16′	29.90	759.4	57	13.9	93	ssw.			6-7		10					5	wnw.	showery			Lieut. Comm. C. Oldham.
H. M. S. Lily																					Capt. C. J. Brownrigg.
H. M. S. Magpie, Hoi How Bay, China	29.73	755.1	80.4	26.9	85	ne.			6-7		10					4-5	ne.	showery			Lieut. A. Balfour.
H. M. S. Malabar, N. 32° 30′, E. 29° 30′	29.99	761.7	81	27.2	87	s.			1		0							blue sky			Capt. I. G. F. Grant.
H. M. S. Midge																					

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	29.84	757.9	66	18.9	81	var.			1		0							blue sky	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.17	766.3	56	13.3	90	calm			0		8							d. clouds	Comm. F. Edwards.
H. M. S. Nelson, N. 43° 14′, W. 10° 00′	29.76	755.9	64	17.8	78	ese.			3-5		7	e.				6	e.	misty	Capt. J. E. Erskine.
H. M. S Northampton, Halifax, Nova Scotia	30.17	766.3	58	14.4	87	ssw.			2		9							misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 46° 50, W. 6° 56′	30.01	762.2	62	16.7	?	ene.			4		2	wsw.				4	wsw.	d. clouds	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 25′, W. 123° 27′			52	11.1		nne.			4									squally	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 14° 17′, E. 55° 04′	29.78	756.4	79.3	26.3	91	sw.			2		0							blue sky	Capt O. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 12° 18′, E. 44° 20′	29.64	752.8	79	26.1	82	wsw.			2-3		2	ssw.				4	sse.	d. clouds	Comm. W. Byles.
H. M. S. Serapis, S. 25° 13′, E. 11° 40′	29.98	761.5				ese.			1		8	se.				sm'h		d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, S. 4° 53′, W. 11° 00′	30.02	762.5	78	25.6	73	se.			2		2	se.				2	se.	d. clouds	Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer, Sfax, Tunis	29.83	757.7	78	25.6	78	ene.			2		5					2		d. clouds	Capt. C. F. Hotham.
H. M. S. Triumph, S. 13° 25′, W. 76° 33′	30.02	762.5	60	15.6	88	sse.			5		4	calm				4	s.	d. clouds.	Capt. A. H. Markham.
H. M. S.Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.91	759.7	78	25.6		n.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.88	758.9	61	16.1	82	n.			2		0							blue sky	Com. J. C. Wilson, A.D.C
H. M. S. Woodlark, N. 25° 56′, E. 56° 30′	29.74	755.4	93.5	34.2	58	s.			3		0							misty	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela India	29.95	760.6	78.1	25.6	73	nnw.			2		9					1		overcast	Carlos Candid dos Reis A. M. da Sitra.
Quanza, Brava, Cape Verd Id's	29.95	760.7	83.5	28.6	84	se.			1		8		nw.			1	se.	showery	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.89	759.1	77.9	25.5	87	ne.			4		9			14 h'r	14 h'r			gloomy	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.27	768.8	77	25.0	86	ne.	9	4.0			5		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.10	764.5	56	13.3	94	ne.	4	1.8		10 c	0	ne.		0.3	8.			rainy	
Naval Hospital, Yokohama, Japan	30.03	762.7	65	18.3	76	e.			3		1		e.	0	0			clear	
Adams, Payta, Peru	29.90	758.4	64	17.8	83	se.			2		0?					sm'h		cloudy?	
Alaska, Callao, Peru	29.93	760.2	59	15.0	100	sse.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	30.15	765.8	68	20.0	70	e.			2		2		calm	0	0	sm'h		fair	
Alliance, N. 67° 38′, W. 10° 10′	29.73	755.1	43	6.1	100	sw.			4		10			driz'l	driz'l	sm'h		misty	
Ashuelot, Kobe, Japan	30.17	766.3	69	20.6	61	nw.			1		2		calm					clear	
Colorado, New York, N. Y.	30.15	765.8	70	21.1	95	e.	1	0.4			10							raining	
Constitution, New London, Conn	30.08	764.0	68	20.0	?	sw.	8	3.6			10							foggy	
Franklin, Norfolk, Va	30.23	767.8	72	22.2	?	wsw.	9	4.0			0			0	0			foggy	
Galena, Leghorn, Italy	29.81	757.2	67	19.4	64	wsw.			1		2		calm			sm'h		clear	
Independence, N. Yard, Mare I'd, Cal	29.85	758.2	58	14.4	82	s.	12.0	5.4			8		s.					cloudy	
Kearsarge, Hudson River, N. Y. *†	30.30	769.6	68	20.0	95	sw.			2		10					sm'h		raining	
Lackawanna, San Francisco, Cal †	30.15	765.8	58	14.4	100	s.			3		10							cloudy	
Lancaster, New York, N. Y.	30.14	765.5	71	21.7	95	wsw.	10	4.5			10		calm	2 h'r	2 h'r			rain & fog	
Marion, Montevideo, Uruguay	29.79	756.7	63	17.2		ne.			3		10		ne.			sm'h		cloudy	
Michigan, Erie, Pa	30.16	766.1	69	20.6	95	s.			1		10		s.					cloudy	
Minnesota, Newport, R. I.	30.16	766.1	68	20.0	100	ssw.			3		10		ssw.			sm'h		rainy	
Monocacy, Yokohama, Japan	30.21	767.3	68	20.0	84	e.			1		0							clear	
Nipsic, Genoa, Italy	29.84	757.9	63	17.2	78	se.			1		10		n.			sm'h		showery	
Onward, Callao, Peru †	30.00	762.0	59	15.0	100	se.			2		10					long	w.	cloudy	
Palos, Hong Kong, China	29.92	760.0	79	26.1	78	e.			5		10		n;e.					rainy	
Passaic, Washington, D. C.	30.22	767.6	75	23.9	95	sw.			2		2							fair	
Pensacola, Callao, Peru	30.04	763.0	60	15.6	88	sse.			1		10			0	0			cloudy	
Portsmouth, New York, N. Y.	30.15	765.8	69	20.6	100	sw.			2		10		sw.			sm'h		rainy	
Powhatan, N. 15° 43′, W. 81° 17′	29.88	758.9	79	26.1	86	ne.			3		10		e.			sm'h	e.	cloudy	
Quinnebaug, Marseilles, France	29.79	756.7	60	15.6	71	wsw.			1		2		calm			sm'h		fair	
Ranger, Mare Island, Cal. *	29.84	757.9	59	15.0	82	s.			3-5		8		s.					cloudy	
Richmond, Panama, Panama	29.93	760.2	81	27.2	91	ssw.			2		5		sw.	0.02	0.5	mod.	sw.	fair	
Saratoga, New York, N. Y.	30.15	765.8	68	20.0	100	calm			0		10			mod.	mod.	sm'h		foggy	
Shenandoah, Montevideo, Uruguay *	29.98	761.5	65	18.3	89	ne.			2		10					sm'h		cloudy	
St. Louis, League Island, Pa	29.93	760.2	74	23.3	90	sw.	5	2.2			10			0	0			cloudy	
Swatara, Chefoo, China †	30.18	766.6	70	21.1	75	ssw.			4		8		calm			mod	s.	fair	
Tennessee, New York, N. Y.	30.17	766.3	70	21.1	?	se.	10	4.5			10			0.25	6.3			raining	
Trenton, N. 22° 37′, W. 51° 00′ *	30.07	763.8	81	27.2	83	ene.			4		5			0	0	sm'h		fair	
Vandalia, New York, N. Y.	30.13	765.3	70	21.1	95	sw.			1		10		calm					rainy	
Wabash, Boston, Mass.	30.14	765.5	64	17.8	78	sw.	1	0.4			10		sw.	0.13	3.3			raining	
Wachusetts, Sitka, Alaska	30.36	771.1	41	5.0	91	ne.			1		0							clear	
Wyoming, Port Royal, S. C.	30.27	768.8	76	24.4	91	nne.	8	3.6			2		ne.	0	0			fair	
Yantic, New York, N. Y. *	30.13	765.3	67	19.4	95	calm			0		10							rainy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 56° 37′, W. 30° 55′ *†	29.44	747.8				w.	6		8		wsw.			r'gh	w.		N. McLean.
S. S. Circassian, Capt. W. H. Smith. ‡ N. 56° 30′, W. 28° 00′	29.70	754.4	47	8.3	85	wnw.	7		3		nw.	2 h'rs	2 h'rs	8	nw.	raining	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 51° 13′, W. 38° 13′	29.77	756.1	40	4.4		wnw.	6		2		wnw.			high	wnw.	clear	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, Liverpool, Eng †..	30.16	766.1	60	15.6	94	ese.	3		10		ese.					overcast	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Philadelphia, Penn †..	30.17	766.3	72	22.2	75	ssw.	4		8		sw.	0	0			cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Delaware River *†.	30.35	770.9	78	25.6	95	ssw.	4		8		ssw.					fair	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,																	
BRITISH METEOROLOGIC'L OFFICE																	
S. Auckland, Capt. A. McDongall, S. 19° 14′, W. 36° 45′	30.15	765.8	74	23.3	72	ese.	4		2							blue sky	
S. British Merchant, E. J. Moloney,																	
Bk. Caldew, Capt. W. Petersen S. 41° 03′, W. 57° 36′	30.20	767.1	49	9.4		e.	4		10							misty	
S. S. Cipero, Capt. W. N. Latley, Off Belize, Honduras, C. A.	29.78	756.4	76	24.4	95	ne.	3		10							raining	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton,																	
Bg. Hermine, Capt. S. G. Jones, S. 17° 41′, W. 35° 00′	30.13	765.3	75.4	24.1	76	se.	3		8							d. cloud	
Bkt. Hope, Capt. J. Campbell																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 33° 55′, E. 85° 00′	30.15	765.8	53	11.7	86	w.	2		6							d. clouds	
Bk. Mertola, Capt. E. W. Turner, N. 42° 58′, W. 12° 40′	29.81	757.2	64.1	17.8	97	nnw.	4		4							d. clouds	
Bk. Moorhill, Capt. J. Brown, S. 57° 17′ W. 65° 00′	29.73	755.1	39	3.9	91	w.	4		9							misty	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry, N. 10° 09′, W. 27° 28′	29.96	761.0	80.7	27.1	90	ssw.	5		5							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estrella, Capt. P. Murdock,																	
Bk. Shun Lee, Capt. J. N. Gray, N. 27° 45′, W. 37° 45′ ‡..	30.12	765.0	76.7	24.8	76	nne.	3		5					st'g	n.	d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, N. 34° 41′, E. 135° 12′	30.09	764.3	59.5	15.3	88	n.	3		3							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
S. S. Wybertan, Capt. R. J. Blacklin. S. 6° 28′, E. 96° 49′	29.69	754.1	80	26.7		sse.	4		2							d. clouds	
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, agent San Francisco.																	
S. S. Newbern, Capt. E. Rogers																	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., agents, New York.																	
S. S. Galia, Capt. W. H. P. Hains																	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumaker & Co., agents, Baltimore, and Oelrich & Co., agents, New York.																	
S. S. Braunschweig, Capt. C. Pohle, N. 51° 09′, W. 23° 53′	29.61	752.1	61.0	16.1	71	nnw.	4		2?		nw.			r'gh	sw.	cloudy?	
S. S. Hermann, Capt. H. Baur, N. 41° 34′, W. 58° 56′	30.34	770.6	66.2	19.0		se.	4		8		w.	0	0	mod.	se.	cloudy	E. Schmidt, 3d Offier.
S. S. Koln, Capt. T. Jünest,																	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer																	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 46° 42′, W. 52° 10′	30.27	768.8	57.0	13.9	78	sse.	2		2		s.	0	0	sm'h	nnw.	clear	Englehart & von Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, N. 26° 40′, E. 124° 09′ †..	30.19	766.8	78	25.6	91	ene.	5		2		e.	0	0	mod.	ene.	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 42° 09′ E. 173° 43′ *†..	30.22	767.6	59	15.0	88	n.	8		8		nnw.			high	n.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf,																	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Otterendorp, agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann.. N. 42° 29′, W. 124° 41′ *†.	29.88	758.9	52	11.1	100	ese.	6		10		se.			cross	se.	cloudy	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann																	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, San Francisco, Cal. †	29.92	760.0	57	13.9	87	sw.	1		10							dense haze.	J. W. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, N. 45° 39′, W. 124° 58′ †	29.86	758.4	58	14.4	88	ne.	3		8		e.			sm'h		rainy	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 32° 38′, W. 117° 10′ †	29.94	760.5	68	20.0	70	ssw.	2		8		sw.			sm'h	nw.	cloudy	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal. †	29.96	761.0	58	14.4	88	s.	1		10							cloudy	T. Wallace.
S. S. State of California, Capt. Debney, N. 38° 30′, W. 133° 10′ †	29.89	759.2	54	12.2	87	calm	0		8		s.			sm'h	sw.	cloudy	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, New Westminster, B. C. †	30.04	763.0	51	10.6	93	calm	0		10		nw.					cloudy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. —— N. 36° 46′, W. 125° 36′	30.01	762.2	56	13.3	81	nw.	3		0					sm'h		clear	A. Bannermann, 2d Offi.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W. †	29.89	759.2	66	18.9	79	ne.	2		0							clear	W. H. Hawes, 2d Offi.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry.. N. 25° 24′, E. 120° 10′ †*	30.13	765.3	78	25.6	86	nne.	5		8		ne.	0	0	mod.	ne.	cloudy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——																	
S. S. City of Sidney, Capt. H. C. Dearborn, N. 20° 30′ W. 158° 17′ *†	29.86	758.4	78	25.6	73	se.	3		5		e.	0	0	mod.	se.	cloudy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury																	A. L. Richie, 2d Offi.
S. S. Colima, Capt. R. R. Searle, La Libertad, San Salvador †	29.83	757.7	76	24.4	100	se.	3		10		se.	2.08	52.8	mod.	se.	rainy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly N. 10° 22′, W. 86° 20′ †	29.81	757.2	79	26.1	95	wsw.	4		10		sw.	8 h'r	8 h'r	large	sw.	raining	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	29.91	759.7	61	16.1	82	w.	2		0							clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Fedderson, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, Jersey City, N. J †	30.33	770.4	70	21.1													C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 47° 33′, W. 44° 09′ †	30.10	764.5	44	6.7		nnw.	5		5		nw.	shr's	shr's	h'vy	nw.	fair	R. Horsfall.
S. S. Britannic, Capt. H. Perry																	
S. S. Celtic, Capt. B. Gleadell, N. 44° 11′ W. 45° 38′ †	30.21	767.3	50	10.0		nw.	4		2		nw.	0	0	long	nw.	clear	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, Liverpool, England †	30.29	769.4	57	13.9	81	se.	4		5		s.	0	0			d. clouds	
S. S. Republic. Capt. P. J. Irving																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass. †	30.26	768.6	67	19.4	?	wsw.	2		10 n			0.01	0.3			raining	
Hassler, Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	
S. Pawashick Capt. E. Fry. N. 38° 21′, W. 11° 21′ *†	29.81	757.2	68.5	20.3	97	n.	3		5		n.			sm'h	n.	fine	W. Randall.
S. S. Proteus, Capt. Pike																	E. Fry.
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †	29.90	759.4	73	22.8	81	wsw.	6		10		nw.	0	0			cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR

W. B. Hazen

Brig. & Bvt. Maj. Gen'l
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 4, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.88	759.0	74.5	23.6	74	e.			1		3			0	0	pretty fair	Moiroud.
Algiers ‡			29.83	757.6	74.5	23.6	72	nw.			2		3			0.020	0.5	pretty fair	Nicolas.
La Calle ‡			29.85	758.2	74.1	23.4	64	ne.			4		3			0	0	pretty fair	Fonfréde.
Tunis ‡																			Jacques.
Sfax ‡																			Gau.
Saida ‡			29.89	759.1	79.2	26.2	27	nw.			1		1			0	0	very fair	Dumas.
Tebessa ‡			29.91	759.6	73.8	23.2	25	wnw.			5		5			0	0	cloudy	Derché.
Geriville ‡					79.2	26.2	19	s.			4		2			0	0	fair	Lonchamp.
Laghouat ‡			29.93	760.1	79.2	26.2	23	se.			2		0			inap.	inap.	clear	Herbin.
Biskra ‡			29.91	759.7	74.8	23.8	38	nnw.			1		5			inap.	inap.	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.05	763.3	30.14	765.5	52.0	11.1	80	ssw.	12	5.4			5			0.14	3.6	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.39	746.4	29.95	760.6	46.0	7.8	85	ne.			4		10			0.079	2.0	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.34	745.2	30.13	765.3	40.6	4.8	86	ne.	9.8	4.4			2			0.008	0.2		Dr. Wiersbicki.
Eperies	29.13	739.9	30.03	762.7	45.3	7.4	86	calm			0		10 s		s.	0	0		Julius Mikolik.
Gratz ‡	28.71	729.2	29.97	761.3	47.5	8.6	66	se.			3		10			0	0		Andreas Rospini.
Hermannstadt	28.53	724.6	29.95	760.7	56.8	13.8	78	sse.			3		10			0.083	2.1		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.00	726.5	29.97	761.2	43.5	6.4	75	e.			3		10			0.043	1.1	light rain	The Staff.
Lemberg	29.10	739.2	30.12	765.0	42.8	6.0	93	se.			2		10			0.291	7.4		Dr. T. Stanecki.
Pola	29.70	754.3	29.81	757.1	58.6	14.8	60	e.			4		10			0	0		I. R. Hydrographic Office.
Szathmar	29.51	749.5	29.98	761.4	51.1	10.6	93	ne.			2		10			0.122	3.1		Jozsef Midlinszky, S. J.
Szegedin	29.68	753.9	29.97	761.1	51.8	11.0	77	ne.			1		6			0	0		Karl Stancel.
Trieste	29.75	755.7	29.85	758.3	55.0	12.8	52	ene.			3		10			0.205	5.2		Rieder.
Vienna	29.31	744.4	30.04	763.0	45.1	7.3	66	n.			1		10			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 6, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Aberdeen	30.31	769.9	30.41	772.4	52.4	11.3	74	se.	25	11.2			5			0.08	2.0	squally	W. Boswell.
Armagh, Observatory	30.03	762.7	30.26	768.6	52.2	11.2	77	se.	10	4.5			10					overcast	S. Call.
Bidston, Liverpool Obs'y			30.26	768.6	56.2	13.4	59	e.	19	8.5			6					d. clouds	John Hartnup.
Bolton, Sharples	29.73	755.1	30.27	768.8	50.7	10.4	67	ese.	12	5.4			10					overcast	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.88	758.9	30.28	769.1	57.0	13.9	84	se.			2		9			0.01	0.3	overcast	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.22	767.6	54.0	12.2	65	e.			1.0		4					d. clouds	John McLaren.
Chatham, School M. E.	30.07	763.8	30.20	767.1	52.1	11.2	79	e.			4		7			blank	blank	d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.91	759.7	30.14	765.5	54.8	12.7	67	ene.			5		9					overcast	The Staff.
Fort Napier, Natal	27.80	706.1	30.02	762.5	73.2	22.9	85	e.			1		1					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.72	754.9	29.95	760.7	86.0	30.0	83	sw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			30.09	764.3	58	14.4	69	sw.			4		4					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	29.88	758.9	29.94	760.5	72.5	22.5	88	sw.			6		9					raining	Cpl. O. Baldwin.
Glasgow, Observatory	30.12	765.0	30.33	770.4	53.1	11.7	52	ese.			7		10					gloomy	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.03	762.7	30.20	767.1	53.2	11.8	73	ene.			4		7					d. clouds	The Staff.
Guernsey	29.84	757.9	30.06	763.5	55	12.8	60	ne.			4		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.18	766.6	30.21	767.3	52.1	11.2	53	ene.	26	11.6			5					d. clouds	The Staff.
Leicester, Museum	29.96	761.0	30.21	767.3	56.0	13.3	53	se.			2		8					d. clouds	J. C. Smith.
Malta, Mediterranean	29.75	755.6	29.83	757.7	76.0	24.4	72	ne.			2		4			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.92	760.0	29.99	761.0	82.5	28.1	74	e.			3		6					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.72	754.9	30.25	768.3	54.8	12.7	60	e.			3		5					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.99	761.7	30.22	767.6	53.5	11.9	53	e.			5		5					squally	The Staff.
Plymouth	30.07	763.8	30.14	765.5	56.6	13.7	60	e.			3		7					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.37	771.4	52.1	11.2	79	s.	30	13.4			8					showery	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.84	757.9	29.90	759.4	72.8	22.7	65	ssw.			1		3					d. clouds	Serg't W. H. Lyne.
Sheffield	30.02	762.5	30.32	770.1	52.1	11.2	77	e.			3		5			Inap.	Inap.	d. clouds	W. F. Cooper.
Silloth Rectory	30.29	769.4	30.32	770.1	53.0	11.7	75	e.			4		7			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.30	769.6	52.2	11.2	66	e.	10	4.5			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	29.98	761.5	30.20	767.1	52.5	11.4	70	ne.			4		8					squally	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.11	764.8	30.14	765.5	59	15.0	64	e.			3		6					d. clouds	W. Newcombe.
Valencia, Observatory	30.06	763.5	30.08	764.0	59.5	15.3	70	ese.	29	13.0			6					misty	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.60	751.8	29.64	752.8	51	10.6	86	n.	8	3.6			10 n			0.085	2.2	light rain	H. J. Cundall, C. E.
Chatham, N. B. *	29.63	752.6	29.69	754.1	47	8.3	86	w.	7	3.1			10 ks		W.	0.03	0.8	cloudy	G. A. Blair.
Chicoutimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	29.63	752.6	29.65	753.1	45	7.2	76	nw.	35	15.6		5 k	0	nw.		0	0	fair	J. McWilliams.
Fort Garry, Manitoba *	29.62	752.3	30.50	774.7	26	— 3.3	96	sw.	3	1.3		hz.	0			0	0	hazy	James Stewart.
Fredericton, N. B.																			Prof. Harrison
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.53	750.0	29.66	753.4	58	14.4	96	w.	3	1.3			fg.			0.110	2.8	foggy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.64	752.8	29.97	761.2	51	10.6	71	n.	5	2.2			10 ks		n.	0.03	0.8	cloudy.	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.67	753.6	29.87	758.7	48	8.9	74	nw.	10	4.5			10 s		nw.	0.11	2.8	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.40	746.7	30.11	764.8	41	5.0	82	n.	9	4.0		2 k	0	n.		0.05	1.3	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.35	745.5	30.03	762.7	57	13.9	94	nw.	9	4.0		10 k	0	nw.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.40	746.7	30.04	763.0	55	12.8	83	nw.	7	3.1			10 k		W.	0	0	cloudy	M. Payne.
Quebec, Quebec *	29.43	747.5	29.76	755.9	42	5.6	96	nw.			5		10 ks		nw.	0.03	0.8	light rain	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.60	751.8	30.07	763.8	38	3.3	100	nw.	8	3.6		8 ck	0	nw.		0.12	3.0	fair	W. H. McIntyre.
Saugeen, Ontario *	29.39	746.5	30.10	764.5	50	10.0	63	n	33	14.8		8 k	0	w.		0.03	0.8	cloudy	K. Stewart.
St. Andrews, N. B.	29.71	754.6	29.76	755.9	49	9.4	88	ne.	2	0.9			10 n			0.09	2.3	light rain	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	29.53	750.0	29.59	751.6	52	11.1	96	nw.	10	4.5			10 n			0.01	0.3	cloudy	T. C. Hill, C. E.
Toronto, Ontario *	29.66	753.4	30.04	763.0	54	12.2	66	nw.	12	5.4		2 ck	5 ks	nw.	w.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	29.65	753.1	29.72	754.9	54	12.2	100	nw.	4	1.8			fg.			0.12	3.0	foggy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.77	756.1	30.02	762.5	55	12.8	85	s.	1	0.4			10			0.10	2.5	misty	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Cape St. Francis Lt. House †	30.16	766.1	30.19	766.8	65.5	18.6	88	e.	9.5	4.2		0	2 s			0	0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester * †	29.21	741.9			79.8	26.6	42	ese.			1	0	1			0	0		C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.21	767.2	30.23	767.9	68.2	20.1	81	e.	7.6	3.4		3 ck	0			0	0	fair	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.40	772.2	30.46	773.4	46.6	8.1	64	e.	49	22			10					rain and hail	Oversergent Fischer.
Fanöe	30.37	771.4	30.39	771.9	48.2	9.0	68	ene.			6		5						Overloerer Lauridsen.
Godthaab, Greenland	29.10	739.1	29.14	740.2	28.2	—2.1	87	calm			0		9						S. Kleinschmidt.
Stykkisholm, Iceland	29.66	753.3	29.70	754.4	47.1	8.4	84	s.			2		10					raining	A. O. Thorlacius.
Thorshavn	30.20	767.1	30.24	768.0	52.2	11.2	84	s.	13	6			10						Overloerer Bergh.
Vestervig	30.39	772.0	30.48	774.3	46.6	8.1	63	ne.			6		2						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.19	741.5	29.84	757.8	60.4	15.8	53	n.			1		2 s					clear	M. Labroue, Director.
Alençon Normal School	29.52	749.8	30.13	765.2	46.4	8	77	ne.			2		kn			0	0		M. Nicot, Director.
Arras, Engineer School	29.85	758.3	30.11	764.9	48.2	9.0	92	e.					k		e.				M. Klein, Commandant.
Avignon, Normal School	29.72	755.0	29.80	757.0	53.0	17.2	56	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.40	746.8	29.96	761.0	52.3	11.3	39	ese.			2		5 kn		e.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.82	757.4	30.09	764.3	51.3	10.7	55	e.			3		8		e.	0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.01	736.8	29.91	759.6	51.1	10.6	68	ne.			4		en		se.	0	0		M. Gobin, Director.
Bordeaux, Observatory	29.64	752.8	29.87	758.8	61.0	16.1	39	nne.			1		0			0	0	clear	M. Rayet, Director.
Bourges, Normal School	29.37	746.0	29.92	760.0	53.6	12	50	n.			2		k		n.	0	0		M. Postel, Director.
Brest, Naval Observatory	29.82	757.3	30.06	763.5	55.0	12.8	61	ene.			2		8		ene.	0	0		M. de Kermaree, Dir.
Caen, Normal School	29.99	761.8	30.07	763.7	53.2	11.8	52	nne.			1		5		nne.	0	0	cloudy	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.67	753.5	29.98	761.6	56.3	13.5	65	nw.			2		2	w.	w.	0	0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.54	750.2	30.05	763.3	51.1	10.6	58	se.			2		2			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.54	724.8	29.91	759.6	47.5	8.6	70	ne.			1		10		n.	0	0	covered	M. Allnard, Director.
Cluny, Normal School	29.11	739.5	29.88	759.0	51.1	10.6	74	n.			3		0			0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.10	739.2	29.98	761.4	46.4	8	73	e.			1		5 kn	e.	e.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.24	691.9	29.74	755.5	54.3	12.4	72	s.			1		1 k		n.	0	0		M. Jeangirard, Director.
Grénsque, du. Rhone	28.68	728.5	29.82	757.5	62.6	17.0	47	ne.			2		5		se.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.08	738.7	29.86	758.5	47.7	8.7	83	nw.			1		fg			0	0	foggy	M. Ablard, Director.
Guéret, Normal School	28.32	719.4	29.91	759.7	51.8	11	52	nw.			3		8 kn		se.	0	0	very cloudy.	M. Rivoire, Director.
Lamballe, Normal School	29.80	756.8	30.07	763.8	53.6	12	65	ne.			2		5 k		ne.	0	0	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.23	742.5	29.79	750.7	59.9	15.5	89	nw.			1					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	29.96	761.0	30.06	763.6	59.0	15	68	ene.			2		5		ne.	0	0	½ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.87	733.4	29.95	760.6	46.8	8.2	74	n.			1		10		n.	0	0	covered	M. André, Director.
Mans, Normal School	29.72	755.0	30.04	762.9	52.9	11.6	97	e.			1		5		e.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.50	749.3	29.77	756.1	65.3	18.5	61	wnw.			3		4		nw.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.62	625.3	29.85	758.3	51.8	11.0	61	ne.	16.8	7.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	26.66	753.4	29.77	756.1	65.5	18.6	57	e.			3		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.28	743.8	30.07	763.7	46.0	7.8	48	nw.			3		10 kn		nnw.	0	0	covered	M. Hasse.
Nantes, Observatory	29.87	758.7	30.03	762.8	59.5	15.3	49	ene.			2-3		4 k		ene.	0	0		M. Larocque, Director.
Nice	29.71	754.7	29.75	755.6	66.6	19.2	61	e.			3	1	1	e.	e.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	29.67	753.5	29.77	756.2	65.1	18.4	49	e.	5.6	2.5			2		w.	0	0	hazy	Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					55.4	13	55	s.			1		5	s.	n.	0	0	cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.96	633.9			31.3	—0.4	100	ne.			3		10			0.020	0.5	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.93	760.3	29.97	761.1	58.6	14.8	100	ene.			2		0			0	0	clear	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.77	756.1	29.98	761.6	54.3	12.4	87	nne.			1		0			0	0	clear	M. Moullot, Director.
Rodez, Normal School	27.72	704.1	29.86	758.4	52.9	11.6	57	n.			1		0			0	0	clear	M. Richard, Director.
Rouen, Normal School	30.04	763.0	30.13	765.2	51.8	11	52	ne.			2					0	0		M. Platrier, Director.
Saint Lô, Normal School																			M. Delaplanche, Dir.
Saint Maur, Observatory	29.88	758.8	30.04	763.0	52.5	11.4	52	ene.			2		4			0	0		M. Renou, Director.
Toulouse, Observatory	29.18	741.2	29.90	759.5	61.9	16.6	53	sw.			2		1		w.	0	0	clear	M Bailland, Director.
Tours																			M. de Tastes.
Versailles, Observatory	29.55	750.5	30.04	763.0	50.7	10.4	56	e.			4					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.77	756.1	30.06	763.5	51.3	10.7	55	ne.			3		4		ene.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.21	742.0	30.08	764.0	43.3	6.3	40	n.			5	0	7 ks	ne.		0	0		Prof. Dr. Hoh.
Berlin	30.05	763.3	30.23	767.8	44.6	7.0	61	e.			1		10			0	0		Prof. Dr. Arndt.
Breslau	29.65	753.1	30.19	766.7	40.8	4.9	68	ene.			2		10			0.047	1.2	sprinkling	Royal University Obs'y.
Carlsruhe	29.58	751.4	30.02	762.4	46.0	7.8	82	ne.			2		10	e.		0	0		Albert Senz.
Cassel	29.43	747.5	30.15	765.9	42.4	5.8	53	ne.			6		7	n.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.72	754.9	30.10	764.4	46.8	8.2	41	ne.			2		8			0	0		Physical Society.
Friedrichshafen	28.45	722.7	29.91	759.8	44.2	6.8	75	ne.			7		7	ne.		0.327	8.3		Wilhelm, Chief Tel.
Hamburg	30.22	767.6	30.32	770.0	46.0	7.8	58	ne.			4		5			0	0		E. Preller.
Kiel	30.32	770.0	30.33	770.4	40.8	4.9	92	e.			4		10			0.433	11.0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.76	756.0	30.20	767.1	41.2	5.1	52	ene.			4		7	e.		0.035	0.9		H. Leppig, Asst.
Magdeburg	30.05	763.2	30.24	768.2	41.9	5.5	53	ne.			4	0	9 s		ne.	0	0		Dr. Assmann.
Memel	30.48	774.2	30.53	775.4	41.0	5.0	83	e.			4	0	5 k						Issermann.
Munich	28.09	713.6	29.95	760.8	41.0	5.0	68	e.			4		10	ne.		0.004	0.1		Central Station.
Neufahrwasser	30.37	771.4	30.39	771.8	44.2	6.8	70	ene.			4		10			0	0		A. Lothes.
Neustadt, Palatinate	29.50	749.2	30.02	762.6	48.2	9.0	48	e.			5		9			0	0		Dicknether.
Stuttgart	29.05	737.8	29.97	761.1	40.6	4.8	71	ne.			1		10			0.028	0.7	raining	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.49	723.6	30.04	762.9	40.3	4.6	67	ne.			6		10	ne.		0.031	0.8		Fischer.
Wustrow	30.32	770.0	30.34	770.6	42.3	5.7	82	ene.			4		10			0.217	5.5		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.50	749.3	29.88	758.9	77.9	25.5		sw.			2.0		0			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.71	754.7	29.76	756.0	84.0	28.9	75	wsw.	14.0	6.3			0			0	0	blue sky	
Deesa	29.25	743.0	29.72	754.8	89.6	32.0	50	nnw.					0			0	0	blue sky	
Bombay	29.68	753.8	29.71	754.7	80.6	27.0	86	n.	13.0	5.8			10		nnw.	0	0	overcast	
Poona, Yarrowda.	27.89	708.3	29.74	755.5	75.5	24.2	87	wnw	5.0	2.2			10		w.sw.	0.31	7.9	overcast	
Belgaum	27.21	691.1	29.75	755.9	71.1	21.7	91	w.	8.0	3.6			10		sw.	0.06	1.5	drizzling	
Lahore	28.95	735.5	29.68	753.9	89.6	32.0	48	calm	1.2	0.5			0			0	0	blue sky	
Roorkee	28.75	730.6	29.64	753.0	87.2	30.7	40	calm	2.1	0.9			1			0	0		
Agra	29.13	739.9	29.68	753.9	93.1	33.9	41	nw.	2.0	0.9			3		nw.	0	0		
Nagpur	28.67	728.2	29.71	754.7	77.0	25.0	89	s.	4.2	1.9			9		se.	0.44	11.2	gloomy	
Jubbulpore	28.39	721.0	29.72	755.0	85.8	29.9	59	e.	3.0	1.3			0			0	0	blue sky	
Lucknow	29.32	744.7	29.69	754.1	91.1	32.8	46	calm	0.9	0.4			0			0	0	blue sky	
Allahabad	29.36	745.8	29.67	753.6	84.7	29.3	61	calm	0.5	0.2			0			0	0	blue sky	
Patna	29.54	750.3	29.62	752.3	86.0	30.0	67	ene.	3.2	1.4			4	ene.	ene.	0	0	d. clouds	
Hazaribagh	27.70	703.5	29.71	754.5	77.3	25.2	72	e.	4.5	2.0			4		e.	0	0		
Cuttack	29.01	752.1	29.69	754.2	79.4	26.3	86	se.	2.6	1.2			6			0.78	19.8	d. clouds	
Calcutta, Alipore	29.69	754.1	29.71	754.6	77.5	25.3	91	e.	1.0	0.4			9			0.46	11.7	gloomy	
Dhubri	29.64	752.9	29.76	756.0	81.8	27.7	78	calm	1.7	0.8			3			0	0	d. clouds	
Chittagong	29.67	753.7	29.75	756.0	82.7	28.2	83	sw.	2.7	1.2			9			0	0	d. clouds	
Sibsagar	29.41	747.0	29.74	755.4	82.2	27.9	80	ne.	2.6	1.2			2			0	0	blue sky	
Jeypore	28.29	718.6	29.69	754.2	93.5	34.2	26	nne.	3.3	1.5			4		nne.	0	0	d. clouds	
Zanzibar, Africa			29.88	758.9	86.3	30.2	45	sse.	5	2.2			2			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.48	748.9	29.89	759.3	52.3	11.3	49	ne.	5.6	2.5			10			0	0		Prof. Giovanni Clodig.
Milan	29.32	744.6	29.82	757.3	50.7	10.4	80	e.	10.5	4.7			10		se.	0.012	0.3		Prof. Schiaparelli.
Padua	29.75	755.7	29.86	758.5	53.4	11.9	63	ne.	11.9	5.3			10		e.	0.055	1.4		Prof. Dott. Lorenzoni.
Moncalieri	28.83	732.3	29.74	755.3	55.8	13.2	90	e.	4.9	2.2			9		nw.	0.031	0.8		Prof. P. F. Denza.
Genoa	29.38	751.2	29.76	756.0	64.9	18.3	46	sw.	3.1	1.4			4		n.	0.024	0.6		Prof. G. M. Garibaldi.
Mondovi	27.86	707.6	29.78	756.4	55.8	13.2	65	ne.			2		3			0.256	6.5		Prof. D. C. Bruno.
Pesaro	29.74	755.3	29.78	756.5	58.3	14.6	80	ne.	6.3	2.8			10		e.	0.177	4.5		Prof. Luigi Guidi.
Florence	29.48	748.8	29.74	755.3	65.3	18.5	59	se.			2		10		s.	0.035	0.9		Prof. Costantino Pitter.
Leghorn	29.67	753.7	29.76	755.9	64.4	18.0	61	w.	4.3	1.9			10			0	0		Prof. P. Monte.
Rome	29.58	751.3	29.75	755.7	65.5	18.6	54	w.					8			0.063	1.6		Prof. P. S. Ferrari.
Lecce	29.55	750.5	29.80	756.8	68.2	20.1	67	se.	9.4	4.2			6		s.	0.091	2.3		Prof. C. de Giorgi.
Cosenza	28.93	734.8	29.81	757.1	66.9	19.4	60	se.	1.8	0.8			10		se.	0.118	3.0		Prof. D. Conti.
Cagliari	29.60	751.7	29.78	756.4	70.9	21.6	50	se.			2		6		w.	0	0		Prof. A. Pacinotti.
Palermo	29.58	751.3	29.82	757.5	73.2	22.9	38	w.	6.3	2.8			2		nw.	0	0		Prof. G. Ciacciatore.
Syracuse	29.76	755.9	29.80	757.0	74.5	23.6	66	s.	3.1	1.4			9		sw.	0	0		Prof. Vincenzo Gulliano.
Sub-Series.																			
Naples, S. R	29.26	743.2	29.77	756.2	59.5	15.3	83	se.	4.3	1.9			3		ne.	0.268	6.8		Prof. F. Brioschi.
Stelvio	21.89	555.9			29.7	− 1.3	82	w.			2		10		se.	0	0	covered	Prof. P. F. Denza.
Valdobbia	21.93	557.1			36.0	2.2	83	n.			6		10 n			0.327	8.3	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.19	766.8	30.21	767.3	59.4	15.2	85	nne.	9.8	4.4		2cs:ck	0			0	0	fair	K. Sasaki.
Kioto	30.09	764.3	30.26	768.6	58.0	14.4	89	n.	1.8	0.8		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	30.04	763.0	30.25	768.3	63.1	17.3	76	n.	0.6	0.3		2 c	0			0	0	clear	S. Takehayashi.
Nemuro	30.07	763.8	30.14	765.5	59.9	15.5	88	calm	0	0		3	2			0	0		
Niigata	30.21	767.3	30.25	768.3	60.8	16.0	95	n.	0.6	0.3		ck	0			0	0	clear	
Nobiru	30.21	767.3	30.23	767.8	62.0	16.7	82	sw.	5.2	2.3		1 ck	0	nw.		0	0	fair	
Supporo	30.01	762.2	30.08	764.0	53.6	12.0	86	s.	6.0	2.7			5			0	0		
Tokei Obs'y, Yeddo	30.20	767.1	30.27	768.8	58.3	14.6	93	calm	0	0		0	0			0	0	clear	The Staff.
Wakayama	30.19	766.8	30.24	768.1	60.9	16.1	79	ene.	5.7	2.5		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.98	761.5	30.17	766.3	75.0	23.9	59	e.	12.0	5.4		1 ck	2 k		e.	0.01	0.3	fair	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.70	602.1	29.93	760.1	55.1	13.4	79	ne.	2.2	1.0		0	3 k		ne.	0.016	0.4	clear	Vicente Fernandez.
Leon	24.45	621.0	30.13	765.2	60.0	15.6	80	ne.			2	3 c	3 k	ne.		0	0	½ cloudy	Prof. M. Leal.
Mazatlan	29.62	752.3	29.88	758.8	78.3	25.7	93	e.	0.9	0.4		2 cs	0			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.10	586.8	30.14	765.5	54.0	12.2	86	nw.	2.2	1.0		5 k	5 ns		n.	0.024	0.6	covered	The Staff.
Morelia	24.19	614.4	30.28	769.1	59.2	15.1	69	n.			2	4	2	s.	s.	0	0	½ cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	24.01	609.7	29.99	761.8	57.4	14.1	77	n.			2	0	1 s		nne.	inap.	inap.	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.36	593.5	30.13	765.2	54.9	12.7	43	nw.	17.9	8.0		0	5		e.	0	0		Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.20	767.0	30.20	767.0	47.5	8.6		ene.			5					0	0		
Groningen	30.25	768.3	30.30	769.7	48.2	9.0		ene.			4					0	0		
Helder	30.29	769.4	30.29	769.4	47.3	8.5		ene.			5					0	0		
Hellevoetsluis	30.21	767.3	30.21	767.3	45.5	7.5	64	ene.			5					0	0		
Utrecht	30.19	766.9	30.24	768.1	46.2	7.9	48	ene.			4		5			0	0	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
NORWEGIAN SERIES.																			
Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.54	775.6	30.60	777.2	49.6	9.8	54	calm	0	0			3			0	0		
Christiania	30.50	774.8	30.66	778.7	46.4	8.0	55	se.	4	2			0			0	0		
Gjæsvær	30.20	767.0	30.22	767.6	48.0	8.9		sw.			8		10					raining	
Lodingen	30.45	773.4	30.50	774.6	49.6	9.8	83	sw.			7		9			0	0		
PORTUGUESE SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.02	762.6	30.18	766.5	67.6	19.8	74	ene.	2.5	1.1			3			0.138	3.5		Dr. J. A. Sampaio.
Campo Major	28.82	732.0	29.79	756.7	68.4	20.2	53	wnw.	9.4	4.2			9			0.130	3.3		Dr. A. M. R. dos Santos
Funchal, Madeira	29.95	760.8	30.04	763.0	76.1	24.5	66	se.	1.3	0.6			4			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.53	750.1	29.89	759.1	67.1	19.5	53	w.	11.9	5.3			6			0.087	2.2		The Staff.
Ponta Delgada, Azores	30.11	764.7	30.18	766.5	70.2	21.2	65	calm	0	0			3			0	0		
RUSSIAN SERIES.																			
Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.93	734.8	30.02	762.4	46.2	7.9	47	sw.	7	3		0	3 k						Capt. Lasarew.
Archangel	30.43	772.9	30.45	773.4	39.7	4.3	92	w.	18	8			10						Capt. Sseliwerstow.
Astrakhan	30.04	762.9	29.95	760.8	65.1	18.4	31	e.	4	2			10 s					light clouds	Capt. Wisganow.
Barnaul	29.66	753.3	30.17	766.2	45.7	7.6	59	calm	0	0			9						Meteorological Obs'y.
Dorpat	30.45	773.5	30.70	779.8	46.6	8.1	62	e.	7	3		4 ck	0						Observatory.
Ekaterinburg	29.13	739.8	30.14	765.5	26.4	— 3.1	87	nne.	9	4			10					light snow	Meteorological Obs'y.
Kasan	30.02	762.6	30.31	769.8	32.2	0.1	60	n.	13	6			10						Observatory.
Kertch	29.98	761.6	30.00	762.1	56.1	13.4	90	nnw.	4	2			10 n			0	0		Lagorio & Sastyrex.
Kieff	29.65	753.2	30.31	769.9	44.8	7.1	59	ne.	11	5		c;cs;ck	9 ks						Observatory.
Lugan	29.96	761.0	30.17	766.3	44.4	6.9	83	ne.	31	14			10			blank	blank		Meteorological Obs'y.
Moscow	29.93	760.2	30.43	772.8	40.3	4.6	53	nne.	4	2		0	2 ks						Meteorological Obs'y.
Nikolaiev	30.11	764.8	30.18	766.6	50.9	10.5	80	nne.	13	6			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor.																0.984	25.0	raining	Lieut. Iwanow.
Pekin, China	30.37	771.4	30.51	775.0	49.6	9.8	70	calm	0	0			9 n			0.012	0.3	raining	Physical Observatory.
St. Petersburg	30.69	779.5	30.71	779.9	42.6	5.9	86	nw.	9	4			9 kn						Central Physical Obs'y.
Tashkend, Laboratory	28.54	724.9	30.08	764.1	63.0	17.2	69	calm	0	0			0			0	0		Teich, A. M.
Tiflis	28.51	724.2	29.87	758.6	75.6	24.2	42	nw.	9	4		0	3 k						Physical Observatory.
Warsaw	29.82	757.5	30.26	768.6	44.1	6.7	66	ene.	18	8			10 ks						Astronomical Obs'y.
Wilna	30.08	764.1	30.52	775.2	46.2	7.9	64	ene.	11	5			6						Berg, Assistant.
Yeniseisk	29.98	761.4	30.28	769.0	32.2	0.1	86	ne.	2	1			3						M. O. Marks.
SCOTTISH SERIES.																			
Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.38	771.6	52.2	11.2	76	se.			2		10 k			0.03	0.8	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.23	767.8	55	12.8	93	s.			7		10					raining	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES.																			
Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.66	753.4	29.76	756.0	65.3	18.5	73	e.	3.6	1.6			7			0	0	fair	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.84	758.0	29.90	759.4	65.1	18.4	71	s.	1.8	0.8		3	4	e.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.89	683.1			59.0	15.0	50	ne.	4.9	2.2		0	1			0	0	almost clear	Domingo Martin.
Madrid, Royal Obs'y	27.59	700.9	29.78	756.3	63.1	17.3	66	w.	4.3	1.9			10			0.031	0.8	covered	The Staff.
Murcia, Met. Obs'y	29.63	752.7	29.78	756.4	76.8	24.9	68	w.	3.6	1.6		5	5			0.063	1.6	raining	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.89	733.8	29.76	755.9	66.7	19.3	57	nne.	2.5	1.1			2			0.008	0.2	almost clear	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.83	757.8	29.90	759.5	76.8	24.9	90	ose	3.1	1.4		7 c;cs	1	w.	s.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.88	758.9	29.93	760.2	83.2	28.4	87	s.	0	0		9 ck	0	ne.		0	0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.77	756.2	29.87	758.7	69.3	20.7	83	w.	8.6	3.9			10		sw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.81	757.2	29.90	759.5	79.2	26.2	89	calm	0	0		2 k	1 s			0.039	1.0	clear	E. Cudea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.84	757.8	29.97	761.2	76.8	24.9	92	nnw.	4.4	1.9		0	6 k		ene.	0.04	1.0	partly cld'y	José L. Fastovra.
SWEDISH SERIES.																			
Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.54	775.6	30.58	776.6	41.7	5.4	82	sw.			2		0			0	0		
Umea	30.62	777.7	30.67	779.0	46.8	8.2	62	sw.			2		0			0	0		
Hernosand	30.67	779.1	30.72	780.4	47.3	8.5	59	s.			2		1			0	0		
Stockholm	30.49	774.5	30.67	779.0	44.6	7.0	82	e.			4		10					raining	
Wisby	30.43	772.8	30.48	774.3	46.8	8.2	55	e.			6		5			0	0		
Sub-Series.																			
Upsala	30.58	776.7	30.67	778.9	45.0	7.2	63	ene.	8.3	3.7			1		ene.	inap.	inap.		S. G. Fineman.
SWISS SERIES.																			
Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.45	722.5	29.89	759.3	47.5	8.6	73	ne.			3		10			0.031	0.8	covered	The Observatory.
Zurich	28.28	718.4	29.97	761.1	40.6	4.8	88	e.			6		10			0.177	4.5	raining	The Observatory.
TURKISH SERIES.																			
Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.95	760.7	71.1	21.7	86	nw.	6	2.5			4		sw.	0.110	2.8		The Observatory.
Valona			29.71	754.6	64.9	18.3		w.			1		10			0.16	4.	covered	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.03	762.7	81.0	27.2	60	nw.			1	0	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and Kind. Up'er 0—10	Clouds. Amount and Kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Albany, New York	29.79	756.7	29.87	758.7	63	17.2	84	sw.	4	1.8			10 ks		n.	0.03	0.8	cloudy	
Alpena, Michigan	29.55	750.6	30.24	768.1	42	5.6	93	nw.	7	3.1		4 k	0	nw.		0.25	6.3	fair	
Atlanta, Georgia	29.00	736.6	30.22	767.6	70.5	21.4	81	nw.	6	2.7		0	0			0	0	clear	
Atlantic City, New Jersey	29.93	760.2	29.94	760.5	68.8	20.4	93	sw.	5	2.2		0	0			0	0	clear	
Augusta, Georgia	30.00	762.0	30.20	767.1	71.1	21.7	84	calm	0	0		0	hz.			0	0	clear	
Baltimore, Maryland	29.94	760.5	29.98	761.7	72	22.2	82	nw.	2	0.9		0	hz.		calm	0	0	clear	
Barnegat, New Jersey	29.90	759.4	29.92	760.0	70.0	21.1	90	w.	5	2.2		2 k	2 k	sw.	sw.	0	0	fair	
Bismarck, Dakota	28.67	728.2	30.59	777.0	36	2.2	72	ne.	2	0.9		10 ck	0	w.		0	0	cloudy	
Boise City, Idaho	27.23	691.6	30.15	765.8	48.3	9.1	71	calm	0	0		0	0			0	0	clear	
Boston, Massachusetts	29.65	753.1	29.81	757.2	64.5	18.1	80	sw.	9	4.0		0	0			0.49	12.4	clear	
Brackettville, Texas	28.96	735.6	29.98	761.7	74	23.3	97	e.	6	2.7			10 s		e.	0.40	10.2	cloudy	
Brownsville, Texas	29.99	761.7	30.04	763.0	74	23.3	90	calm	0	0		hz.	1 ks		ne.	0	0	dense haze.	
Buffalo, New York	29.30	744.2	30.04	763.0	58.3	14.6	74	nw.	4	1.8			10 s		nw.	0.04	1.0	cloudy	
Burlington, Vermont	29.60	751.8	29.90	759.4	51.0	10.6	93	n.	7	3.1			10 n		n.	0.12	3.0	light rain	
Cairo, Illinois	29.73	755.1	30.14	765.5	73.8	23.2	83	sw.	3	1.3		7 ck	fg.	w.		0	0	fair	
Campo, California	27.39	695.7	29.96	761.0	41.2	5.1	70	se.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	29.99	761.7	30.01	762.2	73	22.8	82	sw.	9	4.0		5 k;ck	1 s	sw.		0	0	fair	
Cape May, New Jersey	29.92	760.0	29.95	760.7	72	22.2	84	w.	13	5.8		0	0			0	0	clear	
Castroville, Texas	29.33	745.0	30.02	762.5	77	25.0	85	se.	1	0.4			10 s		se.	0.11	2.8	cloudy	
Cedar Keys, Florida	30.07	763.8	30.09	764.3	73	22.8	90	n.	9	4.0		0	0			0	0	clear	
Champaign, Illinois	29.27	743.4	30.04	763.0	68.8	20.4	93	ne.	3	1.3			10 s		ne.	0	0	cloudy	
Charleston, S. Carolina	30.07	763.8	30.13	765.3	74	23.3	90	nw.	6	2.7		0	0			0	0	clear	
Charlotte, N. Carolina	29.24	742.7	30.15	765.8	71.0	21.7	82	sw.	2	0.9		2 c;hz	0	calm		0	0	fair	
Chattanooga, Tennessee	29.35	745.5	30.20	767.1	67.5	19.7	85	sw.	4	1.8		1 cs	fg.	calm	calm	0	0	clear	
Cheyenne, Wyoming	24.25	615.9	30.38	771.6	41.8	5.4	89	e.	5	2.2			fg.			0	0	dense fog	
Chicago, Illinois	29.45	748.0	30.19	766.8	56.1	13.4	83	ne.	8	3.6			10 s			0	0	cloudy	
Chincoteague, Virginia	29.97	761.2	29.99	761.7	73	22.8	90	nw.	5	2.2		0	0			0	0	clear	
Cincinnati, Ohio	29.45	748.0	30.13	765.3	72.2	22.3	90	w.	3	1.3			fg.			0.58	14.7	dense fog	
Cleveland, Ohio	29.35	745.5	30.12	765.0	62.4	16.9	82	n.	15	6.7			10 s		n.	0.62	15.7	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.20	741.7	30.09	764.3	69	20.6	90	nw.	5	2.2		5 ck	2 ks	w.	nw.	0.07	1.8	clearing	
Concho, Texas	28.21	716.5	30.21	767.3	68	20.0	93	sw.	2	0.9		0	0			0.05	1.3	clear	
Corsicana, Texas	29.70	754.4	30.18	766.6	74	23.3	90	calm	0	0			hz.			0	0	dense haze.	
Davenport, Iowa	29.47	748.5	30.15	765.8	58	14.4	87	ne.	12	5.4			10 n		calm	inap.	inap.	light rain	
Dayton, Washington T'y	28.31	719.1	30.17	766.3	44	6.7	86	sw.	2	0.9		3 k	0	calm		0	0	clear	
Deadwood, Dakota	25.70	652.8	30.56	776.2	37	2.8	92	se.	4	1.8			10 ks		se.	0.15	3.8	cloudy	
Decatur, Texas	28.97	735.8	30.10	764.5	73	22.8	76	se.	6	2.7		0	0			0	0	clear	
Delaware Breakwater, Del.	29.04	760.5	29.96	761.0	69	20.6	93	sw.	10	4.5		0	hz.			0	0	clear	
Denison, Texas	29.34	745.2	30.17	766.3	76	24.4	82	sw.	4	1.8		0	0			0	0	clear	
Denver, Colorado	24.97	634.2	30.34	770.6	49.0	9.4	100	n.	7	3.1			10 n		calm	0.06	1.5	light rain	
Des Moines, Iowa	29.21	741.9	30.16	766.1	59	15.0	93	ne.	20	8.9			10 n		ne.	0.36	9.1	heavy rain.	
Detroit, Michigan	29.42	747.3	30.16	766.1	55.6	13.1	74	nw.	9	4.0			10 s		calm	0.02	0.5	cloudy	
Dodge City, Kansas	27.50	698.5	30.19	766.8	66.7	19.3	91	s.	7	3.1		0	0			0	0	clear	
Dubuque, Iowa	29.48	748.8	30.22	767.6	50	10.0	93	ne.	14	6.3			10 s		calm	0.42	10.7	threatening.	
Duluth, Minnesota	29.72	754.9	30.45	773.4	38	3.3	73	nw.	1	0.4		1 c	0	calm		0	0	clear	
Eagle Pass, Texas	29.34	745.2	30.19	766.8	75.2	24.0	90	se.	4	1.8		0	2 s		calm	inap.	inap.	fair	
Eagle Rock, Idaho	25.31	642.9	30.30	769.6	30	— 1.1	80	calm	0	0		0	0			0	0	clear	
Eastport, Maine	29.70	754.4	29.78	756.4	49.5	9.7	86	n.	11	4.9			10 n		n.	0.10	2.5	light rain	
El Paso, Texas	26.24	666.5	30.08	764.0	61.5	16.4	62	calm	0	0		0	1 s			0	0	clear	
Erie, Pennsylvania	29.30	744.2	30.06	763.5	63	17.2	84	n.	14	6.3			10 ks		n.	0	0	threatening.	
Escanaba, Michigan	29.61	752.1	30.20	769.4	40	4.4	89	n.	6	2.7		0	3 s		n.	0.15	3.8	clear	
Florence, Arizona	28.48	723.4	30.08	764.0	70	21.1	82	w.	2	0.9		4 cs	3 s	w.	calm	0.28	7.1	cloudy	
Fort Apache, Arizona	25.11	637.8	30.15	765.8	59	15.0	100	e.	1	0.4			10 s		calm	1.05	26.7	cloudy	
Fort Assinnaboine, Montana	27.53	699.2	30.47	773.9	40	4.4	82	ne.	7	3.1			10 s		ne.	0.04	1.0	cloudy	
Fort Bennett, Dakota	28.82	732.0	30.43	772.9	46	7.8	71	ne.	12	5.4		10 cs	0			0	0	cloudy	
Fort Benton, Montana	27.50	698.5	30.48	774.2	41	5.0	82	s.	28	12.5			10 s		calm	0.05	1.3	cloudy	
Fort Buford, Dakota	28.52	724.4	30.64	778.2	27	— 2.8	77	e.	3	1.3		0	0			0	0	clear	
Fort Custer, Montana	27.14	689.3	30.53	775.4	43	6.1	65	e.	10	4.5			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.11	637.8	30.07	763.8	61	16.1	84	w.	4	1.8		0	0			0	0	clear	
Fort Elliott, Texas	27.37	695.2	30.67	779.0	65	18.3	84	calm	0	0		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.57	751.1	30.14	765.5	73.0	22.8	90	s.	4	1.8		4 cs	0	s.		0	0	fair	
Fort Grant, Arizona																			
Fort Griffin, Texas	28.85	732.8	30.08	764.0	70.0	21.1	97	calm	0	0		0	0			0.10	2.5	clear	
Fort Keogh, Montana	27.89	708.4	30.56	776.2	46	7.8	63	e.	9	4.0			10 s			0	0	cloudy	
Fort Macon, North Carolina	30.07	763.8	30.08	764.0	76	24.4	85	w.	12	5.4		2 k	0	w.		0	0	clear	
Fort McKavett, Texas	27.93	709.4	29.80	756.9	69.6	20.9	70	s.	5	2.2		0	0			0	0	clear	
Fort Missoula, Montana	26.86	682.2	30.50	774.7	44	6.7	68	e.	4	1.8		0	0			0	0	clear	
Fort St. Michaels	29.98	761.5	30.02	762.5	42	5.6	83	s.	8	3.6		0	8 ks		s.	inap.	inap.	fair	
Fort Shaw, Montana	26.67	677.4	30.41	772.4	38	3.3	92	ne.	6	2.7			10 s		calm	inap.	inap.	cloudy	
Fort Sill, Indian Territory	28.90	734.0	30.19	766.8	72	22.2	87	s.	5	2.2		0	1 s			0	0	clear	
Fort Stevenson, Dakota	28.65	727.7	30.61	777.5	30	— 1.1	81	calm	0	0		0	0			0	0	clear	
Fort Verde, Arizona					64.1	17.8	68	se.			1		10 s		se.	inap.	inap.	cloudy	
Fredericksburg, Texas	28.40	721.3	29.92	760.0	70	21.1	97	sw.	1	0.4		0	0			0	0	clear	
Galveston, Texas	30.08	764.0	30.12	765.0	78	25.6	91	ne.	9	4.0		0	0			0	0	clear	
Grand Haven, Michigan	29.53	750.0	30.23	767.8	51.5	10.8	72	ne.	12	5.4			10 n		w.	0.01	0.3	light rain	
Hatteras, North Carolina	30.04	763.0	30.06	763.5	76	24.4	85	sw.	17	7.6		6 k	0	sw.		0	0	fair	
Helena, Montana	26.00	660.4	30.59	777.0	40	4.4	82	s.	3	1.3		4 k	0	calm		0	0	fair	
Henrietta, Texas	29.08	738.6	30.00	762.0	58	14.4	61	se.	4	1.8		0	0			0	0	clear	
Huron, Dakota	29.02	737.1	30.48	774.2	45	7.2	49	ne.	18	8.0		0	6 k		ne.	0	0	fair	
Indianapolis, Indiana	29.27	743.4	30.10	764.5	71	21.7	90	calm	0	0			fg.		calm	0.05	1.3	dense fog	
Indianola, Texas	30.08	764.0	30.11	764.8	78.2	25.7	91	ne.	9	4.0		hz.	2 ks		calm	0	0	clear	
Jacksboro, Texas	28.98	736.1	30.08	764.0	70	21.1	90	s.	1	0.4		0	0			0	0	clear	
Jacksonville, Florida	30.06	763.5	30.10	764.5	72	22.2	90	ne.	5	2.2		0	0			0	0	clear	
Keokuk, Iowa	29.41	747.0	30.00	764.3	67.2	19.6	100	sw.	6	2.7			10 n		sw.	1.54	39.1	heavy rain.	
Key West, Florida	29.91	759.7	29.94	760.5	77.0	25.0	85	e.	12	5.4		6 cs	4 ks;n	calm	e.	0.43	10.9	threatening.	
Kittyhawk, North Carolina	30.02	762.5	30.04	763.0	75	23.9	82	w.	16	7.2		1 cs	1 s			0	0	clear	
Knoxville, Tennessee	29.15	740.4	30.22	767.6	65.3	18.5	95	sw.	1	0.4		4 k	fg.	nw.	calm	0	0	fair	
La Crosse, Wisconsin	29.51	749.5	30.31	769.9	51.3	10.7	66	n.	9	4.0			10 s			0.12	3.0	cloudy	
La Mesilla, New Mexico	26.19	665.2	30.34	770.6	63.0	17.2	73	calm	0	0		2 ck	2 s			0	0	fair	
Laredo, Texas																			
Leavenworth, Kansas	29.18	741.2	30.11	764.8	72	22.2	84	sw.	5	2.2		4 k	0	w.		0.32	8.1	fair	
Lewiston, Idaho	29.20	741.7	30.08	764.0	50	10.0	32	ne.	1	0.4		0	5 s		calm	0	0	fair	
Little Rock, Arkansas	29.82	757.4	30.14	765.5	74	23.3	90	s.	1	0.4		2 cs	0			0	0	clear	
Los Angeles, California	29.59	751.6	29.07	761.2	55.1	12.8	86	sw.	1	0.4			10 s		calm	0	0	cloudy	
Louisville, Kentucky	29.51	749.5	30.00	764.3	72.5	22.5	97	se.	4	1.8			10 s		calm	0.23	5.8	cloudy	
Lynchburg, Virginia	29.35	745.5	30.06	763.5	74.2	23.4	76	calm	0	0			10 s		w.	0.06	1.5	cloudy	
Madison, Wisconsin	29.23	742.4	30.30	769.6	48	8.9	93	n.	10	4.5			10 s		calm	0.20	5.1	cloudy	
Marquette, Michigan	29.57	751.1	30.33	770.4	43	6.1	68	nw.	10	4.5			10 s		nw.	0.02	0.5	cloudy	
Mason, Texas	28.50	723.9	30.21	767.3	74	23.3	84	w.	1	0.4		0	1 s		w.	0.09	2.3	clear	
Memphis, Tennessee	29.82	757.4	30.17	766.3	76	24.4	82	calm	0	0		8 k	0			0	0	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Velocity.		Force	Clouds. Amount and kind.		Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.49	749.0	30.27	768.8	50	10.0	93	ne.	9	4.0			10 s		n.	0.13	3.3	cloudy	
Mobile, Alabama	30.06	763.5	30.13	765.3	71.0	21.7	84	ne.	4	1.8		0	0			0	0	clear	
Montgomery, Alabama	29.94	760.5	30.18	766.6	69	20.6	90	ne.	2	0.9		0	hz			0	0	clear	
Moorhead, Minnesota	29.48	748.8	30.54	775.7	29	— 1.7	88	n.	7	3.1		3 ck	0	n.		0	0	fair	
Morgantown, W. Virginia	29.02	737.1	29.97	761.2	70.5	21.4	85	sw.	4	1.8			10 n		w.	0.28	7.1	light rain	
Mt. Washington, N. H.	23.57	598.7	29.94	760.5	33	0.6	100	nw.	38	17.0			10n; fg		nw.	1.51	38.4	light rain	
Nashville, Tennessee	29.60	751.8	30.16	766.1	71.3	21.8	88	calm	0	0		4 ck	fg	sw.		0	0	fair	
New Haven, Connecticut	29.74	755.4	29.86	758.4	63	17.2	84	w.	5	2.2		0	hz			0.03	0.8	clear	
New London, Connecticut	29.83	757.7	29.88	758.9	66	18.9	78	nw.	3	1.3		0	0			0.03	0.8	clear	
New Orleans, Louisiana	30.05	763.3	30.11	764.8	75.4	24.1	90	n.	6	2.7		hz	hz.			0	0	clear	
Newport, Rhode Island	29.80	756.9	29.85	758.2	65.0	18.3	84	w.	8	3.6		0	0			0.10	2.5	clear	
New River, N. Carolina																			
New Shoreham, Rhode I'd.	29.83	757.7	29.86	758.4	67.0	19.4	84	w.	8	3.6		0	0			0.02	0.5	clear	
New York, New York	29.75	755.6	29.93	760.2	67	19.4	90	w.	8	3.6		3 k	5 s	w.	w.	0.34	8.6	fair	
Norfolk, Virginia	29.99	761.7	30.02	762.5	74	23.3	82	w.	3	1.3		8 ck	0	w.		0	0	fair	
North Platte, Nebraska	27.31	693.7	30.37	771.4	46.6	8.1	93	ne.	26	11.6			10 n		ne.	0.01	0.3	light rain	
Olympia, Washington T'y	29.96	761.0	30.00	762.0	47.0	8.3	93	s.	1	0.4			10 s		calm	0.32	8.1	cloudy	
Omaha, Nebraska	30.00	762.0	30.24	768.1	55.1	12.8	96	n.	20	8.9			10 n		ne.	0.13	3.3	light rain	
Oswego, New York	29.63	752.6	29.97	761.2	54.0	12.2	86	ne.	20	8.9			10 n		ne.	0.03	0.8	light rain	
Pensacola, Florida	30.09	764.3	30.12	765.0	68	20.0	84	ne.	6	2.7		0	0			0	0	clear	
Philadelphia, Pa.	29.88	758.9	29.94	760.5	69	20.6	90	w.	4	1.8		5 ck	fg			0.02	0.5	fair	
Phœnix, Arizona	28.83	732.3	30.58	776.7	70	21.1	78	e.	1	0.4			10 s			inap.	inap.	cloudy	
Pike's Peak, Colorado	18.01	457.4	30.22	767.6	34	1.1	100	sw.	22	9.8			fg		sw.	0.01	0.3	dense fog	
Pioche, Nevada	24.11	612.4	30.30	769.6	51	10.6	47	s.	7	3.1		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.24	742.7	30.09	764.3	68	20.0	90	w.	4	1.8			10 n		sw.	0.09	2.3	light rain	
Port Eads, Louisiana	30.08	764.0	30.09	764.3	78.1	25.6	85	ne.	13	5.8		hz	hz	calm	calm	0.20	5.1	dense haze	
Port Huron, Michigan	29.43	747.5	30.14	765.5	52.0	11.1	80	nw.	13	5.8		10 cs	0	calm		0	0	cloudy	
Portland, Maine	29.76	755.9	29.81	757.2	58	14.4	80	ne.	12	5.4			10 s		n.	0.07	1.8	cloudy	
Portland, Oregon	29.94	760.5	30.01	762.2	42.8	6.0	93	n.	8	3.6			fg			0.24	6.1	dense fog	
Portsmouth, N. Carolina					76	24.4	76	sw.	15	6.7		0	2 k		s.	0	0	clear	
Prescott, Arizona	24.83	630.7	30.14	765.5	56	13.3	49	calm	0	0		5 cs	0	sw.		0	0	fair	
Punta Rassa, Florida	29.96	761.0	29.96	761.0	76.5	24.7	85	ne.	11	4.9		2 c	1 k	calm	e.	0.07	1.8	fair	
Red Bluff, California	29.71	754.6	30.06	763.5	47.5	8.6	95	calm	0	0		0	0			0.58	14.7	clear	
Rio Grande City, Texas	29.91	759.7	30.12	765.0	76	24.4	85	calm	0	0			fg		calm	0	0	light fog	
Rochester, New York	29.34	745.2	30.00	762.0	60	15.6	75	nw.	12	5.4			10 ks		n.	0.02	0.5	cloudy	
Roseburg, Oregon	29.40	746.7	29.99	761.7	48.5	9.2	87	se.	1	0.4		0	2 ks		sw.	0.12	3.0	fair	
Sacramento, California	30.00	762.0	30.08	764.0	46.5	8.1	93	se.	4	1.8		0	0			0.02	0.5	clear	
St. Louis, Missouri	29.49	749.0	30.12	765.0	72.0	22.2	100	nw.	7	3.1			10 s		n.	0.09	2.3	cloudy	
St. Paul, Minnesota	29.48	748.8	30.40	772.1	48.7	9.3	56	n.	8	3.6		4 c	0	nw.		0	0	fair	
Salt Lake City, Utah	25.64	651.2	30.09	764.3	59	15.0	25	se.	6	2.7		0	0			0	0	clear	
San Antonio, Texas	29.44	747.8	30.16	766.1	75.0	23.9	74	e.	1	0.4		0	5 ks		s.	0	0	fair	
San Diego, California	29.84	757.9	29.91	759.7	56.8	13.8	80	n.	3	1.3		0	0			0	0	clear	
Sandusky, Ohio	29.40	746.7	30.11	764.8	63	17.2	90	ne.	15	6.7			10 s		ne.	0.11	2.8	cloudy	
Sandy Hook, New Jersey	29.88	758.9	29.90	759.4	72.5	22.5	76	w.	8	3.6		8 k	0	w.		0.01	0.3	cloudy	
San Francisco, California	30.03	762.7	30.10	764.5	53	11.7	86	w.	1	0.4		0	fg		sw.	0.10	2.5	clear	
Santa Fé, New Mexico	23.46	595.9	30.45	773.4	53	11.7	83	e.	1	0.4			10 n		calm	0.41	10.4	light rain	
Savannah, Georgia	30.05	763.3	30.14	765.5	73.5	23.1	89	n.	2	0.9		0	hz			0	0	clear	
Shreveport, Louisiana	29.92	760.0	30.14	765.5	71.2	21.8	94	se.	2	0.9		0	0			0	0	clear	
Silver City, New Mexico	24.37	619.0	30.05	763.3	59	15.0	90	calm	0	0		0	5 s		calm	0.56	14.2	fair	
Sitka, Alaska	30.10	764.5	30.17	766.3	46.1	7.8	84	e.	4	1.8		0	0			0	0	clear	
Smithville, North Carolina	30.07	763.8	30.11	764.8	73	22.8	90	nw.	4	1.8		0	1 ks		calm	0	0	clear	
Spokane Falls, Wash. Ter.	28.05	712.5	30.12	765.0	41	5.0	82	se.	2	0.9		0	5 s		s.	inap.	inap.	fair	
Springfield, Illinois	29.40	746.7	30.11	764.8	69.5	20.8	100	e.	1	0.4			fg			1.56	39.6	dense fog	
Springfield, Massachusetts	29.71	754.6	29.83	757.7	63.0	17.2	84	s.	3	1.3		3 k	0	sw.		0.05	1.3	clear	
Stockton, Texas	27.12	688.8	30.27	768.8	67.0	19.4	90	s.	12	5.4		0	0			0	0	clear	
St. Vincent, Minnesota	29.62	752.3	30.55	776.0	24	— 4.4	100	nw.	1	0.4		0	0			0	0	clear	
Thatcher's Island, Mass	29.74	755.4	29.80	756.9	66.0	18.9	90	w.	16	7.2		0	0			0.04	1.0	clear	
Toledo, Ohio	29.39	746.5	30.11	764.8	60	15.6	87	ne.	8	3.6			10 ks		nw.	0.03	0.8	cloudy	
Tucson, Arizona	27.52	699.0	29.96	761.0	70	21.1	76	e.	9	4.0		0	6 ks			0.05	1.3	cloudy	
Umatilla, Oregon	29.76	755.9	30.19	766.8	38.3	3.5	88	s.	6	2.7		0	0			0.01	0.3	clear	
Uvalde, Texas	29.16	740.7	29.96	761.0	76	24.4	90	calm	0	0			10 s		s.	inap.	inap.	cloudy	
Vicksburg, Mississippi	29.90	759.4	30.16	766.1	71	21.7	82	se.	3	1.3		hz	hz	calm	calm	0	0	light haze	
Visalia, California	29.66	753.4	30.04	763.0	50	10.0	77	nw.	3	1.3		0	0			0	0	clear	
Washington, D. C.	29.88	758.9	30.00	762.0	71	21.7	90	sw.	1	0.4		0	1 s; fg			0	0	clear	
West Los Animas, Colorado	26.28	667.5	30.36	771.1	53.8	12.1	83	n.	12	5.4			10 s			0	0	cloudy	
Wickenburg, Arizona					70	21.1	90	calm			0		10 ks			0	0	cloudy	
Wilmington, N. Carolina	30.04	763.0	30.10	764.5	75	23.9	85	w.	4	1.8		0	0			0	0	clear	
Winnemucca, Nevada	25.64	651.2	30.10	764.5	26	— 3.3	61	s.	8	3.6		0	0			0	0	clear	
Wood's Holl, Mass	29.80	756.9	29.84	757.9	66	18.9	78	w.	15	6.7		0	0			0.06	1.5	clear	
Yankton, Dakota	29.00	736.6	30.37	771.4	50	10.0	72	ne.	12	5.4			10 s			0.07	1.8	cloudy	
Yuma, Arizona	29.72	754.9	29.86	758.4	73.3	22.9	70	calm	0	0		0	3 s		calm	0	0	fair	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.94	760.5	29.96	761.0	85	29.4	87	e.	1	0.4		2	5	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.07	560.6			54.5	12.5	74	calm	0	0			10 n; s			0.04	1.0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.78	756.4	29.78	756.4	81	27.2	87	e.				0	2 ks		e.	0	0	clear	B. Bigar.
Havana, Cuba, W. I.	29.89	759.2	29.94	760.5	79	26.1	82	calm	0	0		10 cs	2 ks	calm	calm	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.91	759.7	29.92	760.0	78.0	25.6	84	calm	0	0		9 cs	1 s	e.		0.04	1.0	cloudy	Robert Johnstone.
Navassa, W. I.	29.80	756.9	29.88	758.9	80	26.7	78	ne.	10	4.5		8 cs; k	2 k	ne.	e.	0.07	1.8	fair	F. M. Everett.
Paramaribo, S. A.	29.98	761.5	29.98	761.5	80	26.7	78	e.			3	0	0			0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.44	747.8	30.00	762.0	74	23.3	94	calm					10 r.		calm			raining	Francesco J. Cisneros.
Rivas, Nicaragua					73.4	23	94	ne.			1		10 n		ne.	3.46	88.		Earl Flint.
Santiago de Cuba, W. I.	29.88	758.9	29.91	759.7	77	25.0	86	calm	0	0		5 cs	0			0	0	fair	Robert Mason.
St. Thomas, W. I.‡	29.79	756.7	29.90	759.4	81	27.2	82	se.	4	1.8		0	4 ks			0.22	5.6	clear	G. O. Gyllich.
York Factory, B. A.	30.16	766.1	30.20	767.1	17.0	— 8.3	92	nw.	26	11.6			10 s		nw.	inap.	inap.	snowing	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.						Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.									
										Up'er	Lo'er	Upper	Lower.					Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.			Inch.	Mill.				
BRITISH NAVAL SERIES.																					
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																					
H. M. S. Alert, S. 10° 43′, E. 141° 39′	29.96	761.0	75.8	24.3	74	sse.			1		1									misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibralter, Mediterranean	30.17	766.3	69	20.6	87	sw.			6		10	sw.								heavy rain.	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.98	761.5	69	20.6		nw.			1–2		4	nw.								d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																					Capt. R. W. Stopford.
H. M. S. Bacchante																					Capt. Lord C. Scott.
H. M. S. Beacon																					Comm. G. W. Hand.
H. M. S. Bittern																					Capt. E. B. Pusey.
H. M. S. Blanche																					Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 16° 42′, E. 0° 58′	30.05	763.3	63	17.2	78	sse.			2–3		7	sse.				3	ssw.			d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.93	760.2	61	16.1	94	nw.			1		9									threatening.	Capt. G. R. Hope.
H. M. S. Cockatrice																					Capt. H. Y. Grenfell.
H. M. S. Comus																					Capt. J. W. East.
H. M. S. Condor																					Comm. F. W. Egerton.
H. M. S. Coquette																					Lt. Comm. J. L. Barr.
H. M. S. Cormorant																					Capt. J. A. T. Bruce.
H. L. S. Cruiser																					Capt. F. A. Wetherall.
H. M. S. Curacoa																					Capt. S. Long.
H. M. S. Cygnet, N. 38° 11′, E. 20° 28′	29.75	755.6	73	22.8		calm			0		3	calm								d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																					Capt. J. C. Parvis.
H. M. S. Daring																					Capt. F. J. Eliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.13	765.3	72	22.2		wnw.			1		1	ese.								blue sky	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.07	763.8	75.5	24.2	74	ese.			1											blue sky	Capt. T. Barnardiston.
H. M. S. Dragon																					Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	29.42	747.3	48	8.9	92	nne.			1		10	nw.								overcast	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 25° 38′, E. 57° 46′	29.67	753.6	95	35.0		nw.			3			w.				4	nw.			foggy	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.77	756.1	91.5	33.1		sw.			2		3	s.								d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																					Comm. C. Johnstone.
H. M. S. Emerald, S. 17° 41′, E. 178° 51′	29.81	757.2	78	25.6	100	e.			1		3	ene.								squally	Capt. W. H. Maxwell.
H. M. S. Encounter																					Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.76	755.9	89	31.7	63	wsw.			1		7	sse.								d. clouds	Capt. R. D. King.
H. M. S. Falcon																					Capt. W. H. C. Selby.
H. M. S. Fantome, N. 49° 01′, W. 58° 20′	29.48	748.8	44	6.7		w.			2		9	w.				sm'h				d. clouds	Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 58′, E. 32° 55′	30.13	765.3	70.5	21.4	95	se.			3–4		2					2	se.			d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo																					Comm. R. N. Custance.
H. M. S. Flying Fish																					Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 21° 08′, W. 157° 51′	29.99	761.7	74	23.3	81	n.			2		3	s.								showery	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	29.77	756.1	65	18.3	94	nne.			4		7	ne.								misty	Capt. L. F. Jones.
H. M. S. Griffon																					Comm. J. Ingles.
H. M. S. Hecla																					Capt. T. L. H. Ward.
H. M. S. Humber																					Capt. J. L. Way.
H. M. S. Inconstant, N. 18° 00′, E. 154° 30′	29.98	761.5				nne.			3		4	ene.				3	ene.			d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																					Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 34° 39′, E. 135° 15′	30.24	768.1	68	20.0		calm			0											d. clouds	Capt. R. E. Tracey.
H. M. S. Kestrel																					Capt. W. M. Lang.
H. M. S. Kingfisher, N. 2° 23′, W. 79° 39′	29.99	761.7	76	24.4		sw.			3		4	sw.				2	s.			d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 30° 20′, E. 39° 00′	30.09	764.3	69	20.6		sse.			4		4	sse.				3	ssw.			squally	Comm. F. H. Haygorth.
H. M. S. Lark, S. 33° 21′, W. 10° 40′	30.09	764.3	62	16.7	77	ssw.			4–5		5					3	ssw.			d. clouds	Lt. C. F. Oldham.
H. M. S. Lily																					Capt. C. J. Brownrigg.
H. M. S. London																					
H. M. S. Magpie, Hoi How Bay, Sapan	29.59	751.6	76.9	24.9	95	ese.			5–6		10					5	ne.			misty	Lieut. A. Balfour.
H. M. S. Midge																					
H. M. S. Malabar, Suez Canal	29.93	760.2	85	29.4	83	ene.			1		0									blue sky	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	29.82	757.4	65.5	18.6	87	wsw.			1		4	ene.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo Chili,	30.04	763.0	52	11.1	86	calm			0		6							d. clouds	Comm. F. Edwards.
H. M. S. Nelson, N. 39° 59′, W. 12° 25′	29.81	757.2	68	20.0	?	nw.			4		4	n.				3	n.	d. clouds	Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	29.63	752.6	58	14.4	93	nnw.			1		10							misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 43° 20′, W. 9° 48′	29.87	758.7	65	18.3	78	ne.			6		2					4	ne.	d. clouds	Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′			50	10.0		calm			0									raining	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 15° 41′, E. 56° 52′	29.84	757.9	77.3	25.2	73	calm			0		1							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 12° 18′, E. 44° 20′	29.61	752.1	80	26.7	82	calm			0		3	ssw.				5	sse.	d. clouds	Comm. W. Byles.
H. M. S. Serapis, S. 28° 40′, E. 14° 10′	30.02	762.5	63	17.2	88	se.			1		8	se.				sm'h		d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, S. 8° 09′, W. 9° 49′	30.09	764.3	77	25.0	77	se.			3–4		3	se.				3	se.	d. clouds	Capt. T. H. Boyse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer, Sfax Roads, Tunis	29.85	758.2	75	23.9	81	ene.			2		1					2		blue sky	Capt. C. F. Hotham.
H. M. S. Triumph, S. 13° 40′, W. 76° 41′	30.03	762.7	61	16.1	82	se.			4		8	se.				5	sse.	d. clouds	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.92	760.0	79	26.1		ne.			1		3							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.85	758.2	57	13.9	93	calm			0		0							blue sky	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela India	29.95	760.8	78.1	25.6	73	w.			3		0					1		blue sky	Carlos Candid dos Reis. A. M. da Sitra.
Quanza, Brava, Cape Verd Ids.	29.94	760.5	82.0	27.8	86	ese.			1		5		nw.	1½h'r	1½h'r	1	se.	raining	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.93	760.2	76.6	24.8	88	e.			8		10		e.	6 h'r	6 h'r			drizzling	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

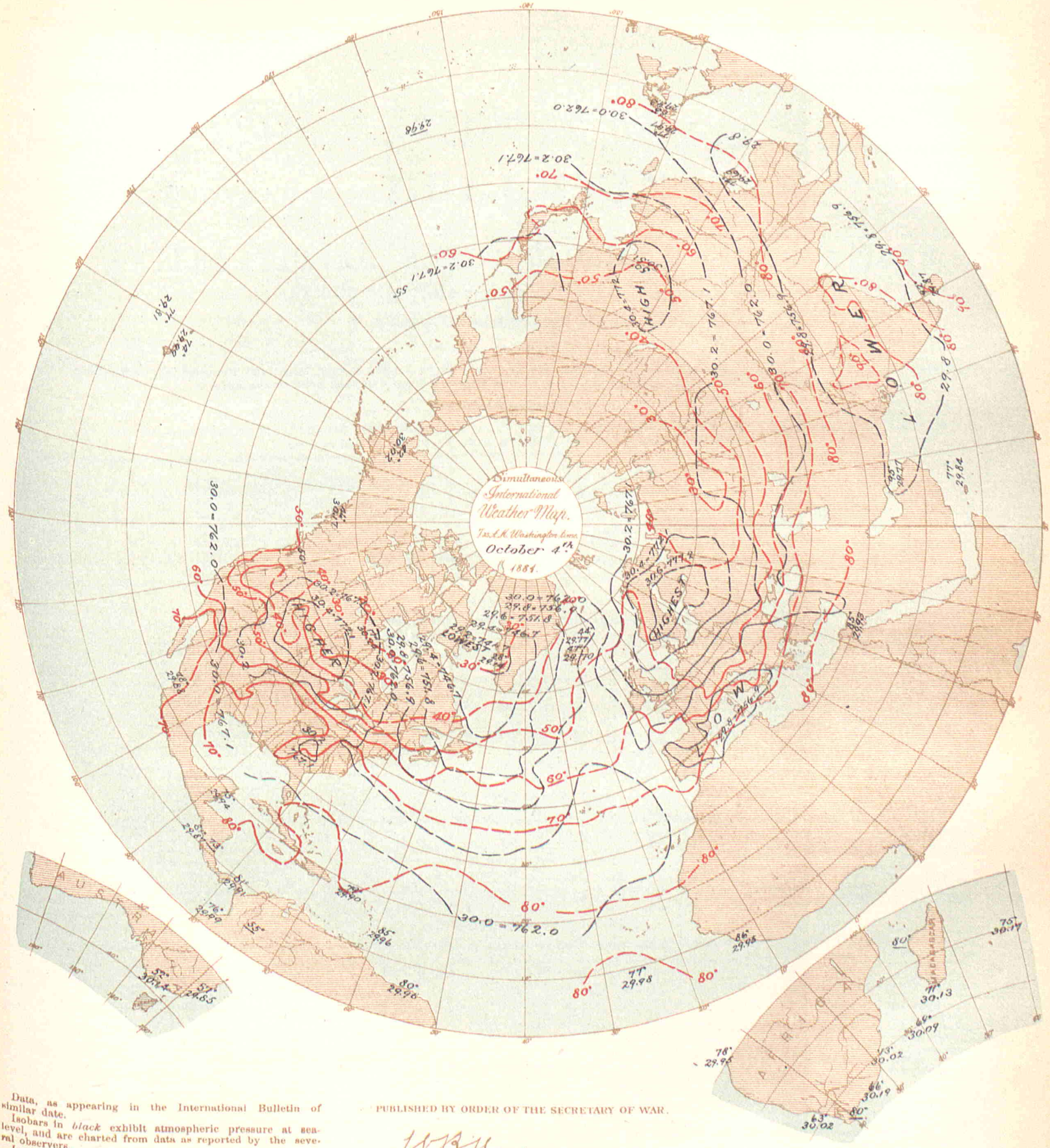
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.18	766.6	75	23.9	81	ne.	4	1.8			0			0	0			clear	
N. Yard, Portsmouth, N. H.	29.80	756.9	60	15.6	55	sw.	11	4.9		2 c	0	sw.		0	0			fair	
Naval Hospital, Yokohama, Japan	30.08	764.0	63.5	17.5	80	calm			0		0			0	0			clear	
Adams. Payta, Peru	29.83	757.7	63	17.2	94	se.			2		0?					sm'h		cloudy?	
Alaska. Callao, Peru	29.97	761.2	60	15.6	100	calm			0		0					sm'h		clear	
Alert, Yokohama, Japan *	30.08	764.0	68	20.0	74	se.			1		0			0	0	sm'h		clear	
Alliance. N. 67° 27′, W. 12° 20′	29.77	756.1	44	6.7	92	ssw.			4		10		ssw.	driz'l	driz'l	mod.	ssw.	foggy	
Ashuelot, Kobe, Japan	30.21	767.3	70	21.1	75	ne.			1		2		calm					clear.	
Colorado, New York, N. Y.	29.92	760.0	70	21.1	85	sw.	4	1.8			8		w.					cloudy	
Constitution. New London, Conn	29.81	757.2	63	17.2	94	w.	2	0.9			0							clear	
Franklin, Norfolk, Va	29.93	760.2	73	22.8	?	sw.	6	2.7			8		w.	0	0			cloudy	
Galena, Leghorn, Italy	29.74	755.4	66	18.9	68	e.			1		5		calm			sm'h		fair	
Independence, N. Yard, Mare I'd, Cal	29.94	760.5	50	10.0	79	calm	0	0			0							clear	
Kearsarge, Stapleton, N. Y. *†	30.06	763.5	70	21.1	85	wnw.			2		8		nw.			sm'h		fair	
Lackawanna. San Francisco, Cal. †	30.25	768.3	56	13.3	100	s.			1		0							clear	
Lancaster, New York, N. Y.	29.91	759.7	70	21.1	95	wnw.	6	2.7			5		w.	0	0			d. clouds	
Marion, Montevideo, Uruguay	29.64	752.8	68	20.0		nne.			1		2					sm'h		hazy	
Michigan, Erie, Pa	29.97	761.2	63	17.2	89	n.			5		8		n.					fair	
Minnesota, Newport, R. I.	29.84	757.9	66	18.9	100	wnw.			1		0					sm'h		clear	
Monocacy, Yokohama, Japan	30.28	769.1	67	19.4	84	se.			1		0							clear	
Nipsic, Genoa, Italy	29.76	755.9	66	18.9	59	ssw.			1		2					sm'h		d. clouds	
Onward, Callao, Peru †	29.99	761.7	59	15.0	100	sw.			1		10		n.			long	w.	misty	
Palos, Hong Kong, China	29.96	761.0	75	23.9	100	e.			4		10		n;e.					rainy	
Passaic, Washington, D. C.	29.97	761.2	73	22.8	95	sw.			2		0							clear	
Pensacola, Callao, Peru,	30.02	762.5	59	15.0	94	nw.			1		10			0	0			cloudy.	
Portsmouth. New York, N. Y.	29.79	756.7	64	17.8	62	wsw.			2		8					sm'h		cloudy	
Powhatan. N. 18° 48′, W. 82° 48′	29.85	758.2	80	26.7	87	se.			3		10		s.			sm'h		raining	
Quinnebaug, Marseilles, France	29.74	755.4	63	17.2	62	wnw.			2		2		nne.			sm'h		fair	
Ranger, Mare Island, Cal. *	30.04	763.0	54	12.2	80	calm			0		0							clear	
Richmond, Panama, Panama	29.91	759.7	81	27.2	96	e.			1		8		se.	0.05	1.3	sm'h	e.	rainy	
Saratoga, New York, N. Y.	29.88	758.9	70	21.1	100	w.			2		8		w.	0	0	sm'h		cloudy	
Shenandoah, Montevideo, Uruguay *	29.81	757.2	69	20.6	85	calm			0		2					sm'h		clear	
St. Louis, League Island, Pa	29.67	753.6	72	22.2	85	sw.	6	2.7			2			0.01	0.3			clear	
Swatara. Chefoo, China †	30.33	770.4	64	17.8	78	nne.			3		10		calm			mod.	nne.	cloudy	
Tennessee, New York Bay, N. Y.	29.93	760.2	71	21.7	95	w.	1	0.4			5		wnw.	0	0			fair	
Trenton, N. 22° 36′, W. 53° 33′ *	30.00	762.0	83	28.3	71	e.			3-4		5			0	0	sm'h		fair	
Vandalia. New York, N. Y.	29.90	759.4	70	21.1	80	w.			2		0							clear	
Wabash, Boston, Mass.	29.80	756.9	63	17.2	83	w.	3	1.3						0.42	10.7			hazy	
Wachusetts. Sitka, Alaska	30.19	766.8	43	5.6	92	calm			0		0							clear	
Wyoming. Port Royal, S. C.	30.11	764.8	75	23.9	90	nw.	4	1.8			2		calm	0	0			clear	
Yantic, New York, N. Y. *	29.88	758.9	69	20.6	56	w.			1		2							fair	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 56° 21′, W. 35° 16′ *†	29.70	754.4	.....	.....	.....	sw.	5	.....	5	.....	wsw.	.....	.....	mod.	cross	squally	N. McLean.
S. S. Circassian, Capt. W. H. Smith ‡ N. 55° 58′, W. 33° 45′	30.00	762.0	45	7.2	84	w.	6	.....	4	.....	nw.	1 h'r	1 h'r	7	nw; sw.;	rain & hail.	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 50° 25′, W. 42° 15′	29.50	749.3	52	11.1	.....	s.	6	.....	10	.....	s.	.....	.....	r'gh	w; s.	squally	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Liverpool, England †	30.23	767.8	59	15.0	94	ene.	2	.....	10	.....	ene.	.....	.....	.....	.....	overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Philadelphia, Penn †	29.84	757.9	75	23.9	76	w.	3	.....	8	.....	w.	0	0	.....	.....	cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Philadelphia, Pa *†	30.30	769.6	76	24.4	95	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear	.....
S. S. Pennsylvania, Capt G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Rodman, 3d Officer.
BRITISH METEOROLOGICAL OFFICE.																	
S. Auckland, Capt. A. McDougall S. 21° 32′, W. 36° 36′	30.10	764.5	72	22.2	76	e.	4	.....	4	.....	.....	.....	.....	.....	.....	showery	.....
S. British Merchant, Capt. E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Caldew, Capt. W. Petersen. S. 44° 17′, W. 59° 35′	29.80	756.9	47	8.3	.....	ene.	6	.....	10	.....	.....	.....	.....	.....	.....	misty	.....
S. S. Cipero, Capt. W. N. Ludley, Off Belize, Honduras, C. A.	29.74	755.4	74.5	23.6	95	sw.	2	.....	5	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppenamo, Capt. A. Buchan,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Glaramara, Capt. R. Morton,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bg. Hermine, Capt. S. G. Jones, S. 19° 38′, W. 36° 25	30.16	766.1	73.9	23.3	68	ene.	3	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bkt. Hope, Capt. Jas. Campbelle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, S. 31° 33′, E. 85° 09′	30.33	770.4	60	15.6	82	sse.	2	.....	1	.....	.....	.....	.....	.....	.....	blue sky	.....
Bk. Mertola, Capt. E. W. Turner, N. 43°, 46′ W. 13° 58′	29.99	761.7	63.7	17.6	88	n.	2	.....	8	.....	.....	.....	.....	.....	.....	d. clouds	.....
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Moorhill, Capt. J. Brown, S. 57° 22′, W. 65° 20′	29.56	750.8	43	6.1	91	w.	6	.....	10	.....	.....	.....	.....	.....	.....	overcast	.....
S. Pleione, Capt. C. H. Renant,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Queen of Cambria, Capt. M. Parry N. 9° 02′, W. 26° 50′	29.98	761.5	77	25.0	90	sw.	2	.....	10	.....	.....	.....	.....	.....	.....	raining	.....
S. S. Rosetta, Capt. A. E. Barlow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sierra Estrella, Capt. P. Murdoch,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 29° 15′, W. 38° 50′	30.09	764.3	76.7	24.8	72	ene.	5	.....	3	.....	.....	.....	.....	str'g	n.	d. clouds	.....
S. S. Strathleven, Capt. C. W. Pearson, Kobe, Japan	30.18	766.6	67.5	19.7	90	calm	0	.....	2	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin, S. 6° 45′, E. 92° 42′	29.71	754.6	81	27.2	.....	s.	3	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	.....
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 50° 45′, W. 30° 10′	29.87	758.7	61.0	16.1	71	w.	5	.....	10	.....	s.	.....	.....	hv'y	sw.	cloudy	.....
S. S. Hermann, Capt. H. Baur N. 43° 09′, W. 52° 50′	29.68	753.9	60.8	16.0	.....	wnw.	4	.....	10	.....	sw.	6 h'r	6 h'r	mod.	wnw.	cloudy	E. Schmidt, 3d Officer
S. S. Köln, Capt. T. Jüngst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reichler.
S. S. Strassburg, Capt. Heimbrouch, N. 44° 48′, W. 57° 06′	29.56	750.8	59.5	15.3	79	wsw.	3	.....	10	.....	w.	4 h'r	4 h'r	sm'h	w.	hazy	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 28° 38′, E. 128° 20′ †	30.27	768.8	77	25.0	77	ne.	4	.....	2	.....	ne.	0	0	mod.	ne.	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley. N. 41° 45′, E. 167° 46′ *†	30.70	779.8	58	14.4	76	se.	2	.....	9	.....	sw.	.....	.....	sm'h	n.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann N. 40° 15′, W. 124° 33 *†	30.10	764.5	55	12.8	93	se	4	.....	5	.....	se.	.....	.....	mod.	se; nw.	fair	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon, Capt. E. Polomann N. 40° 40′, W. 124° 34′ †	30.01	762.2	52	11.1	?	se.	2	.....	8	.....	se.	.....	.....	sm'h	nnw.	squally	C. W. Pohl, 2d Officer
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Seaswell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, San Francisco, Cal.....†	30.06	763.5	51	10.6	93	w.	1		2		w.					fair.	J. W. Ingalls.
S. S. Dakota, Capt. ——,																	
S. S. Idaho, Capt. T. Huntington, Victoria, Vancouvers Id.....†	30.02	762.5	52	11.1	86	ne.	2		10		e.					rainy	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 33° 42′, W. 118° 14′.....†..	29.96	761.0	68	20.0	89	nw.	6		0					mod.	nw.	fair	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal.....†...	30.16	766.1	52	11.1	93	sw.	1		2							clear	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal.....†	30.08	764.0	50	10.0	100	calm	0		0							clear	G. Debney.
S. S. Victoria, H. M. Hayward, Departure Bay.....†	30.06	763.5	48	8.9	78	calm	0		10		nw.					cloudy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulley, Supt. New York.*																	
S. S. Australia, Capt. ——,																	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†..	29.89	759.2	62	16.7	88	w.	3		8							cloudy	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 22° 27′. E. 116° 11 .....†*	30.10	764 5	78	25.6	100	ne.	4		10		e.	mod.	mod.	light	ne.	rainy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——...																	
S. S. City of Sydney, Capt. H. C. Dearborn, N. 16° 00′, W. 160° 11′.....*†..	29.81	757.2	77	25.0	77	ese.	4		10		se.	0	0	mod.	se.	hazy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury.....																	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle N. 10° 59′, W 86° 54′.....†....	29.87	758.7	81	27.2	96	ssw.	6		9		ssw.	1.28	32.5	r'gh	ssw.	threatening	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 13° 21′, W. 89° 06′.....†....	29.76	755.9	78	25.6	91	wsw.	7		10		wsw.	12h'r	12h'r	h'vy	sw.	raining	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	29.90	759.4	56	13.3	87	w.	1		0							clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Jersey City, N. J.....†...	30.13	765.3	68	20.0													C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 45° 13′, W. 51° 03′.....†..	29.51	749.5	50	10.0		sw.	4		10		sw.	0	0	mod.	nne.	misty	A. Horsfall.
S. S. Britannic, Capt. H. Perry,																	
S. S. Celtic, Capt. B. Gleadell, N. 46° 30′, W. 38° 13′.....†..	29.87	758.7	54	12.2		sw.	6		8		sw.	0	0	cross	nw; sw.	cloudy	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, Liverpool, Eng .....†..	30.34	770.6	57	13.9	87	se.	4		2		se.	sh's	sh's			showery	W. A. Ward.
S. S. Republic, Capt. P. J. Irving.....																	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Wood's Holl, Mass .....†	29.98	761.5	66	18.9	94	wnw.	2	0	28			0.17	4.3			clear	
Golden Fleece.....																	
Hassler Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	W. Randall.
S. Pawashick, Capt. E. Fry, N. 37° 02′, W. 9° 16′.....*†....	29.78	756.4	66.5	19.2	92	n.	3		5		n.			sm'h	wnw.	rainy	E. Fry.
S. S. Proteus, Capt. Pike.....																	
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal.....†	29.90	759.4	69	20.6	75	wsw.	6		2		nw.	mod.	mod.			fair	J. G een.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 5, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.88	758.9	73.2	22.9	83	w.			2		1			0.098	2.5	very fair	Moiroud.
Algiers ‡			29.90	759.4	72.7	22.6	71	wnw.			3		6			0.894	22.7	very cloudy	Nicolas.
La Calle ‡			29.91	759.7	68.0	20.0	81	sw.			5		8			0.020	0.5	very cloudy	Fonfrède.
Tunis ‡			29.89	759.2															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.90	759.5	64.0	17.8	60	nw.			3		4			0	0	cloudy	Dumas.
Tebessa ‡			29.95	760.7	64.8	18.2	50	nnw.			7		8			0	0	very cloudy	Derché.
Geriville ‡					75.9	24.4	30	w.			3		2			0	0	fair	Lonchamp.
Laghouat ‡			30.13	765.3	69.1	20.6	45	nne.			3		2			0	0	fair	Herbin.
Biskra ‡			29.96	760.9	82.4	28.0	34	nnw.			5		4			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.02	762.5	30.11	764.8	50.2	10.1	81	s.	3	1.3			9			0.04	1.0	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.45	749.0	30.00	762.0	51.8	11.0	93	nw.			1		10			0.079	2.0	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.42	747.3	30.20	767.0	51.1	10.6	83	e.	24.8	11.1			3			0.004	0.1		Dr. Wiersbicki.
Eperies	29.26	743.2	30.13	765.4	59.0	15.0	58	se.			2		9 ks		w.	0.063	1.6		Julius Mikolik.
Gratz ‡	28.76	730.6	30.02	762.6	49.1	9.5	97	e.			2		10			0.287	7.3		Andreas Rospini.
Hermannstadt	28.76	730.5	30.21	767.2	54.3	12.4	73	se.			3		9			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.53	724.6	29.86	758.4	50.7	10.4	87	e.			3		8			0	0	gloomy	The Staff.
Lemberg	29.30	745.7	30.37	771.4	47.3	8.5	66	s.			3		10			0	0		Dr. T. Stanecki.
Pola	29.80	756.9	29.91	759.7	64.8	18.2	76	sse.			4		10			0	0		I. R. Hydrographic Office.
Szathmar	29.68	753.8	30.13	765.4	62.2	16.8	47	e.			4		0			0	0		Jozsef Midlinszky, S. J.
Szegedin	29.78	756.4	30.07	763.6	54.3	12.4	89	se.			1		10			0.110	2.8		Karl Stancel.
Trieste	29.84	757.9	29.94	760.5	54.3	12.4	87	ne.			1		10			0.835	21.2		Rieder.
Vienna	29.34	745.1	30.07	763.6	48.6	9.2	98	ese.			3		10			0.528	13.4		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 6, 1881.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.32	770.1	30.42	772.7	49.7	9.8	62	ese.	10	4.5			3			0.110	2.8	blue sky	W. Boswell.
Armagh, Observatory	30.12	765.0	30.35	770.9	49.7	9.8	74	se.	2	0.9			7					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.26	768.6	50.8	10.4	56	nne.	14	6.3			2					blue sky	John Hartnup.
Bolton, Sharples	29.70	754.4	30.25	768.3	47.3	8.5	60	ene.	18	8.0			4					d. clouds	Thomas Mackereth. [A.S.
Bradford, Yorkshire	29.86	758.4	30.26	768.6	54.3	12.4	69	se.			2		7			0.05	1.3	d. clouds	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.19	766.8	47.0	8.3	69	ne.			0.6		8					overcast	John McLaren.
Chatham, School M. E.	30.06	763.5	30.19	766.8	47.3	8.5	77	se.			1		6					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	30.01	762.2	30.24	768.1	51.9	11.1	53	ene.			1		3					d. clouds	The Staff.
Fort Napier, Natal	27.82	706.6	30.04	763.0	78.0	25.6	65	e.			1		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.65	753.1	29.88	758.9	85.0	29.4	79	w.			1		3					drizzling	Sergt. John Robinson.
Galway, Queen's College			30.24	768.1	51	10.6	80	s.			2		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.96	761.0	30.01	762.2	72.6	22.6	87	sw.			3		4					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	30.15	765.8	30.36	771.1	49.9	9.9	67	ene.			4		4 k					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.02	762.5	30.20	767.1	46.8	8.2	77	ne.			1		10					overcast	The Staff.
Guernsey	29.96	761.0	30.18	766.6	52.5	11.4	56	nne.			2		5					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.16	766.1	30.20	767.1	46.9	8.3	65	n.	8	3.6			10					misty	The Staff.
Leicester, Museum	29.95	761.0	30.22	767.6	48.6	9.2	65	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.85	758.2	29.92	760.0	77.0	25.0	72	ne.			3		4			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.84	757.9	29.89	759.2	82.0	27.8	78	ne.			2		7					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.70	754.4	30.24	768.1	48.9	9.4	71	ne.			2		6					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.98	761.5	30.21	767.3	46.7	8.2	69	n.			3		9					overcast	The Staff.
Plymouth	30.14	765.5	30.22	767.6	53.8	12.1	58	ene.			1		2					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.43	772.9	49.8	9.9	67	se.	24	10.7			0					blue sky	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.98	761.5	30.04	763.0	67.0	19.4	79	ne.			2		10			blank	blank	gloomy	Serg't W. H. Lyne.
Sheffield	29.99	761.7	30.28	769.1	48.1	8.9	75	ene.			1		1			0.05	1.3	blue sky	W. F. Cooper.
Silloth Rectory	30.28	769.1	30.31	769.9	50.2	10.1	81	e.			3		2			0	0	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.28	769.1	50.0	10.0	53	ene.	9	4.0			5					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.99	761.7	30.21	767.3	47.9	8.8	77	e.			2		5					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.22	767.6	30.25	768.3	62	16.7	66	n.			4		3					d. clouds	W. Newcombe.
Valencia, Observatory	30.24	768.1	30.27	768.8	53.1	11.7	83	ese.	26	11.6			10					misty	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.54	750.3	29.58	751.3	35	1.7	55	nw.	12	5.4		0	5 s			0.145	3.7	fair	H. J. Cundall, C. E.
Chatham, N. B. *	29.63	752.6	29.69	754.1	29	— 1.7	84	w.	9	4.0		0	0			0	0	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	29.70	754.4	29.72	754.9	33	0.6	92	n.	30	13.4		5 k	5 n	nw.	nw.	inap.	inap.	cloudy	J. McWilliams.
Fort Garry, Manitoba *	29.56	750.8	30.44	773.2	28	— 2.2	88	sw.	3	1.3			sk.			0	0	smoky	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.52	749.8	29.65	753.1	33	0.6	78	nw.	13	5.8		5 k	0	n.		0.100	2.5	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	30.06	763.5	30.41	772.4	32	0.0	60	n.	6	2.7		0	0			0	0	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.90	759.4	30.11	764.8	29	— 1.7	77	w.	15	6.7		0	0			0.01	0.3	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.69	754.1	30.42	772.7	28	— 2.2	88	w.	6	2.7		0	0			0	0	clear	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.73	755.1	30.46	773.7	32	0.0	90	nw.	4	1.8		0	0			0	0	clear	H. Morgan.
Port Stanley, Ontario	29.78	756.4	30.46	773.7	31	— 0.6	88	n.	1	0.4		0	0			0	0	clear	M. Payne.
Quebec, Quebec *	29.55	750.6	29.88	758.9	29	— 1.7	88	w.			5	0	2 s		nw.	0	0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.84	757.9	30.31	769.9	29	— 1.7	77	nw.	5	2.2		0	0			0	0	clear	W. H. McIntyre.
Saugeen, Ontario *	29.68	753.9	30.43	772.9	37	2.8	61	n.	30	13.4		2 k	0			0	0	clear	K. Stewart.
St. Andrews, N. B.	29.77	755.1	29.82	757.4	29	— 1.7	64	nw.	8	3.6		0	0			0.03	0.8	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	29.44	747.8	29.50	749.3	37	2.8	67	nw.	12	5.4		2 k	2 k		nw.	0.15	3.8		T. C. Hill, C. E.
Toronto, Ontario *	30.04	763.0	30.45	773.4	31	— 0.6	65	n.	10	4.5		0	0			0	0	clear	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	29.69	754.1	29.76	755.9	33	0.6	85	n.	15	6.7			10 s		n.	0.09	2.3	light snow	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.74	755.4	29.99	761.7	44	6.7	100	nw.	2	0.9			10 n			0.30	7.6	rainy	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House †	29.96	761.0	29.99	761.7	66.5	19.2	91	e.	23.2	10.4		0	0			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester * †	29.18	741.2			96.1	35.6	19	w.			1	0	0			0	0		C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.15	765.9	30.18	766.5	65.8	18.8	92	e.	3.1	1.4		2 ck	0	wnw.		0	0	clear	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.37	771.3	30.41	772.5	41.9	9.5	78	e.	40	18			9						Oversergent Fischer.
Fanöe	30.26	768.6	30.28	769.1	47.3	8.5	98	e.			6		10					raining	Overloerer Lauridsen.
Godthaab, Greenland	29.26	743.3	29.31	744.4	28.8	—1.8	86	s.			2		7						S. Kleinschmidt.
Stykkisholm, Iceland	29.60	751.9	29.65	753.0	47.1	8.4	94	se.			7		10					raining	A. O. Thorlacius.
Thorshavn	30.30	769.6	30.34	770.5	51.1	10.6	75	s.	13	6			10						Overloerer Bergh.
Vestervig	30.30	769.7	30.39	772.0	46.8	8.2	93	ne.			6		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.42	747.2	30.08	763.9	53.2	11.8	80	wnw.			1	2 c	0					clear	M. Labroue, Director.
Alençon Normal School	29.65	753.2	30.26	768.5	45.0	7.2	94	ne.			2		mist			0	0	misty	M. Nicot, Director.
Arras, Engineer School	29.89	759.1	30.15	765.7	47.3	8.5	92	ne.											M. Klein, Commandant.
Avignon, Normal School	29.89	759.3	29.97	761.3	56.5	13.6	48	n.			2		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.56	750.7	30.13	765.2	44.6	7.0	60	e.			1		5 kn		ne.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	29.90	759.5	30.18	766.5	43.3	6.3	50	n.			1		0			0	0	clear	M. Frère Eugène Marie.
Besançon, Normal School	29.21	741.9	30.12	765.0	45.5	7.5	65	ne.			1		10 r		ne.	0	0	covered	M. Gobin, Director.
Bordeaux, Observatory	29.83	757.7	30.08	764.0	54.3	12.4	29	ne.			1		1			0	0	almost clear	M. Rayet, Director.
Bourges, Normal School	29.60	751.7	30.15	765.9	49.1	9.5	36	nw.			1		1		nw.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	29.94	760.5	30.19	766.7	59.0	15.0	50	e.			1		3		e.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.11	764.9	30.19	766.8	52.9	11.6	59	n.			1		0			0	0	clear	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.65	753.2	29.92	759.9	48.0	8.9	84	nw.			2		2		nw.	0	0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.58	751.3	30.10	764.4	50.0	10	92	e.			1		1			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.71	729.1	30.08	764.0	49.6	9.8	55	ne.			1		0			0	0	clear	M. Alluard, Director.
Cluny, Normal School	29.26	743.1	30.03	762.7	49.6	9.8	56	n.			1		3			0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.23	742.4	30.13	765.3	36.5	2.5	89	n.			1		10 n	n.	n.			raining	Dr. Coulet, Director.
Gap, Normal School	27.32	694.0	29.85	758.1	54.3	12.4	59	s.			1	4 c	0			0	0		M. Jeanginard, Director.
Gréasque, du. Rhone	28.82	732.1	29.97	761.1	58.8	14.9	45	nw.			2		0			0	0	clear	M. Kina, Director.
Grenoble, Normal School	29.27	743.4	30.05	763.2	49.6	9.8	97	nw.			4	ck	0			0	0		M. Ablard, Director.
Guéret, Normal School	28.50	723.9	30.10	764.5	46.4	8	63	ne.			1		0			0	0	clear	M. Rivoire, Director.
Lamballe, Normal School	29.94	760.4	30.21	767.4	54.0	12.2	46	ene.			2		1 k		ene.	0	0	clear	M. Ollitrault, Director.
Lescar, Normal School	29.48	748.8	30.04	763.1	56.8	13.8	58	n.			1					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	30.12	765.0	30.22	767.6	57.2	14	57	ene.			1		2		calm	0	0	¼ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.03	737.4	30.11	764.8	46.2	7.9	63	nw.			1		10 n		nnw.	0	0	covered	M. André, Director.
Mans, Normal School	29.84	758.0	30.16	766.1	47.1	8.4	96	nne.			1		2		nne.	0	0	slightly cl'dy	M. Piboen, Director.
Marseille, Observatory	29.63	752.6	29.90	759.4	60.6	15.9	51	nw.			3		0			0	0		M. Stephan, Director.
Montlouis l'instituteur	24.75	628.7	29.99	761.7	50.4	10.2	49	se.	7.4	3.3			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.84	758.0	29.95	760.7	60.8	16	50	n.			3		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.27	743.4	30.06	763.4	42.4	5.8	67	nw.			1		10 kn					sprinkling	M. Hasse.
Nantes, Observatory	30.04	763.0	30.20	767.1	54.0	12.2	54	ene.			1–2		2 k		ene.	0	0		M. Larocque, Director.
Nice	29.82	757.5	29.86	758.4	64.4	18.0	55	e.			3		5	e.	e.	0.079	2.0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	29.85	758.2	29.96	760.9	61.2	16.2	31	ne.	18.6	8.3			0			0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					53.6	12	31	n.			4								M. Tallieu.
Puy de Dôme Obs'y, Summit	25.09	637.4			29.5	—1.4	91	ne.			2		1 k			0.008	0.2	clear	M. Alluard, Director.
Rochefort, Naval Obs'y	29.93	760.3	29.97	761.1	53.0	12.0	100	ne.			2		0			0	0	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.95	760.0	30.13	765.2	51.8	11	50	ne.			4		2		ne.	0	0	slightly cl'dy	M. Mouillot, Director.
Rodez, Normal School	27.80	706.1	29.95	760.8	48.9	9.4	56	nw.			1		0			0	0	clear	M. Richard, Director.
Rouen, Normal School	30.08	764.1	30.17	766.3	48.2	9	50	w.			2					0	0		M. Platrier, Director.
Saint Lô, Normal School																			M. Delaplanche, Dir.
Saint Maur, Observatory	30.00	761.9	30.16	766.1	46.4	8.0	46	nnw.			1		1		n.	0	0		M. Renou, Director.
Toulouse, Observatory	29.34	745.3	30.07	763.7	57.4	14.1	30	nnw.			2		1	w.		0	0	clear	M Bailland, Director.
Tours																			M. de Tastes.
Versailles, Observatory	29.67	753.6	30.16	766.1	45.7	7.6	48	n.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.88	758.9	30.17	766.3	44.4	6.9	45	ne.			1		0			0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.13	740.0	30.00	761.9	41.4	5.2	88	nw.			3	0	9 n	nw.		0.323	8.2	raining	Prof. Dr. Hoh.
Berlin	29.90	761.0	30.13	765.4	50.0	10.0	80	e.			1		10			0.028	0.7		Prof. Dr. Arndt.
Breslau	29.65	753.1	30.19	766.7	53.4	11.9	68	e.			3		9			0.051	1.3		Royal University Obs'y.
Carlsruhe	29.61	752.2	30.00	763.4	41.0	5.0	84	n.			1		10			0.007	1.7		Albert Senz.
Cassel	29.32	744.7	30.04	762.9	36.7	2.6	93	wnw.			2		10	nw.		0.047	1.2	snowing	Dr. H. Mohl.
Frankfort on the Main	29.07	753.6	30.04	763.1	41.5	5.3	78	nne.			1		10			0.016	0.4		Physical Society.
Friedrichshafen	28.57	725.7	30.04	763.1	41.7	5.4	86	nw.			4		10	wnw.		0.102	2.6	raining	Wilhelm, Chief Tel.
Hamburg	30.11	764.9	30.21	767.3	46.9	8.3	88	ene.			5		10			0.059	1.5		E. Preller.
Kiel	30.19	766.7	30.20	767.1	47.8	8.8	83	e.			4		10			0.197	5.0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.61	752.0	30.04	762.9	43.9	6.6	93	ene.			3		10	ese.				raining	H. Leppig, Asst.
Magdeburg	29.87	758.6	30.00	763.5	46.0	7.8	94	ne.			4		10 n			0.142	3.6	rain and fog.	Dr. Assmann.
Memel	30.58	776.7	30.63	777.9	47.8	8.8	55	e.			4.5		0						Issermann.
Munich	28.13	714.4	29.98	761.0	40.5	4.7	78	nw.			2		10	w.		0.012	0.3		Central Station.
Neufahrwasser	30.45	773.5	30.47	773.9	50.5	10.3	57	e.			4		0			0	0		A. Lothes.
Neustadt, Palatinate	29.50	749.3	30.03	762.7	43.9	6.6	70	n.			3		10	L.		0.118	3.0	light rain	Dicknether.
Stuttgart	29.05	737.9	29.97	761.3	39.2	4.0	84	nw.			1		10			0.008	0.2	raining	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.47	723.2	30.04	762.9	37.9	3.3	97	w.			2		10 s			0.228	5.8		Fischer.
Wustrow	30.25	768.4	30.28	769.0	47.8	8.8	81	e.			4		10 s			0.079	2.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	OBSERVERS.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.63	752.7	30.01	762.3	82.2	27.9		sw.			1.5		2			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.68	753.9	29.73	755.1	83.7	28.7	78	wsw.	19.0	8.5			3		wsw.	0	0	d. clouds	
Deesa	29.24	742.7	29.70	754.4	90.7	32.6	48	nw.	6.9	3.1			0			0	0	blue sky	
Bombay	29.68	753.7	29.71	754.7	83.8	28.8	78	nnw.	12.0	5.4			7		e.	0.07	1.8	d. clouds	
Poona, Yarrowda.	27.84	707.0	29.68	753.9	79.2	26.2	69	e.	8.0	3.6			8		wsw.	0.42	10.7	drizzling	
Belgaum	27.20	691.0	29.76	755.8	71.1	21.7	93	w.	5.0	2.2			10			0.61	15.5	showery	
Lahore	28.94	735.2	29.67	753.5	92.1	33.4	42	ne.	1.5	0.7			0			0	0	blue sky	
Roorkee	28.82	731.9	29.70	754.3	86.8	30.4	55	e.	1.6	0.7			2			0	0		
Agra	29.13	739.9	29.68	753.9	92.1	33.4	43	calm	1.1	0.5			4		n.	0	0		
Nagpur	28.62	726.8	29.64	753.0	83.7	28.7	61	ne	4.6	2.1			6	ne.		0	0	d. clouds	
Jubbulpore	28.36	720.2	29.69	754.1	86.8	30.4	77	calm	2.1	0.9			0			0	0	blue sky	
Lucknow	29.34	745.1	29.71	754.6	87.1	30.6	50	calm	1.6	0.7			4	nnw.		0	0	d. clouds	
Allahabad	29.36	745.7	29.67	753.6	83.7	28.7	73	calm	0.8	0.4			7			0	0	d. clouds	
Patna	29.54	750.2	29.62	752.3	83.6	28.7	76	e.	4.0	1.8			10	e.	e.	0	0	overcast	
Hazaribagh	27.70	703.7	29.71	754.6	77.8	25.4	70	se.	4.9	2.2			4			0	0		
Cuttack	29.58	751.4	29.66	753.4	82.0	27.8	84	sw.	2.2	1.0			9			0.30	7.6	d. clouds	
Calcutta, Alipore	29.70	754.3	29.72	754.8	77.4	25.2	95	ssw.	3.0	1.3			10			0.14	3.6	drizzling	
Dhubri	29.60	751.9	29.72	755.0	79.8	26.6	90	calm	1.2	0.5			0			0	0	blue sky	
Chittagong	29.65	753.2	29.74	755.5	83.5	28.6	81	w.	2.2	1.0			2			0	0	blue sky	
Sibsagar	29.40	746.7	29.73	755.2	82.2	27.9	82	ne.	1.4	0.6			4			0.14	3.6	blue sky	
Jeypore	28.30	718.9	29.72	754.9	88.3	31.3	30	nw.	4.7	2.1			7		nw.	0	0	d. clouds	
Zanzibar, Africa			30.00	762.0	83.7	28.7	58	sse.	4	1.8			6		sse.	0.06	1.5	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.56	750.7	29.97	761.1	51.1	10.6	83	ne.	3.1	1.4			10			0.850	21.6		Prof. Giovanni Clodig.
Milan	29.45	747.9	29.95	760.6	50.4	10.2	92	ese.	2.5	1.1			10	e.		0.335	8.5		Prof. Schiaparelli.
Padua	29.83	757.7	29.94	760.5	56.1	13.4	76	ne.	9.4	4.2			10	ne.		0.646	16.4		Prof. Dott. Lorenzoni.
Moncalieri	29.01	736.8	29.91	759.8	55.0	12.8	68	ene.	3.1	1.4			6	n.		0	0		Prof. P. F. Denza.
Genoa	29.69	754.2	29.88	759.0	59.0	15.0	56	n.	3.8	1.7			0	sw.		0.937	23.8		Prof. G. M. Garibaldi.
Mondovi	28.00	711.1	29.92	759.9	48.9	9.4	77	wnw.			2		7			0.075	1.9		Prof. D. C. Bruno.
Pesaro	29.87	758.7	29.92	759.9	58.3	14.6	80	se.	4.9	2.2			10	s.		0.118	3.0		Prof. Luigi Guidi.
Florence	29.61	752.2	29.87	758.6	65.5	18.6	54	ne.			2		7	sw.		0.071	1.8		Prof. Costantino Pitter.
Leghorn	29.79	756.7	29.88	758.9	65.5	18.6	68	s.	2.5	1.1			4			0.406	10.3		Prof. P. Monte.
Rome	29.72	754.9	29.89	759.3	59.5	15.3	86	ene.					10			0.492	12.5		Prof. P. S. Ferrari.
Lecce	29.78	756.3	30.02	762.6	70.9	21.6	65	sse.	4.9	2.2			5			0.157	4.0		Prof. C. de Giorgi.
Cosenza	29.10	739.2	29.98	761.5	64.8	18.2	60	wsw.	1.3	0.6			9	sw.		0	0		Prof. D. Conti.
Cagliari	29.61	752.1	29.80	756.8	69.4	20.8	78	s.			4		10	sw.		0.874	22.2		Prof. A. Pacinotti.
Palermo	29.64	752.8	29.88	759.0	80.6	27.0	28	ssw.	16.8	7.5			9			0	0		Prof. G. Ciacciatore.
Syracuse	29.89	759.3	29.94	760.4	72.7	22.6	70	w.	4.3	1.9			4	sw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.42	747.3	29.94	760.5	60.8	16.0	90	s.	0.7	0.3			10	sw.		0.154	3.9		Prof. F. Brioschi.
Stelvio	21.98	558.3			28.4	— 2.0	73	ese.			8	10 cs	0	s.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.01	559.1			32.5	0.3	73	nw.			6		8 kn	sw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.18	766.6	30.19	766.8	63.6	17.6	79	nne.	8.4	3.8		9cs;ck	0			0	0	cloudy	K. Sasaki.
Kioto	30.09	764.3	30.27	768.8	62.0	16.7	79	nw.	1.1	0.5		ck	9 s			0	0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	30.02	762.5	30.22	767.6	67.0	19.4	85	ne.	1.6	0.7		3 c;ck	0			0	0	clear	S. Takehayashi.
Nemuro	29.96	761.0	30.03	762.7	60.1	15.6	60	nw.	34.8	15.6		5	4			0	0		
Niigata	30.24	768.1	30.27	768.8	62.8	17.1	84	n.	9.4	4.2		ck	10 sn			0.140	3.6	raining	
Nobiru	30.17	766.3	30.19	766.8	63.6	17.6	77	nnw.	20.3	9.1			9ks;s			0	0		
Sapporo	30.07	763.8	30.14	765.5	45.6	7.6	59	w.	9.0	4.0			9			0.065	1.6		
Tokei Obs'y, Yeddo	30.16	766.0	30.23	767.8	60.7	15.9	95	s.	1.8	0.8		3c;ck	0	s.		0	0	fair	The Staff.
Wakayama	30.19	766.8	30.24	768.1	63.0	17.2	79	nne.	2.5	1.1		10 ck	0	e.		0	0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.97	761.2	30.16	766.1	73.9	23.3	71	sw.	4.0	1.8		3 cs	7ks;k;n		se.	0	0	cloudy	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.70	601.8	29.92	759.8	55.9	13.3	83	ene.	0	0			10 kn		ne.	0.005	0.1	very cloudy	Vicente Fernandez.
Leon	24.43	620.5	30.06	763.6	63.0	17.2	79	e.			3	2 c	4 k	n.		0	0	½ cloudy	Prof. M. Leal.
Mazatlan	29.61	752.0	29.86	758.5	78.5	25.8	100	e.	1.6	0.8			fg			0	0	foggy	F. Quijano, C. E.
Mexico, Central Obs'y	23.09	586.5	30.14	765.7	52.5	11.4	88	nw.					10 n			inap.	inap.	overcast	The Staff.
Morelia	24.21	615.0	30.28	769.2	57.6	14.2	50	ne.			3	4	0	s.		0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.97	608.8	29.95	760.6	61.0	16.1	75	n.			1		10 kn		ne.	0	0	covered	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.35	593.1	30.14	765.6	53.4	11.9	50	n.	10.8	4.8		0	5		ne.	0.008	0.2	½ cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.19	766.8	30.19	766.8	46.4	8.0		nne.			3					0	0		
Groningen	30.13	765.2	30.18	766.6	42.3	5.7		ne.			1					0.059	1.5		
Helder	30.19	766.8	30.19	766.8	43.9	6.6		ene.			1					0.161	4.1		
Hellevoetsluis	30.17	766.2	30.17	766.2	46.2	7.9	77	ne.			1					0	0		
Utrecht	30.13	765.3	30.18	766.5	46.4	8.0	56	ne.			2		5			0	0	cloudy	H. van der Brink

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.50	774.7	30.56	776.3	50.7	10.4	39	ene.	12.3	5.5			1			0	0		
Christiania	30.53	775.5	30.68	779.3	48.6	9.2	57	e.	7	3			4			0	0		
Gjæsvær	30.30	769.6	30.32	770.2	48.2	9.0		wsw.			7		10						
Lodingen	30.48	774.1	30.52	775.3	49.1	9.5	79	sw.			5		9			0.039	1.0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.21	767.4	30.37	771.3	67.6	19.8	61	ese.	8.7	3.9			3			0	0		Dr. J. A. Sampaio.
Campo Major	29.00	736.5	29.97	761.3	68.7	20.4	57	wnw.	8.7	3.9			9			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.12	765.0	30.21	767.2	75.6	24.2	54	sw.	1.3	0.6			3			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.72	754.8	30.07	763.8	68.7	20.4	53	wnw.	14.3	6.4			6	sw.		0	0		The Staff.
Ponta Delgada, Azores	30.31	769.9	30.38	771.7	72.0	22.2	59	ne.	4.3	1.9			5			0.020	0.5		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.58	725.8	29.65	753.1	47.1	8.4	50	ssw.	7	3			10 n						Capt. Lasarew.
Archangel	30.44	773.1	30.46	773.6	44.4	6.9	90	wnw.	13	6			10						Capt. Sseliwerstow.
Astrakhan	30.36	771.1	30.28	769.0	44.2	6.8	48	nne.	9	4		0	0			blank	blank		Capt. Wisganow.
Barnaul ‡	29.32	744.6	29.81	757.1	55.2	12.9	43	sw.	2	1			10						Meteorological Obs'y.
Dorpat	30.50	774.7	30.75	781.0	47.3	8.5	56	n.	4	2		5 ck	0						Observatory.
Ekaterinburg	28.94	735.1	29.95	760.6	27.5	— 2.5	56	nw.	13	6		10 ck	0						Meteorological Obs'y.
Kasan	29.95	760.6	30.22	767.7	37.4	3.0	59	wnw.	7	3			10						Observatory.
Kertch	30.24	768.0	30.26	768.5	47.1	8.4	91	ne.	13	6			10 n			0.272	6.9		Lagorio & Sastyres.
Kieff	29.87	758.6	30.53	775.4	43.5	6.4	48	ene.	7	3		c	3 ks						Observatory.
Lugan	30.19	766.9	30.40	772.2	45.9	7.7	45	ene.	18	8			4						Meteorological Obs'y.
Moscow	30.00	761.9	30.50	774.8	31.6	— 0.2	76	n.	10.1	4.5			10 s						Meteorological Obs'y.
Nikolaiev	30.40	772.2	30.47	774.0	45.9	7.7	60	ene.	22	10			9 kn						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.85	758.2	29.94	760.4	31.3	— 0.4	72	nw.			6		10 n			0.012	0.3	snowing	Lieut. Iwanow.
Pekin, China	30.35	770.8	30.47	773.8	44.6	7.0	82	ne.	7	3		0	7 n			0.020	0.5	raining	Physical Observatory.
St. Petersburg	30.65	778.5	30.67	778.9	40.1	4.5	86	nnw.	11	5		ck	6 n						Central Physical Obs'y.
Tashkend, Laboratory	28.33	719.6	29.87	758.6	64.8	18.2	64	calm	0	0			0			0	0		Teich, A. M.
Tiflis	28.61	726.8	29.99	761.7	70.7	21.5	50	wnw.	4	2		10 cs	0						Physical Observatory.
Warsaw	29.97	761.2	30.40	772.2	50.2	10.1	53	e.	22	10		0	1 k						Astronomical Obs'y.
Wilna	30.23	767.9	30.67	779.0	45.7	7.6	53	ese.	4	2			0						Berg, Assistant.
Yeniselsk	29.67	753.5	29.96	761.0	35.2	1.8	93	se.	2	1			10					raining	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.41	772.4	51.0	10.6	79	e.			2	0	5 k			0.04	1.0	showery	Andrew Gibb.
Monach Lt. House, Hebrides			30.24	768.1	52	11.1	93	s.			6	5	5	s.		0.2	5.		J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.85	758.2	29.95	760.8	65.1	18.4	64	se.	4.0	1.8			0			0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.02	762.6	30.08	764.0	64.4	18.0	50	se.	2.0	0.9		4	4	w.		0	0	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.05	687.0			53.8	12.1	69	ne.	4.7	2.1		0	0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.74	704.5	29.90	759.5	69.8	21.0	52	sw.	7.4	3.3		0	6			0	0	cloudy	The Staff.
Murcia, Met. Obs'y	29.77	756.2	29.92	759.9	80.6	27.0	45	sw.	2.7	1.2		1	5	ne.		0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.03	737.3	29.91	759.8	60.6	15.9	65	n.	0	0			8			0	0	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.82	757.3	29.88	759.0	76.8	24.9	90	ese.	1.1	0.5	4	c;cs	1 ks	wnw.	se.	0.150	3.8	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.87	758.6	29.92	759.9	83.0	28.3	76	se.	0	0		7 ck	0	ne.		0	0	very cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.98	761.4	30.08	763.9	70.2	21.2	66	w.	2.6	1.2		0	7		wnw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.80	756.8	29.89	759.1	79.2	26.2	91	calm	0	0		7 k	6 s			0	0	cloudy	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.85	758.1	29.98	761.5	78.4	25.8	82	nnw.	1.1	0.5		0	7 k		ene.	0.25	6.2	cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.55	775.9	30.59	776.9	44.2	6.8	77	calm			0		0			0	0		
Umea	30.60	777.3	30.65	778.6	50.4	10.2	74	s.			2		1			0	0		
Hernosand	30.71	779.9	30.75	781.2	48.0	8.9	57	ssw.			2		1			0	0		
Stockholm	30.54	775.8	30.72	780.3	49.3	9.6	61	ene.			2		10			0.039	1.0		
Wisby	30.58	776.7	30.64	778.2	47.5	8.6	58	ese.			6		3			0.020	0.5		
Sub-Series.																			
Upsala	30.63	778.0	30.72	780.2	50.2	10.1	56	se.	6.7	3.0			9	se.	e.	0.004	0.1		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.60	726.4	30.03	762.8	51.8	11.0	47	ssw.			4		4			0	0		The Observatory.
Zurich ‡	28.38	720.8	30.06	763.5	41.0	5.0	90	nw.			1		10			0.008	0.2	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.11	764.7	66.6	19.2	81	ne.	17	7.5			10		ne.	0.031	0.8		The Observatory.
Valona			30.12	765.1	67.6	19.8		w.			1		5			0.75	19.	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.01	762.2	82.2	27.9	67	ne.			1	0	0			0	0		Prof. C. V. A. van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
UNITED STATES SERIES. By authority of the Secretary of War. Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.																			
Albany, New York	30.16	766.1	30.24	768.1	35	1.7	44	n.	12	5.4		0	0			0.04	1.0	clear	
Alpena, Michigan	29.82	757.4	30.50	774.7	31	— 0.6	78	nw.	5	2.2		0	0			0	0	clear	
Atlanta, Georgia	28.85	732.8	30.07	763.8	71.0	21.7	87	nw.	10	4.5		0	0			0	0	clear	
Atlantic City, New Jersey	30.22	767.6	30.23	767.8	40.2	4.6	28	n.	26	11.6		0	0			0.28	7.1	clear	
Augusta, Georgia	29.80	756.9	30.00	762.0	78.0	25.6	64	calm	0	0		0	6 s			0	0	fair	
Baltimore, Maryland	30.23	767.8	30.28	769.1	48	8.9	35	ne.	16	7.2		0	0			0.04	1.0	clear	
Barnegat, New Jersey	30.19	766.8	30.21	767.3	39.7	4.3	42	n.	37	16.5		0	2 k		n.	0.13	3.3	clear	
Bismarck, Dakota	28.54	724.9	30.46	773.7	49	9.4	52	se.	10	4.5			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.17	690.1	30.09	764.3	35	1.7	66	w.	2	0.9		3 k	0	sw.		0	0	fair	
Boston, Massachusetts	29.93	760.2	30.09	764.3	31.0	— 0.6	47	nw.	28	12.5		0	0			0.02	0.5	clear	
Bracketville, Texas	28.92	734.6	29.95	760.7	67	19.4	93	calm	0	0		0	0			0.05	1.3	clear	
Brownsville, Texas	29.94	760.5	29.99	761.7	73	22.8	97	n.	4	1.8		4 cs	6 ks		ne.	0.43	10.9	cloudy	
Buffalo, New York	29.67	753.6	30.41	772.4	35	1.7	64	calm	0	0		1 k	0			inap.	inap.	clear	
Burlington, Vermont	29.87	758.7	30.17	766.3	30.0	— 1.1	60	nw.	13	5.8		7 cs	c	n.		inap.	inap.	fair	
Cairo, Illinois	29.94	760.5	30.34	770.6	52.6	11.4	82	ne.	15	6.7		0	0			0.12	3.0	clear	
Campo, California	27.41	696.2	29.98	761.5	47	8.3	71	nw.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.12	765.0	30.14	765.5	57	13.9	57	n.	28	12.5		0	8 ks		nw.	0.02	0.5	fair	
Cape May, New Jersey	30.19	766.8	30.22	767.6	44	6.7	45	n.	40	17.9		2 k	0	n.		0.05	1.3	clear	
Castroville, Texas	29.28	743.7	29.97	761.2	69	20.6	90	w.	2	0.9		2 c	0	e.		0	0	fair	
Cedar Keys, Florida	29.96	761.0	29.98	761.5	74	23.3	90	ne.	4	1.8		0	0			0	0	clear	
Champaign, Illinois	29.62	752.3	30.46	773.7	39.8	4.3	73	ne.	15	6.7		0	0			0.29	7.4	clear	
Charleston, S. Carolina	29.88	758.9	29.94	760.5	75	23.9	82	nw.	8	3.6		4 ck	6 s	nw.	nw.	0	0	cloudy	
Charlotte, N. Carolina	29.20	741.7	30.10	764.5	67.0	19.4	68	n.	17	7.6			9 ks		ne.	inap.	inap.	cloudy	
Chattanooga, Tennessee	29.30	744.2	30.14	765.5	68.0	20.0	73	n.	12	5.4		0	7 ks		ne.	0.16	4.1	fair	
Cheyenne, Wyoming	24.22	615.2	30.35	770.9	38.2	3.4	92	sw.	12	5.4			fg.			0	0	dense fog	
Chicago, Illinois	29.78	750.4	30.52	775.2	45.6	7.6	61	ne.	10	4.5		0	6 k		ne.	0.23	5.8	fair	
Chincoteague, Virginia	30.15	765.8	30.17	766.3	49	9.4	56	nw.	29	13.0		0	1 s		calm	0.02	0.5	clear	
Cincinnati, Ohio	29.74	755.4	30.42	772.7	48.5	9.2	77	ne.	5	2.2		0	0			0.14	3.6	clear	
Cleveland, Ohio	29.68	753.9	30.46	773.7	46	7.8	39	n.	17	7.6		0	4 k		n.	0.08	2.0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.53	750.0	30.42	772.7	45	7.2	51	n.	8	3.6		0	0			0.02	0.5	clear	
Concho, Texas	28.20	716.3	30.20	767.1	65	18.3	93	calm	0	0		0	0			0	0	clear	
Corsicana, Texas	29.63	752.6	30.11	764.8	73	22.8	82	se.	2	0.9		0	5 s			0	0	fair	
Davenport, Iowa	29.83	757.7	30.51	774.9	43	6.1	74	ne.	4	1.8		2 ck	0	se.		0.65	16.5	clear	
Dayton, Washington T'y	28.31	719.1	30.17	766.3	43	6.1	83	sw.	4	1.8		0	0			0	0	clear	
Deadwood, Dakota	25.51	647.9	30.37	771.4	42	5.6	93	n.	2	0.9		4 cs	0	calm		0	0	fair	
Decatur, Texas	28.92	734.6	30.04	763.0	75	23.9	76	s.	3	1.3		4 ck	1 s	s.		0	0	fair	
Delaware Breakwater, Del.	30.17	766.3	30.19	766.8	49	9.4	71	n.	44	19.7		5 k	0	n.		0.08	2.0	fair	
Denison, Texas	29.29	744.0	30.12	765.0	77	25.0	76	nw.	4	1.8		0	8 s		calm	0	0	fair	
Denver, Colorado	25.05	636.3	30.42	772.7	44.6	7.0	95	n.	5	2.2			fg.		calm	0.10	2.5	dense fog	
Des Moines, Iowa	29.55	750.0	30.50	774.7	43	6.1	83	e.	4	1.8		5 ck	0	w.		1.63	41.4	fair	
Detroit, Michigan	29.77	756.1	30.51	774.9	41.0	5.0	73	n.	9	4.0		0	0			0.01	0.3	clear	
Dodge City, Kansas	27.66	702.6	30.35	770.9	49.7	9.8	100	ne.	12	5.4			10 n			0.17	4.3	light rain	
Dubuque, Iowa	29.80	756.9	30.54	775.7	40.1	4.5	82	ne.	4	1.8		0	1 ks		calm	0.07	1.8	clear	
Duluth, Minnesota	29.82	757.4	30.55	776.0	37	2.8	85	nw.	2	0.9		0	0			0	0	clear	
Eagle Pass, Texas	29.31	744.5	30.16	766.1	70.1	21.2	90	se.	1	0.4		0	0			0	0	clear	
Eagle Rock, Idaho	25.26	641.6	30.24	768.1	34	1.1	66	n.	3	1.3		0	0			0	0	clear	
Eastport, Maine	29.74	755.4	29.81	757.2	30	— 1.1	68	nw.	17	7.6		1 k	0	nw.		inap.	inap.	clear	
El Paso, Texas	26.33	668.8	30.17	766.3	68.4	20.2	81	ne.	4	1.8		0	3 s		e.	0.12	3.0	clear	
Erie, Pennsylvania	29.69	754.1	30.45	773.4	41	5.0	57	n.	16	7.2		2 k	0	n.		0.01	0.3	clear	
Escanaba, Michigan	29.83	757.7	30.51	774.9	32	0.0	92	nw.	2	0.9		0	0			0	0	clear	
Florence, Arizona	28.44	722.4	30.04	763.0	70	21.1	97	w.	4	1.8		4 ck	0	w.		0.70	17.8	fair	
Fort Apache, Arizona	25.08	637.0	30.12	765.0	39?	3.9?	82	sw.	1	0.4			10 ks		calm	1.07	27.2	cloudy	
Fort Assinnaboine, Montana	27.24	691.9	30.18	766.6	34	1.1	88	calm	0	0		0	0			0	0	clear	
Fort Bennett, Dakota	28.79	731.3	30.40	772.1	45	7.2	63	se.	8	3.6		10 cs	0			0	0	cloudy	
Fort Benton, Montana	27.24	691.9	30.22	767.6	32	0.0	88	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	28.26	717.8	30.38	771.6	45	7.2	63	se.	11	4.9			10 s		calm	0	0	cloudy	
Fort Custer, Montana	26.91	683.5	30.30	769.6	45	7.2	86	n.	12	5.4			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.05	630.3	30.01	762.2	62	16.7	96	w.	3	1.3		0	0			0	0	clear	
Fort Elliott, Texas	27.44	697.0	30.74	780.8	52	11.1	74	n.	16	7.2			10 s		n.	0	0	cloudy	
Fort Gibson, Indian T'y	29.56	750.8	30.13	765.3	75.0	23.9	85	e.	6	2.7			10 s		e.	0	0	cloudy	
Fort Grant, Arizona					64	17.8	90	calm	0	0			10 s			0	0	cloudy	
Fort Griffin, Texas	28.84	732.5	30.07	763.8	69.6	20.9	90	calm	0	0		0	0			0	0	clear	
Fort Keogh, Montana	27.63	701.8	30.30	769.6	48	8.9	52	se.	15	6.7			10 s		se.	0	0	cloudy	
Fort Macon, North Carolina	30.02	762.5	30.03	762.7	62	16.7	93	n.	28	12.5			10 n		n.	0.50	12.7	light rain	
Fort McKavett, Texas	27.90	708.0	29.79	756.7	65.2	18.4	84	sw.	3	1.3		0	0			0	0	clear	
Fort Missoula, Montana	26.65	676.9	30.30	769.6	37	2.8	92	calm	0	0		0	0			0	0	clear	
Fort St. Michaels	30.06	763.5	30.09	764.3	36	2.2	90	sw.	6	2.7		0	0			0.04	1.0	clear	
Fort Shaw, Montana	26.43	671.3	30.17	766.3	35	1.7	89	n.	2	0.9			10 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.92	734.0	30.21	767.3	64	17.8	97	n.	16	7.2			10 s			0	0	cloudy	
Fort Stevenson, Dakota	28.43	722.1	30.39	771.9	50	10.0	48	se.	2	0.9		10 ck	0	se.		0	0	cloudy	
Fort Verde, Arizona					65.4	18.6	90	s.			1	3 cs	4 s	sw.	s.	0.04	1.0	fair	
Fredericksburg, Texas	28.37	720.6	29.90	759.4	67	19.4	90	calm	0	0		0	0			0	0	clear	
Galveston, Texas	30.00	762.0	30.04	763.0	79	26.1	78	n.	12	5.4		2 cs	6 ks	w.	e.	0	0	cloudy	
Grand Haven, Michigan	29.84	757.9	30.54	775.7	37.0	2.8	89	e.	3	1.3		0	0			0.02	0.5	clear	
Hatteras, North Carolina	30.08	764.0	30.10	764.5	64	17.8	73	ne.	44	19.7		5 k	3 s	ne.		0.20	5.1	cloudy	
Helena, Montana	25.80	655.3	30.39	771.9	36	2.2	92	s.	3	1.3			10 s		calm	0	0	cloudy	
Henrietta, Texas	28.84	732.5	29.69	754.1	78	25.6	73	s.	13	5.8			9 s		s.	0	0	cloudy	
Huron, Dakota	29.08	738.6	30.54	775.7	36	2.2	79	se.	5	2.2		0	5 s			0	0	fair	
Indianapolis, Indiana	29.60	751.8	30.43	772.9	43	6.1	83	ne.	6	2.7		0	0			0.31	7.9	clear	
Indianola, Texas	30.00	762.0	30.03	762.7	76.2	24.6	85	n.	16	7.2		4 ck	0	ne.		0	0	fair	
Jacksboro, Texas	28.95	735.3	30.05	763.3	70	21.1	84	s.	2	0.9		1 ck	0	s.		0	0	clear	
Jacksonville, Florida	29.93	760.2	29.97	761.2	74	23.3	84	ne.	4	1.8		4 k	0	ne.		0	0	fair	
Keokuk, Iowa	29.79	756.7	30.47	773.9	43.5	6.4	87	e.	6	2.7		0	0			1.00	25.4	clear	
Key West, Florida	29.87	758.7	29.90	759.4	79.0	26.1	88	e.	5	2.2		0	5 ks		e.	0.09	2.3	fair	
Kittyhawk, North Carolina	30.06	763.5	30.08	764.0	59	15.0	65	ne.	60	26.8		0	4 k		ne.	0.14	3.6	fair	
Knoxville, Tennessee	29.17	740.9	30.24	768.1	60.8	16.0	79	n.	15	6.7		0	9 s		ne.	0.06	1.5	cloudy	
La Crosse, Wisconsin	29.73	755.1	30.53	775.4	42	5.6	65	ne.	4	1.8		0	0			0	0	clear	
La Mesilla, New Mexico	26.18	665.0	30.33	770.4	64.0	17.8	90	calm	0	0		3 c	4 s			0.86	21.8	fair	
Laredo, Texas																			
Leavenworth, Kansas	29.46	748.3	30.40	772.1	52	11.1	80	e.	6	2.7		4 k	0			0	0	fair	
Lewiston, Idaho	29.17	740.9	30.05	763.3	48	8.9	71	sw.	1	0.4		0	0			0	0	clear	
Little Rock, Arkansas	29.82	757.4	30.14	765.5	70	21.1	94	ne.	9	4.0			10 ks		ne.	0.34	8.6	cloudy	
Los Angeles, California	29.60	751.8	29.98	761.5	52.1	11.2	80	sw.	5	2.2		0	4 s		sw.	0	0	fair	
Louisville, Kentucky	29.76	755.9	30.34	770.6	50.5	10.3	77	ne.	16	7.2		0	0			0.33	8.4	clear	
Lynchburg, Virginia	29.51	749.5	30.22	767.6	60.2	15.7	54	ne.	6	2.7		0	0			0.05	1.3	clear	
Madison, Wisconsin	29.49	749.0	30.56	776.2	37	2.8	89	ne.	5	2.2		1 c	0	w.		0	0	clear	
Marquette, Michigan	29.76	755.9	30.52	775.2	35	1.7	69	w.	8	3.6		0	0			0	0	clear	
Mason, Texas	28.47	723.1	30.19	766.8	70	21.1	62	e.	3	1.3		0	0			0	0	clear	
Memphis, Tennessee	29.85	758.2	30.20	767.1	67	19.4	84	ne.	10	4.5			10 s			inap.	inap.	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.75	755.6	30.53	775.4	40	4.4	82	n.	10	4.5		0	9 ks		e.	0	0	cloudy	
Mobile, Alabama	29.95	760.7	30.02	762.5	70.2	21.2	90	nw.	4	1.8		0	0			0	0	clear	
Montgomery, Alabama	29.79	756.7	30.03	762.7	71.1	21.7	90	n.	1	0.4		0	fg			0	0	clear	
Moorhead, Minnesota	29.48	748.8	30.54	775.7	27	— 2.8	88	se.	5	2.2		0	0			0	0	clear	
Morgantown, W. Virginia	29.34	745.2	30.36	771.1	44.0	6.7	68	n.	6	2.7		0	0			0.13	3.3	clear	
Mt. Washington, N. H.	23.43	595.1	29.80	756.9	0.2	—17.7	67	nw.	55	24.6			fg		nw.	0.05	1.3	light fog	
Nashville, Tennessee	29.69	754.1	30.25	768.3	58.7	14.8	71	ne.	10	4.5		0	0			0	0	clear	
New Haven, Connecticut	30.07	763.8	30.19	766.8	34	1.1	38	n.	16	7.2		0	0			inap.	inap.	clear	
New London, Connecticut	30.11	764.8	30.16	766.1	37	2.8	46	n.	12	5.4		0	0			0	0	clear	
New Orleans, Louisiana	29.96	761.0	30.02	762.5	76.0	24.4	90	n.	5	2.2		hz	hz			0	0	clear	
Newport, Rhode Island	30.06	763.5	30.11	764.8	35.2	1.8	48	nw.	21	9.4		1 k	0	nw.		0.04	1.0	clear	
New River, N. Carolina					60	15.6	70	n.			6		10 s			0.13	3.3	threatening.	
New Shoreham, Rhode I'd	30.08	764.0	30.11	764.8	36.0	2.2	53	n.	42	18.8		0	1 s		n.	0	0	clear	
New York, New York	30.04	763.0	30.22	767.6	37.5	3.1	41	nw.	21	9.4		0	0			0	0	clear	
Norfolk, Virginia	30.12	765.0	30.15	765.8	57	13.9	86	ne.	25	11.2		0	9 k		n.	0.08	2.0	threatening.	
North Platte, Nebraska	27.41	696.2	30.47	773.9	42	5.6	98	e.	14	6.3			10 n		e.	0.73	18.5	light rain	
Olympia, Washington T'y	30.03	762.7	30.07	763.8	49.0	9.4	93	s.	1	0.4			10 n		calm	0.02	0.5	light rain	
Omaha, Nebraska	29.26	743.2	30.50	774.7	47.5	8.6	67	e.	5	2.2			10 s			0.24	6.1	cloudy	
Oswego, New York	29.99	761.7	30.33	770.4	35.4	1.9	65	n.	16	7.2		5 k	0	n.		0	0	fair	
Pensacola, Florida	29.99	761.7	30.02	762.5	66	18.9	84	ne.	5	2.2		0	0			0	0	clear	
Philadelphia, Pa	30.21	767.3	30.27	768.8	40	4.4	40	n.	24	10.7		0	hz			0.17	4.3	clear	
Phœnix, Arizona	28.79	731.3	30.53	775.4	70	21.1	84	calm	0	0		3 ck	0	s.		0.16	4.1	fair	
Pike's Peak, Colorado	17.97	456.4	30.18	766.6	32	0.0	100	sw.	12	5.4			fg		sw.	0.62	15.7	dense fog	
Pioche, Nevada	24.12	612.6	30.31	769.9	55	12.8	65	s.	6	2.7		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.56	750.8	30.42	772.7	43.6	6.4	60	n.	6	2.7		1 c	0	nw.		0.02	0.5	clear	
Port Eads, Louisiana	29.99	761.7	30.00	762.0	78.0	25.6	85	ne.	12	5.4		0	hz.		calm	0	0	clear	
Port Huron, Michigan	29.78	756.4	30.49	774.4	39.0	3.9	52	se.	4	1.8		0	5 ks		se.	inap.	inap.	fair	
Portland, Maine	29.96	761.0	30.01	762.2	33	0.6	41	nw.	15	6.7		0	0			0.01	0.3	clear	
Portland, Oregon	30.04	763.0	30.11	764.8	48.8	9.3	94	sw.	3	1.3		2 cs	8 ks	s.	sw.	0.05	1.3	cloudy	
Portsmouth, N. Carolina					62	16.7	78	ne.	54	24.2			10 s		ne.	0.73	18.5	cloudy	
Prescott, Arizona	24.82	630.4	30.13	765.3	55	12.8	83	calm	0	0		0	3 s		se.	0.01	0.3	clear	
Punta Rassa, Florida	29.90	759 4	29.90	759.4	76.5	24.7	88	ne.	7	3.1		0	1 ks		ne.	0.21	5.3	clear	
Red Bluff, California	29.72	754.9	30.07	763.8	48.0	8.9	86	n.	1	0.4		0	2 s		calm	0	0	clear	
Rio Grande City, Texas	29.85	758.2	30.06	763.5	72	22.2	84	calm	0	0		10 cs	0	calm		0	0	cloudy	
Rochester, New York	29.73	755.1	30.39	771.9	37	2.8	39	n.	14	6.3		0	5 s		n.	0	0	fair	
Roseburg, Oregon	29.52	749.8	30.11	764.8	43.2	6.2	93	calm	0	0			10 ks			0.10	2.5	cloudy	
Sacramento, California	30.00	762.0	30.08	764.0	46.8	8.2	86	se.	4	1.8		0	0			0	0	clear	
St. Louis, Missouri	29.79	756.7	30.42	772.7	47.6	8.7	77	ne.	13	5.8		0	0			0.09	2.3	clear	
St. Paul, Minnesota	29.66	753.4	30.58	776.7	38.8	3.8	82	calm	0	0		2 cs	0	nw.		0	0	clear	
Salt Lake City, Utah	25.62	650.7	30.07	763.8	58	14.4	29	se.	4	1.8		0	0			0	0	clear	
San Antonio, Texas	29.38	746.2	30.10	764.5	69.5	20.8	90	n.	3	1.3		0	0			0	0	clear	
San Diego, California	29.82	757.4	29.89	759.2	56.1	13.4	80	calm	0	0		0	0			0	0	clear	
Sandusky, Ohio	29.74	755.4	30.45	773.4	48	8.9	50	n.	28	12.5		0	5 ks		n.	0.08	2.0	fair	
Sandy Hook, New Jersey	30.18	766.6	30.21	767.3	41.0	5.0	48	nw.	40	17.9		3 k	0	nw.		0	0	clear	
San Francisco, California	30.04	763.0	30.11	764.8	52	11.1	93	calm	0	0		0	fg			0	0	clear	
Santa Fé, New Mexico	23.44	595.4	30.43	772.9	54	12.2	86	s.	2	0.9			10 s		calm	0.07	1.8	threatening.	
Savannah, Georgia	29.86	758.4	29.95	760.7	76	24.4	82	w.	6	2.7		1 ck	0			0	0	clear	
Shreveport, Louisiana	29.83	757.7	30.06	763.5	73.5	23.1	97	calm	0	0		0	0			0	0	clear	
Silver City, New Mexico	24.38	619.2	30.06	763.5	58	14.4	93	calm	0	0		2 c	4 s	calm	calm	0.13	3.3	fair	
Sitka, Alaska	30.01	762.2	30.08	764.0	45.1	7.3	84	nw.	3	1.3		0	0			0	0	clear	
Smithville, North Carolina	29.91	759.7	29.95	760.7	72	22.2	97	ne.	12	5.4			10 n		ne.	inap.	inap.	light rain	
Spokane Falls, Wash. Ter.	27.98	710.7	30.05	763.3	44	6.7	86	sw.	1	0.4		5 k	0	sw.		0.04	1.0	fair	
Springfield, Illinois	29.77	756.1	30.48	774.2	44	6.7	56	ne.	12	5.4		0	0			0.52	13.2	clear	
Springfield, Massachusetts	30.06	763.5	30.19	766.8	33.1	0.6	41	n.	16	7.2		0	0			0	0	clear	
Stockton, Texas	27.10	688.3	30.25	768.3	65.2	18.4	93	s.	12	5.4		0	0			0	0	clear	
St. Vincent, Minnesota	29.54	750.3	30.47	773.9	25	— 3.9	100	se.	2	0.9		1 cs	0	s.		0	0	clear	
Thatcher's Island, Mass	30.00	762.0	30.06	763.5	33.0	0.6	68	nw.	48	21.5		0	0			0	0	clear	
Toledo, Ohio	29.73	755.1	30.45	773.4	38	3.3	82	n.	9	4.0		0	1 ks		n.	0.06	1.5	clear	
Tucson, Arizona	27.48	698.0	29.92	760.0	70	21.1	97	calm	0	0		0	7 s			0.05	1.3	foggy	
Umatilla, Oregon	29.75	755.6	30.18	766.6	44.5	6.9	82	w.	3	1.3		0	1 s		calm	0	0	clear	
Uvalde, Texas	29.12	739.6	29.92	760.0	68	20.0	90	calm	0	0		0	0			0	0	clear	
Vicksburg, Mississippi	29.80	756 9	30.06	763.5	74	23.3	82	ne.	5	2.2		4 cs	hz	calm	calm	0	0	fair	
Visalia, California	29.66	753.4	30.03	762.7	45	7.2	80	nw.	2	0.9		0	0			0	0	clear	
Washington, D. C.	30.15	765.8	30.27	768.8	48	8.9	50	n.	7	3.1		0	0			0.01	0.3	clear	
West Los Animas, Colorado	26.29	667.8	30.37	771.4	46	7.8	93	e.	4	1.8			10 s			0.18	4.6	cloudy	
Wickenburg, Arizona					65	18.3	93	calm			0	1 k	0			0.07	1.8	clear	
Wilmington, N. Carolina	29.94	760.5	30.00	762.0	65	18.3	84	ne.	18	8.0			10 n		ne.	0.09	2.3	light rain	
Winnemucca, Nevada	25.59	650.0	30.05	763.3	28	— 2.2	64	s.	7	3.1		0	0			0	0	clear	
Wood's Holl, Mass	30.00	762.0	30.04	763.0	35	1.7	53	nw.	36	16.1		1 k	0	nw.		0.06	1.5	clear	
Yankton, Dakota	29.18	741.2	30.55	776.0	43	6.1	74	calm	0	0			10 s			0	0	cloudy	
Yuma, Arizona	29.69	754.1	29.83	757.7	74.2	23.4	85	calm	0	0		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	29.93	760.2	29.95	760.7	84	28.9	91	e.	1	0.4		2 k	5 k			0	0		J. A. Racker.
Bogota, U. S. Columbia	22.05	560.1			55.0	12.8	74	calm	0	0		2 cs	0			0.09	2.3	fair	Joaquin Gomez.
Guadeloupe, W. I.‡	29.80	756.9	29.80	756.9	79	26.1	87	e.				0	5 k		e.	0	0		B. Bigar.
Havana, Cuba, W. I.	29.87	758.7	29.92	760.0	79	26.1	88	calm	0	0		8 cs	2 ks	calm	calm	0.10	2.5	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.89	759.2	29.90	759.4	76.8	24.9	86	calm	0	0		3ck;cs	7 s		n.	0.08	2.0	cloudy	Robert Johnstone.
Navassa, W. I.	29.82	757.4	29.90	759.4	81	27.2	74	e.	4	1.8		8cs;hz	2 k;hz	e.	e.	0.19	4.8	hazy	F. M. Everett.
Paramaribo, S. A.	29.99	761.7	29.99	761.7	81	27.2	78	e.			2	4 c	5 k	e.	e.	0	0		Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.44	747.8	30.00	762.0	78	25.6	89	calm				6 ck	2 s	ne.	calm	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					73.4	23.	96	sw.			1	1 ck	3 ks		sw.	1.909	48.5		Earl Flint.
Santiago de Cuba, W. I.	29.85	758.2	29.88	758.9	79	26.1	82	calm	0	0		8 c	0			0	0	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.78	756.4	29.89	759.2	81	27.2	82	sw.	9	4.0		2 c	5 ks	nw.	sw.	0.10	2.5	cloudy	G. O. Gyllich.
York Factory, B. A.	30.11	764.8	30.16	766.1	20.0	— 6.7	93	n.	18	8.0		5 k	4 s	n.	n.	inap.	inap.	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, S. 10° 33′, E. 141° 35′	29.93	760.2	76	24.4	84	calm			0		0							blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibraltar, Mediterranean	30.17	766.3	69	20.6	78	sw.			4-5		10	sw.						squally	Capt. Lord Walter Kerr
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	30.11	764.8	67	19.4		ne.			2		10	ne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche																			Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 16° 31′, W. 1° 15′	30.11	764.8	65.5	18.6	70	sse.			3-4		4	ssw.				3	sw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao Bay, Peru	29.99	761.7	61	16.1	94	calm			0		9							d. clouds	Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile																			Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 11′, E. 20° 28′	29.91	759.7	81	27.2		calm			0		3	calm						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. O. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.13	765.3	71	21.7		wnw.			2		3	se.						d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	29.76	755.9	78	25.6	82	ssw.			2-3		4	ssw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	29.32	744.7	38	3.3	90	wsw.			1-2		7	sw.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 25° 38′, E. 57° 46′	29.63	752.6	94	34.4		w.			2-3		4	w.				3	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.80	756.9	90	32.2		sw.			1-2		2	sw.						d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 17° 41′, E. 178° 51′	29.80	756.9	78	25.6	100	calm			0		3	ese.						squally	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.71	754.6	89	31.7	66	sw.			1-2		2	wsw.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 51° 13′, W. 56° 47′	29.22	742.2	33	0.6		sw.			4-5		8	sw.				5	sw.	squally	Capt. W. C. Karslake
H. M. S. Fawn, S. 25° 58′, E. 32° 55′	30.25	768.3	76.5	24.7	72	se.			1-2		2					1	sw.	showery	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 21° 08′, W. 157° 51′	29.99	761.7	73	22.8	85	calm			0		5	s.						d. clouds	Comm. E. J. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	29.86	758.4	59	15.0	94	s.			1		10							foggy	Capt. L. F. Jones
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H Ward.
H. M. S. Inconstant, N. 19° 00′, E. 153° 00′	29.95	760.7				ne.			4		5	e.				2	ne.	d. clouds	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 34° 26′ E. 134° 22′	30.24	768.1	70	21.1		calm			0									d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 4° 03′, W. 78° 56′	29.97	761.2	75	23.9		w.			2-3		8	calm						raining	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 30° 50′, E. 35° 50′	30.33	770.4	67	19.4		e.			4		6	e.				3	sse.	d. clouds	Comm. F. H. Haygarth.
H. M. S. Lark, S. 33° 38′, W. 8° 19′	30.16	766.1	61	16.1	66	w.			2		7					1	ssw.	d. clouds	Lieut. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, Hoi How Bay, China	29.74	755.4	80	26.7	89	s.			3-4		10					3	ne.	misty	Lieut. A. Balfour.
H. M. S. Malabar, Suez Canal	29.99	761.7	90	32.2	63	nne.			3-5		0							blue sky	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	29.96	761.0	61.5	16.4	80	wsw.			1		9	wsw.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead,
H. M. S Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.19	766.8	53	11.7	86	ne.			1		0							blue sky	Comm. F. Edwards.
H. M. S. Nelson, N. 36° 05′, W. 14° 08′	30.15	765.8	69	20.6	?	wnw.			3		4	nnw.				2	wnw.	d. clouds	Capt. J. E. Erskine.
H. M. S Northampton, Halifax, Nova Scotia	29.58	751.3	35	1.7	70	nnw.			5		5	nnw.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes, N. 39° 02, W. 9° 39′	30.05	763.3	79	26.1	58	wnw.			5		5	wnw.				4	wnw.	d. clouds	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′			44	6.7		calm			0									d. clouds	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 16° 26′, E. 59° 21′	29.81	757.2	80.3	26.8	74	calm			0		5							d. clouds	Capt C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sea Gull, S. 12° 40′, E. 43° 40′	29.62	752.3	81	27.2	74	sse.			2–3		1							blue sky	Comm. W. Byles.
H. M. S. Serapis, S. 32° 14′, E. 16° 48′	30.01	762.2	66	18.9	90	s.			1		0					sm'h		misty	Capt. G. O. Twiss.
H. M. S. Shannon,																			Capt. J. D'Arcy.
H. M. S. Tamar, S. 11° 03′, W. 8° 17′	30.12	765.0	76	24.4	72	se.			4		4	se.				3	se.	d. clouds	Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 48° 15′, W. 125° 34′	30.07	763.8	54	12.2	86	calm			0		5					2	wnw.	d. clouds	Capt. P. W. Stephens.
H. M. S. Thunderer, Sfax, Tunis	29.86	758.4	78.5	25.8	84	one.			2		6					2		d. clouds.	Capt. C. F. Hotham.
H. M. S. Triumph, S. 13° 38′, W. 76° 24′	30.01	762.2	59	15.0	87	se.			2		10	calm				3	se.	misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne, N 47° 21′, W. 9° 20′	30.36	771.1	61.5	16.4	100	nne.			2		6	wsw.				3	wnw.	d. clouds	Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.90	759.4	78	25.6		nw.			2		4							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.92	760.0	57	13.9	87	calm			0		5	sse.						d. clouds	Com. J. C. Wilson, A.D.
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.99	761.8	78.8	26.0	71	wnw.			3		8					1		overcast	Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, Brava, Cape Verd Id's	29.85	758.2	82.9	28.3	86	nw.			1		3		nw.	4¼h'r	4¼h'r	1	se.	raining	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.95	760.7	77.0	25.0	87	e.			8		10		e.	4 h'r	4 h'r			raining	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

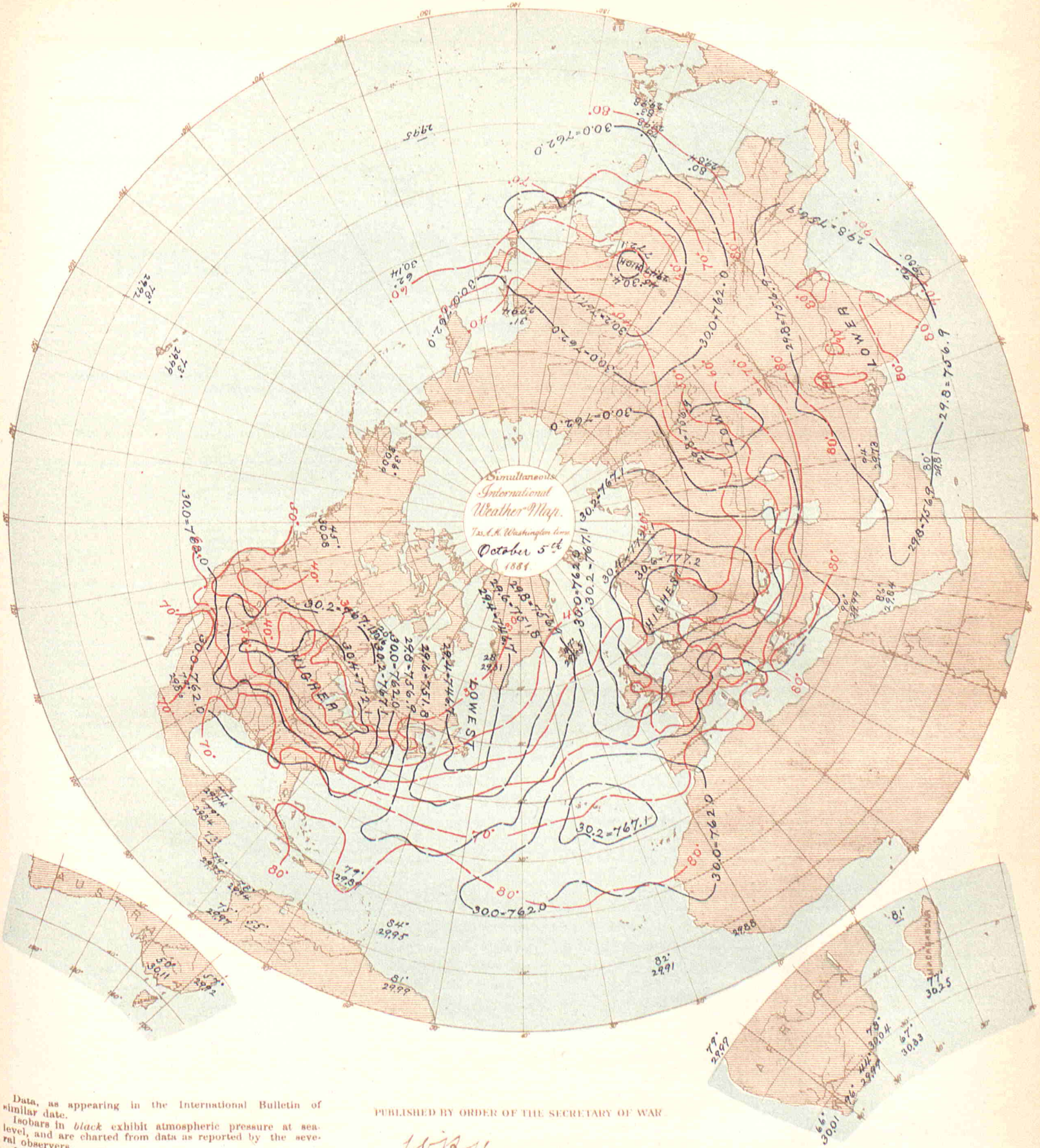
Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.13	765.3	74	23.3	76	ne.	3	1.3			0			0	0			clear	
N. Yard, Portsmouth, N. H.	30.06	763.5	67	19.4		nw.	15	6.7			0			0	0			clear	
Naval Hospital, Yokohama, Japan	30.05	763.3	63.5	17.5	89	calm			0		5		w.	0	0			fair	
Adams, Payta, Peru	29.85	758.2	64	17.8	83	se.			2		2					sm'h		fair	
Alaska, Callao, Peru	29.95	760.7	59	15.0	100	calm			0		10					sm'h		cloudy	
Alert, Yokohama, Japan *	30.06	763.5	68	20.0	90	calm			0		5		calm	0	0	sm'h		hazy	
Alliance, N. 66° 32′, W. 15° 12′	29.98	761.5	46	7.8	77	wsw.			2		2			0	0	sm'h		fair	
Ashuelot, Kobe, Japan	30.24	768.1	70	21.1	61	calm			0		8		calm					hazy	
Colorado, New York, N. Y	30.21	767.3	39	3.9	64	nw.	35	15.6			0							clear	
Constitution, New London, Conn	30.09	764.3	37	2.8	54	nnw.	20	8.9			2		n.					clear	
Franklin, Norfolk, Va	29.95	760.7	58	14.4	88	n.	20.4	9.1			8		n.	0.7	18.			cloudy	
Galena, N. 41° 12′, E. 11° 34′	29.82	757.4	65	18.3	100	e.			3		10		e.			sm'h		raining	
Independence, N. Yard, Mare I'd, Cal	29.95	760.7	54	12.2	74	w.	3.6	1.6			0							clear	
Kearsarge, Stapleton, N. Y. *†	30.41	772.4	41	5.0	49	nnw.			6		0					mod.	n.	clear	
Lackawanna, San Francisco, Cal †	30.27	768.8	55	12.8	100	sw.			1		0							clear	
Lancaster, New York, N. Y.	30.21	767.3	42	5.6	91	nnw.	26	11.6			2		nnw.	0	0			d. clouds	
Marion, Montevideo, Uruguay	29.71	754.6	61	16.1		se.			5		10			light	light	mod	se.	cloudy	
Michigan, Erie, Pa	30.38	771.6	52	11.1	86	nne.			5		8		nne.					fair	
Minnesota, Newport, R. I	30.12	765.0	37	2.8	48	nnw.			6–7		2		n.			mod.	n.	squally	
Monocacy, Yokohama, Japan	30.23	767.8	67	19.4	89	calm			0		5		calm					fair	
Nipsic, Genoa, Italy	29.88	758.9	60	15.6	65	nne.			4		0					sm'h		blue sky	
Onward, Callao, Peru †	29.99	761.7	59	15.0	100	ssw.			1		8		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.94	760.5	78	25.6	82	e.			5		10		n;e.					rainy	
Passaic, Washington, D. C	30.14	765.5	51	10.6	79	nw.			2		0							clear	
Pensacola, Callao, Peru	30.03	762.7	60	15.6	88	sw.			1		10			0	0			cloudy	
Portsmouth, New York, N. Y	30.20	767.1	43	6.1	67	nnw.			6		2		nw.			sm'h		squally	
Powhatan, N. 21° 20′, W. 84° 30′	29.84	757.9	82	27.8	91	e.			4		10		e.			mod	se.	drizzling	
Quinnebaug, Marseilles, France	29.86	758.4	54	12.2	80	n.			3		0					sm'h		hazy	
Ranger, Mare Island, Cal. *	30.05	763.3	56	13.3	74	calm			0		0							clear	
Richmond, Panama, Panama	29.94	760.5	78	25.6	95	wnw.			2		2		se.	0	0	sm'h	nw.	clear	
Saratoga, New York, N. Y	30.16	766.1	37	2.8	100	n.			5		2		n.	0	0	sm'h		fair	
Shenandoah, Montevideo, Uruguay *	29.89	759.2	61	16.1	88	ese.			4		10					sm'h		cloudy	
St. Louis, League Island, Pa	30.00	762.0	40	4.4	48	n.	24	10.7			2			0.32	8.1			clear.	
Swatara, Chefoo, China †	30.25	768.3	62	16.7	56	nne.			3		10		s.			mod.	nne.	cloudy	
Tennessee, New York Bay, N. Y	30.23	767.8	42	5.6	100	nnw.	30	13.4			0			0	0			squally	
Trenton, N. 22° 43′, W. 55° 11′ *	29.96	761.0	84	28.9	79	ese.			3		5			0	0	sm'h		fair	
Vandalia, New York, N. Y	30.21	767.3	40	4.4	82	n.			6		2		n.					fair	
Wabash, Boston, Mass	30.09	764.3	35	1.7	36	nnw.	20	8.9			2		n;w	0.70	17.8			fair	
Wachusetts, Sitka, Alaska	30.09	764.3	45	7.2	92	calm			0		5							fair	
Wyoming, Port Royal, S. C	29.89	759.2	74	23.3	90	nnw.	12	5.4			2		calm	0	0			clear	
Yantic, Staten Island, N. Y. *	30.17	766.3	41	5.0	65	nnw.			5–6		2		nnw.					clear	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumaker & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 55° 40′, W. 40° 45′ *†	29.76	755.9				wsw.	3		10		wsw.			mod.	cross	cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith. N. 55° 20′, W. 38° 45′ ‡	29.81	757.2	42	5.6	66	wnw.	2		5		w.	1 h'rs	1 h'rs	3	nw; sw.	d. clouds	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 49° 24′, W. 47° 13′	29.42	747.3	45	7.2		calm	0		10		s.			long	n.	cloudy	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, Liverpool, Eng. †	30.23	767.8	50	10.0	93	ne.	4		2		ne.					clear	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Delaware River. †	30.21	767.3	47	8.3	48	nw.	5		2		nw.	0	0			clear	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Philadelphia, Penn. *†	30.44	773.2	52	11.1	93	n.	7		0							clear	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,																	
BRITISH METEOROLOGICAL OFFICE																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, E. J. Moloney,																	
Bk. Caldew, Capt. W. Petersen S. 46° 48′, W. 60° 29′	29.37	746.0	45.5	7.5		wnw.	6		9							overcast	
S. S. Cipero, Capt. W. N. Lailey, Off Belize, Honduras, C. A.	29.74	755.4	77	25.0	90	w.	2		7							d. c[illegible]d	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton,																	
S. S. Gordon Castle, Capt. W. Waring. N. 23° 30′, E. 36° 53′	29.84	757.9	86.0	30.0	75	nw.	2–4		0							blue sky	
Bg. Hermine, Capt. S. G. Jones, S. 21° 07′, W. 37° 36′	30.13	765.3	72.6	22.6	81	e.	5		2							d. clouds	
Bkt. Hope, Capt. J. Campbell,																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 29° 25′, E. 85° 13′	30.30	769.6	61	16.1	82	ene.	3		1							blue sky	
Bk. Mertola. Capt. E. W. Turner, N. 44° 17′, W. 13° 22′	30.09	764.3	61.5	16.4	94	ne.	6		9							d. clouds	
Bk. Moorhill, Capt. J. Brown, S. 57° 27′ W. 67° 30′	28.83	732.3	44	6.7	92	nw.	4		4							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry, N. 7° 46′, W. 24° 41′	30.01	762.2	82	27.8	74	ssw.	2		3							d. clouds	
S. S. Rosetta. Capt. A. E. Barlow,																	
Sierra Estrella, Capt. P. Murdock,																	
Bk. Shun Lee, Capt. J. N. Gray, N. 31° 10′, W. 38° 52′ ‡	30.18	766.6	76.3	24.6	76	ene.	5		3						n; ne.	d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, Kobe, Japan	30.17	766.3	65.5	18.6	90	e.	2		4							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
S. S. Wybertan, Capt. R. J. Blacklin. S. 7° 07′, E. 88° 34′	29.70	754.4	81.5	27.5		se.	1–2		3							d. clouds	
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, agent San Francisco.																	
S. S. Newbern, Capt, E. Rogers																	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., agents, New York.																	
S. S. Galia, Capt. W. H. P. Hains																	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumaker & Co., agents, Baltimore, and Oetrich & Co., agents, New York.																	
S. S. Braunschweig, Capt. C. Pohle, N. 50° 09′, W. 35° 05′	29.46	748.3	61.0	16.1	77	sw.	6		10		nw.			he'vy	wsw.	foggy	
S. S. Hermann, Capt. H. Baur, N. 44° 34′, W. 47° 35′	29.42	747.3	57.2	14.0		s.	5		10		sw.	5 h'r	5 h'r	high	s.	foggy	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jünest,																	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer																	Walter & Reschler.
S. S. Strassburg, Capt. O. Hemmbrouche N. 42° 38′, W. 61° 51′	29.47	748.3	47.0	8.3	85	nnw.	6		10		nnw.	10 h'r	10 h'r	mod.	nnw.	raining	Englehart & von Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, N. 31° 15′, E. 132° 10′ †	30.26	768.6	77	25.0	69	ene.	4		2		ene.	0	0	mod.	ene.	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 41° 32′ E. 162° 04′ *†	30.14	765.5	62	16.7	88	w.	6		7?		w.			mod.	se.	clear?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf,																	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Oterendorp, agent, San Francisco.																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. Pollmann N. 45° 55′, W. 123° 53′ †	30.03	762.7	54	12.2	93	n.	2		2?		ne.			sm'h	wnw.	cloudy?	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, San Francisco, Cal.....†	30.07	763.8	51	10.6	93	calm	0		0							clear	J. W. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, Port Townsend, Washington Ter....†	30.08	764.0	52	11.1	93	nw.	2		0							clear	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 34° 23′, W. 119° 39′.....†	29.94	760.5	60	15.6	71	w.	2		0					sm'h		fair	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal.....†	30.16	766.1	51	10.6	94	sw.	1		0							clear	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal.....†	30.09	764.3	51	10.6	93	calm	0		0							clear	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 49° 00′, W. 123° 15′.....†	30.05	763.2	46	7.8	84	calm	0		0					light	w.	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——																	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, Sydney, N. S. W.....†	30.03	762.7	62	16.7	88	s.	4		10							raining	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	
S. S. City of Peking, Capt. G. G. Barry.. Hong Kong, China.....*†	30.06	763.5	78	25.6	91	ese.	6		10		e.	0	0	sm'h		overcast	W. H. T. Titus. Thos. Martensen.
S. S. City of Rio de Janeiro, Capt.—— N. 35° 22′, W. 122° 06′.....†	30.04	763.0	57	13.9	87	nw.	4		0			0	0	mod.	nw.	clear	
S. S. City of Sidney, Capt. H. C. Dearborn, N. 11° 23′ W. 162° 21′.....*†	29.72	754.9	78	25.6	86	e.	5		10		se.	0	0	mod.	se.	threatening	E. L. Saik. A. L. Richie, 2d Off.
S. S. City of Tokio, Com. J. Maury																	
S. S. Colima, Capt. R. R. Searle, N. 8° 14′, W. 83° 45′.....†	29.95	760.7	78	25.6	100	baff.	4		10		ne.	0.02	0.5	mod.	con.	threatening.	R. R. Searle.
S. S. Grenada, Capt. M. Connolly La Libertad, San Salvador.....†	29.84	757.9	79	26.1	86	sw.	6		10		wsw.	8 h'r	8 h'r	h'vy	wsw.	squally	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	29.99	761.7	58	14.4	70	calm	0		0							clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Jersey City, N. J.....†	30.31	769.9	39	3.9													C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 43° 10′, W. 58° 09′.....†	29.31	744.5	50	10.0		n.	2		10		nw.	6 h'rs	driz	sm'h		misty	R. Horsfall.
S. S. Britannic, Capt. H. Perry.....																	
S. S. Celtic, Capt. B. Gleadell, N. 48° 41′, W. 30° 31′.....†	29.81	757.2	59	15.0		sw.	7		10		sw.	5 h'r	driz	cross h'vy	nw; sw.	overcast	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, Mersey River, England.....†	30.38	771.6	51	10.6	93	ne.	3		2		ene.	0	0			misty	
S. S. Republic, Capt. P. J. Irving.....																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, New Bedford, Mass.....†	30.10	764.5	35	1.7	80	n.	4	0	9 k			0.02	0.5			cloudy	
Hassler, Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	
S. Pawashick, Capt. E. Fry. N. 36° 20′, W. 7° 35′ .....*†	29.89	759.2	67	19.4	89	nw.	4		5		nw.			sm'h	nw.	fine	W. Randall. E. Fry.
S. S. Proteus, Capt. Pike.....																	
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal.....†	30.08	764.0	70	21.1	75	wsw.	7		10		w.	0	0			cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer U. S. A.

Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 6, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.90	759.5	72.5	22.5	86	sw.			1		3			0.110	2.8	pretty fair.	Moiroud.
Algiers ‡			29.91	759.8	72.3	22.4	81	n.			1		9			inap.	inap.	covered	Nicolas.
La Calle ‡			29.94	760.5	74.8	23.8	79	n.			2		6			0.098	2.5	very cloudy	Fonfréde.
Tunis ‡			29.91	759.6															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.90	759.5	?56.3	?13.5	89	n.			1		4			0.079	2.0	cloudy	Dumas.
Tebessa ‡			29.93	760.3	66.6	19.2	61	calm			0		5			0	0	cloudy	Derché.
Geriville ‡					59.7	15.4	64	n.			1		0			0	0	clear	Lonchamp.
Laghouat ‡			29.98	761.4	69.4	20.8	40	w.			4		4			0	0	cloudy	Herbin.
Biskra ‡			29.96	761.0	82.0	27.8	41	nnw.			1		4			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.99	761.7	30.08	764.0	46.3	7.9	84	se.	3	1.3			2			0.06	1.5	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.60	751.8	30.15	765.9	53.6	12.0	88	ne.			4		10			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.52	749.7	30.29	769.3	57.7	14.3	62	ne.	10.5	4.7			1			0.055	1.4		Dr. Wiersbicki.
Eperies	29.37	746.1	30.25	768.4	58.6	14.8	58	calm			0	0	0			0	0		Julius Mikolik.
Gratz ‡	28.97	735.8	30.24	768.2	48.6	9.2	91	e.			1		10			0.276	7.0		Andreas Rospini.
Hermannstadt	28.83	732.2	30.27	768.9	59.7	15.4	63	sse.			6		6			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.91	734.4	30.28	769.2	46.6	8.1	79	calm			0		10			0	0	gloomy	The Staff.
Lemberg	29.38	746.3	30.39	772.0	46.8	8.2	54	s.			3		0			0	0		Dr. T. Stanecki.
Pola	29.97	761.1	30.08	763.9	64.2	17.9	81	ene.			1		10			0.906	23.0		I. R. Hydrographic Office.
Szathmar	29.79	756.7	30.26	768.5	59.9	15.5	50	e.			4		0			0	0		Jozsef Midlinszky, S. J.
Szegedin	29.95	760.6	30.22	767.7	59.4	15.2	64	se.			3		6			0	0		Karl Stancel.
Trieste	29.95	760.8	30.06	763.4	63.3	17.4	75	calm			0		4			0.035	0.9		Rieder.
Vienna	29.57	751.1	30.31	769.8	43.5	6.4	87	nw.			2		10			0.276	7.0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 7, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Aberdeen	30.43	772.9	30.53	775.4	51.4	10.8	71	se.	14	6.3			9			0.020	0.5	overcast	W. Boswell.
Armagh, Observatory	30.27	768.8	30.50	774.7	50.0	10.0	82	nne.	1	0.4			1					d clouds	S. Call.
Bidston, Liverpool Obs'y			30.42	772.7	55.0	12.8	75	n.	11	4.9			9					overcast	John Hartnup.
Bolton, Sharples	29.85	758.2	30.40	772.1	51.6	10.9	79	ene.	12	5.4			10					overcast	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.96	761.0	30.36	771.1	51.1	10.6	87	ne.			1		10			0.01	0.3	overcast	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.26	768.6	53.0	11.7	93	n.			1.0		10					overcast	John McLaren.
Chatham, School M. E.	30.14	765.5	30.28	769.1	51.6	10.9	90	n.			1		10					raining	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	30.20	767.1	30.43	772.9	54.2	12.3	65	nnw.			4		7?					overcast ?	The Staff.
Fort Napier, Natal	27.65	702.3	29.87	758.7	92.1	33.4	20	se.			1		0					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.64	752.8	29.87	758.7	87.0	30.6	88	sw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			30.44	773.2	56	13.3	62	se.			2		2					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	29.90	759.4	29.95	760.7	69.5	20.	87	w.			3		9					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	30.29	769.4	30.49	774.4	51.8	11.0	78	ene.			3		7					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.07	763.8	30.25	768.3	51.5	10.8	93	ne.			2		10					raining	The Staff.
Guernsey	30.12	765.0	30.34	770.6	54	12.2	88	nw.			4		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.24	768.1	30.27	768.8	53.5	11.9	83	nw.	13	5.8			10					drizzling	The Staff.
Leicester, Museum	30.07	763.8	30.34	770.6	53.0	11.7	79	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.74	755.4	29.83	757.7	74.0	23.3	85	ne.			3		8			0	0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.94	760.5	29.99	761.7	80.5	26.9	72	ne.			4		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.83	757.7	30.36	771.1	51.7	10.9	88	nne.			3		10					raining	John Mac Emall.
Oxford, Radcliffe Obs'y	30.08	764.0	30.31	769.9	54.1	12.3	73	n.			6		10					squally	The Staff.
Plymouth	30.32	770.1	30.39	771.9	54.2	12.3	91	n.			3		8					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.47	773.9	52.1	11.2	86	s.	18	8.0			0					blue sky	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	30.20	767.1	30.27	768.8	63.4	17.4	61	ne.			2		9					d. clouds	Serg't W. H. Lyne.
Sheffield	30.10	764.5	30.39	771.9	52.0	11.1	88	n.			1		10			0.01	0.3	overcast	W. F. Cooper.
Silloth Rectory	30.42	772.7	30.45	773.4	52.8	11.6	80	ne.			2		10			0	0	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.43	772.9	53.5	11.9	70	nne.	7	3.1			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	30.08	764.0	30.30	769.6	52.8	11.6	86	ne.			2		10					overcast	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	30.41	772.4	30.45	773.4	56	13.3	62	n.			4		5					d. clouds	W. Newcombe.
Valencia, Observatory	30.46	773.7	30.49	774.4	57.6	14.2	81	se.	14	6.3			8					d clouds	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected		Reduced		Temp. Fah.	Cent.	Rel. Hum.	Wind. Direction.	Velocity.		Force	Clouds. Amount and kind. Up'er	Lo'er	Direction. Upper.	Lower.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.90	759.4	29.94	760.5	37	2.8	64	w.	15	6.7			10 n			0.600	15.2	cloudy	H. J. Cundall, C. E.
Chatham, N. B. *	29.92	760.0	29.99	761.7	34	1.1	75	sw.	5	2.2		8 ck	2 ks	w.	w.	0	0	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	29.85	758.2	29.87	758.7	35	1.7	78	w.	20	8.9			10 n		calm	0	0	threatening	J. McWilliams.
Fort Garry, Manitoba *	29.17	740.9	30.00	762.0	44	6.7	76	sw.	3	1.3		5 k	5 ks	sw.	sw.	0	0	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.93	760.2	30.06	763.5	36	2.2	89	w.	7	3.1		0	0			inap.	inap.	clear.	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.97	761.2	30.31	769.9	47	8.3	77	nw.	8	3.6		2 k	0	nw.		0	0	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.98	761.5	30.19	766.8	39	3.9	56	w.	19	8.5		8 k	2 s	n.		inap.	inap.	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.61	752.1	30.31	769.9	51	10.6	71	w.	20	8.9		2 k	5 ks	w.	w.	0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.72	754.9	30.45	773.4	35	1.7	90	nw.	3	1.3		0	0			0	0	clear	H. Morgan.
Port Stanley, Ontario	29.75	755.6	30.43	772.9	34	1.1	89	n.	4	1.8		5 ck	0	nw.		0	0	fair	M. Payne.
Quebec, Quebec *	29.75	755.6	30.08	764.0	37	2.8	67	w.			3		10 n		nw.	0	0	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.76	755.9	30.24	768.1	32	0.0	68	calm	0	0		0	0			0	0	clear	W. H. McIntyre.
Saugeen, Ontario *	29.63	752.6	30.36	771.1	42	5.6	82	s.	6	2.7		5 k	5 n		w.	0	0	cloudy	K. Stewart.
St. Andrews, N. B.	30.06	763.5	30.11	764.8	35	1.7	69	nw.	2	0.9		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	29.75	755.6	29.81	757.2	41	5.0	67	nw.	22	9.8		0	2 k		nw.	0.11	2.8	clear	T. C. Hill, C. E.
Toronto, Ontario *	30.03	762.7	30.42	772.7	44	6.7	60	w.	10	4.5		5 k	2 ks	w.	w.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	30.10	764.5	30.16	766.1	41	5.0	79	nw.	12	5.4		2 ck	0	w.		0.01	0.3	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.73	755.1	29.99	761.7	38	3.3	100	s.	2	0.9			10 s			0.26	6.6		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected		Reduced		Temp. Fah.	Cent.	Rel. Hum.	Wind. Direction.	Velocity.		Force	Clouds. Amount and kind. Up'er	Lo'er	Direction. Upper.	Lower.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Cape St. Francis Lt. House ‡	29.88	758.9	29.91	759.7	61.0	16.1	100	w.	22.8	10.2			10 s			0	0	foggy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester * †	29.15	740.4			86.9	30.5	26	w.			1	3	4			0	0	light clouds	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected		Reduced		Temp. Fah.	Cent.	Rel. Hum.	Wind. Direction.	Velocity.		Force	Clouds. Amount and kind. Up'er	Lo'er	Direction. Upper.	Lower.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai.	30.08	764.0	30.10	764.6	74.7	23.7	93	e.	4.0	1.8		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.28	769.1	30.33	770.3	48.2	9.0	68	e.	40	18			10						Oversergent Fischer.
Fanöe	30.23	767.9	30.25	768.4	46.2	7.9	86	e.			6		10					raining	Overloerer Lauridsen.
Godthaab, Greenland	29.31	744.4	29.35	745.5	28.8	—1.8	76	nw.			2		9						S. Kleinschmidt.
Stykkisholm, Iceland	29.43	747.5	29.47	748.6	49.3	9.6	98	s.			2		10					raining	A. O. Thorlacius.
Thorshavn	30.15	765.9	30.19	766.8	51.4	10.8	79	ssw.	27	12			10						Overloerer Bergh.
Vestervig	30.28	769.1	30.37	771.4	47.6	8.8	71	ne.			6		9						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.65	753.0	30.31	769.9	53.6	12	74	nw.			1	2 c	0					clear	M. Labroue, Director.
Alençon Normal School	29.79	756.7	30.40	772.1	51.8	11	90	nw.			2		1m			0	0		M. Nicot, Director.
Arras, Engineer School	29.91	759.6	30.17	766.2	47.3	8.5	92						10					covered	M. Klein, Commandant.
Avignon, Normal School	30.05	763.3	30.13	765.3	53.6	12	45	n.			4		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.73	755.1	30.30	769.6	48.2	9.0	67	w.			1		10 kn			0	0	covered	M. Saillard, Director.
Beauvais, Normal School	29.98	761.6	30.26	768.5	52.2	11.2	63	nw.			2		8		nw.	0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.41	746.9	30.33	770.3	44.6	7	41	ne.			1					0	0		M. Gobin, Director.
Bordeaux, Observatory	30.04	763.1	30.31	769.9	53.4	11.9	34	nne.			2		2		wsw.	0	0	slightly cl'dy	M. Rayet, Director.
Bourges, Normal School	29.74	755.5	30.30	769.7	52.7	11.5	25	n.			1		1		n.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	30.17	766.3	30.41	772.5	53.6	12.0	48	ne.			2		1		ne.	0	0		M. de Kermaree, Dir.
Caen, Normal School	30.26	768.5	30.33	770.4	51.4	10.8	74	w.			1		2		nw.	0.04	1.	slightly cl'dy	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.89	759.3	30.22	767.5	50.7	10.4	69	sw.			1		10		nw.	0.016	0.4	covered	M. Jadot, Director.
Charleville, Normal School	29.68	753.8	30.20	767.1	43.5	6.4	74	ssw.			1		7			0.020	0.5		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.89	733.8	30.28	769.0	47.3	8.5	36	nw.			1		0			0	0	clear	M. Alluard, Director.
Cluny, Normal School	29.16	740.6	30.21	767.2	52.9	11.6	39	n.			3		0			0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.38	746.3	30.35	770.8	41.2	5.1	69	sw.			4		5 kn	sw.	sw.	0.08	2.	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.46	697.4	30.02	762.4	48.2	9	73	s.			2	1 c	0	n.		0	0		M. Jeangirard, Director.
Grésasque, du. Rhone	29.00	736.6	30.14	765.6	61.2	16.2	58	nw.			2		5		nw.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.43	747.5	30.21	767.3	52.2	11.2	97	nw.			3	ck	0			0	0		M. Ablard, Director.
Guéret, Normal School	28.70	728.9	30.31	769.9	46.0	7.8	64	ne.			1		0			0	0	clear	M. Rivoire, Director.
Lamballe, Normal School	30.08	764.1	30.36	771.1	56.1	13.4	53	n.			3		5 k			0.08	2.	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.68	753.8	30.25	768.3	52.9	11.6	50	n.			1			nw.		0	0		M. Chauvin, Director.
Lorient, Naval Observatory	30.31	769.8	30.41	772.4	59.0	15	58	n.			2		5		n.	0	0	½ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.21	741.8	30.29	769.4	47.1	8.4	37	nw.			2	2 c	0			0	0	clear	M. André, Director.
Mans, Normal School	30.02	762.6	30.34	770.7	47.5	8.6	68	n.			3		5		ne.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.78	756.5	30.06	763.4	63.5	17.5	66	wnw.			1.2		9		ese.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.87	631.8	30.11	764.8	45.5	7.5	60	n.	13.0	5.8			7		n.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.02	762.5	30.13	765.3	59.7	15.4	42	n.			3		2			0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.50	749.3	30.30	769.5	41.0	5	90	sw.			1		5 kn			0.020	0.5	cloudy	M. Hasse.
Nantes, Observatory	30.24	768.2	30.41	772.3	54.0	12.2	42	n.			1–2		4 k		nne.	0	0		M. Larocque, Director.
Nice	30.02	762.5	30.05	763.3	65.5	18.6	56	e.			3	1	1	e.	e.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	30.02	762.4	30.12	765.1	60.4	15.8	18	n.	15.0	6.7			8	s.		0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					59.0	15	30	n.			3								M. Tallieu.
Puy de Dôme Obs'y, Summit	25.25	641.4			26.2	—3.2	74	ne.			3		1			0	0	clear	M. Alluard, Director.
Rochefort, Naval Obs'y	30.33	770.4	30.36	771.2	54.9	12.7	100	ne.			1		2		e.	0	0	¼ covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	30.15	765.8	30.36	771.2	52.3	11.3	46	nne.			4		0			0	0	clear	M. Mouillot, Director.
Rodez, Normal School	28.09	712.3	30.21	767.4	48.9	9.4	44	ne.			1	c	0			0	0		M. Richard, Director.
Rouen, Normal School	30.19	766.7	30.27	768.9	50.0	10	74	wnw.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School																			M. Delaplanche, Dir.
Saint Maur, Observatory	30.10	764.6	30.27	768.8	51.8	11.0	56	wnw.			2		9		nw.	0	0		M. Renou, Director.
Toulouse, Observatory	29.53	750.0	30.26	768.5	55.8	13.2	26	nnw.			2		1	w.		0	0	clear	M Bailland, Director.
Tours																			M. de Tastes.
Versailles, Observatory	29.77	756.2	30.26	768.7	50.4	10.2	60	nw.			4					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.99	761.7	30.28	769.1	52.5	11.4	57	wnw.			2		8		nw.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.40	746.8	30.27	768.9	45.7	7.6	55	sw.			2		4 k	wsw.		0	0		Prof. Dr. Hoh.
Berlin	30.07	763.8	30.25	768.3	47.3	8.5	74	se.			1		9			0.118	3.0		Prof. Dr. Arndt.
Breslau	29.78	756.5	30.32	770.1	43.7	6.5	93	nw.			2		10			0.661	10.8		Royal University Obs'y.
Carlsruhe	29.84	757.8	30.28	769.0	46.0	7.8	70	sw.			2		9	sw.		0	0		Albert Senz.
Cassel	29.45	748.0	30.17	766.2	38.8	3.8	81	ssw.			2		8	sw.		0.248	6.3	snowing	Dr. H. Möhl.
Frankfort on the Main	29.86	758.5	30.24	768.0	46.6	8.1	51	sw.			2		7			0.020	0.5		Physical Society.
Friedrichshafen	28.80	731.4	30.27	768.8	45.3	7.4	65	sw.			2		3	wsw.		0	0		Wilhelm, Chief Tel.
Hamburg	30.05	763.2	30.14	765.6	43.0	6.1	99	ene.			3		10			0.724	18.4	rain and fog	E. Preller.
Kiel	30.15	765.7	30.16	766.1	44.8	7.1	87	e.			4		10			0.067	1.7		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.84	757.8	30.27	768.8	45.3	7.4	57	ssw.			4		6	sw.		0.512	13.0		H. Leppig, Asst.
Magdeburg	30.02	762.4	30.21	767.3	46.8	8.2	62	sw.			5	0	5 k		sw.	1.441	36.6		Dr. Assmann.
Memel	30.54	775.6	30.58	776.8	50.0	10.0	49	e.			4		0						Issermann.
Munich	28.42	721.9	30.30	769.6	43.5	6.4	60	nw.			1		7	sw.		0.031	0.8		Central Station.
Neufahrwasser	30.38	771.7	30.40	772.1	50.2	10.1	47	e.			3		0			0	0		A. Lothes.
Neustadt, Palatinate	29.72	754.8	30.24	768.2	44.4	6.9	67	w.			4		7	w.		0	0		Dicknether.
Stuttgart	29.29	743.9	30.20	767.1	47.5	8.6	34	w.			2		3	w.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.76	730.5	30.31	769.8	44.8	7.1	53	sw.			2		4	w.		0	0		Fischer.
Wustrow	30.20	767.0	30.22	767.6	41.9	5.5	97	e.			4		10			0.205	5.2		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.76	756.0	30.15	765.7	73.2	22.9		n.			4.0		8			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.70	754.4	29.75	755.7	83.2	28.4	76	ssw.	23.0	10.3		0				0	0	blue sky	
Deesa	29.25	742.9	29.72	754.8	88.8	31.6	45	w.				3		w.		0	0	d. clouds	
Bombay	29.70	754.2	29.73	755.2	84.2	29.0	83	nw.	13.0	5.8		0				0	0	blue sky	
Poona, Yarrowda.	27.98	710.8	29.85	758.1	75.8	24.9	60	wnw.	12.0	5.4		8		wnw.		0.01	0.3	d. clouds	
Belgaum	27.20	690.9	29.74	755.3	74.6	23.7	76	w.	5.2	2.3		2		se.	nw.	0.53	13.5	d. clouds	
Lahore	28.92	734.7	29.05	753.2	87.0	30.6	45	calm	1.6	0.7		0				0	0	blue sky	
Roorkee	28.75	730.6	29.65	753.1	84.8	29.3	45	calm	1.4	0.6		0				0	0		
Agra	29.10	739.1	29.65	753.2	90.2	32.3	48	calm	1.4	0.6		1				0	0		
Nagpur	28.58	726.0	29.61	752.0	85.5	29.7	44	nnw.	5.3	2.4		2		w.		0	0	d. clouds	
Jubbulpore	28.37	719.3	29.65	753.2	86.2	30.1	64	calm	2.3	1.0		4		w.		0	0	d. clouds	
Lucknow	29.31	744.4	29.68	753.8	85.1	30.1	57	ese.	1.6	0.7		7		nnw.		0	0	d. clouds	
Allahabad	29.40	740.7	29.71	754.7	74.5	23.6	95	e.	0.9	0.4		10				0.21	5.3	raining	
Patna	29.52	749.7	29.70	754.4	73.9	23.3	95	n.	4.1	1.8		10		n.	n.	0.82	20.8	raining	
Hazaribagh	27.63	702.3	29.66	753.4	75.6	24.2	88	ese.	7.0	3.1		10				0.19	4.8	showery	
Cuttack	29.51	749.0	29.59	751.7	82.2	27.9	85	wsw.	0.3	0.1		3				0.27	6.9	d. clouds	
Calcutta, Alipore	29.64	752.8	29.66	753.4	79.9	26.6	94	nne.	1.0	0.4		8				0.11	2.8	d. clouds	
Dhubri	29.58	751.2	29.70	754.2	82.8	28.2	87	calm	2.2	1.0		10				0	0	d. clouds	
Chittagong	29.62	752.3	29.71	754.6	83.5	28.6	80	calm	2.5	1.1		6				0	0	blue sky	
Sibsagar	29.35	745.5	29.68	753.9	83.2	28.4	78	ne.	1.0	0.4		0				0	0	blue sky	
Jeypore	28.26	717.9	29.67	753.6	92.7	33.7	20	ne.	5.1	2.3		2		ne.		0	0	d. clouds	
Zanzibar, Africa			29.97	761.2	85.2	29.6	49	se.	5	2.2		3				0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.67	753.5	30.08	763.9	61.3	16.3	62	e.	3.1	1.4		4				0.051	1.3		Prof. Giovanni Clodig.
Milan	29.64	752.8	30.14	765.5	58.5	14.7	67	se.	1.8	0.8		8		ese.		0	0		Prof. Schiaparelli.
Padua	30.00	762.1	30.11	764.9	62.1	16.7	63	n.	3.8	1.7		8		se.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.22	742.1	30.12	765.1	56.1	13.4	67	e.	4.3	1.9		8		ene.		0	0		Prof. P. F. Denza.
Genoa	29.89	759.2	30.08	764.0	57.7	14.3	59	n.	6.9	3.1		0				0	0		Prof. G. M. Garibaldi.
Mondovi	28.21	716.6	30.13	765.4	51.3	10.7	65	w.			2	7				0	0		Prof. D. C. Bruno.
Pesaro	30.03	762.8	30.08	764.0	59.2	15.1	77	n.	9.8	4.4		9		se.		0	0		Prof. Luigi Guidi.
Florence	29.76	755.9	30.01	762.3	65.8	18.8	50	n.			4	3		wsw.		0	0		Prof. Costantino Pitter.
Leghorn	29.94	760.5	30.03	762.7	66.0	18.9	55	ene.	1.8	0.8		3				0	0		Prof. P. Monte.
Rome	29.80	756.8	29.97	761.2	70.3	21.3	66	nne	2.5	1.1		9				0.071	1.8		Prof. P. S. Ferrari.
Lecce	29.80	757.0	30.05	763.3	73.9	23.3	66	s.	9.4	4.2		7				0.020	0.5		Prof. C. de Giorgi.
Cosenza	29.17	740.9	30.05	763.2	63.0	17.2	59	wsw.	1.8	0.8		10		sw.		0.535	13.6		Prof. D. Conti.
Cagliari	29.74	755.5	29.93	760.2	70.7	21.5	71	se.			2	5		sw.		0.465	11.8		Prof. A. Pacinotti.
Palermo	29.68	753.9	29.93	760.1	72.7	22.6	56	ne.	0.7	0.3		10				0.130	3.3		Prof. G. Ciacciatore.
Syracuse	29.88	759.0	29.93	760.1	73.4	23.0	83	nne.	12.5	5.6		7		ese.		0.118	3.0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.45	748.1	29.97	761.3	68.2	20.1	85	nw.	0.7	0.3		10		ne.		0.331	8.4		Prof. F. Brioschi.
Stelvio	22.23	564.6			25.9	— 3.4	87	e.			2	1 s		s.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.22	564.3			27.0	— 2.8	72	e.			6	7 ks		w.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.08	764.0	30.09	764.3	67.8	19.9	79	nne.	3.8	1.7		ck	10 s			0.317	8.0	covered	K. Sasaki.
Kioto	30.00	762.0	30.17	766.3	65.6	18.7	80	nnw.	0.2	0.1		ck	10 s		w.	0	0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.92	759.9	30.12	765.0	71.0	21.7	81	calm	0	0			10 s			0	0	overcast	S. Takehayashi.
Nemuro	30.13	765.3	30.20	767.1	54.0	12.2	80	ssw.	2.4	1.1		5	2			0	0		
Niigata	30.19	766.8	30.22	767.6	60.4	15.8	66	n.	4.0	1.8		ck	10 ns			0.085	2.2	cloudy	
Nobiru	30.22	767.6	30.23	767.8	57.1	13.9	84	nnw.	2.4	1.1			10ks;s;n			0.235	6.0	light rain	
Supporo	30.13	765.3	30.19	766.8	39.9	4.4	82	calm	0	0			2			inap.	inap.		
Tokei Obs'y, Yeddo	30.15	765.8	30.21	767.3	60.3	15.7	95	ene.	1.8	0.8		6 ck	0	sw.		0	0	fair	The Staff.
Wakayama	30.10	764.5	30.15	765.8	65.6	18.7	78	e.	2.1	0.9		10 ck	0	w.		0	0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.91	759.7	30.10	764.5	76.0	24.4	59	ese.	13.0	5.8		0	6 k;ks		sse.	0.01	0.3	fair	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.70	602.0	29.92	760.0	54.5	12.5	72	calm	0	0		0	2 s			inap.	inap.	clear	Vicente Fernandez.
Leon	24.45	621.0	30.15	765.9	57.8	14.3	85	nw.			1	1 c	0			0	0	blue sky	Prof. M. Leal.
Mazatlan	29.65	753.1	29.91	759.6	78.0	25.6	82	calm	0	0		0	1 s			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.12	587.3	30.17	766.5	52.7	11.5	85	nw.	1.6	0.7			10 n		ne.	0.059	1.5	overcast	The Staff.
Morelia	24.04	610.6	30.10	764.5	58.5	14.7	75	ene.			3	3	0	s.		0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.96	608.7	30.00	762.0	54.3	12.4	85	calm			0	1 c	0			inap.	inap.	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.39	594.1	30.18	766.6	52.7	11.5	63	nnw.	3.6	1.6		0	1		ne.	0.006	0.2	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. F.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.14	765.5	30.14	765.5	52.2	11.2		ene.			2					0.197	5.0		
Groningen	30.09	764.2	30.14	765.6	45.1	7.3		ne.			2					0.563	14.3		
Helder	30.13	765.4	30.13	765.4	48.6	9.2		ne.			4					0.051	1.3		
Hellevoetsluis	30.12	765.0	30.12	765.0	48.6	9.2	91	ne.			3					0.150	3.8		
Utrecht	30.08	764.1	30.13	765.3	47.1	8.4	93	nne.			2		10			0.055	1.4	dull	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.46	773.6	30.52	775.2	49.6	9.8	57	calm	0	0			1			0	0		
Christiania	30.47	773.8	30.62	777.7	44.1	6.7	56	ne.	7	3			7			0	0		
Gjæsvær	30.24	768.2	30.27	768.8	45.1	7.3		wsw.			7		10						
Lodingen	30.42	772.6	30.47	773.8	46.9	8.3	81	sw.			6		9					raining	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.38	771.6	30.53	775.5	67.3	19.6	68	se.	11.9	5.3			3			0	0		Dr. J. A. Sampaio.
Campo Major	28.99	736.4	29.98	761.6	61.2	16.2	67	ene.	4.9	2.2			10			0.150	3.8		Dr. A. M. R. dos Santos
Funchal, Madeira	30.21	767.4	30.39	769.5	74.8	23.8	41	sw.	4.3	1.9			3			0	0		Capt. D. A. da Cunha.
Lisbon, Observatory	29.70	754.3	30.06	763.4	63.0	17.2	53	n.	25.5	11.4			7			0.102	2.6		The Staff.
Ponta Delgada, Azores	30.49	774.4	30.56	776.2	68.4	20.2	54	calm	0	0			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.31	719.1	29.41	747.1	30.0	— 1.1	100	sw.	56	25			10 n						Capt. Lasarew.
Archangel	30.50	774.7	30.52	775.2	42.3	5.7	93	wnw.	9	4			10						Capt. Sselilwerstow.
Astrakhan	30.35	770.8	30.26	768.7	47.8	8.8	32	ene.	2	1		0	2 s						Capt. Wisganow.
Barnaul	29.00	736.7	29.49	749.0	58.5	14.7	44	sw.	9	4			10						Meteorological Obs'y.
Dorpat	30.42	772.6	30.67	779.0	43.3	6.3	83	ene.	7	3			10 ks						Observatory.
Ekaterinburg	29.00	736.6	29.99	761.8	34.0	1.1	75	nnw.	18	8			10						Meteorological Obs'y.
Kasan	29.99	761.7	30.26	768.7	45.7	7.6	60	n.	9	4			7						Observatory.
Kertch	30.38	771.7	30.40	772.2	48.4	9.1	63	n.	11	5		0	2 k			0	0		Lagorio & Sastyres.
Kieff	29.86	758.4	30.51	774.9	47.7	8.7	46	nne.	4	2		1 cs;c	0						Observatory.
Lugan	30.18	766.5	30.38	771.7	50.7	10.4	41	ne.	9	4			0						Meteorological Obs'y.
Moscow	30.00	761.9	30.48	774.3	48.2	9.0	58	nnw.	4	2		0	2 ks						Meteorological Obs'y.
Nikolaiev	30.46	773.0	30.53	775.4	51.1	10.6	56	nne.	4	2		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.79	756.7	29.88	758.9	37.0	2.8	54	w.			8	0	1 k			0	0		Lieut. Iwanow.
Pekin, China	30.17	766.4	30.32	770.0	50.5	10.3	81	calm	0	0		0	5 ks			0	0	lunar co'na.	Physical Observatory.
St. Petersburg	30.63	777.9	30.64	778.3	43.2	6.2	87	wsw.	2	1			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.41	721.5	29.95	760.6	65.3	18.5	73	calm	0	0			4			0	0		Teich, A. M.
Tiflis	28.67	728.1	30.08	764.0	58.8	14.9	72	ne.	9	4			10 n						Physical Observatory.
Warsaw	29.97	761.2	30.40	772.2	50.4	10.2	39	ese.	22	10		1 ck	0						Astronomical Obs'y.
Wilna	30.19	766.9	30.63	778.0	42.6	5.9	77	e.	4	2			1					light clouds	Berg, Assistant.
Yeniseisk	29.49	749.0	29.78	756.5	37.4	3.0	90	ne.	4	2			10					raining	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.51	774.9	53.0	11.7	93	e.			1		10 ks			0.01	0.3	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			30.36	771.1	55	12.8	93	s.			4	10	0	ssw.		0	0	hazy	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.95	760.7	30.06	763.4	64.4	18.	48	ene.	2.0	0.9		4 c;ck	0			0	0		Antonio Rave, Director.
Bilbao, Met. Obs'y	30.29	769.4	30.35	770.8	57.7	14.3	52	ne.	1.8	0.8		3	4	ne.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.21	691.2			45.5	7.5	76	ne.	10.7	4.8			9			0.232	5.9	almost cov'd	Domingo Martin.
Madrid, Royal Obs'y	27.78	705.6	29.97	761.2	63.3	17.4	57	ne.	19.5	8.7		0	8			inap.	inap.	cloudy	The Staff.
Murcia, Met. Obs'y	29.78	756.3	29.93	760.1	70.3	21.3	71	ene.	7.4	3.3		5	5	wsw.		3.787	96.2	heavy rain	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.34	745.1	30.23	767.8	56.7	13.7	46	nne.	40.9	18.3			0			0	0	cloudy	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.85	758.1	29.91	759.8	77.7	25.4	87	e.	4.0	1.8		1 cs	5 k;n		ene.	inap.	inap.	raining	Benito Vines, S. J.
Manilla, Philippine Islands	29.82	757.3	29.87	758.6	80.8	27.1	92	ne.	2.2	1.0			9 kn		ene.	0.25	6.3	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.90	759.5	30.00	762.0	64.0	17.8	71	wnw.	4.7	2.1		0	9		w.	0.449	11.4		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.81	757.1	29.90	759.4	80.2	26.8	88	calm	0	0		8 k	4 s			0.900	23.0	cloudy	E. Cadea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.79	756.7	29.93	760.1	78.8	26.0	86	nnw.	2.4	1.1		0	7 k		ese.	inap.	inap.	cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.52	775.3	30.56	776.3	39.6	4.2	97	s.			2		10			0	0		
Umea	30.53	775.4	30.58	776.7	47.8	8.8	63	sw.			2		2			0	0		
Hernosand	30.60	777.2	30.65	778.5	49.8	9.9	53	sw.			2		0			0	0		
Stockholm	30.46	773.6	30.63	778.1	50.4	10.2	54	e.			2		10			0	0		
Wisby	30.52	775.3	30.58	776.8	47.8	8.8	66	ese.			6		0			0	0		
Sub-Series.																			
Upsala	30.55	775.9	30.63	778.1	46.6	8.1	65	e.	2.0	0.9			6	s.	sse.	inap.	inap.		A. H. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.79	731.3	30.24	768.0	48.9	9.4	49	ne.			3		0			0	0	clear	The Observatory.
Zurich	28.62	726.9	30.29	769.3	45.0	7.2	67	w.			1		1			0	0	clear	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.30	769.5	61.9	16.6	62	ne.	22	10.0			9		ne.	0	0		The Observatory.
Valona			30.19	766.8	79.3	21.3		sw.			1		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.95	760.8	81.7	27.6	63	n.			2	8	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Albany, New York	30.34	770.6	30.42	772.7	42.5	5.8	57	sw.	3	1.3		0	0			0	0	clear	
Alpena, Michigan	29.68	753.9	30.37	771.4	36	2.2	89	w.	5	2.2		0	0			0	0	clear	
Atlanta, Georgia	29.19	741.4	30.41	772.4	48.5	9.2	63	e.	12	5.4		0	0			0	0	clear	
Atlantic City, New Jersey	30.49	774.4	30.50	774.7	42	5.6	64	nw.	6	2.7		0	0			0	0	clear	
Augusta, Georgia	30.26	768.6	30.46	773.7	52.0	11.1	47	ne.	20	8.9		0	0			0	0	clear	
Baltimore, Maryland	30.49	774.4	30.54	775.7	43	6.1	51	n.	3	1.3		0	0			0	0	clear	
Barnegat, New Jersey	30.46	773.7	30.48	774.2	43.2	6.2	51	nw.	12	5.4		0	0			0	0	clear	
Bismarck, Dakota	28.08	713.2	30.00	762.0	46	7.8	93	se.	8	3.6			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.30	693.4	30.22	767.6	39	3.9	82	n.	2	0.9		0	6 s		w.	0	0	fair	
Boston, Massachusetts	30.20	767.1	30.36	771.1	36.0	2.2	61	w.	12	5.4		0	hz.			0	0	clear	
Brackettville, Texas	28.88	733.5	29.91	759.7	69	20.6	90	calm	0	0		9 cs	0	e.		0	0	cloudy	
Brownsville, Texas	29.93	760.2	29.98	761.5	72	22.2	90	n.	4	1.8		10 cs	0			0.65	16.5	cloudy	
Buffalo, New York	29.70	754.4	30.44	773.2	43.2	6.2	73	se.	2	0.9		0	3 s		sw.	0	0	clear	
Burlington, Vermont	29.98	761.5	30.28	769.1	37.2	2.9	60	s.	11	4.9		0	0			0	0	clear	
Cairo, Illinois	29.90	759.4	30.31	769.9	49.7	9.8	80	e.	5	2.2		0	0			0	0	clear	
Campo, California	27.38	695.4	29.95	760.7	31	— 0.6	71	nw.	4	1.8		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.50	774.7	30.52	775.2	53	11.7	41	n.	12	5.4		0	0			0	0	clear	
Cape May, New Jersey	30.47	773.9	30.50	774.7	44	6.7	65	ne.	5	2.2		0	0			0	0	clear	
Castroville, Texas	29.25	742.9	29.93	760.2	73	22.8	84	n.	3	1.3		10 c	0			0.01	0.3	cloudy	
Cedar Keys, Florida	30.12	765.0	30.14	765.5	72	22.2	76	ne.	16	7.2		0	7 ks		e.	0.02	0.5	fair	
Champaign, Illinois	29.49	749.0	30.30	769.6	47.8	8.8	77	se.	7	3.1			7 s		se.	0	0	cloudy	
Charleston, S. Carolina	30.32	770.1	30.38	771.6	55	12.8	74	ne.	12	5.4		0	0			inap.	inap.	clear	
Charlotte, N. Carolina	29.60	751.8	30.51	774.9	43.8	6.6	60	w.	5	2.2		hz.	0	calm		0	0	dense haze	
Chattanooga, Tennessee	29.56	750.8	30.41	772.4	54.0	12.2	61	s.	6	2.7		0	0			0	0	clear	
Cheyenne, Wyoming	23.97	608.8	30.10	764.5	46.1	7.8	80	w.	4	1.8		0	5 s		w.	0	0	fair	
Chicago, Illinois	29.64	752.8	30.38	771.6	49.1	9.5	71	s.	2	0.9			10 s			0	0	cloudy	
Chincoteague, Virginia	30.50	774.7	30.52	775.2	48	8.9	50	n.	9	4.0		0	0			0	0	clear	
Cincinnati, Ohio	29.72	754.9	30.40	772.1	48.5	9.2	73	e.	5	2.2		9 cs	0	w.		0	0	cloudy	
Cleveland, Ohio	29.70	754.4	30.47	773.9	39	3.9	73	se.	8	3.6		4 c	0	nw.		0	0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.53	750.0	30.42	772.7	44	6.7	60	e.	3	1.3		5 k	4 s	w.	w.	0	0	cloudy	
Concho, Texas	28 28	718.3	30.28	769.1	70	21.1	90	e.	8	3.6			10 s		se.	0	0	cloudy	
Corsicana, Texas	29.65	753.1	30.13	765.3	76	24.4	85	se.	4	1.8		0	8 s			0	0	cloudy	
Davenport, Iowa	29.63	752.6	30.31	769.9	49	9.4	77	e.	6	2.7			10 s		sw.	0	0	cloudy	
Dayton, Washington T'y	28.30	718.8	30.16	766.1	46	7.8	93	sw.	3	1.3			10 n		sw.	0.16	4.1	light rain	
Deadwood, Dakota	25.18	639.6	30.04	763.0	52	11.1	69	sw.	1	0.4		3 c	0	calm		0	0	fair	
Decatur, Texas	28.89	733.8	30.03	762.7	68	20.0	90	se.	6	2.7			fg.			0	0	dense fog	
Delaware Breakwater, Del.	30.48	774.2	30.50	774.7	50	10.0	63	n.	10	4.5		0	1 s			0	0	clear	
Denison, Texas	29.33	745.0	30.16	766.1	67	19.4	90	se.	8	3.6			10 s		se.	0	0	cloudy	
Denver, Colorado	24.68	626.9	30.05	763.3	48.0	8.9	93	n.	5	2.2			9 s		calm	0.11	2.8	cloudy	
Des Moines, Iowa	29.29	744.0	30.24	768.1	51	10.6	80	se.	7	3.1		10 cs	0	sw.		inap.	inap.	cloudy	
Detroit, Michigan	29.70	754.4	30.44	773.2	43	6.1	72	w.	5	2.2		4 cs	0	w.		0	0	fair	
Dodge City, Kansas	27.45	697.2	30.14	765.5	64	17.8	97	s.	12	5.4			10 s		s.	0.07	1.8	cloudy	
Dubuque, Iowa	29.59	751.6	30.33	770.4	47.7	8.7	86	e.	3	1.3			10 s		se.	0	0	cloudy	
Duluth, Minnesota	29.53	750.0	30.26	768.6	47	8.3	86	calm	0	0			10 s		calm	0	0	cloudy	
Eagle Pass, Texas	29.26	743.2	30.11	764.8	72.2	22.3	90	nw.	3	1.3			10 s		calm	0	0	cloudy	
Eagle Rock, Idaho	25.18	639.6	30.17	766.3	41	5.0	79	sw.	18	8.0			10 ks		sw.	0	0	cloudy	
Eastport, Maine	30.05	763.3	30.12	765.0	35	1.7	64	sw.	8	3.6		3 c	0	w.		0.01	0.3	fair	
El Paso, Texas	26.25	666.7	30.09	764.3	63.2	17.3	54	nw.	1	0.4		0	4 s			0	0	fair	
Erie, Pennsylvania	29.69	754.1	30.45	773.4	41	5.0	73	s.	5	2.2		3 c	0			0	0	clear	
Escanaba, Michigan	29.62	752.3	30.30	769.6	38	3.3	82	sw.	3	1.3		5 c	0	w.		0	0	fair	
Florence, Arizona	28.41	721.6	30.01	762.2	71.8	22.1	71	e.	4	1.8		4 ck	0	e.		0	0	fair	
Fort Apache, Arizona	25.04	636.0	30.08	764.0	62	16.7	78	e.	4	1.8		4 c	0	calm		0.67	17.0	fair	
Fort Assinnaboine, Montana	27.09	688.1	30.03	762.7	43	6.1	83	calm	0	0			10 s		se.	0	0	cloudy	
Fort Bennett, Dakota	28.26	717.8	29.87	758.7	49	9.4	93	se.	18	8.0			10 s		se.	0.32	8.1	cloudy	
Fort Benton, Montana	27.11	688.6	30.09	764.3	39	3.9	92	n.	2	0.9		10 k	0	calm		0	0	cloudy	
Fort Buford, Dakota	27.90	708.6	30.01	762.2	43	6.1	83	ne.	5	2.2			10 s		calm	0	0	cloudy	
Fort Custer, Montana	26.72	678.7	30.11	764.8	48	8.9	80	n.	3	1.3			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.03	635.8	29.99	761.7	60	15.6	78	e.	4	1.8		0	0			0	0	clear	
Fort Elliott, Texas	27.35	694.7	30.65	778.5	66	18.9	90	se.	12	5.4			fg.			0	0	light fog	
Fort Gibson, Indian T'y	29.60	751.8	30.16	766.1	63.0	17.2	63	se.	10	4.5			10 s		e.	0.90	22.9	cloudy	
Fort Grant, Arizona					61	16.1	78	ne.	5	2.2		1 k	4 s			0.02	0.5	fair	
Fort Griffin, Texas	28.80	731.5	30.03	762.7	73.0	22.8	84	calm	0	0			10 s			0	0	cloudy	
Fort Keogh, Montana	27.34	694.4	30.02	762.5	45	7.2	76	w.	1	0.4		6 c	0	se.		0	0	fair	
Fort Macon, North Carolina	30.41	772.4	30.42	772.7	54	12.2	66	nw.	22	9.8		hz.	2 s	calm	calm	0	0	clear	
Fort McKavett, Texas	27.90	708.6	29.77	756.1	71.3	21.8	90	e.	3	1.3		0	5 s		s.	0.13	3.3	fair	
Fort Missoula, Montana	26.50	673.1	30.15	765.8	40	4.4	92	nw.	1	0.4			10 s			0	0	cloudy	
Fort St. Michaels	30.42	772.7	30.46	773.7	31	— 0.6	89	nw.	7	3.1		0	8 ks		sw.	0.15	3.8	fair	
Fort Shaw, Montana	26.30	668.0	30.04	763.0	43	6.1	93	w.	2	0.9			10 s		calm	0.04	1.0	cloudy	
Fort Sill, Indian Territory	28.88	733.5	30.17	766.3	72.3	22.4	89	se.	15	6.7			10 s			0	0	cloudy	
Fort Stevenson, Dakota	28.04	712.2	30.00	762.0	48	8.9	86	se.	5	2.2			10 ks		se.	0	0	cloudy	
Fort Verde, Arizona					63.7	17.6	58	w.			2	0	0			0	0	clear	
Fredericksburg, Texas	28.34	719.8	29.86	758.4	70	21.1	97	calm	0	0		3 cs	0			0.53	13.5	fair	
Galveston, Texas	30.00	762.0	30.04	763.0	77	25.0	91	ne.	18	8.0		4 cs	0	ne.		0	0	fair	
Grand Haven, Michigan	29.71	754.6	30.41	772.4	42.0	5.6	82	e.	2	0.9		8 k	0	e.		0	0	fair	
Hatteras, North Carolina	30.44	773.2	30.46	773.7	58	14.4	53	ne.	15	6.7		0	9 ks		ne.	0	0	cloudy	
Helena, Montana	25.67	652.0	30.26	768.6	45	7.2	76	s.	8	3.6		0	7 s		calm	inap.	inap.	cloudy	
Henrietta, Texas	29.02	737.1	29.92	760.0	71	21.7	53	se.	12	5.4		2 c	0	calm		0	0	clear	
Huron, Dakota	28.60	726.4	30.06	763.5	48	8.9	96	se.	15	6.7			10 s			0.10	2.5	cloudy	
Indianapolis, Indiana	29.53	750.0	30.36	771.1	46	7.8	76	e.	4	1.8		6ck;cs	hz.	nw;c	calm	0	0	fair	
Indianola, Texas	29.99	761.7	30.02	762.5	77.3	25.2	82	n.	14	6.3		5 cs	2 ks	e.	calm	0	0	fair	
Jacksboro, Texas	28.93	734.8	30.02	762.5	71	21.7	90	se.	13	5.8			10 s		calm	0	0	cloudy	
Jacksonville, Florida	30.16	766.1	30.20	767.1	73	22.8	66	ne.	10	4.5			10 s		ne.	0.88	22.4	cloudy	
Keokuk, Iowa	29.60	751.8	30.28	769.1	49.8	9.9	77	e.	10	4.5			10 s		w.	0	0	cloudy	
Key West, Florida	29.92	760.0	29.95	760.7	80.2	26.8	82	ne.	16	7.2		0	4 k;ks		ne.	0.03	0.8	fair	
Kittyhawk, North Carolina	30.46	773.7	30.48	774.2	57	13.9	57	ne.	20	8.9		0	9 ks		e.	0	0	cloudy	
Knoxville, Tennessee	29.36	745.7	30.43	772.9	48.2	9.0	88	calm	0	0		0	fg.		calm	0	0	clear	
La Crosse, Wisconsin	29.47	748.5	30.27	768.8	50	10.0	64	s.	8	3.6			10 n			0.07	1.8	light rain	
La Mesilla, New Mexico	26.13	663.7	30.28	769.1	59.8	15.4	84	calm	0	0		2 c	4 s			0	0	fair	
Laredo, Texas																			
Leavenworth, Kansas	29.26	743.2	30.19	766.8	58	14.4	69	se.	10	4.5		9 k	0	sw.		0	0	cloudy	
Lewiston, Idaho	29.17	740.9	30.05	763.3	50	10.0	72	e.	3	1.3		5 k	0	e.		0	0	fair	
Little Rock, Arkansas	29.87	758.7	30.19	766.8	55	12.8	80	ne.	4	1.8		0	0			0	0	clear	
Los Angeles, California	29.55	750.6	29.93	760.2	49.3	9.6	77	s.	5	2.2		0	0			0	0	clear	
Louisville, Kentucky	29.75	755.6	30.33	770.4	49.0	9.4	56	ne.	3	1.3		5 ck	2 s	calm	calm	0	0	fair	
Lynchburg, Virginia	29.83	757.7	30.54	775.7	45.5	7.5	76	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	29.30	744.2	30.37	771.4	47	8.3	93	se.	6	2.7			10 n		calm	0.05	1.3	light rain	
Marquette, Michigan	29.54	750.3	30.30	769.6	41	5.0	82	w.	5	2.2		2 k	0	w.		0	0	clear	
Mason, Texas	28.44	722.4	30.15	765.8	70.6	21.4	92	calm	0	0		0	2 ks		se.	0	0	clear	
Memphis, Tennessee	29.87	758.7	30.22	767.6	55	12.8	74	calm	0	0		0	4 s		ne.	0	0	fair	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.60	751.8	30.38	771.6	47	8.3	86	sw.	1	0.4			10 s		sw.	0	0	threatening.	
Mobile, Alabama	30.08	764.0	30.15	765.8	76.0	24.4	90	se.	16	7.2			10 s			0	0	cloudy	
Montgomery, Alabama	30.05	763.3	30.29	769.4	63.7	17.6	51	e.	12	5.4		4 k	0	e.		0	0	fair	
Moorhead, Minnesota	29.05	737.9	30.11	764.8	45	7.2	93	se.	20	8.9			10 n		se.	0.01	0.3	light rain	
Morgantown, W. Virginia	29.42	747.3	30.47	773.9	37.0	2.8	89	calm	0	0		4 cs	fg	nw.		0	0	fair	
Mt. Washington, N. H.	23.69	601.7	30.06	763.5	14.0	—10.0	83	nw.	84	37.6			10 s		nw.	0.20	5.1	cloudy	
Nashville, Tennessee	29.74	755.4	30.30	769.6	54.0	12.2	70	e.	2	0.9		3 ck	0	se.		0	0	clear	
New Haven, Connecticut	30.31	769.9	30.43	772.9	37	2.8	51	nw.	2	0.9		0	0			0	0	clear	
New London, Connecticut	30.39	771.9	30.44	773.2	41	5.0	48	n.	3	1.3		0	0			0	0	clear	
New Orleans, Louisiana	29.96	761.0	30.02	762.5	77.2	25.1	85	ne.	13	5.8			10 s			0	0	cloudy	
Newport, Rhode Island	30.35	770.9	30.41	772.4	41.0	5.0	50	w.	14	6.3		0	0			0	0	clear	
New River, N. Carolina					51	10.6	52	ne.			4	0	0			0	0	clear	
New Shoreham, Rhode I'd.	30.40	772.1	30.42	772.7	45.4	7.4	45	nw.	12	5.4		0	0			0	0	clear	
New York, New York	30.30	769.6	30.48	774.2	40	4.4	65	w.	5	2.2		0	0			0	0	clear	
Norfolk, Virginia	30.48	774.2	30.51	774.9	50	10.0	77	w.	1	0.4		0	sk			0	0	clear	
North Platte, Nebraska	27.00	685.8	30.06	763.5	51.4	10.8	93	se.	14	6.3			10 n		se.	0.09	2.3	light rain	
Olympia, Washington T'y	30.11	764.8	30.15	765.8	42.0	5.6	100	sw.	2	0.9			fg			0.01	0.3	dense fog	
Omaha, Nebraska	28.94	735.1	30.18	766.6	53.2	11.8	86	se.	6	2.7			10 s		sw.	0.18	4.6	cloudy	
Oswego, New York	30.03	762.7	30.37	771.4	45.8	7.7	66	sw.	7	3.1			10 s		nw.	0	0	cloudy	
Pensacola, Florida	30.14	765.5	30.17	766.3	63	17.2	71	ne.	20	8.9			10 s		e.	0.03	0.8	cloudy	
Philadelphia, Pa.	30.46	773.7	30.52	775.2	42	5.6	57	w.	4	1.8		0	fg			0	0	clear	
Phœnix, Arizona	28.71	729.2	30.43	772.9	75	23.9	69	e.	1	0.4		3 cs	0			0	0	fair	
Pike's Peak, Colorado	17.83	452.9	30.04	763.0	29	— 1.7	100	sw.	26	11.6			fg		sw.	0.22	5.6	light fog	
Pioche, Nevada	24.02	610.1	30.21	767.3	50	10.0	29	s.	2	0.9		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.65	753.1	30.50	774.7	39.3	4.1	82	n.	3	1.3		4 c	0	nw.		0	0	fair	
Port Eads, Louisiana	30.02	762.5	30.03	762.7	79.0	26.1	90	e.	32	14.3		hz	6 s; hz	calm	e.; c.	0.05	1.3	threatening.	
Port Huron, Michigan	29.72	754.9	30.44	773.2	42.6	5.9	76	s.	4	1.8		7 c	0	nw.		0	0	fair	
Portland, Maine	30.21	767.3	30.26	768.6	38	3.3	53	sw.	9	4.0		3 cs	6 s	w.	calm	inap.	inap.	cloudy	
Portland, Oregon	30.12	765.0	30.19	766.8	50.0	10.0	93	calm	0	0			10 s		s.	inap.	inap.	cloudy	
Portsmouth, N. Carolina					58	14.4	58	ne.	24	10.7		6 k	0	ne.		0	0	fair	
Prescott, Arizona	24.76	628.9	30.07	763.8	60	15.6	84	calm	0	0		0	5 ks		sw.	0	0	fair	
Punta Rassa, Florida	29.98	761.5	29.99	761.7	76	24.4	85	ne.	15	6.7		0	5 ks		ne.	0	0	fair	
Red Bluff, California	29.78	756.4	30.13	765.3	46.5	8.1	85	nw.	3	1.3		0	0			0	0	clear	
Rio Grande City, Texas	29.81	757.2	30.02	762.5	72	22.2	67	e.	5	2.2		10 cs	0	calm		0	0	cloudy	
Rochester, New York	29.76	755.9	30.42	772.7	38	3.3	82	w.	7	3.1		0	8 s		nw.	0	0	cloudy	
Roseburg, Oregon	29.62	752.3	30.21	767.3	48	8.9	93	calm	0	0		0	3 ks		n.	0.01	0.3	fair	
Sacramento, California	30.03	762.7	30.11	764.8	47.0	8.3	77	n.	6	2.7		0	0			0	0	clear	
St. Louis, Missouri	29.68	753.9	30.31	769.9	49.6	9.8	77	e.	5	2.2		9 c	0	sw.		0	0	cloudy	
St. Paul, Minnesota	29.32	744.7	30.24	768.1	46.1	7.8	93	se.	12	5.4			10 n		se.	0.22	5.6	light rain	
Salt Lake City, Utah	25.55	649.0	30.00	762.0	55	12.8	37	n.	4	1.8		0	0			0	0	clear	
San Antonio, Texas	29.36	745.7	30.08	764.0	73.0	22.8	90	ne.	2	0.9		0	5 s		calm	0	0	fair	
San Diego, California	29.82	757.4	29.89	759.2	52.0	11.1	86	ne.	3	1.3		0	0			0	0	clear	
Sandusky, Ohio	29.73	755.1	30.44	773.2	44	6.7	68	se.	7	3.1		5 c	0			0	0	fair	
Sandy Hook, New Jersey	30.45	773.4	30.48	774.2	45.0	7.2	45	nw.	7	3.1		0	0			0	0	clear	
San Francisco, California	30.05	763.3	30.12	765.0	53	11.7	80	w	3	1.3		0	0			0	0	clear	
Santa Fé, New Mexico	23.35	593.1	30.34	770.6	50.3	10.2	82	ne.	5	2.2		0	7 s		calm	1.05	26.7	fair	
Savannah, Georgia	30.25	768.3	30.34	770.6	58	14.4	65	ne.	12	5.4		0	0			0.04	1.0	clear	
Shreveport, Louisiana	29.90	759.4	30.13	765.3	66	18.9	76	ne.	8	3.6			10 s		e.	0	0	cloudy	
Silver City, New Mexico	24.34	618.2	30.02	762.5	54	12.2	86	calm	0	0		0	7 ks			1.10	27.9	fair	
Sitka, Alaska	29.93	760.2	30.00	762.0	51	10.6	93	sw.	4	1.8			10 n		sw.	0.31	7.9	light rain	
Smithville, North Carolina	30.38	771.6	30.42	772.7	51	10.6	59	ne.	12	5.4		0	1 ks		calm	0.20	5.1	clear	
Spokane Falls, Wash. Ter.	27.97	710.4	30.04	763.0	42	5.6	83	w.	1	0.4		8 k	0	nw.		0	0	fair	
Springfield, Illinois	29.61	752.1	30.32	770.1	52	11.1	80	e.	6	2.7			9 s		w.	0	0	cloudy	
Springfield, Massachusetts	30.28	769.1	30.41	772.4	34.8	1.6	69	s.	3	1.3		0	0			0	0	clear	
Stockton, Texas	27.09	688.1	30.24	768.1	59.0	15.0	87	se.	8	3.6		0	3 s		calm	0	0	fair	
St. Vincent, Minnesota	29.14	740.1	30.06	763.5	44	6.7	93	s.	8	3.6		0	8 s		calm	0	0	fair	
Thatcher's Island, Mass.	30.28	769.1	30.34	770.6	38.4	3.6	82	nw.	22	9.8		0	2 ks		e.	0	0	clear	
Toledo, Ohio	29.67	753.6	30.39	771.9	45	7.2	76	sw.	2	0.9		4 ck	2 s	nw.		0	0	fair	
Tucson, Arizona	27.42	696.5	29.86	758.4	70	21.1	82	se'	8	3.6		1 k	0			0.31	7.9	clear	
Umatilla, Oregon	29.74	755.4	30.17	766.3	49.8	9.9	77	w.	3	1.3			10 s		calm	0	0	cloudy	
Uvalde, Texas	29.08	738.6	29.87	758.7	72	22.2	82	se.	3	1.3			10 ks		se.	0	0	cloudy	
Vicksburg, Mississippi	29.88	758.9	30.14	765.5	64	17.8	78	ne.	4	1.8		3 ck	3 s	calm	calm	0	0	fair	
Visalia, California	29.65	753.1	30.02	762.5	43	6.1	83	calm	0	0		0	0			0	0	clear	
Washington, D. C.	30.42	772.7	30.54	775.7	37	2.8	72	calm	0	0		1 k	fg	w.		0	0	clear	
West Los Animas, Colorado	26.03	661.2	30.10	764.5	52.3	11.3	100	nw.	1	0.4			10 n			inap.	inap.	light rain	
Wickenburg, Arizona					65	18.3	90	calm			0	4 k	0	sw.		0	0	fair	
Wilmington, N. Carolina	30.38	771.6	30.44	773.2	50	10.0	52	ne.	10	4.5		0	0			0.02	0.5	clear	
Winnemucca, Nevada	25.67	652.0	30.13	765.3	39	3.9	61	sw.	6	2.7		0	8 ks		sw.	0	0	cloudy	
Wood's Holl, Mass.	30.33	770.4	30.37	771.4	44	6.7	48	nw.	13	5.8		0	0			0	0	clear	
Yankton, Dakota	28.73	729.7	30.40	764.5	51	10.6	93	se.	10	4.5			10 s		se.	0.47	11.9	cloudy	
Yuma, Arizona	29.64	752.8	29.78	756.4	69.2	20.7	76	se.	2	0.9		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	29.96	761.0	29.98	761.5	85	29.4	87	e.	3	1.3			10 k		e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.04	559.8			54.0	12.2	79	se.	2	0.9		2 k	0			0.04	1.0	fair	Joaquin Gomez.
Guadeloupe, W. I.‡	29.82	757.4	29.82	757.4	80	26.7	87	e.				0	0			0	0	clear	B. Bigar.
Havana, Cuba, W. I.	29.90	759.4	29.95	760.7	79	26.1	88	calm	0	0		1 cs	8 ks	calm	c.	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.90	759.4	29.91	759.7	78.2	25.7	90	calm	0	0		3 cs	4 s	nw.		0	0	fair	Robert Johnstone.
Nassau, W. I.	29.79	756.7	29.87	758.7	80	26.7	78	w.	9	4.0		5 ks	5 k; hz	w.	nw.	0	0	cloudy	F. M. Everett.
Paramaribo, S. A.	29.98	761.5	29.98	761.5	81	27.2	78	e.			3	0	4 k			0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.45	748.0	30.01	762.2	80	26.7	89	calm					10 ks		sw.	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					72.3	22.4	96	calm			0	0	0			0.16	4.		Earl Flint.
Santiago de Cuba, W. I.	29.89	759.2	29.91	759.7	79	26.1	82	n.	1.2	0.5		7 c	0			inap.	inap.	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.81	757.2	29.92	760.0	82	27.8	79	s.	8	3.6		2 c	3 ks	w.	s.	0	0	fair	G. O. Gyllich.
York Factory, B. A.	30.00	762.0	30.05	763.3	26.0	— 3.3	94	n.	17	7.6		4 k	3 s	n.	n.	0	0	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, S. 10° 36′, E. 141° 33′	29.91	759.7	76.5	24.7	81	e.			2–3		1							blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibralter, Mediterranean	30.18	766.6	65	18.3	83	sw.			1–2		10	sw.						overcast	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	30.33	770.4	57	13.9		nne.			4		10	ne.						showery	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche																			Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 16° 18′, W. 3° 46′	30.09	764.3	66.5	19.2	73	sse.			3–4		8	sse.				4	ssw.	d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.93	760.2	60	15.6	94	nnw.			1–2		9					2	s.	d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, Gibraltar, Mediterranean	29.96	761.0				ssw.			2–3							3	sw.	overcast	Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A. T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 11′, E. 20° 28′	30.13	765.3	75	23.9		se.			1		2	sse.						d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 15° 55′, W. 5° 42′	30.11	764.8	72	22.2		se.			2–4		2	se.						d. clouds	Capt. C. Domvile.
H. M. Dock-Yard, Bermuda, W. I.	30.08	764.0	66	18.9	68	nnw.			5–6		8	nnw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	29.60	751.8	34	1.1	79	wsw.			1–2		10	nw.						overcast	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 25° 38′, E. 57° 46′	29.69	754.1	88	31.1		s.			1		5	s.						d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.77	756.1	89.5	31.9		sw.			3–4		1	s.						blue sky	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 17° 41′, E. 178° 51′	29.82	757.4	78	25.6	100	e.			1–2		3	ese.						squally	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.70	754.4	89	31.7	66	sw.			1–2		3	sw.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 51° 13′, W. 56° 47′	29.30	744.2	37	2.8		nnw.			6		5	nnw.				sm'h		squally	Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 58′, E. 32° 55′	30.04	763.0	75	23.9	79	ene.			3		0					1	e.	blue sky	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Capt. R. F. Roskyn.
H. M. S. Gannet, N. 21° 08′, W. 157° 51′	30.02	762.5	76	24.4	86	calm			0		10	s.						showery	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	29.62	752.3	54	12.2	86	ssw.			5		10							drizzling	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, N. 20° 00′, E. 151° 30′	29.88	758.9				e.			3		4	e.				2	e.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 33° 51′, E. 132° 40′	30.16	766.1	71	21.7		se.			1		2	s.						d. clouds	Capt. R. E. Tracey.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 6° 53′, W. 79° 07′	29.96	761.0	77	25.0		n.			1		2	n.				1		d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 31° 50′, E. 32° 50′	29.98	761.5	72	22.2		nnw.			6		3	nnw.				4	nne.	squally	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 07′, W. 5° 20′	30.24	768.1	58	14.4	81	ssw.			6		5					4	ssw.	d. clouds	Lt. C. F. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, Hoi How Bay, Japan	29.86	758.4	80.5	26.9	88	se.			2		10					1	ne.	misty	Lieut. A. Balfour.
H. M. S. Midge																			
H. M. S. Malabar, Suez Cana	29.94	760.5	91	32.8	63	nne.			3–4		0							blue sky	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	30.03	762.7	61.5	16.4	64	nne.			6		2	nne.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo Chili,	30.09	764.3	54	12.2	86	calm			0		1							blue sky	Comm. F. Edwards.
H. M. S. Nelson, N. 33° 40′, W. 15° 48′	30.32	770.1	65	18.3	?	n.			3–4		3	nnw.				4	n.	d. clouds	Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	29.99	761.7	39	3.9	63	nnw.			5		0							blue sky	Capt. E. B. Drummond.
H. M. S. Orontes, N. 36° 25′, W. 6° 30′	29.98	761.5	67	19.4	90	wnw.			4		8					3	wnw.	d. clouds	Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	30.04	763.0	40	4.4	82	calm			0		2	ese.						d. clouds	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 16° 51′, E. 62° 05′	29.80	756.9	80.3	26.8	78	calm			0		2							d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sea Gull, S. 13° 20′, E. 42° 06′	29.59	751.6	80	26.7	86	sse.			2		2	sse.						d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar, S. 13° 55′, W. 6° 36′	30.13	765.3	72.5	22.5	75	se.			5		8	se.				4	se.	d. clouds	Capt. T. H. Boyse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 46° 30′, W. 128° 07′	30.21	767.3	56	13.3	80	wsw.			2		1					2	wsw.	blue sky	Capt. P. W. Stephens.
H. M. S Thunderer, N. 34° 28′, E. 11° 20′	29.90	759.4	79	26.1	78	n.			5		6					5	n.	misty	Capt. C. F. Hotham.
H. M. S Triumph, Paracas Bay, Peru	30.06	763.5	60	15.6	94	s.			1		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne, N. 44° 41′, W. 9° 46′	30.45	773.4	62.0	16.7	97	nne.			3–4		4	nne.				4	n.	d. clouds	Capt. J. E. Stokes.
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.86	758.4	79	26.1		n.					5							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.89	759.2	58	14.4	87	calm			0		5	w.						d. clouds	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Jask, Persia	29.69	754.1	88.5	31.4	72	s.			1–3		4	s.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela India	29.97	761.2	79.2	26.2	69	w.			3		0					1		blue sky	Carlos Candid dos Reis. A. M. da Sitra.
Quanza, Brava, Cape Verd Ids.	29.81	757.1	81.7	27.6	89	wnw.			1		9			15 h'r	15 h'r	1	se.	raining	Carlos M. de Silva Costa. C. da Silva Costa.
Rio Lima																			G. A. de Brito Capello.
Sado																			
Tamegn, Macao, China	29.96	760.9	77.9	25.5	84	e.			4		3		e.					d. clouds	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.20	767.1	74	23.3	81	ne.	13	5.8			10		ne.	0	0			cloudy	
N. Yard, Portsmouth, N. H.	30.31	769.9	40	4.4	56	w.	12	5.4		5 0	0	nw.		0	0			cloudy	
Naval Hospital, Yokohama, Japan	30.05	763.3	66	18.9	86	e.			1		8		e.	0	0			cloudy	
Adams, Payta, Peru	29.86	758.4	63	17.2	89	se.			0-1		8		sw.			sm'h		cloudy	
Alaska, Callao, Peru	29.98	761.5	60	15.6	94	nnw.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	30.05	763.3	69	20.6	85	e.			2		10		e.	0	0	sm'h		cloudy	
Alliance, N. 67° 11′, W. 19° 40′	29.48	748.8	45	7.2	84	w.			4		5			0	0	mod.		fair	
Ashuelot, Kobe, Japan	30.16	766.1	70	21.1	66	calm			0		10		wsw.					overcast	
Colorado, New York, N. Y	30.45	773.4	45	7.2	68	wsw.	4	1.8			0							clear	
Constitution, New London, Conn	30.37	771.4	37	2.8	81	wsw.	2	0.9			0							clear	
Franklin, Norfolk, Va	30.39	771.9	44	6.7	92	sw.	3	1.3			0			0	0			clear	
Galena, N. 38° 55′, E. 14° 29′	29.93	760.2	74	23.3	81	se.			2		8					sm'h		cloudy	
Independence, N. Yard, Mare I'd, Cal	29.95	760.7	50	10.0	86	calm	0	0			0							clear	
Kearsarge, Hudson River, N. Y. *†	30.61	777.5	43	6.1	75	wnw.			2		0					sm'h		hazy	
Lackawanna, San Francisco, Cal †	30.29	769.4	57	13.9	94	ne.			2		0							clear	
Lancaster, New York, N. Y.	30.41	772.4	48	8.9	78	w.	12	5.4			0			0	0			blue sky	
Marion, Montevideo, Uruguay	29.62	752.3	57	13.9		s.			6		10		s.	h'vy	h'vy	r'gh	sse.	misty	
Michigan, Erie, Pa	30.39	771.9	51	10.6	100	w.			3		2		w.					fair	
Minnesota, Newport, R. I	30.27	768.8	58	14.4	53	wsw.			5		0					sm'h		clear	
Monocacy, Yokohama, Japan	30.22	767.6	67	19.4	89	ne.			2		10		calm					cloudy	
Nipsic, Genoa, Italy	30.08	764.0	60	15.6	60	n.			4		2					sm'h		d. clouds	
Onward, Callao, Peru †	30.01	762.2	58	14.4	100	n.			2		10		nw.			long	w.	cloudy	
Palos, Hong Kong, China	29.97	761.2	78	25.6	82	e.			3		8		n;e.					fair	
Passaic, Washington, D. C	30.52	775 2	40	4.4	100	ne.			1		0							clear	
Pensacola, Callao, Peru,	30.07	763.8	59	15.0	94	nnw.			1		10			0	0			cloudy	
Portsmouth, New York, N. Y	30.46	773.7	43	6.1	67	w.			1		2		nw.			sm'h		clear	
Powhatan, N. 23° 39′, W. 84° 03′	29.88	758.9	80	26.7	87	ene.			5		8		ne.			mod.	ne.	cloudy	
Quinnebaug, Marseilles, France	30.05	763.3	60	15.6	50	nnw.			2		8		calm			sm'h		cloudy	
Ranger, Mare Island, Cal. *	30.06	763.5	56	13.3	69	calm			0		0							clear	
Richmond, Panama, Panama	29.92	760.0	80	26.7	96	nw.			1		2			0	0			clear	
Saratoga, New York, N. Y	30.44	773.2	41	5.0	91	nw.			1-2		0			0	0	sm'h		clear	
Shenandoah, Montevideo, Uruguay *	29.79	756.7	58	14.4	82	s.			6		8		s.			r'gh	s.	fair	
St. Louis, League Island, Pa	30.20	767.1	40	4.4	82	nw.	4	1.8			2			0	0			clear	
Swatara, Chefoo, China †	30.19	766.8	62	16.7	66	nne.			2		10		ne.			sm'h		cloudy	
Tennessee, New York, N. Y	30.48	774.2	41	5.0	100	nnw.	3	1.3			0			0	0			hazy	
Trenton, N. 23° 14′, W. 56° 12′ *	29.99	761.7	85	29.4	87	se.			2		0			0	0	sm'h		clear	
Vandalia, New York, N. Y	30.43	772 9	44	6.7	68	wnw.			2		0							clear	
Wabash, Boston, Mass	30.36	771.1	36	2.2	55	w.	4	1.8			2		nw.	0	0			hazy	
Wachusetts, Sitka, Alaska	30.05	763.3	51	10.6	93	calm			0		0							misty	
Wyoming, Port Royal, S. C	30.33	770.4	58	14.4	70	ne.	26	11.6			2		ne.	0	0			clear	
Yantic, New York, N. Y *	30.40	772.1	47	8.3	70	nw.			2		0							hazy	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., agents, Baltimore, and H. & A. Allan, agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 54° 19′, W. 46° 48′ *†	29.35	745.5				ese.	4		10		se.			r'gh	se.	rainy	N. McLean.
S. S. Circassian, Capt. W. H. Smith ‡ N. 54° 00′, W. 47° 45′	29.58	751.3	38	3.3	80	wnw.	9		5		wnw.	4 h'r	4 h'r	4	nw;w	rain&hail	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, St. John's, Newfoundland	29.46	748.3	39	3.9		wnw.	5		2		wnw.					squally	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Queenstown, Ireland †	30.51	774.9	57	13.9	93	ne.	2		2		ne.			sm'h	ne.	clear	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Delaware Bay, Delaware †	30.42	772.7	59	15.0	32	e.	5		2		e.	0	0	sm'h	e.	clear	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Philadelphia, Penn *†	30.43	772.9	38	3.3	90	w.	2		2		wsw.					clear	
S. S. Pennsylvania, Capt. G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, S. 29° 00′, W. 35° 00′	30.27	768.8	66	18.9	68	e.	6		5							blue sky	
S. British Merchant, Capt. E. J. Moloney																	
Bq. Caldew, Capt. N. W. Petersen S. 50° 04′, W. 62° 23′	29.41	747.0	44	6.7		w.	6		3								
S. S. Olpero, Capt. W. N. Lailey, Off Belize, Honduras, C. A.	29.82	757.4	79.4	26.3	86	wsw.	3		7							d. clouds	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton,																	
S. S. Gordon Castle, Capt. W. Waring, N. 19° 27′, E. 39° 12′	29.79	756.7	92.5	33.6	67	wnw.	1		0							blue sky	
Bg. Hermine, Capt. S. G. Jones, S. 23° 42′, W. 39° 18′	30.12	765.0	71	21.7	90	ene.	6		10							misty	
Bkt. Hope, Capt. Jas. Campbelle, N. 40° 00′, W. 28° 15′ ‡	30.47	773.9	70.5	21.4	85	se.	3		1							blue sky	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 27° 55′, E. 84° 57′	30.23	767.8	65	18.3	89	nne.	3		4							d. clouds	
Bk. Mertola, Capt. E. W. Turner N. 44° 56′, W. 14° 42′	30.55	776.0	61.2	16.2	88	nne.	4		7							d. clouds	
Bk. Moorhill, Capt. J. Brown, S. 57° 27′, W. 68° 47′	28.72	729.5	41.8	5.4	83	wsw.	7		8							gloomy	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry N. 69 47′, W. 24° 06′	30.05	763.3	83	28.3	82	sw.	2		2							blue sky	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 33° 23′, W. 38° 00′	30.28	769.1	75.5	24.2	81	ese.	3-4		2							blue sky	
S. S. Strathleven, Capt. C. W. Pearson N. 34° 16′, E. 138° 07′	30.12	765.0	71.5	21.9	90	e.	2		4							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
S. S. Wyberton, Capt R. J. Blacklin S. 7° 19′, E. 84° 26′	29.71	754.6	81	27.2		se.	2		4							d. clouds	
CALIFORNIA, AND MEXICAN S.S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers																	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains,																	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., agents, Baltimore, and Oelrich & Co., agents, New York.*																	
Braunschweig, Capt. C. Pohle N. 49° 21′, W. 40° 01′	29.34	745.2	67.0	19.4	89	wsw.	8		8		w.			h'vy	sw.	cloudy	
S. S. Hermann, Capt. H. Baur N. 47° 08′, W. 40° 15′	29.69	754.1	67.1	19.9		ssw.	7		10		wsw.	3 h'r	3 h'r	high	ssw.	stormy	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jungst,																	T. Jüngst.
S. S. Leipsic, Cept. F. Pfeiffer,																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 40° 43′, W. 67° 00′	30.30	769.6	46.0	7.8	80	nw.	5		2		wnw.	0	0	sm'h	wnw.	clear	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 33° 35′, E. 136° 47′ †	30.28	769.1	75	23.9	64	ne.	2		2		nw.	0	0	light	se.	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 41° 05′, E. 157° 18′ *†	30.44	773.2	68	18.9	74	nnw.	3		8		w.			mod.	con.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf.																	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, agent, San Francisco.*																	
S. S. City of Chester, Capt. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles, Astoria, Oregon †	30.21	767.3	50	10.0	93	ne.	2		10							foggy	
S. S. Oregon, Capt. Pollmann, Portland, Oregon †	30.17	766.3	62	16.7	93	calm	0		10		w.					cloudy	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 35° 26′, W. 121° 05′ †..	29.99	761.7	55	12.8	87	nw.	2	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Idaho, Capt. T. Huntington, Tacoma, Washington Ter.....†	30.14	765.5	47	8.3	92	calm	0	.....	fog.	.....	.....	.....	.....	.....	.....	foggy.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 35° 53′, W. 121° 30′.....†..	30.02	762.5	58	14.4	76	nw.	2	.....	0	.....	.....	.....	.....	sm'h	.....	fine.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 35° 39′, W. 123° 10′.....†.	30.02	762.5	60	15.6	100	nnw.	1	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal.....†	30.09	764.3	54	12.2	100	n.	2	.....	0	.....	.....	.....	.....	.....	.....	clear.....	G. Debney.
S. S. Victoria, H. M. Hayward, N. 47° 00′, W. 124° 50′.....†..	30.14	765.5	49	9.4	100	wsw.	3	.....	10	.....	w.	.....	.....	light	w.	cloudy.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulkley, Supt. New York.*																	
S. S. Australia, Capt. ——, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. Bannermann, 2d Off
S. S. City of New York, Capt. W. B. Cobb, S. 35° 50′, E. 153° 35′.....†.	30.09	764.3	68	20.0	84	nne.	2	.....	1	.....	ne.	.....	.....	mod.	ne.	clear.....	W. H. Hawes, 2d Off
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, Hong Kong, China .....*†.	30.09	764.3	78	25.6	82	e.	4	.....	1	.....	e.	0	0	sm'h	.....	clear.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, N. 31° 42′, W. 119° 14′.....†..	29.97	761.2	64	17.8	83	wnw.	4	.....	0	.....	.....	0	0	mod.	nw.	clear.....	.....
S. S. City of Sydney, Capt. H. C. Dearborn, N. 60° 56′, W. 164° 01′.....*†...	29.71	754.6	82	27.8	79	se.	3	.....	10	.....	se.	0.052	1.6	mod.	se.	drizzling.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 41° 32′, W. 179° 33′.....†..	30.24	768.1	54	12.2	67	nne.	3	.....	10	.....	nne.	.....	.....	long	nne.	cloudy.....	A. L. Ritchie, 2d Offi.
S. S. Colima, R. R. Searle N. 7° 32′, W 79° 52′.....†....	29.91	759.7	78	25.6	?	n.	3	.....	8	.....	nne.	0	0	mod.	ssw.	gloomy.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 14° 25′, W. 92° 40′.....†....	29.82	757.4	79	26.1	91	sw.	5	.....	8	.....	sw.	3 h'r	3 h'r	mod.	wsw.	cloudy	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	30.08	764.0	61	16.1	71	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Feddersen, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, Jersey City, N. J.....†...	30.59	777.0	48	8.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 41° 34′, W. 64° 45′.....†..	29.97	761.2	42	5.6	.....	n.	6	.....	5	.....	nw.	sh's	sh's	h'vy	nw.	fair.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 50° 14′, W. 21° 13′.....†..	30.21	767.3	59	15.0	.....	wsw.	5	.....	10	.....	sw.	4 h'r	drizs	mod.	w.	overcast.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, Mersey River, Eng .....†..	30.54	775.7	56	13.3	81	ne.	2	.....	10	.....	ne.	0	0	.....	.....	misty.....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Buzzard Bay, Mass.....†.	30.43	772.9	44	6.7	76	w.	2	0	9 s?	.....	.....	0	0	.....	.....	clear?	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
S. Pawashick, Capt. E. Fry, N. 36° 00′, W. 5° 02′.....*†....	29.76	755.9	66	18.9	89	wnw.	4	.....	2	.....	w.	.....	.....	sm'h	w.	very fine.....	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, Lisbon, Portugal.....†.	30.02	762.5	68	20.0	60	nnw.	7	.....	c	.....	.....	mod.	mod.	.....	.....	clear.....	J. G een.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 7, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.85	758.1	68.4	20.2	85	w.			3		1			0.067	1.7	pretty fair	Moiroud.
Algiers ‡			29.85	758.3	69.4	20.8	85	e.			1		10			0.425	10.8	covered	Nicolas.
La Calle ‡			29.92	760.0	74.5	23.6	85	e.			6		4			0.039	1.0	cloudy	Fonfrède.
Tunis ‡			29.91	759.6															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.88	759.0	58.1	14.5	83	nnw.			1		2			0.783	19.9	fair	Dumas.
Tebessa ‡			29.91	759.7	69.8	21.0	58	ese.			5		7			0	0	very cloudy	Derché.
Geriville ‡					67.6	19.8	44	w.			1		3			0.378	9.6	pretty fair	Lonchamp.
Laghouat ‡			29.94	760.5	65.5	18.6	34	nw.			2		0			1.032	26.2	clear	Herbin.
Biskra ‡			29.93	760.3	80.6	27.0	51	se.			7		10			1.051	26.7	covered	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.04	763.0	30.13	765.3	53.3	11.8	90	sw.	5	2.2			10			0	0	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.79	756.7	30.35	771.0	49.3	9.6	89	ne.			2		10			0.008	0.2		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.68	753.9	30.47	773.8	51.4	10.8	87	ne.	4.9	2.2			1			0	0		Dr. Wiersbicki.
Eperies	29.51	749.6	30.39	772.0	59.4	15.2	60	calm			0	0	0			0	0		Julius Mikolik.
Gratz ‡	29.11	739.4	30.39	771.9	50.0	10.0	87	ne.			2		10			0.280	7.1		Andreas Rospini.
Hermannstadt	28.97	735.7	30.40	772.2	59.5	15.3	56	sse.			4		0			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.96	735.6	30.34	770.6	45.0	7.2	96	ene.			1		10			0.138	3.5	raining	The Staff.
Lemberg	29.47	748.6	30.48	774.1	52.5	11.4	50	se.			2		0			0	0		Dr. T. Stanecki.
Pola	30.07	763.8	30.18	766.6	63.0	17.2	68	ene.			2		9			0	0		I. R. Hydrographic Office.
Szathmar	29.93	760.3	30.40	772.1	61.3	16.3	43	e.			3		0			0	0		Jozsef Midlinszky, S. J.
Szegedin	30.11	764.7	30.39	771.8	59.7	15.4	53	calm			0		0			0	0		Karl Stancel.
Trieste	30.12	765.0	30.22	767.6	61.2	16.2	63	ene.			4		10			0	0		Rieder.
Vienna	29.69	754.2	30.43	772.8	51.4	10.8	86	se.			2		10			0.008	0.2		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 9, 1882.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.23	767.8	30.33	770.4	53.4	11.9	86	ssw.	4	1.8			10			0.160	4.1	drizzling	W. Boswell.
Armagh, Observatory	30.23	767.8	30.46	773.7	54.9	12.7	84	sw.	9	4.0			10					overcast	S. Call.
Bidston, Liverpool Obs'y			30.50	774.7	55.0	12.8	73	sw.	5	2.2			10					overcast	John Hartnup.
Bolton, Sharples	29.94	760.5	30.48	774.2	50.6	10.3	78	ssw.	24	10.7			10					overcast	Thomas Mackereth.
Bradford, Yorkshire	30.06	763.5	30.45	773.4	53.3	11.8	78	sw.			1		10			0.25	6.3	overcast	[A.S. J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.47	773.9	53.0	11.7	70	nw.			0.4		8					overcast	John McLaren.
Chatham, School M. E.	30.35	770.9	30.48	774.2	53.1	11.7	73	ne.			1		8					d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	30.30	769.6	30.54	775.7	55.9	13.3	65	ene.			1		9					foggy	The Staff.
Fort Napier, Natal	27.58	700.5	29.80	756.9	97.2	36.2	56	ne.			2		1					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.64	752.8	29.88	758.9	86.0	30.0	83	sw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			30.40	772.1	59	15.0	87	sw.			2		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.82	757.4	29.87	758.7	68.5	20.3	81	ne.			3		6					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	30.21	767.3	30.41	772.4	50.8	10.4	90	sw.			3							raining	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.31	769.9	30.49	774.4	52.1	11.2	72	n.			1		10					overcast	The Staff.
Guernsey	30.23	767.8	30.45	773.4	53.5	11.9	66	ne.			2		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.47	773.9	30.50	774.7	51.9	11.1	61	n.	7	3.1			9					threatening	The Staff.
Leicester, Museum	30.24	768.1	30.50	774.7	50.5	10.3	67	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.79	756.7	29.86	758.4	76.0	24.4	85	ne.			2		5			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.04	763.0	30.08	764.0	78.5	25.8	68	ne.			5		7					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.98	761.5	30.52	775.2	52.7	11.5	73	ne.			1		10					overcast	John Mac Email.
Oxford, Radcliffe Obs'y	30.28	769.1	30.51	774.9	50.4	10.2	64	n.			2		10					overcast	The Staff.
Plymouth	30.44	773.2	30.52	775.2	55.2	12.9	67	nne.			1		8					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.24	768.1	53	11.7	94	sw.	13	5.8			10			0.60	15.2	raining	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	30.29	769.4	30.35	770.9	63.4	17.4	36	ne.			3		4					d. clouds	Serg't W. H. Lyne.
Sheffield	30.21	767.3	30.50	774.7	53.1	11.7	81	s.			1		10			0.30	7.6	overcast	W. F. Cooper.
Silloth Rectory	30.41	772.4	30.44	773.2	53.8	12.1	78	w.			2		10			0.045	1.2	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.51	774.9	51.4	10.8	76	sw.	5	2.2			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	30.29	769.4	30.51	774.9	50.9	10.5	73	n.			2		9					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.48	774.2	30.52	775.2	58	14.4	64	ne.			2		10					gloomy	W. Newcombe.
Valencia, Observatory	30.47	773.9	30.50	774.7	59.9	15.5	73	ssw.	13	5.8			9					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.14	765.5	30.19	766.8	48	8.9	83	sw.	5	2.2		0	0			0	0	clear	H. J. Cundall, C. E.
Chatham, N. B. *	30.10	764.5	30.16	766.1	39	3.9	89	s.	2	0.9		2 ck	0	sw.		0	0	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	30.08	764.0	30.10	764.5	47	8.3	86	nw.	15	6.7			10 s		nw.	0	0	cloudy	J. McWilliams.
Fort Garry, Manitoba *	28.82	732.0	29.63	752.6	48	8.9	96	sw.	5	2.2		2 k	2 ks	sw.	sw.	0.010	0.3	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	30.15	765.8	30.28	769.1	47	8.3	86	w.	4	1.8		5 k	0	nw.		0	0	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.94	760.5	30.28	769.1	48	8.9	83	calm	0	0		10 cs	0	calm		0	0	cloudy.	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	30.05	763.3	30.25	768.3	48	8.9	80	sw.	14	6.3		0	0			0	0	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.50	749.3	30.20	767.1	48	8.9	93	s.	3	1.3		2 k	5 ks	w.	w.	0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.57	751.1	30.27	768.8	50	10.0	100	calm	0	0			10 n			0.06	1.5	light rain	H. Morgan.
Port Stanley, Ontario	29.60	751.8	30.25	768.3	50	10.0	93	ne.	1	0.4			10 n		se.	0.01	0.3	light rain	M. Payne.
Quebec, Quebec *	29.90	759.4	30.23	767.8	47	8.3	86	w.			1	5 k	0	sw.		0	0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.75	755.6	30.22	767.6	40	4.4	92	sw.	2	0.9			fg.			0	0	dense fog	W. H. McIntyre.
Saugeen, Ontario *	29.47	748.5	30.19	766.8	48	8.9	100	e.	15	6.7			10 ks			0.01	0.3	cloudy	K. Stewart.
St. Andrews, N. B.	30.20	767.1	30.25	768.3	47	8.3	84	w.	2	0.9		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	30.15	765.8	30.22	767.6	47	8.3	86	sw.	14	6.3		2 k	0			0	0	clear	T. C. Hill, C. E.
Toronto, Ontario *	29.89	759.2	30.28	769.1	49	9.4	77	n	1	0.4			10 n			0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	30.24	768.1	30.31	769.9	53	11.7	96	se.	3	1.3		2 c	0	w.		0	0	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.02	762.5	30.28	769.1	57	13.9	92	s.				5 k	5 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House ‡	30.01	762.2	30.04	763.0	66.0	18.9	88	w.	15.7	7.0		0	3 s			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester * †	29.21	741.9			76.1	24.5	42	wnw.			1	0	2			0	0	light clouds	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai.	29.87	758.7	29.89	759.3	72.5	22.5	91	sse.	8.5	3.8		10 ck	0			0	0	covered	M. Marc Dechevrens, S. J

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.43	772.9	30.48	774.1	49.5	9.7	70	sse.	20	9			10						Oversergent Fischer.
Fanöe	30.36	771.2	30.38	771.7	44.8	7.1	80	ene.			2		8						Overloerer Lauridsen.
Godthaab, Greenland	29.13	739.8	29.19	740.9	24.1	—4.4	81	s.			2		2						S. Kleinschmidt.
Stykkisholm, Iceland	29.34	745.2	29.38	746.3	49.6	9.8	98	s.			7		10					raining	A. O. Thorlacius.
Thorshavn	29.91	759.7	29.95	760.6	53.2	11.8	99	wsw.	22	10			6						Overloerer Bergh.
Vestervig	30.34	770.4	30.42	772.7	46.2	7.9	83	ene.			4		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.63	752.6	30.25	768.4	53.6	12	43	ene.			1	2 c	0					clear	M. Labroue, Director.
Alençon Normal School	29.88	758.9	30.48	774.3	55.4	13	84	n.			2		n			0	0		M. Nicot, Director.
Arras, Engineer School	30.15	765.7	30.41	772.4	47.8	8.8	89						k						M. Klein, Commandant.
Avignon, Normal School	30.11	764.8	30.19	766.8	59.4	15.2	44	n.			4		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.82	757.3	30.38	771.6	51.8	11.0	79	e.			1		5 kn		ne.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	30.17	766.3	30.45	773.3	57.0	13.9	64	ene.			1		8		ene.	0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.44	747.7	30.34	770.7	51.8	11	52	ne.			2	2 c	0	n.		0	0	slightly cl'dy	M. Gobin, Director.
Bordeaux, Observatory	30.03	762.7	30.29	769.4	57.9	14.4	40	n.			1		1		ene.	0	0	almost clear	M. Rayet, Director.
Bourges, Normal School	29.78	756.4	30.33	770.4	58.1	14.5	42	sw.			1		1		sw.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	30.22	767.6	30.47	773.8	55.8	13.2	75	ne.			2		10		ne.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.33	770.4	30.41	772.3	55.0	12.8	87	ene.			1		5		ene.	0.16	4.	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	30.04	763.1	30.37	771.4	56.1	13.4	59	ne.			2		8			0	0	very cloudy.	M. Jadot, Director.
Charleville, Normal School	29.88	759.0	30.41	772.3	54.7	12.6	70	sse.			1		4			0.08	2.		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.95	735.4	30.33	770.3	53.2	11.8	47	n.			1	2 c; ck	0			0	0	slightly cl'dy	M. Alluard, Director.
Cluny, Normal School	29.49	749.0	30.35	770.8	56.1	13.4	43	ne.			1		1			0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.52	749.9	30.42	772.6	49.1	9.5	62	sw.			1		2 kn	sw.	sw.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.65	702.3	30.15	765.8	60.8	16	50	sw.			3		1 s		n.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	29.07	738.3	30.21	767.3	67.6	19.8	29	n.			2		2		sw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.51	749.5	30.29	769.3	53.1	11.7	49	ne.			2	cs	0			0	0		M. Ablard, Director.
Guéret, Normal School	28.72	729.4	30.32	770.0	48.6	9.2	65	e.			1	2 ck	0	w.		0	0	slightly cl'dy	M. Rivoire, Director.
Lamballe, Normal School	30.20	767.0	30.47	774.0	56.3	13.5	73	n.			2		5 k		n.	0.059	1.5	cloudy	M. Oilitrault, Director.
Lescar, Normal School	29.70	754.3	30.27	768.8	55.4	13	66	ene.			1			ne.		0	0		M. Chauvin, Director.
Lorient, Naval Observatory	30.34	770.7	30.45	773.3	60.8	16	69	ne.			4		8		ne.	0	0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.26	743.1	30.34	770.7	48.2	9.0	52	nnw.			1	c	0	wsw.		0	0		M. André, Director.
Mans, Normal School	30.11	764.9	30.43	772.9	55.0	12.8	66	e.			3		8		e.	0	0	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.83	757.6	30.10	764.4	68.4	20.2	40	nw.			3		8		ese.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.92	632.9	30.15	765.9	45.5	7.5	30	e.	5.6	2.5			6		ne.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.07	763.7	30.18	766.5	63.0	17.2	50	n.			4		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.60	751.9	30.38	771.7	51.8	11	59	n.			1		2 kn			0	0	slightly cl'dy	M. Hasse.
Nantes, Observatory	30.27	768.8	30.43	772.9	58.8	14.9	62	ene.			1–3		10 kn; n		ene.	0	0	covered	M. Larocque, Director.
Nice	30.04	762.9	30.07	763.8	67.6	19.8	51	w.			2	1	1	w.	w.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	30.07	763.7	30.17	766.4	58.8	14.9	13	n.	15.0	6.7			9	s.		0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					59.0	15	30	n.			1								M. Tallieu.
Puy de Dôme Obs'y, Summit	25.33	643.3			31.8	—0.1	96	ene.			4		2			0	0	¼ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.34	770.6	30.37	771.4	56.3	13.5	85	ne.			2		5		n.	0	0	½ covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	30.14	765.6	30.36	771.1	57.9	14.4	65	ne.			4		5		ne.	0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School	28.07	712.9	30.24	768.0	51.1	10.0	46	nw.			1	c	0			0	0		M. Richard, Director.
Rouen, Normal School	30.37	771.3	30.45	773.5	57.2	14	80	ne.			1					0.020	0.5		M. Platrier, Director.
Saint Lô, Normal School																			M. Delaplanche, Dir.
Saint Maur, Observatory	30.25	768.4	30.42	772.6	55.8	13.2	62	ene.			1		5		ne.	0	0		M. Renou, Director.
Toulouse, Observatory	29.58	751.4	30.31	769.9	56.3	13.5	46	nw.			1		2	w.		0	0	slightly cl'dy.	M Baillaud, Director.
Tours																			M. de Tastes.
Versailles, Observatory	29.92	759.9	30.41	772.4	54.3	12.4	63	ne.			1					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	30.14	765.5	30.43	772.9	55.4	13.0	67	n.			2		8		ne.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.50	749.4	30.38	771.6	50.9	10.5	50	nw.			1	0	1 s			0	0	hazy	Prof. Dr. Hoh.
Berlin	30.24	768.1	30.41	772.5	55.0	12.8	55	se.			1		0			0	0		Prof. Dr. Arndt.
Breslau	29.94	760 5	30.48	774.2	49.8	9.9	88	e.			1		10			0.024	0.6		Royal University Obs'y.
Carlsruhe	29.95	760.8	30.39	772.0	51.8	11.0	78	se.			1		0			0	0		Albert Senz.
Cassel	29.64	752.9	30.36	771.1	47.5	8.6	72	s.			4		10	s.		0.154	3.9		Dr. H. Möhl.
Frankfort on the Main	30.04	763.1	30.50	774.6	51.3	10.7	54	wsw.			1		7			0	0		Physical Society.
Friedrichshafen	28.90	734.1	30.38	771.6	46.4	8.0	79	wsw.			2		8	ne.		0	0		Wilhelm, Chief Tel.
Hamburg	30.28	769.1	30.37	771.5	43.0	6.1	99	wnw.			2		10			0.374	9.5	foggy	E. Preller.
Kiel	30.34	770.7	30.36	771.1	44.4	6.9	90	calm			0		10			0.118	3.0		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	30.00	761.9	30.43	772.8	51.1	10.6	54	sw.			1		2			0	0		H. Leppig, Asst.
Magdeburg	30.20	767.0	30.39	772.0	50.5	10.3	71	ssw.			2		1c s		ssw.	0	0		Dr. Assmann.
Memel	30.54	775.6	30.58	776.8	53.2	11.8	45	se.			4		0						Issermann.
Munich	28.52	724.4	30.41	772.3	40.8	4.9	87	calm			0		10	n.		0	0		Central Station.
Neufahrwasser	30.49	774.4	30.50	774.8	50.0	10.0	64	ene.			2		0			0	0		A. Lothes.
Neustadt, Palatinate	29.85	758.1	30.38	771.6	50.0	10.0	61	w.			1		0			0	0		Dicknether.
Stuttgart	29.41	740.9	30.32	770.1	49.6	9.8	58	s.			1		1	n.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.85	732.9	30.39	772.0	49.3	9.6	60	ne.			2		6	ne.		0	0		Fischer.
Wustrow	30.40	772.1	30.43	772.8	48.7	9.3	84	se.			3		10 ks			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.87	758.6	30.26	768.5	66.7	19.3		ne.			4.0		1			inap.	inap.		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.72	755.0	29.77	756.2	83.0	28.3	74	sw.	18.0	8.0			0			0	0	blue sky	
Deesa	29.29	744.0	29.76	755.8	85.6	29.8	63	nnw.	7.9	3.5			1	w.		0	0	d. clouds	
Bombay	29.74	755.4	29.78	756.4	82.7	28.2	77	nw.	19.0	8.5			0			0	0	blue sky	
Poona, Yarrowda	27.92	709.2	29.78	756.5	75.4	24.1	75	wsw.	14.0	6.3			8	w.	w.	0.05	1.3	showery	
Belgaum	27.26	692.4	29.82	757.4	70.5	21.4	84	w.	7.0	3.1			7	sw.	nw.	0.10	2.5	showery	
Lahore	28.94	735.1	29.67	753.6	88.1	31.2	48	calm	0.8	0.4			0			0	0	blue sky	
Roorkee	28.78	730.9	29.87	758.6	83.2	28.4	49	calm	2.4	1.1			0			0	0		
Agra	29.12	739.7	29.68	753.8	86.2	30.1	37	nw.	1.1	0.5			0			0	0		
Nagpur	28.63	727.2	29.66	753.3	85.2	29.6	53	n.	4.0	1.8			4	nw.		0	0	d. clouds	
Jubbulpore	28.34	719.9	29.69	754.0	82.3	27.9	59	n.	4.1	1.8			4	e.		0	0	d. clouds	
Lucknow	29.33	745.0	29.70	754.4	87.1	30.6	50	nne.	3.3	1.5			3			0	0	d. clouds	
Allahabad	29.39	746.5	29.70	754.5	73.8	23.2	90	ne.	2.9	1.3			10		se.	0.95	24.1	overcast	
Patna	29.46	748.4	29.65	753.0	75.5	24.2	94	ne.	6.2	2.8			10	ne.	ne.	2.30	58.4	drizzling	
Hazaribagh	27.59	700.8	29.59	751.6	75.8	24.3	86	s.	10.7	4.8			10			1.13	28.7	showery	
Cuttack	29.54	750.4	29.63	752.5	82.9	28.3	82	w.	0.5	0.2			7			0.72	18.3	d. clouds	
Calcutta, Alipore	29.64	752.9	29.66	753.5	82.2	27.9	87	sse.	5.0	2.2			10	s.		0.10	2.5	overcast	
Dhubri	29.61	752.2	29.73	755.2	83.2	28.4	83	calm	1.3	0.6			9			0	0	gloomy	
Chittagong	29.66	753.3	29.75	755.6	83.3	28.5	81	wsw.	2.4	1.1			1			0	0	blue sky	
Sibsagar	29.40	746.7	29.73	755.2	83.5	28.6	87	ne.	1.0	0.4			0			0	0	blue sky	
Jeypore	28.29	718.5	29.69	754.2	91.7	33.2	26	nne.	4.8	2.2			2		n.	0	0	d. clouds	
Zanzibar, Africa			29.98	761.5	81.8	27.7	64	ssw.	5	2.2			6			0.01	0.3	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.84	757.8	30.24	768.2	60.3	15.7	65	ne.	4.3	1.9			10			0.024	0.6		Prof. Giovanni Clodig.
Milan	29.76	755.8	30.26	768.5	58.8	14.9	71	se.	3.1	1.4			10	se.		0	0		Prof. Schiaparelli.
Padua	30.12	765.1	30.23	767.9	62.4	16.9	67	nne.	9.4	4.2			10	ese.		0.079	2.0		Prof. Dott. Lorenzoni.
Moncalieri	29.32	744.7	30.22	767.7	61.0	16.1	65	sse.	1.3	0.6			8	e.		0	0		Prof. F. F. Denza.
Genoa	29.95	760.8	30.14	765.6	63.5	17.5	46	n.	11.2	5.0			6	s.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.34	719.7	30.26	768.5	56.8	13.8	55	w.			2		9			0	0		Prof. D. C. Bruno.
Pesaro	30.14	765.6	30.19	766.8	58.3	14.6	91	nw.	6.3	2.8			10	w.		0.512	13.0		Prof. Luigi Guidi.
Florence	29.84	757.8	30.09	764.2	66.7	19.3	56	nne.			4		5	se.		0	0		Prof. Costantino Pitter.
Leghorn	29.98	761.5	30.07	763.7	69.4	20.8	55	ne.	8.7	3.9			3			0	0		Prof. P. Monte.
Rome	29.85	758.2	30.02	762.6	69.4	20.8	66	n.	6.9	3.1			10			0.902	22.9		Prof. P. S. Ferrari.
Lecce	29.84	758.0	30.09	764.3	70.5	21.4	68	ne.	1.8	0.8			9			0.031	0.8		Prof. C. de Giorgi.
Cosenza	29.17	740.9	30.05	763.2	62.6	17.0	62	wsw.	2.5	1.1			10	sw.		3.035	77.1		Prof. D. Conti.
Cagliari	29.73	755.1	29.91	759.8	72.3	22.4	64	sw.			2		8	e.		0	0		Prof. A. Pacinotti.
Palermo	29.69	754.2	29.94	760.4	72.9	22.7	67	e.	7.4	3.3			9			0	0		Prof. G. Ciacciatore.
Syracuse	29.83	757.6	29.87	758.7	72.0	22.2	83	ene.	18.6	8.3			10	ese.		1.705	43.3		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.53	750.0	29.97	761.3	69.6	20.9	76	n.	1.3	0.6			6	ese.		0.004	0.1		Prof. F. Brioschi.
Stelvio	22.36	568.0			37.0	3.0	54	ne.			1	10 cs	0	s.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.39	568.7			34.7	1.5	69	ne.			2	1 cs	0	w.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.04	763.0	30.05	763.3	63.6	17.6	96	nne.	3.7	1.6		ck	10 s			0.100	2.5	covered	K. Sasaki.
Kioto	29.97	761.2	30.14	765.5	63.0	17.2	93	n.	1.7	0.8		ck	10 s			0.140	3.6	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.83	757.7	30.03	762.7	71.0	21.7	79	ese.	6.9	3.1			10 s			0.020	0.5	overcast	S. Takehayashi
Nemuro	30.19	766.8	30.26	768.6	53.0	11.7	84	ssw.	1.8	0.8		0	0			0	0		
Niigata	30.18	766.6	30.21	767.3	55.9	13.3	91	e.	1.3	0.6		6cs:ck	0			0.035	0.9	fair	
Nobiru	30.26	768.6	30.27	768.8	57.5	14.2	71	ene.	8.0	3.6		ck	7 s			0	0	fair	
Supporo	30.15	765.8	30.22	767.6	43.2	6.2	86	s.	3.0	1.3			0			0	0		
Tokei Obs'y, Yeddo	30.18	766.6	30.25	768.3	60.4	15.8	90	ne.	2.0	0.9		1 ck	9 s	w.	w.	0.010	0.2	cloudy	The Staff.
Wakayama	30.09	764.3	30.14	765.5	63.4	17.4	96	ene.	3.3	1.5		10 ck	0			0.022	0.6	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.96	761.0	30.15	765.8	75.0	23.9	62	ese.	15.5	6.9		2 cs	6 k;ks	wnw.	ese	0.01	0.3	cloudy	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.67	601.3	29.89	759.3	57.9	14.4	75	calm	0	0		0	2 k		ne.	0	0	clear	Vicente Fernandez.
Leon	24.38	619.2	30.06	763.5	58.5	14.7	88	nw.			1	1 cs	0			0	0	clear	Prof. M. Leal.
Mazatlan	29.66	753.4	29.92	759.9	79.5	26.4	89	n.	0.9	0.4		1 cs	2 ks			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.08	586.4	30.10	764.5	56.1	13.4	84	w.	1.8	0.8			10 kn			0	0	overcast	The Staff.
Morelia	24.01	610.0	30.07	763.8	57.7	14.3	76	ese.			2	0	2		sw.	inap.	inap.	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.94	608.1	29.91	759.7	56.8	14.9	82	calm			0	1 c	1 s	e.		0	0	clear	M. V. de Leon, M. E
Puebla, Catholic Institute	23.43	595.1	30.11	764.7	56.3	13.5	58	n.	3.6	1.6		0	2		n.	inap.	inap.	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.45	773.3	30.45	773.3	54.3	12.4		n.			2					0.181	4.6		
Groningen	30.34	770.5	30.39	771.9	48.7	9.3		n.			1					0.031	0.8		
Helder	30.40	772.1	30.40	772.1	51.3	10.7		n.			3					0.154	3.9		
Hellevoetsluis	30.41	772.4	30.41	772.4	56.1	13.4	80	nnw.			3					0	0		
Utrecht	30.37	771.3	30.41	772.5	53.4	11.9	85	w.			2		8			0.047	1.2	very cloudy	H. van der Brink

OCTOBER 7. 1881.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Amount and kind. Lo'er 0—10	Direction. Upper. From.	Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.35	770.9	30.41	772.5	48.2	9.0	73	sse.	13.4	6.0			8			0	0		
Christiania	30.32	770.0	30.47	773.9	43.0	6.1	78	ssw.	4	2			10			0	0		
Gjæsvær	29.15	740.3	29.17	740.9	43.7	6.5		ssw.			8		10						
Lodingen	29.30	744.1	29.34	745.3	48.7	9.3	79	sw.			8		10			0.748	19.0	raining	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.36	771.1	30.51	775.0	65.8	18.8	72	se.	5.6	2.5			5			0	0		Dr. J. A. Sampaio.
Campo Major	28.94	735.1	29.94	760.5	57.9	14.4	63	ene.	24.8	11.1			10			0.421	10.7		Dr. A. M. R. dos Santos
Funchal, Madeira	30.04	762.9	30.12	765.1	70.2	21.2	59	calm	0	0			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.59	751.6	29.95	760.7	56.8	13.8	67	ne.	33.5	15.0			10			0.004	0.1		The Staff.
Ponta Delgada, Azores	30.43	772.8	30.50	774.6	69.1	20.6	59	ne.	13.0	5.8			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.98	736.0	30.10	764.6	30.9	— 0.6	100	w.	9	4			10 n						Capt. Lasarew.
Archangel	30.24	768.0	30.26	768.5	37.2	2.9	91	sw.	9	4			10						Capt. Sseliwerstow.
Astrakhan	30.58	776.7	30.50	774.6	46.8	8.2	51	nne.	4	2			10 s;n						Capt. Wisganow.
Barnaul ‡	29.36	745.7	29.87	758.7	35.6	2.0	93	sw.	16	7			10					raining	Meteorological Obs'y.
Dorpat	30.37	771.5	30.63	777.9	46.0	7.8	67	sw.	4	2		0	2 k						Observatory.
Ekaterinburg	29.13	739.8	30.15	765.7	41.0	5.0	72	wnw.	18	8			10						Meteorological Obs'y.
Kasan	30.15	765.7	30.43	772.8	46.0	7.8	67	nw.	4	2			10						Observatory.
Kertch	30.50	774.6	30.52	775.1	49.8	9.9	80	ne.	13	6		0	8 n			0	0		Lagorio & Sastyrez.
Kieff	29.97	761.2	30.63	777.9	48.6	9.2	57	ese.	4	2		0	0						Observatory.
Lugan	30.38	771.6	30.59	776.9	52.2	11.2	45	ene.	13	6			3						Meteorological Obs'y.
Moscow	30.08	763.9	30.56	776.3	51.3	10.7	58	calm	0	0		0	1 k						Meteorological Obs'y.
Nikolaiev	30.56	776.2	30.63	778.0	57.7	14.3	61	ene.	9	4		0	1 k						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.69	754.2	29.78	756.4	34.5	1.4	61	calm			0	0	7 k			0	0		Lieut. Iwanow.
Pekin, China	29.93	760.1	30.07	763.7	52.0	11.1	82	calm	0	0			9 n			0.020	0.5	raining	Physical Observatory.
St. Petersburg	30.56	776.2	30.58	776.6	39.9	4.4	84	ssw.	11	5			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.52	724.3	30.09	764.3	53.2	11.8	61	nw.	22	10			10			0	0		Teich, A. M.
Tiflis	28.85	732.7	30.29	769.4	50.7	10.4	73	se.	4	2			10 n						Physical Observatory.
Warsaw	30.08	763.9	30.51	774.9	51.8	11.0	55	ese.	9	4		0	0						Astronomical Obs'y.
Wilna	30.22	767.6	30.65	778.6	50.5	10.3	44	sse.	4	2			0						Berg, Assistant.
Yeniseisk	29.23	742.5	29.52	749.9	34.3	1.3	92	sw.	9	4			10					rain & snow	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.39	771.9	55.0	12.8	77	w.			2		10 ks			0.04	1.0	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			30.23	767.8	56	13.3	94	sw.			3		fg.			0.4	10.	foggy	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.90?	759.4?	30.00?	762.1?	66.6	19.2	46	ne.	4.5	2.0			3			0	0	fair	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.27	768.8	30.32	770.2	59.0	15.0	47	se.	1.3	0.6		4	2	e.		0	0	cloudy	Prof. Manuel de Novera.
Burgos, Met. Obs'y	27.21	691.1			48.6	8.2	73	ne.	15.2	6.8		0	1			0	0	almost clear	Domingo Martin.
Madrid, Royal Obs'y	27.82	706.7	30.07	763.7	53.6	12.0	60	ne.	19.0	8.5		0	9			0.311	7.9	very cloudy	The Staff.
Murcia, Met. Obs'y ‡	29.77	756.1	29.92	760.0	57.2	14.0	100	ne.	1.1	0.5		5	5	wnw.		1.823	46.3	raining	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.25	743.0	30.14	765.6	59.4	15.2	44	ne.	36.0	16.1			1			0	0	almost clear	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.96	760.9	30.02	762.6	76.5	24.7	88	e.	4.3	1.9		0	1 k			0.669	17.0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.81	757.1	29.86	758.4	80.6	27.0	85	s.	9.9	4.5		7 ck	0	ne.		0.43	10.8	very cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.77	756.2	29.87	758.7	66.0	18.9	61	s.	4.9	2.2		0	8		s.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.84	757.9	29.93	760.2	78.4	25.8	89	calm	0	0		6 k	2 s			0.256	6.5	d. clouds	E. Caden, Chief Eng'r.
Tuguegarao, Philippine Ids	29.78	756.4	29.91	759.8	81.0	27.2	86	ese.	1.0	0.4		0	4 k		ssw.	0.01	0.3		José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.00	762.0	30.04	763.0	45.7	7.6	80	sw.			6		10			0	0		
Umea	30.14	765.5	30.19	766.8	45.3	7.4	91	ssw.			6		10			0	0		
Hernosand	30.24	768.2	30.30	769.5	47.3	8.5	56	s			4		10			0	0		
Stockholm	30.30	769.6	30.48	774.1	52.9	11.6	67	wsw.			2		9			0	0		
Wisby	30.45	773 3	30.50	774.8	51.1	10.6	80	w.			4		0			0	0		
Sub-Series.																			
Upsala	30.35	771.0	30.44	773.2	50.9	10.5	94	ssw.	14.3	6.4			2		sw.	inap.	inap.		C. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.87	733.4	30.23	767.8	50.0	10.0	53	n.			3		1			0	0	clear	The Observatory.
Zurich ‡	28.70	728.9	30.36	771.2	46.8	8.2	68	e.			4		2			0	0	clear	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.41	772 4	60.1	15.6	47	ene.	27	12.0			7		ne.	0	0		The Observatory.
Valona			30.17	766.3	72.0	22.2		w.			1		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.93	760.1	81.9	27.7	57	n.			1	0	5 k		n.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Albany, New York	30.30	769.6	30.38	771.6	48	8.9	71	sw.	3	1.3		5 c	sk.			0	0	fair	
Alpena, Michigan	29.47	748.5	30.16	766.1	47	8.3	86	s.	12	5.4			10 s			0.03	0.8	cloudy	
Atlanta, Georgia	29.22	742.2	30.44	773.2	52.2	11.2	72	e.	7	3.1		1 k	0	calm		0	0	clear	
Atlantic City, New Jersey	30.42	772.7	30.44	773.2	59	15.0	70	sw.	7	3.1		2 ck	7 s	calm	calm	0	0	cloudy	
Augusta, Georgia	30.25	768.3	30.45	773.4	58.0	14.4	74	ne.	1	0.4		0	0			0	0	clear	
Baltimore, Maryland	30.38	771.6	30.43	772.9	55	12.8	62	sw.	4	1.8			10 s		sw.	0	0	cloudy	
Barnegat, New Jersey	30.40	772.1	30.42	772.7	53.5	11.9	79	sw.	6	2.7			10 k		calm	0	0	cloudy	
Bismarck, Dakota	28.03	711.9	29.95	760.7	44	6.7	86	nw.	6	2.7		0	0			0.01	0.3	clear	
Boise City, Idaho	27.40	695.9	30.32	770.1	33	0.6	71	nw.	1	0.4		0	0			0	0	clear	
Boston, Massachusetts	30.20	767.1	30.36	771.1	46.4	8.0	68	w.	16	7.2		0	hz.			0	0	clear	
Brackettville, Texas	28.88	733.5	29.91	759.7	71	21.7	94	e.	3	1.3			10 s		e.	0	0	threatening.	
Brownsville, Texas	29.91	759.7	29.96	761.0	75	23.9	97	n.	4	1.8		5 cs	5 s			1.32	33.5	cloudy	
Buffalo, New York	29.54	750.3	30.28	769.1	57.4	14.1	59	s.	4	1.8			10 n			inap.	inap.	light rain	
Burlington, Vermont	30.03	762.7	30.33	770.4	47.0	8.3	74	s.	7	3.1		0	0			0	0	clear	
Cairo, Illinois	29.87	758.7	30.28	769.1	64.6	18.1	77	s.	7	3.1		10 ck	0	s.		0	0	cloudy	
Campo, California	27.37	695.2	29.94	760.5	35.5	1.9	72	s.	4	1.8		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.46	773.7	30.48	774.2	57	13.9	51	sw.	4	1.8		5 c	0			0	0	fair	
Cape May, New Jersey	30.40	772.1	30.43	772.9	60	15.6	70	sw.	19	8.5		9 k	0	w.		0	0	cloudy	
Castroville, Texas	29.24	742.7	29.91	759.7	78	25.6	76	e	2	0.9			10 s			0	0	threatening.	
Cedar Keys, Florida	30.23	767.8	30.25	768.3	68	20.0	84	n.	10	4.5		0	0			0	0	clear	
Champaign, Illinois	29.32	744.7	30.10	764.5	57.4	14.1	84	s.	12	5.4		5 c	1 s	sw.	sw.	0	0	fair	
Charleston, S. Carolina	30.33	770.4	30.39	771.9	64	17.8	90	ne.	14	6.3		0	0			0	0	clear	
Charlotte, N. Carolina	29.56	750.8	30.47	773.9	50.0	10.0	64	ne.	2	0.9		hz.	hz.	calm	calm	0	0	dense haze.	
Chattanooga, Tennessee	29.58	751.3	30.43	772.9	52.5	11.4	75	e.	6	2.7		4 ce	sk.	e.	calm	0	0	fair	
Cheyenne, Wyoming	24.03	610.4	30.16	766.1	40.2	4.6	43	n.	4	1.8		0	0			0	0	clear	
Chicago, Illinois	29.35	745.5	30.09	764.3	58.6	14.8	91	sw.	11	4.9		9 ck	0	sw.		0.03	0.8	cloudy	
Chincoteague, Virginia	30.44	773.2	30.46	773.7	61	16.1	60	sw.	16	7.2			9 s		calm	0	0	cloudy	
Cincinnati, Ohio	29.64	752.8	30.32	770.1	60.7	15.9	72	s.	2	0.9		1 c	2 s			0	0	clear	
Cleveland, Ohio	29.52	749.8	30.29	769.4	54.5	12.5	80	se.	9	4.0		2 ck	8 s	w.	w.	0.03	0.8	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.43	747.5	30.32	770.1	61	16.1	65	s.	4	1.8		5 ck	2 k	sw.	sw.	0	0	fair	
Concho, Texas	28.16	715.3	30.16	766.1	68	20.0	90	calm	0	0		0	5 s		s.	0	0	fair	
Corsicana, Texas	29.66	753.4	30.14	765.5	76	24.4	85	se.	4	1.8			10 ks			0	0	cloudy	
Davenport, Iowa	29.35	745.5	30.03	762.7	62	16.7	78	s.	10	4.5		4 cs	0	w.		inap.	inap.	fair	
Dayton, Washington T'y	28.40	721.3	30.26	768.6	45	7.2	76	s.	12	5.4			9 ks		w.	0.05	1.3	cloudy	
Deadwood, Dakota	25.36	644.1	30.22	767.6	38	3.3	92	e.	4	1.8		0	0			0	0	clear	
Decatur, Texas	28.92	734.6	30.05	763.3	73	22.8	84	se.	6	2.7		0	2 s			0	0	fair	
Delaware Breakwater, Del.	30.41	772.4	30.43	772.9	55	12.8	69	sw.	15	6.7		6 ck	4 s	nw.		0	0	cloudy	
Denison, Texas	29.33	745.0	30.16	766.1	76	24.4	85	s.	8	3.6			9 s		s.	0	0	cloudy	
Denver, Colorado	24.75	628.6	30.12	765.0	50.2	10.1	74	nw.	4	1.8		0	2 s		calm	0	0	clear	
Des Moines, Iowa	29.01	736.8	29.96	761.0	65	18.3	84	sw.	10	4.5		3 c	3 s	w.		0.02	0.5	fair	
Detroit, Michigan	29.50	749.3	30.24	768.1	51.0	10.6	86	e.	6	2.7			10 s		calm	0.19	4.8	cloudy	
Dodge City, Kansas	27.33	694.2	30.02	762.5	64.3	17.9	72	sw.	19	8.5		0	1 s			0	0	clear	
Dubuque, Iowa	29.20	741.7	29.94	760.5	60.3	15.7	87	s.	6	2.7		3 cs	hz.	sw.	calm	inap.	inap.	fair	
Duluth, Minnesota	29.14	740.1	29.87	758.7	52	11.1	86	e.	4	1.8			10 s		calm	0.07	1.8	cloudy	
Eagle Pass, Texas	29.27	743.4	30.12	765.0	74.1	23.4	90	calm	0	0			10 s		calm	0	0	cloudy	
Eagle Rock, Idaho	25.36	644.1	30.36	771.1	29	— 1.7	80	sw.	14	6.3		0	0			0	0	clear	
Eastport, Maine	30.20	767.1	30.26	768.6	47.5	8.6	74	sw.	7	3.1		0	0			0	0	clear	
El Paso, Texas	26.27	667.2	30.11	764.8	59.5	15.3	84	n.	2	0.9		0	2 s			0	0	clear	
Erie, Pennsylvania	29.54	750.3	30.30	769.6	56	13.3	74	s.	3	1.3			10 s			0	0	cloudy	
Escanaba, Michigan	29.29	744.0	29.97	761.2	53	11.7	100	se.	13	5.8			10 n		se.	0.33	8.4	light rain	
Florence, Arizona	28.43	722.1	30.01	762.2	73	22.8	73	e.	8	3.6		4 ck	1 s	e.	calm	0	0	fair	
Fort Apache, Arizona	25.04	636.0	30.08	764.0	56	13.3	83	n.	6	2.7		3 c	0	calm		0	0	fair	
Fort Assinnaboine, Montana	27.00	685.8	29.94	760.5	40	4.4	73	sw.	26	11.6		0	0			0.06	1.5	clear	
Fort Bennett, Dakota	28.29	718.6	29.90	759.4	49	9.4	93	w.	1	0.4		0	3 ks		sw.	0	0	fair	
Fort Benton, Montana	27.06	687.3	30.04	763.0	40	4.4	67	sw.	20	8.9		0	0			0.14	3.6	clear	
Fort Buford, Dakota	27.81	706.4	29.92	760.0	43	6.1	83	w.	10	4.5			10 s		calm	0	0	cloudy	
Fort Custer, Montana	26.81	681.0	30.20	767.1	40	4.4	67	n.	8	3.6		0	0			0.10	2.5	clear	
Fort Davis, Texas	25.05	636.3	30.01	762.2	58	14.4	40	w.	5	2.2		0	0			0	0	clear	
Fort Elliott, Texas	27.31	693.7	30.61	777.5	63	17.2	78	s.	8	3.6		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.52	749.8	30.10	764.5	70.8	21.6	80	se.	6	2.7			10 s		s.	0	0	cloudy	
Fort Grant, Arizona					58	14.4	83	ne.	2	0.9		0	0			inap.	inap.	clear	
Fort Griffin, Texas	28.79	731.3	30.02	762.5	71.8	22.1	82	calm	0	0		0	5 s			0	0	fair	
Fort Keogh, Montana	27.43	696.7	30.10	764.5	39	3.9	92	sw.	7	3.1		0	0			0.01	0.3	clear	
Fort Macon, North Carolina	30.43	772.9	30.44	773.2	60	15.6	87	n.	8	3.6		hz.	2 s	calm	calm	0	0	clear	
Fort McKavett, Texas	27.86	707.6	29.74	755.4	67.3	19.6	84	s.	2	0.9		1 c	4 s		se.	0	0	fair	
Fort Missoula, Montana	26.82	681.2	30.47	773.9	42	5.6	83	nw.	2	0.9			10 s		nw.	0.20	5.1	cloudy	
Fort St. Michaels	30.45	773.4	30.48	774.2	34	1.1	70	s.	4	1.8		0	5 ks			0	0	fair	
Fort Shaw, Montana	26.26	667.0	30.00	762.0	40	4.4	73	sw.	20	8.9		0	0			0.32	8.1	clear	
Fort Sill, Indian Territory	28.82	732.0	30.12	765.0	71.5	21.9	96	s.	10	4.5			10 s		s.	0	0	cloudy	
Fort Stevenson, Dakota	28.02	711.7	29.98	761.5	50	10.0	86	w.	6	2.7		0	0			0	0	clear	
Fort Verde, Arizona					58	14.4	77	sw.			2	2 k	0	sw.		0	0	clear	
Fredericksburg, Texas	28.36	720.3	29.87	758.7	72	22.2	84	calm	0	0			10 s			0	0	cloudy	
Galveston, Texas	30.01	762.2	30.05	763.3	80	26.7	87	se.	15	6.7			10 ks		se.	0.19	4.8	cloudy	
Grand Haven, Michigan	29.42	747.3	30.12	765.0	50.0	10.0	93	se.	6	2.7		0	6 s		sw.	0.14	3.6	fair	
Hatteras, North Carolina	30.43	772.9	30.45	773.4	63	17.2	84	n.	7	3.1		7 ck	0	n.		0	0	fair	
Helena, Montana	25.77	654.5	30.36	771.1	43	6.1	60	nw.	12	5.4		0	6 c			0.42	10.7	cloudy	
Henrietta, Texas	28.84	732.5	29.69	754.1	78	25.6	73	s.	13	5.8		4 k	0	s.		0	0	fair	
Huron, Dakota	28.47	723.1	29.93	760.2	54.2	12.3	100	n.	8	3.6			fg.			0.08	2.0	dense fog	
Indianapolis, Indiana	29.42	747.3	30.25	768.3	59	15.0	75	s.	5	2.2		5 k	hz.	sw.	calm	0	0	fair	
Indianola, Texas	30.00	762.0	30.03	762.7	76.8	24.9	97	ne.	17	7.6		7 cs	2 s	calm	ne.	0	0	cloudy	
Jacksboro, Texas	28.92	734.6	30.02	762.5	71	21.7	90	s.	3	1.3		3 ck	2 s	w.	calm	0	0	fair	
Jacksonville, Florida	30.25	768.3	30.29	769.4	74	23.3	64	ne.	6	2.7		5 k	0	ne.		0	0	fair	
Keokuk, Iowa	29.37	746.0	30.05	763.3	62.5	16.9	86	s.	8	3.6		3 k	1 s	w.		0	0	fair	
Key West, Florida	30.03	762.7	30.06	763.5	76.7	24.8	91	e.	18	8.0			10 s		e.	0.15	3.8	cloudy	
Kittyhawk, North Carolina	30.46	773.7	30.48	774.2	59	15.0	70	e.	3	1.3		0	0			0	0	clear	
Knoxville, Tennessee	29.40	746.7	30.47	773.9	49	9.4	93	calm	0	0		3 c	fg.	calm	calm	0	0	fair	
La Crosse, Wisconsin	29.13	739.9	29.93	760.2	60	15.6	81	se.	4	1.8			10 s			0.68	17.3	cloudy	
La Mesilla, New Mexico	26.16	664.5	30.31	769.9	57.5	14.2	93	calm	0	0		0	1 s			0	0	clear	
Laredo, Texas	29.58	751.3	29.91	759.7	75.0	23.9	90	ne.	1	0.4		0	6 s		se.	0	0	fair	
Leavenworth, Kansas	29.12	739.6	30.05	763.3	67	19.4	78	s.	13	5.8		9 k	0	sw.		0	0	cloudy	
Lewiston, Idaho	29.30	744.2	30.18	766.6	48	8.9	71	calm	0	0		1 k	0	calm		0	0	clear	
Little Rock, Arkansas	29.86	758.4	30.18	766.6	70	21.1	90	se.	3	1.3			10 ks		sw.	0	0	cloudy	
Los Angeles, California	29.54	750.3	29.92	760.0	48.2	9.0	89	se.	5	2.2		0	0			0	0	clear	
Louisville, Kentucky	29.72	754.9	30.30	769.6	61.0	16.1	72	se.	6	2.7		5 k	5 s	s.		0	0	cloudy	
Lynchburg, Virginia	29.71	754.6	30.42	772.7	52.3	11.3	66	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	28.95	735.3	30.02	762.5	55	12.8	86	s.	8	3.6		3 c	0	w.		10.1	2.8	fair	
Marquette, Michigan	29.20	741.7	29.96	761.0	50	10.0	86	s.	9	4.0			10 s		s.	inap.	inap	cloudy	
Mason, Texas	28.45	722.6	30.16	766.1	70.6	21.4	90	calm	0	0			10 s		se.	0	0	cloudy	
Memphis, Tennessee	29.92	760.0	30.26	768.6	69	20.6	71	se.	2	0.9		10 cs	0			0	0	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.26	743.2	30.04	763.0	53	11.7	86	se.	5	2.2			8 s		sw.	0.12	3.0	cloudy	
Mobile, Alabama	30.18	766.6	30.25	768.3	68.2	20.1	78	e.	10	4.5		1 0	0			0	0	clear	
Montgomery, Alabama	30.10	764.5	30.34	770.6	61	16.1	78	e.	5	2.2		0	hz			0	0	clear	
Moorhead, Minnesota	28.81	731.8	29.87	758.7	50	10.0	93	w.	2	0.9			10 s			0.19	4.8	cloudy	
Morgantown, W. Virginia	29.34	745.2	30.34	770.6	57.0	13.9	74	calm	0	0		0	9 s		nw.	0	0	cloudy	
Mt. Washington, N. H.	24.01	609.8	30.38	771.6	30.0	— 1.1	80	nw.	30	13.4		0	sk.			0	0	clear	
Nashville, Tennessee	29.79	756.7	30.35	770.9	58.2	14.6	69	se.	2	0.9		4 ck	0	sw.		0	0	fair	
New Haven, Connecticut	30.28	769.1	30.40	772.1	47	8.3	68	calm	0	0		0	2s;sk			0	0	dense smoke	
New London, Connecticut	30.38	771.6	30.43	772.9	50	10.0	72	calm	0	0		0	0			0	0	clear	
New Orleans, Louisiana	30.09	764.3	30.15	765.8	77.0	25.0	76	e.	16	7.2			10 s		e.	inap.	inap.	cloudy	
Newport, Rhode Island	30.34	770.6	30.39	771.9	55.0	12.8	55	sw.	7	3.1		4 c	0	calm		0	0	fair	
New River, N. Carolina					62	16.7	78	ne.			1	0	0			0	0	clear	
New Shoreham, Rhode I'd.	30.35	770.9	30.38	771.6	56.5	13.6	74	w.	6	2.7		0	0			0	0	clear	
New York, New York	30.24	768.1	30.42	772.7	52	11.1	80	sw.	7	3.1		7 cs	0	sw.		0	0	fair	
Norfolk, Virginia	30.43	772.9	30.46	773.7	55	12.8	74	sw.	3	1.3		6 ck	0	nw.		0	0	fair	
North Platte, Nebraska	26.95	684.5	30.01	762.2	56.4	13.6	86	n.	10	4.5		5 c	0	w.		inap.	inap.	fair	
Olympia, Washington T'y	30.15	765.8	30.19	766.8	44.0	6.7	93	s.	3	1.3		10 k	0	w.		0	0	cloudy	
Omaha, Nebraska	28.70	729.0	29.94	760.5	67	19.4	87	s.	11	4.9			10 s		n.	0.07	1.8	cloudy	
Oswego, New York	29.97	761.2	30.31	769.9	47.8	8.8	81	se.	7	3.1		10 cs	0	w.		0	0	cloudy	
Pensacola, Florida	30.22	767.6	30.25	768.3	63	17.2	84	ne.	12	5.4		0	5 s		e.	0	0	fair	
Philadelphia, Pa.	30.37	771.4	30.43	772.9	53	11.7	80	sw.	6	2.7		3 c	6 ks; s		w.	0	0	cloudy	
Phœnix, Arizona	28.72	729.5	30.44	773.2	76	24.4	64	e.	2	0.9		3 ck	0	se.		0	0	fair	
Pike's Peak, Colorado	17.82	452.6	30.03	762.7	26	— 3.3	84	sw.	40	17.9		0	0			0	0	clear	
Pioche, Nevada	24.11	612.4	30.30	769.6	42	5.6	35	nw.	6	2.7		10 k	0	w.		0	0	cloudy	
Pittsburg, Pennsylvania	29.51	749.5	30.36	771.1	58.7	14.8	60	s.	3	1.3		10 cs	0	se.		0	0	cloudy	
Port Eads, Louisiana	30.14	765.5	30.15	765.8	77.5	25.3	81	e.	26	11.6		0	4 k;hz		e.;c.	0.20	5.1	fair	
Port Huron, Michigan	29.51	749.5	30.22	767.6	51.1	10.6	97	se.	6	2.7			10 s		calm	0.03	0.8	threatening	
Portland, Maine	30.26	768.6	30.31	769.9	49	9.4	71	w.	4	1.8		2 cs	0	nw.		0	0	clear	
Portland, Oregon	30.18	766.6	30.24	768.1	48.0	8.9	93	calm	0	0			fg			0.03	0.8	dense fog	
Portsmouth, N. Carolina					66	18.9	68	ne.	14	6.3		0	2 k		e.	0	0	clear	
Prescott, Arizona	24.77	629.1	30.08	764.0	51	10.6	80	s.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	30.11	764.8	30.12	765.0	75	23.9	69	ne.	14	6.3		0	hz		calm	0.11	2.8	clear	
Red Bluff, California	29.68	753.9	30.03	762.7	50.5	10.3	62	nw.	5	2.2		0	0			0	0	clear	
Rio Grande City, Texas	29.80	756.9	30.01	762.2	75	23.9	85	n.	2	0.9		6 cs	0	calm		0	0	fair	
Rochester, New York	29.65	753.1	30.31	769.9	50	10.0	64	sw.	4	1.8		10 cs	0	calm		0	0	cloudy	
Roseburg, Oregon	29.65	753.1	30.24	768.1	36.4	2.4	87	calm	0	0			fg			0	0	dense fog	
Sacramento, California	29.92	760.0	30.00	762.0	48.2	9.0	71	n.	5	2.2		0	0			0	0	clear	
St. Louis, Missouri	29.54	750.3	30.17	766.3	62.1	16.7	93	s.	9	4.0		9 c	0			0	0	cloudy	
St. Paul, Minnesota	28.93	734.8	29.85	758.2	56.6	13.7	95	se.	3	1.3			10 s			0.31	7.9	cloudy	
Salt Lake City, Utah	25.73	653.5	30.18	766.6	40	4.4	25	calm	0	0		10 k	0	w.		0	0	cloudy	
San Antonio, Texas	29.36	745.7	30.08	764.0	75.0	23.9	90	e.	6	2.7			10 s		calm	inap.	inap.	cloudy	
San Diego, California	29.85	758.2	29.92	760.0	61.0	16.1	77	sw.	3	1.3			10 s			0	0	cloudy	
Sandusky, Ohio	29.54	750.3	30.24	768.1	58	14.4	74	s.	13	5.8		5 k	0	sw.		0.03	0.8	fair	
Sandy Hook, New Jersey	30.39	771.9	30.42	772.7	55.2	12.9	46	w.	9	4.0		9 k	0	nw.		0	0	cloudy	
San Francisco, California	29.95	760.7	30.02	762.5	53	11.7	86	nw.	2	0.9		0	0			0	0	clear	
Santa Fé, New Mexico	23.36	593.3	30.35	770.9	49	9.4	80	n.	4	1.8		0	2 s		calm	0.08	2.0	clear	
Savannah, Georgia	30.27	768.8	30.36	771.1	65	18.3	84	n.	9	4.0		0	0			0	0	clear	
Shreveport, Louisiana	29.94	760.5	30.17	766.3	73	22.8	85	se.	4	1.8		3 ck	4 s	calm	calm	0.02	0.5	fair	
Silver City, New Mexico	24.33	618.0	30.01	762.2	52	11.1	86	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.90	759.4	29.97	761.2	44.2	6.8	30	ne.	8	3.6		0	0			0.54	13.7	clear	
Smithville, North Carolina	30.39	771.9	30.43	772.9	58	14.4	81	n.	8	3.6		0	1 ks			0	0	clear	
Spokane Falls, Wash. Ter.	28.06	712.7	30.13	765.3	43	6.1	76	s.	5	2.2			10 s		nw.	0	0	cloudy	
Springfield, Illinois	29.42	747.3	30.13	765.3	61	16.1	87	s.	10	4.5		5 c	2 k; s	w.	w.	0	0	fair	
Springfield, Massachusetts	30.27	768.8	30.40	772.1	41.4	5.2	96	calm	0	0			fg			0	0	dense fog	
Stockton, Texas	27.06	687.3	30.21	767.3	59.0	15.0	63	s.	8	3.6		0	0			0	0	clear	
St. Vincent, Minnesota	28.84	732.5	29.77	756.1	49	9.4	93	s.	6	2.7		0	1 s			0.05	1.3	clear	
Thatcher's Island, Mass.	30.23	767.8	30.28	769.1	50.6	10.3	86	w.	12	5.4		4 ck	0	w.		0	0	fair	
Toledo, Ohio	29.49	749.0	30.21	767.3	55	12.8	86	e.	8	3.6		2 c	3 s; sk			0.02	0.5	fair	
Tucson, Arizona	27.45	697.2	29.89	759.2	69	20.6	70	se.	8	3.6		1 k	0			0	0	clear	
Umatilla, Oregon	29.83	757.7	30.26	768.6	45.6	7.6	70	sw.	6	2.7		7 cs	0	calm		0	0	fair	
Uvalde, Texas	29.08	738.6	29.88	758.9	74	23.3	90	e.	3	1.3			10 ks		s.	inap.	inap.	cloudy	
Vicksburg, Mississippi	29.96	761.0	30.22	767.6	67	19.4	73	e.	11	4.9		4 ck	hz	calm	calm	0	0	fair	
Visalia, California	29.59	751.6	29.96	761.0	44.5	6.9	75	e.	2	0.9		4 c	0			0	0	fair	
Washington, D. C.	30.30	769.6	30.42	772.7	54	12.2	61	sw.	2	0.9			9 s		w.	0	0	cloudy	
West Los Animas, Colorado	25.99	660.1	30.07	763.8	54.5	12.5	63	s.	1	0.4		2 c	2 s	sw.	sw.	0.02	0.5	fair	
Wickenburg, Arizona					58	14.4	86	calm			0	4 k	0	sw.		0	0	fair	
Wilmington, N. Carolina	30.38	771.6	30.44	773.2	56	13.3	74	ne.	6	2.7		0	sk		ne.	0	0	clear	
Winnemucca, Nevada	25.75	654.0	30.21	767.3	30	— 1.1	56	ne.	8	3.6		0	0			0	0	clear	
Wood's Holl, Mass.	30.33	770.4	30.37	771.4	57	13.9	69	w.	12	5.4		0	0			0	0	clear	
Yankton, Dakota	28.52	724.4	29.89	759.2	57	13.9	93	calm	0	0		5 cs	5 s	w.		0	0	cloudy	
Yuma, Arizona	29.65	753.1	29.79	756.7	72.1	22.3	84	w.	3	1.3		8 k	0	calm		0	0	cloudy	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.95	760.7	29.97	761.2	85	29.4	87	se.			4	5 ck	10 ks	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.06	560.3			55.5	13.1	85	calm	0	0		2 k	8 n;s		ne.	0.45	11.4	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.85	758.2	29.85	758.2	82	27.8	87	e.				5 c	0			0	0		B. Bigar.
Havana, Cuba, W. I.	30.00	762.0	30.04	763.0	78	25.6	88	calm	0	0		2 cs	2 ks	calm	calm	0.52	13.2	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.92	760.0	29.93	760.2	76.2	24.6	89	calm	0	0			9 s			0.60	15.2	cloudy	Robert Johnstone.
Navassa, W. I.	29.88	758.9	29.96	761.0	79	26.1	86	ne.	11	4.9		5 ks	5 s;hz	ne.	e.	0	0	hazy	F. M. Everett.
Paramaribo, S. A.	29.98	761.5	29.98	761.5	80	26.7	78	e.			2	3 c	5 k	e.	e.	0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.44	747.8	30.00	762.0	77	25.0	89	calm					10 ks		s.	0.84	21.3	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					73.0	22.8	98	calm			0	0	ks		w.	0.059	1.5		Earl Flint.
Santiago de Cuba, W. I.	29.94	760.5	29.96	761.0	79	26.1	78	n.	1.4	0.6		1 ks	0	ne.		0.65	16.5		Robert Mason.
St. Thomas, W. I.‡	29.81	757.2	29.92	760.0	81	27.2	82	e.	2	0.9		2 c	0	sw.		0.54	13.7	clear	G. O. Gyllich.
York Factory, B. A.	29.73	755.1	29.78	756.4	33	0.6	100	ne.	26	11.6			10 s		ne.	0	0	threatening	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatros																			
H. M. S. Alert, S. 10° 55′, E. 141° 20′	29.95	760.7	76.2	24.6	78	e.			4–5		3							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 36° 02′, W. 5° 14′	29.86	758.4	64	17.8	78	ene.			2–3		5					1	ene.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	30.43	772.9	58	14.4		ne.			5		6	ne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche																			Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 16° 00′, W. 5° 29′	30.04	763.0	69	20.6	67	ese.			2–3		10	calm				2	sse.	overcast	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	30.06	763.5	61	16.1	94	sse.			1		9							d. clouds	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 36° 33′, W. 2° 03′	29.84	757.9	67	19.4	94	nne.			5–6							4–8	nne.	thnd'rstorm	Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile																			Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S Cygnet, N. 38° 11′, E. 20° 28′	30.03	762.7	74	23.3		sw.			1		2	sse.						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido, S. 15° 55′ W. 5° 42′	30.07	763.8	70	21.1		se.			1–3		10	se.						d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I	30.26	768.6	68.5	20.3	67	nne.			4–5		3	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	30.05	763.3	41	5.0	83	sw.			1–2		2	w.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 26° 00′, E. 57° 20′	29.73	755.1	88	31.1		w.			1–2		5	w.				2	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.78	756.4	86.5	30.3		sw.			3–4		4	s.						d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 18° 08′, E. 178° 26′	29.83	757.7	79	26.1	100	ese.			1		6	ese.						d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.72	754.9	89	31.7	66	sw.			1		9	w.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 51° 13′, W. 56° 47′	29.85	758.2	41	5.0		w.			3–4		4	w.				3	w.	d. clouds	Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 58′, E. 32° 55′	29.97	761.2	74.5	23.6	85	ene.			3		0					2	ene.	misty	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt.Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 20° 30′, W. 157° 45′	30.00	762.0	78	25.6	73	calm			0		5	s.				2	nw.	showery	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	30.02	762.5	59	15.0	87	w.			1		0							blue sky	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 21° 40′, E. 149° 40′	29.99	761.7				e.			2		3	ne.				2	e.	d. clouds	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 33° 43′, E. 131° 40′	30.06	763.5	71	21.7		ne.			1		3	ne.				2	ne.	d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W N. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.90	759.4	80	26.7		calm			0		1	calm				3	se.	d. clouds	Comm. R. H. Thornton.
H. M. S. Lapwing, S. 32° 40′, E. 30° 10′	29.88	758.9	71	21.7		sw.			3		4	wsw.				3	ssw.	squally	Comm. F. H. Haygarth.
H. M. S. Lark, S. 34° 17′, W. 1° 29′	30.43	772.9	56	13.3	74	se.			5		2					4	ssw.	d. clouds	Lieut. Comm. C. Oldham.
H. M. S. Magpie, N. 20° 31′, E. 110° 34′	29.86	758.4	80.5	26.9	85	ene.			2–3		10					2	ene.	misty	Lieut. A. Balfour.
H. M. S. Malabar, Suez Canal	29.94	760.5	87	30.6	75	n.			3		0							blue sky	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	30.07	763.8	62.5	16.9	55	ne.			6		1	ne.						blue sky	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.08	764.0	55	12.8	87	calm			0		2							d. clouds	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.19	766.8	51	10.6	75	wsw.			1		4							d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes																			
H. M. S. Pegasus																			Capt. R. P. Kinahan.
H. M. S Pelican																			Capt. T. G. Jones.
H. M. S. Penguin																			Capt. F. R. Dicken.
H. M. S. Phœnix																			Capt. A. C. Paget.
H. M. S. Rambler																			Capt. H. H. Grenfel.
H. M. S. Ready																			Capt. Hon. A.C.Littleton.
H. M. S. Rifleman																			Comm. W. H. Edwards.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	30.16	766.1	44	6.7	92	calm			0		2							d. clouds	Comm. P. H. W. Mayow.
H. M. S. Ruby, N. 17° 26′, E. 64° 17′	29.83	757.7	81.3	27.4	74	calm			0		1							blue sky	Capt. V. B. Orlebar.
H. M. S. Salamis																			
H. M. S. Sea Gull, S. 14° 52′, E. 40° 50′	29.62	752.3	82	27.8	78	se.			1-2		1					5	ese.	blue sky	Capt. O. E. Foot. Capt A. Fitz George.
H. M. S. Serapis																			
H. M. S. Shannon																			Comm. W. Byles.
H. M. S. Tamar																			
H. M. S. Tenedos																			Capt. G. O. Twiss.
H. M. S. Thetis, N. 44° 47′, W. 128° 35′	30.24	768.1	57	13.9	87	wnw.			2		8					2	wsw.	misty	Capt. J. D'Arcy.
H. M. S. Thunderer, Susa, Tunis	29.92	760.0	83	28.3	67	ene.			2		3					2		blue sky	Capt. T. H. Royse. Capt. C. G. Fane.
H. M. S. Triumph, Paracas Bay, Peru	30.05	763.3	60	15.6	88	calm			0		10	calm						overcast	Capt. P. W. Stephens.
H. M. S. Turquoise																			
H. M. S. Tweed																			Capt. C. F. Hotham.
H. M. S. Tyne, N 40° 30′, W. 9° 45′	30.13	765.3	61.5	16.4	97	n.			5		2	ene.				3	n.	d. clouds	Capt. A. H. Markham.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.93	760.2	78	25.6		nne.			2		7							d. clouds	Capt. M. B. Medlycott.
H. M. S. Wild Swan																			
H. M. S. Wolverene, Sydney, N. S. W.	29.96	761.0	58	14.4	87	calm			0		0							blue sky	Capt. J. E. Stokes.
H. M. S. Woodlark, N. 24° 54′, E. 58° 00′	29.78	756.4	85.5	29.7	75	ese.			4		5	s.						d. clouds	Com. W. T. Brown. Capt. S. H. P. Dacres.
H. M. S. Wrangler																			Com. J. C. Wilson, A.D.C.
																			Capt. T. P. Nesham.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo																			Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, Brava, Cape Verd Id's	29.97	761.1	81.9	27.7	86	n.			2		10			4 h'r	4 h'r	1	se.	raining	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.94	760.5	78.8	26.0	84	e.			1		3		e.					d. clouds	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

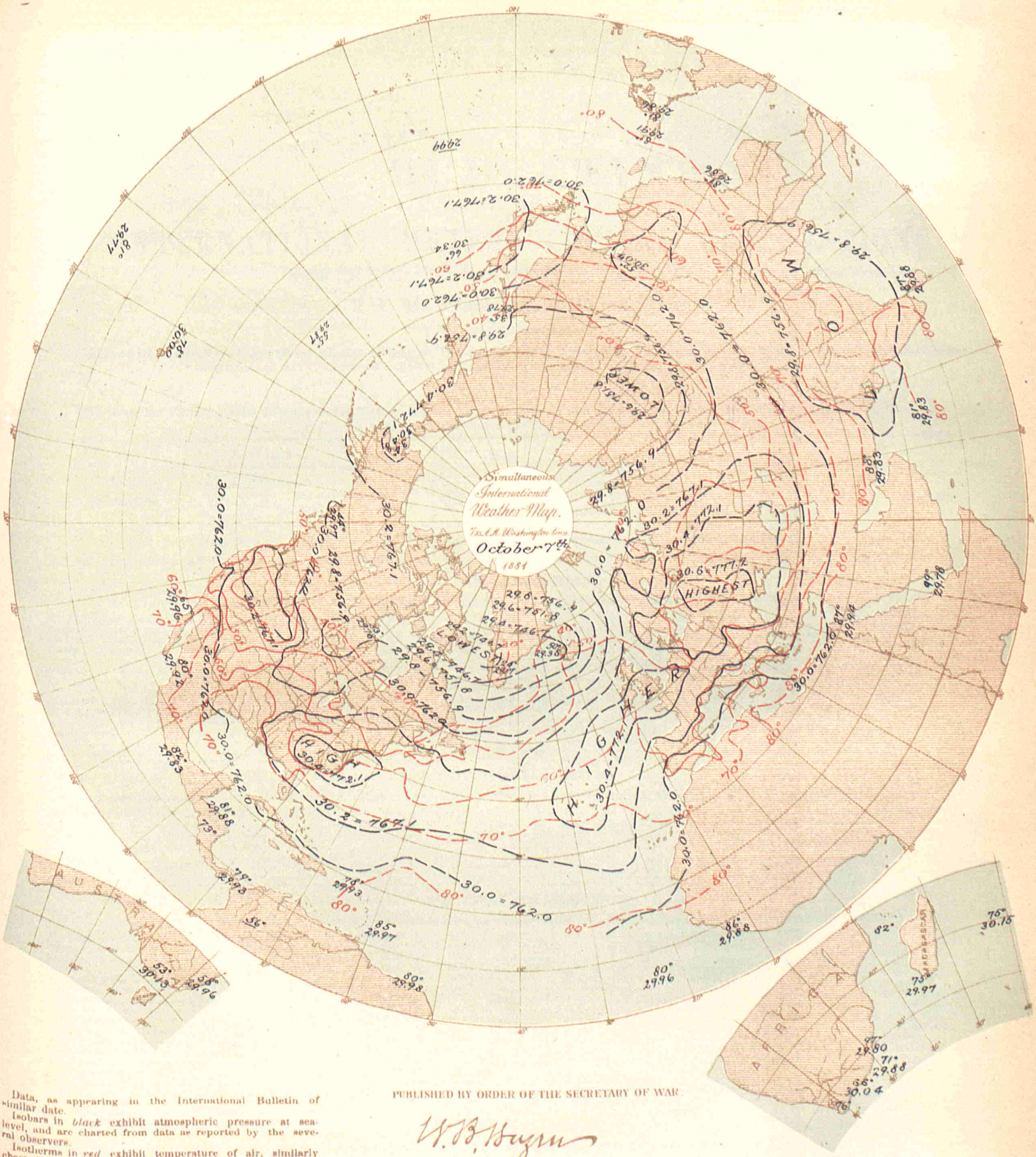
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.				Character.	Dir'n from.		
										Up'er	Lo'er	Upper.	Lower.						
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.'																			
N. Yard, Pensacola, Fla	30.29	769.4	71	21.7	75	ne.	11	4.9			10		ne.	0	0			cloudy	
N. Yard, Portsmouth, N. H.	30.32	770.1	48	8.9	70	nw.	6	2.7			0			0	0			clear	
Naval Hospital, Yokohama, Japan	30.04	763.0	64	17.8	75	e.			3		10		ne.	sli't	sli't			cloudy	
Adams, Payta, Peru	29.90	759.4	65	18.3	84	ese.			2		2		sw.			sm'h		fair	
Alaska, Callao, Peru	30.00	762.0	59	15.0	100	sse.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	30.07	763.8	66	18.9	79	e.			4		10		e.			sm'h		cloudy	
Alliance, N. 66° 30′, W. 23° 39′	29.33	745.0	44	6.7	76	wsw.			3		10			light	light	sm'h		raining	
Ashuelot, Kobe, Japan	30.14	765.5	67	19.4	84	ne.			1		10		calm					overcast	
Colorado, New York, N. Y.	30.36	771.1	54	12.2	74	sw.	3	1.3			10							cloudy	
Constitution, New London, Conn	30.35	770.9	49	9.4	100	nnw.	4	1.8			1		ne.					clear	
Franklin, Norfolk, Va	30.36	771.1	54	12.2	100	ssw.	4.8	2.1			8		n.	0	0			fair	
Galena, Messina, Sicily	29.94	760.5	68	20.0	95	calm			0		10		calm			sm'h		raining	
Independence, N. Yard, Mare I'd, Cal	29.91	759.7	51	10.6	79	calm	0	0			0							clear	
Kearsarge, Hudson River, N. Y.	30.39	771.9	52	11.1	73	ssw.			1		10					sm'h		misty	
Lackawanna, San Francisco, Cal †	30.19	766.8	58	14.4	94	e.			1		0							clear	
Lancaster, New York, N. Y.	30.35	770.9	52	11.1	93	ssw.			3		8		calm	0	0			misty	
Marion, Montevideo, Uruguay	29.87	758.7	64	17.8		n.			1		2		n.			sm'h		fair	
Michigan, Erie, Pa	30.23	767.8	54	12.2	87	s.			1		10							cloudy	
Minnesota, Newport, R. I.	30.37	771.4	56	13.3	63	w.			1		2			0	0	sm'h		clear	
Monocacy, Yokohama, Japan	30.24	768.1	66	18.9	84	ne.			3		10		w.					cloudy	
Nipsic, Genoa, Italy	30.13	765.3	67	19.4	45	nne.			6		2					sm'h		squally	
Onward, Callao, Peru †	30.02	762.5	60	15.6	94	sse.			1		10		n.			long	w.	misty	
Palos, Hong Kong, China	29.96	761.0	78	25.6	78	e.			2		5		n;e.					fair	
Passaic, Washington, D. C.	30.41	772.4	57	13.9	87	s.			1		10							overcast	
Pensacola, Callao, Peru	30.10	764.5	60	15.6	88	e.			0–1		10			0	0			cloudy	
Portsmouth, New York, N. Y.	30.39	771.9	53	11.7	73	wsw.			2		2		w.			sm'h		clear	
Powhatan, N. 24° 07′, W. 82° 35′	30.00	762.0	83	28.3	79	ene.			5–6		3?		ne.			r'gh	ne.	cloudy?	
Quinnebaug, Marseilles, France	30.10	764.5	65	18.3	50	nnw.			3		5		nw.			sm'h		fair	
Ranger, Mare Island, Cal *	29.95	760.7	56	13.3	75	calm			0		0							clear	
Richmond, Panama, Panama	29.93	760.2	79	26.1	95	nw.			1		8			0.01	0.3			fair	
Saratoga, New York, N. Y.	30.39	771.9	51	10.6	100	w.			1–2		8			0	0	sm'h		cloudy	
Shenandoah, Montevideo, Uruguay	30.09	764.3	65	18.3	84	nnw.			1		2					sm'h		fair	
St. Louis, League Island, Pa	30.12	765.0	54	12.2	80	ssw.	3	1.3			2		ssw.	0	0			clear	
Swatara, Chefoo, China †	29.96	761.0	64	17.8	83	wnw.			1		10		calm			sm'h		drizzling	
Tennessee, New York, N. Y.	30.41	772.4	52	11.1	100	sw.	3	1.3			8			0	0			hazy	
Trenton, N. 24° 51′, W. 58° 50′ *	29.91	759.7	81	27.2	87	nnw.			2		10			2 h'r	mod	long	ne.	cloudy	
Vandalia, New York, N. Y.	30.38	771.6	51	10.6	72	sw.			1		8		w.					fair	
Wabash, Boston, Mass.	30.35	770.9	49	9.4	71	wsw.	3	1.3			2		wsw.	0	0			hazy	
Wachusetts, Sitka, Alaska	29.91	759.7	42	5.6	91	ne.			1		2							clear	
Wyoming, Port Royal, S. C.	30.36	771.1	69	19.4	84	ne.	14	6.3			2		ne.	0	0			clear	
Yantic, New York, N. Y. *	30.37	771.4	54	12.2	61	sw.			2		8							hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 52° 52′, W. 52° 11 ...*†	29.90	759.4	.....	.....	.....	w.	.....	.....	2	.....	wnw.	.....	.....	mod.	w.	fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith ‡ N. 52° 15′, W. 54° 15′	30.09	764.3	35	1.7	80	nw.	3	.....	5	.....	nw.	1 h'r	1 h'r	3	nw.	d. clouds	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson Off Ferryland Head, N. F.	30.14	765.5	50	10.0	.....	w.	3	.....	2	.....	w.	.....	.....	sli't	sw.	squally	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 51° 48′, W. 15° 30′ †.	30.50	774.7	59	15.0	94	w.	2	.....	10	.....	w.	.....	.....	mod	w.	fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 40° 26′, W. 69° 54′ †.	30.40	772.1	59	15.0	70	nnw.	2	.....	2	.....	nw.	0	0	sm'h	nw.	fair	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Philadelphia, Pa.	.....	.....	50	10.0	93	sw.	1	.....	5	.....	w.	.....	.....	.....	.....	fine	.....
S. S. Pennsylvania, Capt G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. British Merchant, Capt. E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Caldew, Capt. W. Petersen, S. 52° 36′, W. 64° 02′	29.30	744.2	45	7.2	.....	n.	3	.....	7	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Cipero, Capt. W. N. Lailey, Port Cortez, Honduras C. A.	29.88	758.9	81	27.2	95	sw.	2	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Glaramara, Capt. R. Morton,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Gordon Castle, Capt. W. Waring, N. 15° 36′, E. 41° 35′	29.78	756.4	98.5	36.9	76	calm	0	.....	0	.....	.....	.....	.....	.....	.....	blue sky	.....
Bg. Hermine, Capt. S. G. Jones, S. 26° 02′, W. 41° 12	29.99	761.7	72	22.2	90	nne.	4	.....	10	.....	.....	.....	.....	.....	.....	misty	.....
Bkt. Hope, Capt. Jas. Campbelle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, S. 26° 34′, E. 84° 00′	30.20	767.1	66	18.9	78	ne.	2	.....	2	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bk. Mertola, Capt. E. W. Turner, N. 45°, 30′ W. 14° 41′	30.49	774.4	60.7	15.9	94	ene.	.....	4	10	.....	.....	.....	.....	.....	.....	overcast	.....
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Moorhill, Capt. J. Brown, S. 58° 17′, W. 69° 24′	28.68	728.5	43.2	6.2	91	w.	9	.....	6	.....	.....	.....	.....	.....	.....	threatening	.....
S. Pleione, Capt. C. H. Renant, S. 44° 50′, E. 91° 54′	30.05	763.3	47	8.3	60	wsw.	2	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	.....
Queen of Cambria, Capt. M. Parry N. 5° 26′, W. 23° 11′	29.96	761.0	80	26.7	78	ssw.	5	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Rosetta, Capt. A. E. Barlow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sierra Estrella, Capt. P. Murdoch,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 35° 13′, W. 36° 20′	30.34	770.6	73.0	22.8	81	ese.	6	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Strathleven, Capt. C. W. Pearson, N. 35° 26′, E. 139° 41′	30.16	766.1	64.0	17.8	94	nw.	4	.....	8	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin, S. 7° 39′, E. 80° 22′	29.70	754.4	82.5	28.1	.....	var.	1	.....	9	.....	.....	.....	.....	.....	.....	overcast	.....
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, N. 35° 36′, W. 121° 48′ †.	29.68	753.9	61	16.1	88	nw.	3	.....	0	.....	.....	0	0	mod.	wnw.	clear	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 48° 42′, W. 43° 54′	30.11	764.8	60	15.6	62	wnw.	6	.....	2	.....	nw.	.....	.....	sm'h	w.	fair	.....
S. S. Hermann, Capt. H. Baur N. 48° 44′, W. 33° 12′	30.29	769.4	56.3	13.5	.....	w.	4	.....	8	.....	w.	0	0	high	w.	hazy	E. Schmidt, 3d Officer
S. S. Köln, Capt. T. Jüngst, N. 36° 53′, W. 75° 44′	30.54	775.7	65.0	18.3	63	sw.	2	.....	2	.....	sw.	0	0	sm'h	sw.	clear	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reichler.
S. S. Strassburg, Capt. Heimbrouch, N. 39° 01′, W. 71° 28′	30.44	773.2	70.5	21.4	61	wsw.	2	.....	2	.....	sw.	0	0	sm'h	wsw.	clear	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Yokohama, Japan †.	30.31	769.9	60	18.9	89	nne.	3	.....	2	.....	nw.	0	0	sm'h	.....	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley N. 39° 52′, E. 152° 20′ *†.	30.34	770.6	66	18.9	68	nw.	6	.....	8	.....	nw.	.....	.....	mod.	nw.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles N. 42° 00′, W. 124° 30 †.	30.15	765.8	56	13.3	81	n.	2	.....	0	.....	.....	.....	.....	sm'h	nw.	clear	.....
S. S. Oregon, Capt. E. Poleman Portland, Oregon †.	30.21	767.3	50	10.0	86	calm	0	.....	8	.....	w.	.....	.....	.....	.....	cloudy	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 34° 03′, W. 119° 00′ †	29.88	758.9	62	16.7	83	ene.	2		10		ssw.			sm'h		cloudy	J. W. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, Tacoma, Washington Ter. †	30.20	767.1	49	9.4	85	calm	0		10							cloudy	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson,																	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 34° 15′, W. 119° 18′ †	29.80	756.9	58	14.4	76	nw.	1		10		nw.			sm'h		cloudy	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal. †	29.99	761.7	52	11.1	86	calm	0		0							clear	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 45° 58′, W. 124° 40′ †	30.22	767.5	54	12.2	80	calm	0		0					light	w.	clear	J. O. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——																	A. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, S. 36° 56′, E. 158° 58′ †	30.07	763.8	64	17.8	78	sw.	6		8		sw.			h'vy	sw.	overcast	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, Hong Kong, China *†	30.04	763.0	78	25.6	82	e	2		1		e.	0	0	sm'h		clear	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 28° 12′, W. 116° 07′ †	29.96	761.0	65	18.3	80	nw.	1		8		sw.	0	0	long	nw.	cloudy	
S. S. City of Sidney, Capt. H. C. Dearborn, N. 2° 24′ W. 165° 14′ *†	29.77	756.1	81	27.2	74	e.	4		8		ese.	0	0	mod.	ese.	cloudy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury, N. 41° 18′, W. 173° 42′ †	29.87	758.7	55	12.8	80	nw.	6		10		nw.			long	nne.	cloudy	A. L. Richie, 2d Offl.
S. S. Colima, Capt. R. R. Searle, Panama, Panama †	29.93	760.2	79	26.1	100	se.	2		10		e.	0	0	mod.	s.	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly N. 15° 38′, W. 96° 30′ †	29.83	757.7	82	27.8	83	wnw.	2		2		w.	1 h'r	1 h'r	small	sw.	clear	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.23	767.8	68	20.0	79	nw.	3		8		nw.					cloudy	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Fedderson, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, Jersey City, N. J †	30.52	775.2	49	9.4													C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 40° 55′, W. 71° 45′ †.	30.33	770.4	59	15.0		w.	4		0			0	0	sm'h		fine	R. Horsfall.
S. S. Britannic, Capt. H. Perry																	
S. S. Celtic, Capt. B. Gleadell, Off Skellings' Ireland †.	30.41	772.4	60	15.6		sw.	2		8		sw.	3 h'rs	driz	light	w.	cloudy	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, Queenstown, Ireland †.	30.64	778.2	56	13.3	81	wsw.	2		2		w.	0	0			d. clouds	
S. S. Republic, Capt. P. J. Irving																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Narragansett Bay, R. I. †.	30.42	772.7	54	12.2	80	wsw.	3	0	28			0	0			clear	
Hassler, Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	
S. Pawashick, Capt. E. Fry. N. 36° 05′, W. 2° 58′ *†.	29.76	755.9	60	15.6	100	nw.	5		10		nw.			sm'h	e.	heavy rain	W. Randall.
S. S. Proteus, Capt. Pike																	E. Fry.
Bk. Sunbeam, Capt. Jos. Hand, Lisbon, Portugal †.	29.92	760.0	61	16.1	82	ne.	8		10		ne.	mod.	mod.			cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer. U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 8, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.92	759.9	73.4	23.0	78	sw.			1		1			0	0	pretty fair	Moiroud.
Algiers ‡			29.91	759.8	74.1	23.4	73	w.			1		1			0.102	2.6	pretty fair	Nicolas.
La Calle ‡			29.94	760.5	81.7	27.6	66	n.			1		3			0	0	pretty fair	Fonfrède.
Tunis ‡			29.93	760.1															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.95	760.6	70.7	21.5	45	sw.			4		1			inap.	inap.	very fair	Dumas.
Tebessa ‡			29.96	761.0	69.8	21.0	47	sw.			3		2			0	0	fair	Derché.
Geriville ‡					66.9	19.4	53	se.			1		0			0.059	1.5	clear	Lonchamp.
Laghouat ‡			29.99	761.8	68.7	20.4	31	s.			3		2			0	0	fair	Herbin.
Biskra ‡			29.96	761.0	77.7	25.4	38	nnw.			1		5			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.97	761.2	30.06	763.5	61.2	16.2	66	n.	4	1.8			1			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.79	756.6	30.35	770.9	51.1	10.6	79	e.			1		10			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.61	752.2	30.39	771.8	56.7	13.7	69	ene.	4.9	2.2			1			0	0		Dr. Wiersbicki.
Eperies	29.48	748.9	30.36	771.2	58.6	14.8	45	calm			0		0			0	0		Julius Mikolik.
Gratz ‡	29.09	738.8	30.36	771.1	52.5	11.4	88	ssw.			2		10			0.020	0.5		Andreas Rospini.
Hermannstadt	28.95	735.2	30.38	771.7	60.1	15.6	38	sse.			3		0			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.74	729.9	30.07	763.7	57.9	14.4	74	ene.			3		4			0	0	fair	The Staff.
Lemberg	29.42	747.2	30.41	772.5	56.1	13.4	51	se.			2		0			0	0		Dr. T. Stanecki.
Pola	30.05	763.3	30.16	766.1	61.9	16.7	76	ene.			3		10			0.039	1.0		I. R. Hydrographic Office.
Szathmar	29.91	759.8	30.38	771.6	61.3	16.3	34	e.			3		0			0	0		Jozsef Midlinszky, S. J.
Szegedin	30.06	763.4	30.34	770.5	58.6	14.8	49	calm			0		0			0	0		Karl Stancel.
Trieste	30.10	764.6	30.21	767.2	57.9	14.4	65	ene.			2		10			0.161	4.1		Rieder.
Vienna	29.63	752.6	30.35	770.9	54.7	12.6	66	se.			3		2			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 10, 1882.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.14	765.5	30.24	768.1	52.0	11.1	76	s.	18	8.0			7			0.165	4.2	d. clouds	W. Boswell.
Armagh, Observatory	29.98	761.5	30.21	767.3	54.9	12.7	98	ne.	6	2.7			10					drizzling	S. Call.
Bidston, Liverpool Obs'y			30.16	766.1	51.1	10.6	73	ene.	16	7.2			3					misty	John Hartnup.
Bolton, Sharples	29.61	752.1	30.16	766.1	51.7	10.9	53	ene.	18	8.0			2					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29.76	755.9	30.16	766.1	52.1	11.2	75	se.			3		6			0.01	0.3	d. clouds	[A.S. J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.02	762.5	50.0	10.0	74	ne.			0.6		7					d. clouds	John McLaren.
Chatham, School M. E.	29.92	760.0	30.05	763.3	45.3	7.4	99	ne.			1		10					raining	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.86	758.4	30.09	764.3	57.0	13.9	93	nw.			4		10					rain & fog	The Staff.
Fort Napier, Natal	27.73	704.3	29.95	760.7	63.0	17.2	85	ne.			2		8					overcast	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.63	752.6	29.88	758.9	86.0	30.0	91	se.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			30.17	766.3	55	12.8	55	nw.			2		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.85	758.2	29.91	759.7	71.6	22.0	77	w.			2		5					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	30.01	762.2	30.21	767.3	55.6	13.1	76	ese.			3		10 k					gloomy	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.86	758.4	30.03	762.7	45.7	7.6	94	ne.			2		10					raining	The Staff.
Guernsey	29.80	756.9	30.02	762.5	55	12.8	90	ssw.			4		10					raining	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.00	762.0	30.04	763.0	47.2	8.4	88	w.	10	4.5			10					drizzling	The Staff.
Leicester, Museum	29.81	757.2	30.07	763.8	51.0	10.6	64	ne.			1		5					d. clouds	J. C. Smith.
Malta, Mediterranean	29.88	758.9	29.96	761.0	76.0	24.4	81	e.			4		6			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.06	763.5	30.11	764.8	79.0	26.1	65	ne.			4		3					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.58	751.3	30.11	764.8	49.7	9.8	77	nne.			4		6					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.83	757.7	30.06	763.5	49.9	9.9	74	n.			6		7					squally	The Staff.
Plymouth	29.98	761.5	30.06	763.5	58.0	14.4	96	nw.			1		10					drizzling	John Merrifield.
Sandwick Manse, Orkneys			30.16	766.1	54.1	12.3	94	w.	4	1.8			10					drizzling	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	30.28	769.1	30.34	770.6	60.8	16.0	53	ne.			2		9			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	29.87	758.7	30.16	766.1	52.8	11.6	73	ne.			1		3			0.01	0.3	d. clouds	W. F. Cooper.
Silloth Rectory	30.17	766.3	30.20	767.1	52.6	11.4	74	e.			3		5			0.113	2.9	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			30.18	766.6	51.5	10.8	57	ene.	16	7.2			6					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.83	757.7	30.05	763.3	47.3	8.5	94	ne.			2		6					raining	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.02	762.5	30.06	763.5	58	14.4	93	n.			6		10					raining	W. Newcombe.
Valencia, Observatory	30.21	767.3	30.24	768.1	58.6	14.8	93	nnw.	13	5.8			10			blank	blank	misty	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.20	767.1	30.24	768.1	52	11.1	78	s.	12	5.4		0	0			0	0	clear	H. J. Cundall, C. E.
Chatham, N. B.*	30.08	764.0	30.14	765.5	43	6.1	93	s.	2	0.9		8 c	0	s.		0	0	fair	G. A. Blair.
Chicoutimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.92	760.0	29.94	760.5	55	12.8	61	s.	28	12.5			10 s		w.	0	0	threatening	J. McWilliams.
Fort Garry, Manitoba*	29.07	738.4	29.90	759.4	42	5.6	73	w.	10	4.5		2 k	2 s	w.	w.	0	0	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.18	766.6	30.31	769.9	48	8.9	100	s.	1	0.4		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.66	753.4	29.99	761.7	60	15.6	93	s.	15	6.7			10 ks		calm	0.16	4.1	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.77	756.1	29.97	761.2	56	13.3	93	s.	12	5.4			10 n			0.08	2.0	light rain	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.17	740.9	29.85	758.2	62	16.7	97	ss.	12	5.4			10 n		sw.	0.45	11.4	light rain	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.35	745.5	30.02	762.5	65	18.3	94	s.	15	6.7			10 n		sw.	0.13	3.3	threatening	H. Morgan.
Port Stanley, Ontario	29.40	746.7	30.02	762.5	66	18.9	90	s.	5	2.2			10 n		sw.	0.01	0.3	cloudy	M. Payne.
Quebec, Quebec*	29.72	754.9	30.04	763.0	52	11.1	86	calm			0		10 n		calm	inap.	inap.	light rain	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.39	746.5	29.84	757.9	56	13.3	93	se.	1	0.4			fg.			0.13	3.3	foggy	W. H. McIntyre.
Saugeen, Ontario*	29.16	740.7	29.86	758.4	60	15.6	93	s.	20	8.9			10 ks			0.57	14.5	light rain	K. Stewart.
St. Andrews, N. B.	30.11	764.8	30.16	766.1	51	10.6	92	sw.	4	1.8			fg.			0	0	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.27	768.8	30.34	770.6	50	10.0	100	s.	12	5.4		0	2 s			0	0	clear	T. C. Hill, C. E.
Toronto, Ontario*	29.61	752.1	29.98	761.5	64	17.8	93	sw.	10	4.5			10 ks			0.07	1.8	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.21	767.3	30.27	768.8	53	11.7	96	se.	3	1.3		2 cs	0	w.		0	0	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.25	768.3	30.50	774.7	52	11.1	86	s.	2	0.9		0	0			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	30.12	765.0	30.15	765.8	62.0	16.7	88	se.	8.6	3.8			10 n			0.020	0.5	showery	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.30	744.2			72	22.2	48	e.			1	2	4			0	0	cloudy	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.95	760.7	29.97	761.3	64.2	17.9	92	wnw.	5.4	2.4		c	10 kn			0.421	10.7	covered	M. Marc Dechevrens, S. J.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.36	771.1	30.41	772.3	52.5	11.4	81	ese.	13	6			0						Oversergent Fischer.
Fanöe	30.22	767.7	30.24	768.2	53.4	11.9		ene.			4		3						Overloerer Lauridsen.
Godthaab, Greenland	29.41	747.1	29.46	748.2	28.0	—2.2	79	sw.			6		9						S. Kleinschmidt.
Stykkisholm, Iceland	29.22	742.1	29.26	743.2	41.7	5.4	97	sw.			8		10					raining	A. O. Thorlacius.
Thorshavn,	29.96	760.9	29.99	761.8	51.6	10.9	77	w.	20	9			3						Overloerer Bergh.
Vestervig	30.22	767.7	30.32	770.0	50.4	10.2	76	ene.			4		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.31	744.5	29.96	760.9	55.0	12.8	90	ssw.			1		10 k					covered	M. Labroue, Director.
Alençon Normal School	29.59	751.5	30.19	766.8	50.7	10.4	97	sw.			2		10					raining	M. Nicot, Director.
Arras, Engineer School	29.82	757.4	30.08	764.0	50.2	10.1	88	s.					10		s.			covered	M. Klein, Commandant.
Avignon, Normal School	29.97	761.2	30.05	763.2	55.0	12.8	68	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.56	750.8	30.12	765.1	52.2	11.2	64	se.			1		10			0	0	covered	M. Saillard, Director.
Beauvais, Normal School	29.86	758.4	30.13	765.3	54.5	12.5	79	se.			1		10		sse.	0	0	covered	M. Frère Eugène Marie.
Besançon, Normal School	29.19	741.5	30.10	764.4	50.0	10	66	ne.			1		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.82	757.4	30.08	764.0	57.6	14.2	53	nw.			1		5		e.	0	0	cloudy	M. Rayet, Director.
Bourges, Normal School	29.57	751.0	30.13	765.3	48.2	9	73	n.			1		sn		n.	0	0		M. Postel, Director.
Brest, Naval Observatory	29.91	759.6	30.15	765.8	57.2	14.0	78	calm			0		10					raining	M. de Rermaree, Dir.
Caen, Normal School	29.98	761.4	30.03	763.3	49.6	9.8	92	sw.			1		10			0.28	7.	covered	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.76	756.0	30.09	764.2	51.4	10.8	74	ne.			1		10			0	0	covered	M. Jadot, Director.
Charleville, Normal School	29.64	752.9	30.16	766.1	48.6	9.2	76	sse.			1		4			0.177	4.5		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.72	729.6	30.08	764.0	55.9	13.3	50	n.			1		8			0	0	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.25	743.0	30.10	764.5	58.6	14.8	57	se.			1		2	se.	n.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.24	742.6	30.15	765.8	49.6	9.8	60	e.			1		5 kn	e.	e.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.51	698.7	30.00	762.0	62.6	17	70	e.			1		1 n		ne.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.97	735.9	30.11	764.9	67.3	19.6	64	se.			3		8		se.	0	0	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.30	744.3	30.07	763.8	55.8	13.2	49	se.			1		k			0	0		M. Ablard, Director.
Guéret, Normal School	28.48	723.3	30.08	763.9	48.4	9.1	63	e.			1	5 ck	0	w.		0	0	cloudy	M. Rivoire, Director.
Lamballe, Normal School	29.90	759.4	30.17	766.4	50.9	10.5	97	nw.			1		10 n		nw.			light rain	M. Ollitrault, Director.
Lescar, Normal School	29.69	754.2	30.26	768.7	57.9	14.4	52	ne.			1			nw.		0	0		M. Chauvin, Director.
Lorient, Naval Observatory	30.10	764.5	30.20	767.1	57.2	14	78	nw.			1		10			0	0	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.06	738.0	30.12	765.0	53.8	12.1	60	se.			1	0	0	se.		0	0		M. André, Director.
Mans, Normal School	29.84	758.0	30.16	766.0	50.4	10.2	95	ne.			1		10			0	0	covered	M. Piboen, Director.
Marseille, Observatory	29.72	754.9	29.99	761.7	70.7	21.5	56	se.			3		8			0.091	2.3		M. Stephan, Director.
Montlouis l'instituteur	24.82	630.5	30.06	763.5	42.8	6.0	100	e.	3.8	1.7			9			0.177	4.5	raining	M. Cave, for Dr. Fines.
Montpellier, Normal School	29.91	759.7	30.02	762.5	66.9	19.4	63	ne.			2		10		ne.	0	0	covered	M. Pourle, Director.
Nancy, Normal School	29.32	744.7	30.09	764.3	50.0	10	62	nne.			1		2 kn			0	0	slightly cl'dy	M. Hasse.
Nantes, Observatory	30.04	762.9	30.20	767.0	55.8	13.2	75	nnw.			1–2		10			0	0	covered	M. Larocque, Director.
Nice	30.00	761.9	30.03	762.8	68.0	20.0	58	e.			4		10		e.	0	0	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.92	760.0	30.03	762.7	55.0	12.8	73	nw.	5.6	2.5			10		e.	0.217	5.5	raining	Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					59.0	15	21	calm			0		2	n.	s.	0	0	slightly cl'dy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.19	639.7			40.2	7.9	48	sw.			2		8			0	0	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.14	795.6	30.17	766.4	59.0	15.0	82	ne.			1		8		n.	0.039	1.0	¾ covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.94	760.5	30.16	766.0	53.6	12	83	n.			1		10			0	0	covered	M. Mouillot, Director.
Rodez, Normal School	27.89	708.5	30.04	763.0	54.3	12.4	67	sw.			1		k		s.	0	0		M. Richard, Director.
Rouen, Normal School	30.05	763.2	30.14	765.5	52.7	11.5	87	nw.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School																			M. Delaplanche, Dir.
Saint Maur, Observatory	29.97	761.2	30.13	765.4	50.2	10.1	92	s.			1		10		s.	0.016	0.4		M. Renou, Director.
Toulouse, Observatory	29.41	746.9	30.13	765.3	57.6	14.2	54	ne.			1		5		se.	0	0	cloudy	M Bailland, Director.
Tours																			M. de Tastes.
Versailles, Observatory	29.63	752.7	30.13	765.2	49.6	9.8	89	s.			1					0.205	5.2		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.86	758.4	30.15	765.8	49.5	9.7	96	ssw.			1		1c		sse.	0.024	0.6		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.24	742.7	30.10	764.6	59.0	15.0	60	se.			3		4 k	e.		0	0		Prof. Dr. Hoh.
Berlin	30.04	763.0	30.21	767.3	64.8	18.2	62	se.			1		0			0.055	1.4		Prof. Dr. Arndt.
Breslau	29.82	757.5	30.36	771.2	58.3	14.6	72	se.			2		1			0	0		Royal University Obs'y.
Carlsruhe	29.70	754.4	30.14	765.5	47.5	8.6	78	ne.			1		10	e.		0	0		Albert Senz.
Cassel	29.44	747.7	30.16	766.1	48.7	9.3	88	n.			1		10	s.		0.004	0.1		Dr. H. Mohl.
Frankfort on the Main	29.78	756.3	30.15	765.8	47.3	8.5	79	ne.			1		10			0	0		Physical Society.
Friedrichshafen	28.67	728.1	30.12	765.0	49.6	9.8	80	sw.			1		10	sw.		0	0		Wilhelm, Chief Tel.
Hamburg	30.14	765.6	30.24	768.0	51.3	10.7	93	e.			1		10			0.020	0.5	foggy	E. Preller.
Kiel	30.22	767.7	30.24	768.1	54.0	12.2	80	ese.			2		9			0.008	0.2		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.75	755.6	30.17	766.3	61.0	16.1	60	ese.			3		6	se.		0	0		H. Leppig, Asst.
Magdeburg	29.99	761.8	30.18	766.6	60.3	15.7	70	e.			2	0	4 k		se.	0.024	0.6	dense fog	Dr. Assmann.
Memel	30.54	775.7	30.59	776.9	44.2	6.8	68	e.			3	1 cs	0						Issermann.
Munich	28.28	718.2	30.15	765.7	48.7	9.3	77	calm			0		10	w.		0.012	0.3		Central Station.
Neufahrwasser	30.41	772.4	30.43	772.8	51.3	10.7	62	e.			2		0			0	0		A. Lothes.
Neustadt, Palatinate	29.60	751.9	30.13	765.3	49.6	9.8	71	calm			0		10	w.		0	0	dense fog	Dicknether.
Stuttgart	29.14	740.2	30.05	763.3	46.4	8.0	83	ne.			1		10			0	0	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.59	726.1	30.10	764.4	54.3	12.4	78	calm			0		8	se.		0	0		Fischer.
Wustrow	30.28	769.1	30.30	769.7	56.5	13.6	78	e.			3	0	3 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.89	759.2	30.28	769.0	68.0	20.0		ne.			4.0		1			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.73	755.1	29.78	756.4	83.0	28.3	74	wsw.	26.0	11.6			0			0	0	blue sky	
Deesa	29.32	744.7	29.79	756.6	84.1	28.9	62	wsw.	7.1	3.2			0			0	0	blue sky	
Bombay	29.76	756.0	29.80	757.0	81.4	27.4	87	nw.	18.0	8.0			0			0	0	blue sky	
Poona, Yarrowda.	27.94	709.6	29.78	756.4	81.3	27.4	60	wnw.	15.0	6.7			3	w.		0	0	d. clouds	
Belgaum	27.26	692.4	29.82	757.4	71.0	21.7	82	w.	5.0	2.2			9	s.	n.	0	0	d. clouds	
Lahore	28.89	733.8	29.62	752.2	88.9	31.6	35	calm	0.7	0.3			0			0	0	blue sky	
Roorkee	28.76	730.4	29.64	752.9	84.8	29.3	52	se.	1.5	0.7			0			0	0		
Agra	29.13	739.8	29.68	753.9	88.7	31.5	38	nw.	4.8	2.2			0			0	0		
Nagpur	28.68	728.5	29.71	754.7	84.7	29.3	40	calm	4.1	1.8			0			0	0	blue sky	
Jubbulpore	28.32	719.4	29.66	753.2	85.9	29.9	31	calm	2.8	1.2			0			0	0	blue sky	
Lucknow	29.32	744.7	29.69	754.1	84.2	29.0	56	calm	1.3	0.6			4			0	0	d. clouds	
Allahabad	29.38	746.3	29.69	754.2	79.0	26.1	89	calm	1.5	0.7			0			0	0	blue sky	
Patna	29.53	750.2	29.72	754.8	76.3	24.6	95	e.	8.4	3.8			10	e.	e.	1.01	25.6	overcast	
Hazaribagh	27.69	703.3	29.72	754.8	71.8	22.1	86	w.	8.2	3.7			6		w.	0.35	8.9	showery	
Cuttack	29.59	751.5	29.67	753.6	85.0	29.4	79	calm	0	0			2			0	0	d. clouds	
Calcutta, Alipore	29.67	753.6	29.69	754.1	81.6	27.6	96	ssw.	1.0	0.4			6			0.40	10.2	d. clouds	
Dhubri	29.64	752.8	29.76	755.9	79.7	26.5	89	calm	1.6	0.7			10			0.03	0.8	thud'r storm	
Goalpara	29.63	752.6	29.72	754.9	83.5	28.6	81	w.	3.3	1.5			7			0	0	d. clouds	
Chittagong																			
Sibsagar	29.37	745.9	29.70	754.4	83.2	28.4	91	ne.	1.5	0.7			2			0	0	blue sky	
Jeypore	28.29	718.6	29.70	754.3	92.0	33.3	21	nw.	5.7	2.6			4		nw.	0	0	d. clouds	
Zanzibar, Africa			29.96	761.0	84.2	29.0	52	sse.	5	2.2			1			0	0	blue sky	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.82	757.5	30.23	767.9	58.1	14.5	67	ne.	3.8	1.7			10			0.043	1.1		Prof. Giovanni Clodig.
Milan	29.72	754.8	30.22	767.5	55.2	12.9	93	ne.	2.5	1.1			10	e.		0.358	9.1		Prof. Schiaparelli.
Padua	30.13	765.2	30.24	768.0	55.8	13.2	90	nne.	9.4	4.2			10			0.169	4.3		Prof. Dott. Lorenzoni.
Moncalieri	29.30	744.3	30.21	767.3	53.6	12.0	98	nw.	1.3	0.6			10			0.421	10.7		Prof. P. F. Denza.
Genoa	29.92	760.0	30.11	764.8	61.3	16.3	62	ne.	8.0	3.6			10	ne.		0.004	0.1		Prof. G. M. Garibaldi.
Mondovi	28.30	718.7	30.22	767.5	50.0	10.0	97	w.			4		10			0.197	5.0		Prof. D. C. Bruno.
Pesaro	30.10	764.5	30.15	765.7	61.9	16.6	95	e.	11.2	5.0			10	sw.		0.965	24.5		Prof. Luigi Guidi.
Florence	29.82	757.3	30.07	763.7	68.7	20.4	58	ne.			4		10	se.		0	0		Prof. Costantino Pitter.
Leghorn	29.99	761.7	30.08	763.9	67.6	19.8	69	e.	14.3	6.4			10			0.094	2.4		Prof. P. Monte.
Rome	29.90	759.4	30.07	763.8	71.8	22.1	65	sw.					10			0	0		Prof. P. S. Ferrari.
Lecce	29.93	760.1	30.17	766.4	70.3	21.3	63	ssw.	15.4	6.9			4			0	0		Prof. C. de Giorgi.
Cosenza	30.01	762.3	30.10	764.6	69.8	21.0	63	sse.	3.1	1.4			4	se.		0	0		Prof. D. Conti.
Cagliari	29.74	755.3	29.92	760.0	74.8	23.8	61	ese.			2		7	n.		0	0		Prof. A. Pacinotti.
Palermo	29.75	755.6	29.99	761.8	75.9	24.4	65	ne.	4.3	1.9			8			0	0		Prof. G. Ciacciatore.
Syracuse	29.99	761.7	30.03	762.8	74.1	23.4	74	ese.	13.0	5.8			10	ese.		0	0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R	29.43	747.4	30.05	763.3	73.9	23.3	69	e.	0.7	0.3			6	sw.		0	0		Prof. F. Brioschi.
Stelvio	22.30	566.5			37.4	3.0	91	sw.			1		10	s.		0.106	2.7	covered	Prof. P. F. Denza.
Valdobbia	22.33	567.1			34.5	1.4	75	e.			6		10 n			0.315	8.0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.63	752.6	29.64	752.8	72.8	22.7	87	s.	15.5	6.9			10 n		s.	0.638	16.2	light rain	K. Sasaki.
Kioto	29.65	753.1	29.82	757.4	67.3	19.6	93	wnw.	3.6	1.6		ck	10 s		sw.	0.440	11.2	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.58	751.3	29.78	756.4	69.5	20.8	93	sw.	13.9	6.2			10 s		sw.	1.050	26.7	overcast	S. Takehayashi
Nemuro	30.09	764.3	30.15	765.8	57.5	14.2	92	s.	6.6	2.9		8	1	sw.	nne.	0	0		
Niigata	29.79	756.6	29.87	757.4	64.2	17.9	78	se.	8.4	3.8		ck	10 s		sw.	0.860	21.8	cloudy	
Nobiru	29.95	760.7	29.96	761.0	56.5	13.6	97	nnw.	8.5	3.8			10 n			0.775	19.7	raining	
Supporo	29.92	759.9	29.98	761.5	53.3	11.8	88	ese.	6.6	2.9			10			0	0		
Tokei Obs'y, Yeddo	29.93	760.2	29.99	761.7	59.1	15.1	96	nnw.	1.8	0.8			10 s			0.677	17.2	cloudy	The Staff.
Wakayama	29.72	754.9	29.77	756.1	69.7	20.9	90	e.	4.5	2.0			10 n			0.641	16.3	raining	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.98	761.5	30.18	766.6	71.3	21.8	75	e.	18.0	8.0			10ks;		ese.	0.02	0.5	cloudy	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.64	600.4	29.86	758.4	59.0	15.0	82	calm	0	0		3 k	4 s	w.	w.	0	0	fair	Vicente Fernandez.
Leon	24.37	619.0	30.01	762.1	61.8	16.6	92	n.			1	6 c	1 s			0.032	0.8	cloudy	Prof. M. Leal.
Mazatlan	29.61	752.2	29.87	758.7	81.0	27.2	87	n.	1.6	0.8		0	4 n		n.	0	0	fair	F. Quijano, U. E.
Mexico, Central Obs'y	23.06	585.9	30.06	763.6	57.4	14.1	89	calm	0	0			10 n			0.024	0.6	overcast	The Staff.
Morelia	24.20	614.9	30.29	769.4	59.9	15 5	79	ssw.			3	4	3	s.	s.	0.220	5.6	cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.90	606.9	29.85	758.3	62.6	17.0	83	ne.			1	7 c	3 ks	n.	n.	inap	inap.	covered	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.39	594.2	30.08	764.1	59.0	15.0	50	calm	0	0			10		ne.	0	0	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.12	765.1	30.12	765.1	53.1	11.7		sse.			3					0.594	15.1		
Groningen	30.14	765.6	30.20	767.0	49.6	9.8		e.			2					0	0		
Helder	30.19	766.9	30.19	766.9	46.9	8.3		w.			3					0	0		
Hellevoetsluis	30.12	765.0	30.12	765.0	52.7	11.5	82	ese.			3					0.339	8.6		
Utrecht	30.11	764.8	30.16	766.0	52.0	11.1	75	ese.			2		5			0.043	1.1	cloudy	H van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.26	768.7	30.33	770.3	49.6	9.8	66	ese.	14.8	6.6			9			0	0		
Christiania	30.14	765.6	30.29	769.4	51.8	11.0	62	s.	13	6			0			0	0		
Gjesvær	29.28	743.8	29.31	744.4	40.6	4.8		w.			4		10						
Lodingen	29.47	748.5	29.52	749.7	49.8	9.8	97	wsw.			8		10			0.295	7.5	rain & fog	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.21	767.2	30.36	771.1	67.6	19.8	68	nne.	11.2	5.0			3			0	0		Dr. J. A. Sampaio.
Campo Major	28.93	734.9	29.93	760.1	60.4	15.8	61	ene.	11.2	5.0			9			0.224	5.7		Dr. A. M. R. dos Santos
Funchal, Madeira	29.86	758.5	29.95	760.7	71.2	21.8	42	ese.	6.9	3.1			4			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.58	751.3	29.94	760.4	61.5	16.4	53	nne.	17.4	7.8			7			0.063	1.6		The Staff.
Ponta Delgada, Azores	30.24	768.2	30.32	770.0	72.0	22.2	62	ne.	16.1	7.2			4			0.220	5.6		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.93	734.9	30.04	763.0	37.8	3.2	71	ssw.	9	4			10 n						Capt. Lasarew.
Archangel	29.54	750.3	29.56	750.8	45.5	7.5	68	w.	22	10			10						Capt. Sseliwerstow.
Astrakhan	30.51	774.8	30.42	772.7	53.2	11.8	44	n.	4	2		0	7 s					light clouds	Capt. Wisganow.
Barnaul ‡	29.56	750.7	30.08	763.9	32.0	0.0	81	sw.	9	4			10						Meteorological Obs'y.
Dorpat	30.09	764.2	30.34	770.5	52.3	11.3	70	wsw.	11	5		ck	10 s						Observatory.
Ekaterinburg	28.83	732.2	29.80	756.9	40.1	4.5	60	wsw.	18	8			10						Meteorological Obs'y.
Kasan	29.63	752.5	29.90	759.5	45.1	7.3	70	wsw.	13	6			10						Observatory.
Kertch	30.43	772.9	30.45	773.4	50.5	10.3	70	ne.	13	6		0	0			0	0		Lagorio & Sastyrex.
Kieff	29.87	758.6	30.52	775.2	56.1	13.4	41	n.	2	1		0	0						Observatory.
Lugan	30.26	768.7	30.47	773.9	54.3	12.4	51	wnw.	4	2			2						Meteorological Obs'y.
Moscow	29.71	754.5	30.19	766.8	46.8	8.2	49	se.	10.1	4.5		0	8 ks						Meteorological Obs'y.
Nikolaiev	30.54	775.6	30.61	777.4	56.3	13.5	61	e.	4	2		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.83	757.7	29.92	759.9	33.8	1.0	80	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.72	754.8	29.86	758.4	64.2	17.9	55	sw.	7	3		0	0			0	0		Physical Observatory.
St. Petersburg	30.12	765.0	30.13	765.4	49.1	9.5	88	w.	18	8			6 kn						Central Physical Obs'y.
Tashkend, Laboratory	28.57	725.7	30.18	766.6	46.0	7.8	94	calm	0	0			10			0	0		Teich, A. M.
Tiflis	28.95	735.3	30.39	771.8	54.9	12.7	59	s.	4	2		0	7 k						Physical Observatory.
Warsaw	30.01	762.3	30.44	773.2	55.2	12.9	56	ese.	9	4		0	0						Astronomical Obs'y.
Wilna	30.10	764.4	30.52	775.2	64.4	18.0	40	ssw.	2	1			5					light clouds	Berg, Assistant.
Yeniseisk	29.59	751.5	29.88	759.0	33.3	0.7	87	w.	9	4			8						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.24	768.1	53.0	11.7	80	se.			1		10 k			0.10	2.5	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.10	764.5	56	13.3	94	wsw.			3		10			0.2	5.	showery	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.80	756.8	29.90	759.4	65.8	18.8	65	ene.	0.9	0.4			8			0	0		Antonio Rave, Director.
Bilbao, Met. Obs'y	30.13	765.2	30.18	766.6	61.9	16.6	63	ne.	1.1	0.5		3	7	e.		0	0	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.09	688.2			51.8	11.0	83	ne.	12.8	5.7		0	8			0	0	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.72	704.2	29.98	761.4	50.9	10.5	100	s.	4.0	1.8			10			0.181	4.6	raining	The Staff.
Murcia, Met. Obs'y ‡	29.72	755.0	29.87	758.8	62.6	17.0	74	nnw.	4.3	1.9		5	4			0	0	almost cov'd	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.11	739.5	30.00	762.0	62.4	16.9	53	ne.	32.2	14.4			1			0	0	almost clear	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	30.00	762.0	30.07	763.6	74.6	23.7	83	e.	3.8	1.7		0	0			0.020	0.5	clear	Benito Vines, S. J.
Manilla, Philippine Islands	29.84	757.8	29.89	759.1	82.3	27.9	85	sse.	8.4	3.8		6 ck	0	e.		0	0	very cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.81	757.2	29.91	759.7	66.2	19.0	68	se.	9.4	4.2			10		s.	0.093	2.4		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.83	757.6	29.92	759.9	78.8	26.0	86	calm	0	0		2 k	2 s			0	0	clear	E. Caden, Chief Eng'r.
Tuguegarao, Philippine Ids	29.75	755.7	29.89	759.1	84.1	28.9	77	s.	0.7	0.3		0	3 k		sse	0	0	clear	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.69	754.2	29.73	755.2	53.2	11.8	78	sw.			4		8			0	0		
Umea	29.92	760.0	29.97	761.3	62.6	17.0	59	nw.			2		2			0	0		
Hernosand	30.04	762.9	30.09	764.2	63.9	17.7	50	ssw.			2		2			0	0		
Stockholm	30.15	765.7	30.32	770.2	50.9	10.5	63	wsw.			4		2			0	0		
Wisby	30.41	772.3	30.47	773.8	49.6	9.8	79	wnw.			4		0			0	0		
Sub-Series.																			
Upsala	30.18	766.5	30.26	768.7	51.3	10.7	65	sw.	16.1	7.2			4	ssw.		inap.	inap.		A. H. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.69	728.6	30.12	765.1	49.5	9.7	67	n.			1		3			0	0		The Observatory.
Zurich ‡	28.47	723.2	30.13	765.3	48.7	9.3	79	w.			1		5			0.004	0.1	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.43	772.9	59.7	15.4	52	ene.	27	12.0			10		n.	0	0		The Observatory.
Valona			30.23	767.8	70.5	21.4		w.			1		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.98	761.5	72.1	22.3	47	n.			4	0	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.11	764.8	30.19	766.8	62.5	16.9	60	sw.	8	3.6			10 s		sw.	inap.	inap.	cloudy	
Alpena, Michigan	29.22	742.2	29.91	759.7	63.5	17.5	100	sw.	11	4.9			10 n			1.95	49.8	light rain	
Atlanta, Georgia	29.20	741.7	30.42	772.7	59.5	15.3	81	e.	8	3.6		1 k	0	calm		0	0	clear	
Atlantic City, New Jersey	30.29	769.4	30.30	769.6	65.2	18.4	90	sw.	7	3.1		2 ck	0	calm		0	0	clear	
Augusta, Georgia	30.21	767.3	30.41	772.4	60.0	15.6	87	e.	1	0.4		0	0			0	0	clear	
Baltimore, Maryland	30.27	768.8	30.32	770.1	59	15.0	70	calm	0	0		hz.	hz.	calm	calm	0	0	dense haze	
Barnegat, New Jersey	30.26	768.6	30.28	769.1	61.0	16.1	93	sw.	6	2.7		6 ck	2 k	sw.	sw.	0	0	fair	
Bismarck, Dakota	28.28	718.3	30.20	767.1	42	5.6	52	nw.	12	5.4		0	0			0	0	clear	
Boise City, Idaho	27.40	695.9	30.32	770.1	36.3	2.4	72	ne.	4	1.8		0	0			0	0	clear	
Boston, Massachusetts	30.05	763.3	30.21	767.3	63.8	17.7	66	sw.	10	4.5		7 ck	hz.	sw.		0	0	fair	
Brackettville, Texas	28.89	733.8	29.91	759.7	74	23.3	90	ne.	4	1.8			10 n		ne.	0.04	1.0	light rain	
Brownsville, Texas	29.92	760.0	29.97	761.2	80	26.7	97	ne.	16	7.2			10 ks		ne.	1.18	30.0	cloudy	
Buffalo, New York	29.34	745.2	30.08	764.0	67.2	19.6	70	sw.	11	4.9			10 s			0.01	0.3	cloudy	
Burlington, Vermont	29.78	756.4	30.08	764.0	58.7	14.8	68	s.	14	6.3			10 n		w.	0.01	0.3	light rain	
Cairo, Illinois	29.87	758.7	30.28	769.1	67.1	19.5	80	s.	6	2.7		5 ck	0	s.		0	0	fair	
Campo, California	27.42	696.5	29.99	761.7	37.4	3.0	82	se.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.34	770.6	30.36	771.1	63	17.2	84	sw.	12	5.4		1 c	0			0	0	clear	
Cape May, New Jersey	30.27	768.8	30.30	769.6	65	18.3	84	sw.	20	8.9		0	fg.			0	0	clear	
Castroville, Texas	29.26	743.2	29.94	760.5	77	25.0	85	se.	8	3.6			10 n		se.	0.02	0.5	light rain	
Cedar Keys, Florida	30.24	768.1	30.26	768.6	69	20.6	84	ne.	9	4.0		0	0			0	0	clear	
Champaign, Illinois	29.27	743.4	30.04	763.0	67.4	19.7	82	sw.	14	6.3			10 s		w.	0	0	cloudy	
Charleston, S. Carolina	30.29	769.4	30.35	770.9	69	20.6	84	ne.	4	1.8		3 c	0	calm		0	0	clear	
Charlotte, N. Carolina	29.50	749.3	30.40	772.1	57.0	13.9	86	s.	2	0.9		8 c;k	sk	calm	calm	0	0	fair	
Chattanooga, Tennessee	29.57	751.1	30.42	772.7	58.0	14.4	93	se.	1	0.4		6 ck	fg.	sw.	calm	0	0	fair	
Cheyenne, Wyoming	24.22	615.2	30.35	770.9	41.8	5.4	39	w.	5	2.2			10 s			0	0	cloudy	
Chicago, Illinois	29.26	743.2	30.00	762.0	69.1	20.6	90	sw.	12	5.4			10 k		sw.	0.15	3.8	cloudy	
Chincoteague, Virginia	30.31	769.9	30.33	770.4	65	18.3	90	sw.	20	8.9		0	hz.			0	0	clear	
Cincinnati, Ohio	29.58	751.3	30.26	768.6	67.6	19.8	69	sw.	5	2.2			10 ks		sw.	0	0	cloudy	
Cleveland, Ohio	29.37	746.0	30.14	765.5	68	20.0	68	s.	19	8.5		5 c	0	w.		0	0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.32	744.7	30.20	767.1	64	17.8	73	s.	7	3.1		6 ck	0	sw.		0	0	fair	
Concho, Texas	28.21	716.5	30.21	767.3	70	21.1	90	calm	0	0		0	8 s		s.	0	0	cloudy	
Corsicana, Texas	29.71	754.6	30.19	766.8	73	22.8	90	se.	4	1.8		0	6 ks			0	0	fair	
Davenport, Iowa	29.41	747.0	30.09	764.3	64	17.8	73	n.	6	2.7			10 s		sw.	0.22	5.6	cloudy	
Dayton, Washington T'y	28.42	721.9	30.28	769.1	37	2.8	82	s.	2	0.9		0	0			0	0	clear	
Deadwood, Dakota	25.60	650.2	30.46	773.7	37	2.8	53	sw.	4	1.8		0	0			0	0	clear	
Decatur, Texas	28.96	735.6	30.10	764.5	72	22.2	84	se.	3	1.3		0	2 s			0	0	fair	
Delaware Breakwater, Del.	30.27	768.8	30.29	769.4	62	16.7	93	s.	22	9.8		1 c	3 s;fg	sw.		0	0	fair	
Denison, Texas	29.36	745.7	30.19	766.8	72	22.2	97	calm	0	0		0	6 s		s.	0	0	fair	
Denver, Colorado	24.98	634.5	30.35	770.9	51.0	10.6	55	s.	2	0.9			8 s		calm	0	0	cloudy	
Des Moines, Iowa	29.21	741.9	30.16	766.1	60	15.6	81	ne.	2	0.9		10 ck	0	w.		0	0	cloudy	
Detroit, Michigan	29.34	745.2	30.08	764.0	71.0	21.7	71	sw.	12	5.4			10 s		sw.	0.06	1.5	cloudy	
Dodge City, Kansas	27.48	698.0	30.17	766.3	57.6	14.2	100	n.	10	4.5			fg.			0	0	dense fog	
Dubuque, Iowa	29.32	744.7	30.06	763.5	62.8	17.1	73	nw.	4	1.8			10 s		w.	0.12	3.0	cloudy	
Duluth, Minnesota	29.26	743.2	29.99	761.7	51	10.6	72	sw.	8	3.6		0	0			0	0	clear	
Eagle Pass, Texas	29.27	743.4	30.12	765.0	75.2	24.0	97	se.	5	2.2			10 n		calm	0.03	0.8	light rain	
Eagle Rock, Idaho	25.47	646.9	30.46	773.7	21	— 6.1	64	n.	3	1.3		0	0			0	0	clear	
Eastport, Maine	30.11	764.8	30.18	766.6	52	11.1	96	s.	12	5.4			10s;fg		s.	0	0	cloudy	
El Paso, Texas	26.31	668.3	30.15	765.8	58.2	14.6	78	calm	0	0		0	1 s			0	0	clear	
Erie, Pennsylvania	29.35	745.5	30.11	764.8	67	19.4	68	sw.	14	6.3		8 k	0	sw.		0	0	cloudy	
Escanaba, Michigan	29.25	742.9	29.93	760.2	57	13.9	93	w.	4	1.8		4 k	4 s	w.	w.	0.37	9.4	cloudy	
Florence, Arizona	28.46	722.9	30.06	763.5	69	20.6	70	n.	2	0.9		0	0			0	0	clear	
Fort Apache, Arizona	25.14	638.5	30.18	766.6	54	12.2	93	e.	1	0.4		3 c	0	calm		0	0	fair	
Fort Assinnaboine, Montana	27.32	693.9	30.26	768.6	38	3.3	82	calm	0	0		0	7 s		w.	0	0	fair	
Fort Bennett, Dakota	28.56	725.4	30.17	766.3	36	2.2	92	nw.	3	1.3		0	0			0.02	0.5	clear	
Fort Benton, Montana	27.35	694.7	30.33	770.4	38	3.3	72	calm	0	0		10 ck	0	calm		0	0	cloudy	
Fort Buford, Dakota	28.11	714.0	30.22	767.6	33	0.6	88	nw.	5	2.2		0	0			0	0	clear	
Fort Custer, Montana	27.00	685.8	30.39	771.9	31	— 0.6	63	n.	6	2.7		0	0			0	0	clear	
Fort Davis, Texas	25.06	636.5	30.02	762.5	58	14.4	78	se.	1	0.4		0	0			0	0	clear	
Fort Elliott, Texas	27.38	695.4	30.68	779.3	64	17.8	78	calm	0	0		0	c			0	0	clear	
Fort Gibson, Indian T'y	29.58	751.3	30.16	766.1	72.0	22.2	84	s.	6	2.7		0	0			0	0	clear	
Fort Grant, Arizona					63	17.2	75	ne.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.85	732.8	30.08	764.0	72.4	22.4	84	se.	4	1.8		0	0			0	0	clear	
Fort Keogh, Montana	27.66	702.6	30.33	770.4	35	1.7	71	sw.	3	1.3		0	0			0	0	clear	
Fort Macon, North Carolina	30.36	771.1	30.38	771.6	68	20.0	90	e.	4	1.8		9 c;cs	0	e.		0	0	cloudy	
Fort McKavett, Texas	27.91	708.9	29.78	756.4	71	21.7	90	se.	4	1.8			10 s			0	0	cloudy	
Fort Missoula, Montana	26.86	682.2	30.52	775.2	39	3.9	82	se.	4	1.8		5 ck	0			0	0	fair	
Fort St. Michaels	30.31	769.9	30.34	770.6	40	4.4	91	se.	15	6.7			10 n			0.07	1.8	light rain	
Fort Shaw, Montana	26.50	673.1	30.24	768.1	37	2.8	82	e.	2	0.9			10 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.91	734.3	30.20	767.1	71	21.7	90	s.	4	1.8			10 s		s.	0	0	cloudy	
Fort Stevenson, Dakota	28.33	719.6	30.29	769.4	40	4.4	67	nw.	4	1.8		0	0			0	0	clear	
Fort Verde, Arizona					59.8	15.4	67	w.			2	6 k	0	sw.		0	0	fair	
Fredericksburg, Texas	28.37	720.6	29.88	758.9	72	22.2	97	e.	1	0.4			10 s			0.08	2.0	cloudy	
Galveston, Texas	30.04	763.0	30.08	764.0	81	27.2	83	e.	20	8.9		3 c	7 ks	nw.	se.	0.12	3.0	threatening	
Grand Haven, Michigan	29.29	744.0	29.99	761.7	63.0	17.2	100	s.	8	3.6			10 n		calm	0.31	7.9	heavy rain	
Hatteras, North Carolina	30.36	771.1	30.38	771.6	71	21.7	76	calm	0	0		3 cs	7 ks			0	0	cloudy	
Helena, Montana	25.93	658.6	30.52	775.2	36	2.2	92	calm	0	0		0	0			0	0	clear	
Henrietta, Texas	29.10	739.1	29.98	761.5	73	22.8	75	s.	2	0.9		0	0			0	0	clear	
Huron, Dakota	28.76	730.5	30.22	767.6	41	5.0	73	nw.	1	0.4		0	1 s			0	0	clear	
Indianapolis, Indiana	29.32	744.7	30.15	765.8	68	20.0	73	sw.	7	3.1		2 k	7 ks	sw.	sw.	0	0	cloudy	
Indianola, Texas	29.99	761.7	30.02	762.5	81.4	27.4	88	e.	22	9.8		4 cs	3 k;ks	e.	e;calm	0.15	3.8	cloudy	
Jacksboro, Texas	28.98	736.1	30.08	764.0	70	21.1	90	s.	4	1.8		2 ck	0	w.		0	0	clear	
Jacksonville, Florida	30.25	768.3	30.29	769.4	69	20.6	90	ne.	3	1.3		2 cs	0			0	0	clear	
Keokuk, Iowa	29.37	746.0	30.05	763.3	70.6	21.4	95	s.	7	3.1		2 k	6 ks	w.	w.	0	0	threatening	
Key West, Florida	30.08	764.0	30.11	764.8	75.8	24.3	83	ne.	17	7.6			9 n;s		ne.	0.12	3.0	threatening	
Kittyhawk, North Carolina	30.36	771.1	30.38	771.6	65	18.3	90	s.	5	2.2		4 c	0			0	0	fair	
Knoxville, Tennessee	29.37	746.0	30.44	773.2	51.5	10.8	100	s.	2	0.9			fg.		calm	0	0	dense fog	
La Crosse, Wisconsin	29.27	743.4	30.07	763.8	58.2	14.6	86	sw.	4	1.8			10 s			0.35	8.9	cloudy	
La Mesilla, New Mexico	26.20	665.5	30.34	770.6	57.5	14.2	83	n.	1	0.4		0	0			0	0	clear	
Laredo, Texas	29.50	749.3	29.83	757.7	76	24.4	100	n.	12	5.4			10 n		ne.	3.05	77.5	light rain	
Leavenworth, Kansas	29.18	741.2	30.11	764.8	72	22.2	90	sw.	6	2.7			10 ks		w.	inap.	inap.	cloudy	
Lewiston, Idaho	29.36	745.7	30.24	768.1	39	3.9	82	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.90	759.4	30.22	767.6	68	20.0	90	se.	2	0.9		2 ck	0			0	0	clear	
Los Angeles, California	29.61	752.1	29.99	761.7	47.2	8.4	77	s.	2	0.9		0	0			0	0	clear	
Louisville, Kentucky	29.65	753.1	30.23	767.8	66.0	18.9	73	s.	6	2.7			10 k		sw.	0	0	cloudy	
Lynchburg, Virginia	29.64	752.8	30.35	770.9	56.2	13.4	74	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	29.03	737.3	30.10	764.5	59	15.0	87	nw.	13	5.8		0	9 s		nw.	2.05	52.1	cloudy	
Marquette, Michigan	29.16	740.7	29.92	760.0	56	13.3	80	w.	8	3.6			10 s		w.	inap.	inap.	cloudy	
Mason, Texas	28.49	723.6	30.20	767.1	73	22.8	90	se.	6	2.7			10 n		se.	0.02	0.5	light rain	
Memphis, Tennessee	29.94	760.5	30.28	769.1	67	19.4	84	calm	0	0		0	5 s			0	0	fair	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.25	742.9	30.03	762.7	63	17.2	93	nw.	17	7.6	.....	0	8 s	.....	w.	1.01	25.7	cloudy	
Mobile, Alabama	30.17	766.3	30.24	768.1	71.0	21.7	82	e.	8	3.6	.....	2 c	0	e.	.....	0	0	clear	
Montgomery, Alabama	30.10	764.5	30.34	770.6	64	17.8	90	e.	1	0.4	.....	2 c	0	.....	.....	0	0	clear	
Moorhead, Minnesota	29.03	737.3	30.09	764.3	40	4.4	82	w.	12	5.4	.....	0	0	.....	.....	0	0	clear	
Morgantown, W. Virginia	29.27	743.4	30.25	768.3	63.0	17.2	70	sw.	7	3.1	.....	2 ck	5 s	nw.	w.	inap.	ina p.	cloudy	
Mt. Washington, N. H.	23.94	608.1	30.31	769.9	42.0	5.6	100	nw.	50	22.4	.....	.....	fg	.....	nw.	0	0	dense fog	
Nashville, Tennessee	29.77	756.1	30.33	770.4	64.0	17.8	79	se.	2	0.9	.....	9 ck	0	sw.	.....	0	0	cloudy	
New Haven, Connecticut	30.14	765.5	30.26	768.6	62	16.7	72	sw.	5	2.2	.....	.....	10 s	.....	sw.	0	0	cloudy	
New London, Connecticut	30.24	768.1	30.28	769.1	66	18.9	68	w.	8	3.6	.....	6 ck	0	w.	.....	0	0	fair	
New Orleans, Louisiana	30.12	765.0	30.18	766.6	75.2	24.0	85	se.	8	3.6	.....	4 c	hz	.....	.....	0.02	0.5	fair	
Newport, Rhode Island	30.23	767.8	30.28	769.1	63.0	17.2	84	sw.	9	4.0	.....	4 k	3 s	nw.	sw.	0	0	fair	
New River, N. Carolina	.....	.....	.....	.....	67	19.4	78	calm	.....	.....	0	10 cs	0	.....	.....	0	0	cloudy	
New Shoreham, Rhode I'd.	30.24	768.1	30.27	768.8	62.5	16.9	84	sw.	16	7.2	.....	6 cs	0	sw.	.....	0	0	fair	
New York, New York	30.11	764.8	30.29	769.4	58.5	14.7	85	s.	7	3.1	.....	4 cs	0	sw.	.....	0	0	fair	
Norfolk, Virginia	30.33	770.4	30.36	771.1	61	16.1	87	sw.	7	3.1	.....	3 c	0	nw.	.....	0	0	clear	
North Platte, Nebraska	27.25	692.1	30.31	769.9	48	8.9	91	ne.	6	2.7	.....	5 k	5 s	ne.	ne.	0	0	cloudy	
Olympia, Washington T'y	30.15	765.8	30.19	766.8	49.0	9.4	93	s.	2	0.9	.....	10 k	0	w.	.....	0	0	cloudy	
Omaha, Nebraska	28.98	736.1	30.22	767.6	57.2	14.0	93	n.	6	2.7	.....	0	4 s	.....	sw.	0	0	fair	
Oswego, New York	29.72	754.9	30.06	763.5	62.0	16.7	78	s.	8	3.6	.....	.....	10 s	.....	sw.	0.19	4.8	cloudy	
Pensacola, Florida	30.23	767.8	30.26	768.6	66	18.9	82	ne.	12	5.4	.....	0	0	.....	.....	0	0	clear	
Philadelphia, Pa.	30.23	767.8	30.29	769.4	59	15.0	87	w.	5	2.2	.....	5 c; ck	0	nw.	.....	0	0	fair	
Phœnix, Arizona	28.79	731.3	30.54	775.7	71	21.7	57	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Pike's Peak, Colorado	17.96	456.2	30.17	766.3	24	— 4.4	80	sw.	16	7.2	.....	4 c	4 ks	sw.	.....	0	0	cloudy	
Pioche, Nevada	24.24	615.7	30.44	773.2	40	4.4	40	nw.	8	3.6	.....	0	0	.....	.....	0	0	clear	
Pittsburg, Pennsylvania	29.41	747.0	30.26	768.6	65.7	18.7	63	s.	11	4.9	.....	6 ck; k	0	w.	.....	0	0	fair	
Port Eads, Louisiana	30.18	766.6	30.18	766.6	77.0	25.0	82	e.	16	7.2	.....	hz	1 k	calm	e.	0	0	clear	
Port Huron, Michigan	29.32	744.7	30.03	762.7	62.3	16.8	96	s.	7	3.1	.....	.....	10 n	.....	calm	0.04	1.0	light rain	
Portland, Maine	30.10	764.5	30.15	765.8	57.5	14.2	80	sw.	9	4.0	.....	2 k	7 s	w.	calm	0	0	cloudy	
Portland, Oregon	30.18	766.6	30.26	768.6	49.0	9.4	86	w.	1	0.4	.....	.....	10 s	.....	w.	0	0	cloudy	
Portsmouth, N. Carolina	.....	.....	.....	.....	69	20.6	66	e.	2	0.9	.....	0	3 ks	.....	se.	0	0	clear	
Prescott, Arizona	24.86	631.4	30.16	766.1	52	11.1	80	s.	2	0.9	.....	0	0	.....	.....	0.04	1.0	clear	
Punta Rassa, Florida	30.14	765.5	30.15	765.8	73	22.8	82	ne.	12	5.4	.....	1 c	0	calm	.....	0	0	clear	
Red Bluff, California	29.69	754.1	30.04	763.0	51.0	10.6	66	nw.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Rio Grande City, Texas	29.68	753.9	29.89	759.2	76	24.4	97	se.	12	5.4	.....	.....	10 s	.....	se.	3.39	86.1	cloudy	
Rochester, New York	29.41	747.0	30.07	763.8	65	18.3	68	sw.	9	4.0	.....	2 cs	4 s	calm	sw.	0.06	1.5	fair	
Roseburg, Oregon	29.65	753.1	30.24	768.1	38.7	3.7	93	calm	0	0	.....	.....	10 s; fg	.....	.....	0	0	cloudy	
Sacramento, California	29.95	760.7	30.03	762.7	48.8	9.3	50	se.	4	1.8	.....	0	0	.....	.....	0	0	clear	
St. Louis, Missouri	29.55	750.6	30.18	766.6	69.0	20.6	78	s.	15	6.7	.....	1 k	0	.....	.....	0	0	clear	
St. Paul, Minnesota	29.18	741.2	30.10	764.5	53.0	11.7	80	w.	5	2.2	.....	3 cs	0	nw.	.....	0	0	clear	
Salt Lake City, Utah	25.84	656.3	30.29	769.4	36	2.2	42	calm	0	0	.....	0	0	.....	.....	0	0	clear	
San Antonio, Texas	29.38	746.2	30.10	764.5	74.5	23.6	97	ne.	7	3.1	.....	.....	10 s	.....	ne.	0.27	6.9	cloudy	
San Diego, California	29.89	759.2	29.96	761.0	60.8	16.0	78	e.	3	1.3	.....	.....	10 s	.....	.....	0	0	cloudy	
Sandusky, Ohio	29.40	746.7	30.11	764.8	67	19.4	78	s.	20	8.9	.....	0	5 s	.....	.....	0	0	fair	
Sandy Hook, New Jersey	30.25	768.3	30.28	769.1	65.0	18.3	68	sw.	6	2.7	.....	1 k	0	sw.	.....	0	0	clear	
San Francisco, California	29.98	761.5	30.05	763.3	52	11.1	90	w.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Santa Fé, New Mexico	23.47	596.1	30.46	773.7	50	10.0	50	e.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Savannah, Georgia	30.26	768.6	30.34	770.6	68.5	20.3	89	ne.	3	1.3	.....	2 cs	8 ks	.....	ne.	0	0	cloudy	
Shreveport, Louisiana	29.97	761.2	30.20	767.1	71	21.7	90	se.	3	1.3	.....	3 ck	3 s	calm	calm	0	0	fair	
Silver City, New Mexico	24.38	619.2	30.06	763.5	51	10.6	80	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Sitka, Alaska	30.25	768.3	30.32	770.1	35.1	1.7	61	ne.	8	3.6	.....	0	0	.....	.....	0	0	clear	
Smithville, North Carolina	30.33	770.4	30.37	771.4	64	17.8	90	ne.	6	2.7	.....	2 k	3 ks	calm	calm	0	0	fair	
Spokane Falls, Wash. Ter.	28.10	713.7	30.17	766.3	35	1.7	89	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Springfield, Illinois	29.41	747.0	30.12	765.0	66.8	19.3	90	sw.	11	4.9	.....	.....	10 s	.....	w.	0	0	cloudy	
Springfield, Massachusetts	30.09	764.3	30.22	767.6	58.4	14.7	74	s.	4	1.8	.....	9 k	0	w.	.....	0	0	cloudy	
Stockton, Texas	27.10	688.3	30.25	768.3	66.8	19.3	84	se.	12	5.4	.....	0	0	.....	.....	0	0	clear	
St. Vincent, Minnesota	29.08	738.6	30.01	762.2	44	6.7	68	nw.	12	5.4	.....	0	0	.....	.....	0	0	clear	
Thatcher's Island, Mass.	30.00	762.0	30.05	763.3	53.3	11.8	72	sw.	10	4.5	.....	3 k	0	sw.	.....	c	0	clear	
Toledo, Ohio	29.34	745.2	30.06	763.5	66	18.9	84	sw.	12	5.4	.....	.....	9 ks	.....	sw.	0	0	cloudy	
Tucson, Arizona	27.48	698.0	29.92	760.0	68	20.0	66	se.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Umatilla, Oregon	29.85	758.2	30.28	769.1	36.3	2.4	88	se.	5	2.2	.....	1 c	0	calm	.....	0	0	clear	
Uvalde, Texas	29.09	738.9	29.89	759.2	75	23.9	97	e.	4	1.8	.....	.....	10 n	.....	e.	0.19	4.8	light rain	
Vicksburg, Mississippi	29.98	761.5	30.24	768.1	67	19.4	84	e.	6	2.7	.....	4 ck	0	calm	.....	0	0	fair	
Visalia, California	29.66	753.4	30.04	763.0	46.5	8.1	71	s.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Washington, D. C.	30.19	766.8	30.31	769.9	57	13.9	74	calm	0	0	.....	2 ck	0	w.	.....	0	0	clear	
West Los Animas, Colorado	26.20	665.5	30.28	769.1	59.3	15.2	83	ne.	16	7.2	.....	0	5 ks	.....	ne.	0	0	fair	
Wickenburg, Arizona	.....	.....	.....	.....	64	17.8	70	calm	.....	.....	0	5 k	0	sw.	.....	0	0	fair	
Wilmington, N. Carolina	30.31	769.9	30.37	771.4	64	17.8	84	calm	0	0	.....	5 c	sk	calm	calm	0	0	fair	
Winnemucca, Nevada	25.79	655.1	30.25	768.3	21	— 6.1	38	n.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Wood's Holl, Mass.	30.22	767.6	30.26	768.6	62	16.7	87	sw.	18	8.0	.....	5 k	0	sw.	.....	0	0	fair	
Yankton, Dakota	28.86	733.0	30.23	767.8	50	10.0	93	calm	0	0	.....	3 c	0	.....	.....	0	0	fair	
Yuma, Arizona	29.75	755.6	29.89	759.2	73.0	22.8	90	sw.	1	0.4	.....	3 ck	0	calm	.....	0	0	fair	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.92	760.0	29.94	760.5	84	28.9	87	se.	2	0.9	.....	2 k	5 k	e.	e.	0	0	.....	J. A. Racker.
Bogota, U. S. Columbia	22.04	559.8	.....	.....	54.5	12.5	82	calm	0	0	.....	8 k	2 s; n	.....	.....	0.05	1.3	cloudy	Joaquin Gomez.
Guadeloupe, W. I. ‡	29.80	756.9	29.81	757.2	82	27.8	83	e.	.....	.....	.....	0	0	.....	.....	0	0	clear	B. Bigar.
Havana, Cuba, W. I.	30.04	763.0	30.09	764.3	77	25.0	82	calm	0	0	.....	0	2 ks	.....	calm	0.03	0.8	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.93	760.2	29.94	760.5	73.9	23.3	94	n.	1	0.4	.....	.....	10 n	.....	.....	1.90	48.3	rainy	Robert Johnstone.
Navassa, W. I.	29.83	757.7	29.91	759.7	81	27.2	82	w.	8	3.6	.....	.....	10	.....	nnw.	0	0	cloudy	F. M. Everett.
Paramaribo, S. A.	29.96	761.0	29.96	761.0	82	27.8	75	ne.	.....	.....	2	4 c	0	.....	.....	0	0	.....	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.44	747.8	30.00	762.0	78	25.6	89	calm	.....	.....	0	.....	1c ks	.....	calm	0.84	21.3	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	73.4	23	96	sw.	.....	.....	1	5 ck	0	ne.	.....	0	0	.....	Earl Flint.
Santiago de Cuba, W. I.	29.93	760.2	29.96	761.0	78	25.6	78	n.	12	5.4	.....	5 ck	0	n.	.....	0	0	.....	Robert Mason.
St. Thomas, W. I. ‡	29.78	756.4	29.89	759.2	82	27.8	79	sw.	9	4.0	.....	2 c	1 ks	sw.	sw.	0	0	clear	G. O. Gyllich.
York Factory, B. A.	29.79	756.7	29.84	757.9	31.0	— 0.6	95	ne.	20	8.9	.....	.....	10 s	n.	n.	0.10	2.5	snowing	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, S. 10° 56′, E. 141° 12′	29.95	760.7	77	25.0	75	e.			4–6		1							squally	Capt. J. P. Maclear.
H. M. S. Alexandra, Gibralter, Mediterranean	29.89	759.2	67	19.4	79	calm			0		4							d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 40° 38′, E. 28° 52′	30.40	772.1	64	17.8		ne.			3		3	ne.				2	ne.	d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche																			Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.01	762.2	69	20.6	70	sse.			3–4		9	calm						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	30.02	762.5	61	16.1	88	se.			1		10							threatening.	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 37° 54, W. 0° 23′	29.87	758.7	64	17.8	78	nw.			4–6		4					4–8	nne.	d. clouds	Comm. F. W. Egerton.
H. M. S. Coquette																			Lt. Comm. J. L. Barr.
H. M. S. Cormorant																			Capt. J. A. T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 11′, E. 20° 28′	30.13	765.3	75	23.9		se.			1		2	calm						d. clouds	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido																			Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.22	767.6	70.5	21.4	75	nne.			3–4		6	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	30.26	768.6	47.5	8.6	89	sw.			1		1							d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 26° 32′, E. 53° 50′	29.72	754.9	89	31.7		wsw.			1–2		c					1	w.	blue sky	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.73	755.1	86	30.0		ne.			1–2		10	nw.						overcast	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 18° 08′, E. 178° 26′	29.85	758.2	78	25.6	?	calm			0		3	ese.						d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.77	756.1	90	32.2	63	ne.			1		5	wsw.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 53° 00′, W. 55° 09′	30.23	767.8	44	6.7		ssw.			3		4	ssw.				1	ssw.	d. clouds	Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Capt. R. F. Hoskyn.
H. M. S. Gannet, N. 19° 37′, W. 157° 40′	29.98	761.5	78	25.6	82	ne.			3		10	w.				2	nw.	d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	30.01	762.2	61	16.1	82	e.			3		8							d. clouds	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, N. 23° 00′, E. 148° 00′	29.96	761.0				e.			3		2	e.				2	e.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 34° 02′, E. 130° 06′	29.75	755.6	72	22.2		sw.			7–8		6	sw.				5	s.	showery	Capt. R. E. Tracey.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.89	759.2	80	26.7		sse.			1		1	s.				1	s.	blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 33° 12′, E. 28° 24′	30.05	763.3	65	18.3		sse.			3		10					3	wsw.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 35° 21′, W. 1° 13′	30.50	774.7	58	14.4	76	e.			4		9					3	ssw.	d. clouds	Lt. C. F. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, N. 21° 07′, E. 110° 43′	29.86	758.4	80.5	26.9	82	e.			2		1					2–3	e.	misty	Lieut. A. Balfour.
H. M. S. Midge																			
H. M. S. Malabar, N. 29° 20′, E. 32° 42′	29.96	761.0	81	27.2	91	wnw.			3–4		2	wnw.				1	wnw.	d. clouds	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotaur, Vigo, Spain	29.96	761.0	61.5	16.4	68	var.			1		0							blue sky	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo Chili	30.08	764.0	56.5	13.6	90	calm			0		3							d. clouds	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.26	768.6	50	10.0	93	calm			0		0							misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 35° 39′, W. 6° 12′	29.89	759.2	68	20.0	84	ssw.			6		5	sw.				3	ssw.	d. clouds	Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	30.13	765.3	50	10.0	78	ssw.			2		6	wsw.						d. clouds	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 17° 54′, E. 67° 06′	29.84	757.9	79.3	26.3	82	calm			0		3							d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 39° 30′, W. 11° 36′	29.98	761.5	60	15.6	?	e.			5		1	nne.				5	nne.	blue sky	
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Tamar																			Capt. T. H. Boyse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 43° 07′, W. 128° 45′	30.25	768.3	56	13.3	87	n.			3-5		10					3	nnw.	showery	Capt. P. W. Stephens.
H. M. S. Thunderer, Susa, Tunis	29.93	760.2	82	27.8	83	ene.			3		3					3	ene.	misty	Capt. C. F. Hotham.
H. M. S. Triumph, Off Pisco, Peru	30.06	763.5	60	15.6	88	se.			1		10	calm						drizzling	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne, N. 37° 10′, W. 9° 30′	29.88	758.9	62.5	16.9	97	ene.			3		6	e.				1	ene.	d. clouds	Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.90	759.4	78	25.6		ne.			2		10							thund'r st'm	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	30.02	762.5	60	15.6	82	calm			0		0							blue sky	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Muscat, Arabia	29.81	757.2	86.5	30.3	75	nw.			1		0							misty	Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.98	761.6	78.8	26.0	70	wnw.			4		2					1		blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, Brava, Cape Verd Ids.	29.95	760.8	81.5	27.5	88	se.			1					3½h'r	3½h'r	1	se.	raining	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.90	759.4	78.8	26.0	84	se.			1		10							overcast	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.33	770.4	73	22.8	81	ne.	8	3.6			8		e.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.18	766.6	62	16.7	77	sw.	4	1.8			8		sw.	0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.90	759.4	60	15.6	91	calm			0		10		sw.	sli't	sli't			overcast	
Adams, S. 5° 54′, W. 81° 13′	29.84	757.9	63	17.2	94	sse.			3		10					sm'h		cloudy	
Alaska, Callao, Peru	30.00	762.0	60	15.6	94	calm			0		0					sm'h		clear	
Alert, Yokohama, Japan *	29.89	759.2	63	17.2	89	nw.			2		10		w.			sm'h		cloudy	
Alliance, N. 65° 29′, W. 25° 37′	29.08	738.6	38	3.3	81	nw.			4–6		5		nnw.	light	light	h'vy	w.	squally	
Ashuelot, Kobe, Japan	29.81	757.2	71	21.7	80	ne			2		10		nne.					rainy	
Colorado, New York, N. Y.	29.27	743.4	60	15.6	88	s.	4	1.8			5		w.					fair	
Constitution, New London, Conn	30.21	767.3	63	17.2	94	sw.	2	0.9			5		ne.					clear	
Franklin, Norfolk, Va	30.30	769.6	60	15.6	100	sw.	6	2.7			2		nw.	0	0			clear	
Galena, N. 37° 53′, E. 17° 05′	30.09	764.3	75	23.9	86	ese.			6		8					r'gh	se.	cloudy	
Independence, N. Yard, Mare I'd, Cal	29.92	760.0	50	10.0	86	calm	0	0			0							clear	
Kearsarge, Hudson River, N. Y.	30.26	768.6	61	16.1	82	sw.			2		5		w.			sm'h		fair	
Lackawanna, San Francisco, Cal †	30.21	767.3	57	13.9	100	w.			1		0							clear	
Lancaster, New York, N. Y.	30.23	767.8	63	17.2	94	sw.	4	1.8			2		sw.	0	0			d. clouds	
Marion, Montevideo, Uruguay	29.84	757.9	67	19.4		ene.			1		2		calm			sm'h		fair	
Michigan, Erie, Pa	30.03	762.7	64	17.8	89	ssw.			6		10		sw.					cloudy	
Minnesota, Newport, R. I.	30.25	768.3	64	17.8	89	sw.			5		5		nw.	0	0	sm'h		fair	
Monocacy, Yokohama, Japan	30.15	765.8	62	16.7	88	nnw.			1		10		se.					cloudy	
Nipsic, Genoa, Italy	30.08	764.0	64	17.8	68	nne.			5		10					sm'h		hazy	
Onward, Callao, Peru †	30.01	762.2	59	15.0	100	sse.			2		10		nw.			long	w.	misty	
Palos, Hong Kong, China	29.90	759.4	78	25.6	82	sse.			1		5		calm					fair	
Passaic, Washington, D. C.	30.30	769.6	61	16.1	88	s.			1		0							clear	
Pensacola, Callao, Peru	30.10	764.5	60	15.6	94	sse.			0–1		10		se.	0	0			cloudy	
Portsmouth, New York Bay, N. Y.	30.27	768.8	60	15.6	94	ssw.			2		2		sw.					clear	
Powhatan, Key West, Florida	30.07	763.8	78	25.6	82	ene.			5		2?		ene.			mod		cloudy?	
Quinnebaug, Marseilles, France	29.98	761.5	68	20.0	74	sse.			3		8		sse.			sm'h		fair	
Ranger, Mare Island, Cal *	29.99	761.7	57	13.9	75	calm			0		0							clear	
Richmond, Panama, Panama	29.91	759.7	79	26.1	100	s.			1		8		s.	0.01	0.3			cloudy	
Saratoga, New York, N. Y.	30.26	768.6	59	15.0	100	sw.			1–2		8			0	0	sm'h		cloudy	
Shenandoah, Montevideo, Uruguay	30.02	762.5	65	18.3	89	ne.			1		2					sm'h		fair	
St. Louis, League Island, Pa	30.03	762.7	59	15.0	88	nw.	1	0.4			2							clear	
Swatara, Chefoo, China †	29.83	757.7	64	17.8	78	nw.			3		10		calm			mod.	nw.	cloudy	
Tennessee, N. 39° 20′, W. 73° 55′	30.32	770.1	69	20.6	?	sw.	24	10.7			2			0	0	sm'h	wsw.	fair	
Trenton, N. 26° 15′, W. 61° 45′ *	30.02	762.5	78	25.6	82	ne.			6–7		5			1 h'r	light	long	ne.	fair	
Vandalia, New York, N. Y.	30.25	768.3	61	16.1	82	sw.			2		2		calm					fair	
Wabash, Boston, Mass.	30.25	768.3	64	17.8	68	sw.	11	4.9			8		w.	0.04	1.0			cloudy	
Wachusetts, Sitka, Alaska	30.23	767.8	38	3.3	48	n.			1		0							clear	
Wyoming, Port Royal, S. C.	30.34	770.6	72	22.2	90	n.	6	2.7			5		se.	0	0			fair	
Yantic, N. 38° 59′, W. 74° 27′ a	30.28	769.1	68	20.0	84	sw.			4		2							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 51° 19′, W. 57° 11′ *†	30.18	766.6	.....	.....	.....	sw.	6	.....	2	.....	sw.	.....	.....	mod.	w.	fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith. ‡ N. 49° 10′, W. 61° 00′	30.35	770.9	46	7.8	92	wsw.	1	.....	3	.....	sw.	0	0	2	wsw.	misty	G. Gapon, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 45° 35′, W. 58° 29′	30.37	771.4	51	10.6	.....	wsw.	3	.....	0	.....	.....	.....	.....	sli't	w.	hazy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 51° 52′, W. 23° 04′ †	30.48	774.2	55	12.8	93	w.	3	.....	5	.....	w.	.....	.....	mod.	w.	foggy	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 42° 10′ W. 64° 08′ †.	30.29	769.4	60	15.6	76	sse.	2	.....	2	.....	se.	0	0	sm'h	se.	fair	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Philadelphia, Penn	.....	.....	47	8.3	92	nw.	2	.....	2	.....	nw.	.....	.....	.....	.....	fair	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, S. 36° 20′, W. 30° 50′	30.34	770.6	59	15.0	94	ene.	6	.....	4	.....	.....	.....	.....	.....	.....	blue sky	
S. British Merchant, E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Caldew, Capt. W. Petersen S. 54° 00′, W. 63° 57′	29.28	743.7	41	5.0	.....	sw.	4	.....	10	.....	.....	.....	.....	.....	.....	overcast	
S. S. Cipero, Capt. W. N. Lailey, Truxillo, Honduras, C. A.	29.90	759.4	79	26.1	82	s.	1	.....	2	.....	.....	.....	.....	.....	.....	d. cloud	
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Coppename, Capt. A. Buchan,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Glaramara, Capt. R. Morton,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Gordon Castle, Capt. W. Waring. N. 12° 29′, E. 44° 16′	29.80	756.9	89.5	31.9	66	se.	2	.....	1	.....	.....	.....	.....	.....	.....	blue sky	
Bg. Hermine, Capt. S. G. Jones, S. 26° 44′, W. 41° 27′	30.05	763.3	68	20.0	69	ssw.	5	.....	10	.....	.....	.....	.....	.....	.....	misty	
Bkt. Hope, Capt. J. Campbell.. ‡ N. 40° 36′, W. 26° 15′	30.41	772.4	65.5	18.6	94	ne.	6	.....	6	.....	.....	.....	.....	.....	.....	showery	
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Lochee, Capt. J. Raeburn, S. 24° 56′, E. 83° 47′	30.11	764.8	67	19.4	84	ne.	3	.....	6	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Mertola. Capt. E. W. Turner, N. 46° 48′, W. 15° 13′	30.40	772.1	60.1	15.6	94	nne.	2	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Moorhill, Capt. J. Brown,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Pielone, Capt. C. H. Renant, S. 44° 59′, E. 93° 31	30.22	767.6	47	8.3	69	sse.	2	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	
Queen of Cambria, Capt. M. Parry, N. 4° 04′, W. 22° 21′	29.95	760.7	81.5	27.5	78	sse.	2	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Rosetta. Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Shun Lee, Capt. J. M. Gray, N. 37° 40′, W. 35° 10′ ‡	30.41	772.4	68.7	20.4	74	e.	4	.....	8	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, N. 35° 26′, E. 139° 41′	29.97	761.2	63.0	17.2	94	nne.	4	.....	8	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
S. S. Wybertan, Capt. R. J. Blacklin. S. 7° 56′, E. 76° 34′	29.74	755.4	82	27.8	.....	sse.	1	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, agent San Francisco.*																	
S. S. Newbern, Capt, E. Rogers N. 32° 22′, W. 119° 44′ †	30.00	762.0	60	15.6	88	nw.	2	.....	5	.....	nw.	0	0	gentle	wnw.	fair	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Galia, Capt. W. H. P. Hains	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 47° 31′, W. 48° 58′	30.36	771.1	56.0	13.3	81	wsw.	2	.....	8	.....	w.	.....	.....	sm'h	nw.	cloudy	
S. S. Hermann, Capt. H. Baur, N. 49° 07′, W. 26° 21′	30.51	774.9	55.4	13.0	.....	nne.	4	.....	5	.....	w.	0	0	high	w.	fine	E. Schmidt, 3d Officr.
S. S. Koln, Capt. T. Jüngst, N. 38° 57′, W. 70° 45′	30.41	772.4	70.0	21.1	80	sw.	3	.....	2	.....	n.	0	0	sm'h	sw.	clear	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 37° 02′, W. 75° 44′	30.36	771.1	75.0	23.9	.....	ssw.	4	.....	2	.....	w.	0	0	sm'h	ssw.	clear	Englehart & von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Yokohama, Japan †	30.17	766.3	63	17.2	83	ne.	2	.....	5	.....	ne.	0	0	sm'h	.....	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 38° 15′ E. 147° 21′ *†	30.33	770.4	68	20.0	79	sse.	5	.....	9	.....	s.	.....	.....	mod.	s.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Oregon, Capt. E. Polemann, Portland, Oregon †	30.27	768.8	49	9.4	93	calm	0	.....	10	.....	e.	.....	.....	.....	.....	covered	C. W. Pohl, 3d Officer
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 32° 48′, W. 117° 30′ †	30.00	762.0	62	16.7	77	se.	2		10		se.			sm'h		cloudy	J. W. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, Tacoma, Washington Ter. †	30.22	767.6	51	10.6	93	se.	2		0							clear	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson,																	G. H. Harrison.
S. S. Senator. Capt. Wallace, N. 34° 25′, W. 120° 16′ †	29.99	761.7	52	11.1	73	nnw.	2		10					sm'h		hazy	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal. †	30.03	762.7	50	10.0	93	calm	0		0							clear	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 42° 44′, W. 124° 47′ †	30.14	765.5	55	12.8	87	nw.	4		0					light	w.	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——																	A. Bannermann, 2d Offi.
S. S. City of New York, Capt. W. B. Cobb, S. 34° —′, E. 164° 18′ †	30.05	763.3	62	16.7	88	s.	6		10		s.			h'vy	s.	cloudy	W. H. Hawes, 2d Offi.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry., Hong Kong, China *†	30.00	762.0	79	26.1	82	e.	1		9		e.	0	0	sm'h		cloudy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 24° 56′, W. 112° 44′ †	29.98	761.5	70	21.1	90	n.	3		8		ne.	0	0	sm'h	n.	cloudy	
S. S. City of Sidney, Capt. H. C. Dearborn, S. 2° 36′ W. 166° 51′ *†	29.69	754.1	80	26.7	74	e.	4		8		ese.	0	0	mod.	e.	cloudy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury, N. 41° 12′. W. 168° 44′ †	29.57	751.1	64	17.8	83	nw.	5		10		nne.			long	wnw.	cloudy	A. L. Richie, 2d Offi.
S. S. Colima, Capt. R. R. Searle, Panama, Panama †	29.92	760.0	79	26.1	?	s.	2		10		se.	0.15	3.8	mod.	se.	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly Acapulco, Mexico †	29.81	757.2	79	26.1	91	calm	0		2		wsw.	3 h'r	3 h'r			clear	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.29	769.4	65	18.3	78	nw.	2		5?		nw.					cloudy?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Fedderson, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, Jersey City, N. J †	30.43	772.9	72	22.2	80	ssw.	2		2		w.	0.1	3.	light	ssw.	clear	C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings New York, N. Y. †	30.20	767.1	60	15.6		wsw.	2		0			0	0			fair	R. Horsfall.
S. S. Britannic, Capt. H. Perry																	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic. Capt. C. W. Kennedy, N. 51° 30′, W. 51° 31′ †	30.48	774.2	57	13.9	94	w.	4		10		w.	shr's	shr's	mod.	w.	misty	
S. S. Republic. Capt. P. J. Irving																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, New Haven, Conn. †	30.37	771.4	65	18.3	94	sw.	2	2 c	3 s			0	0			fair	
Hassler, Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	
S. Pawashick, Capt. E. Fry.* N. 36° 16′, W. 2° 14′ *†	29.81	757.2	65.5	18.6	92	var.	1		5		w.			sm'h	e.	rainy	W. Randall.
S. S. Proteus, Capt. Pike																	E. Fry.
Bk. Sunbeam, Capt. Jos. Hand, N. 38° 44′, W. 9° 22′ †	29.94	760.5	66	18.9	68	ne.	4		0			light	light			clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer. U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 9, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.98	761.4	70.2	21.2	84	w.			1		0			0	0	clear	Moiroud.
Algiers ‡			29.89	759.2	73.4	23.0	62	w.			5		2			0.094	2.4	fair	Nicolas.
La Calle ‡			29.90	759.5	78.1	25.6	69	nw.			4		4			0	0	cloudy	Fonfrède.
Tunis ‡			29.88	758.9															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.97	761.1	67.6	19.8	57	n.			1		2			0	0	fair	Dumas.
Tebessa ‡			29.95	760.7	70.5	21.4	33	nw.			1		3			0	0	pretty fair	Derché.
Geriville ‡					61.5	16.4	52	n.			3		5			0	0	cloudy	Lonchamp.
Laghouat ‡			29.99	761.8	69.1	20.6	38	e.			1		4			0	0	cloudy	Herbin.
Biskra ‡			29.96	761.0	79.2	26.2	60	nnw.			2		5			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.76	755.9	29.85	758.2	58.0	14.4	84	ssw.	4	1.8			9			0.05	1.3	showery	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.43	747.5	29.98	761.5	52.2	11.2	95	nw.			1		10			0.386	9.8	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.16	740.6	29.91	759.8	60.1	15.6	48	ose.	11.9	5.3			2			0.055	1.4		Dr. Wiersbicki.
Eperies	29.14	740.2	30.02	762.4	57.4	14.1	53	s.			3	0	0			0	0		Julius Mikolik.
Gratz ‡	28.68	728.5	29.94	760.5	50.5	10.3	90	wsw.			2		10			0	0		Andreas Rospini.
Hermannstadt	28.64	727.5	30.06	763.4	61.2	16.2	38	sse.			3		0			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.36	720.4	29.68	753.8	58.8	14.9	85	ene.			2	8 ck	0			0	0	very cloudy	The Staff.
Lemberg	29.06	738.0	30.04	763.0	56.3	13.5	53	s.			3		0			0	0		Dr. T. Stanecki.
Pola	29.77	756.2	29.88	759.0	61.3	16.3	97	ese.			3		10			0.354	9.0		I. R. Hydrographic Office.
Szathmar	29.60	751.8	30.06	763.4	62 2	16.8	60	s.			3		0			0	0		Jozsef Midlinszky, S. J.
Szegedin	29.74	755.5	30.02	762.5	59.7	15.4	46	s.			5		4			0	0		Karl Stancel.
Trieste	29.77	756.2	29.87	758.8	62.2	16.8	92	calm			0		10			0.390	9.9		Rieder.
Vienna	29.19	741.3	29.90	759.4	53.2	11.8	76	se.			4		8			0.161	4.1		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 11, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.47	748.5	29.57	751.1	49.1	9.5	74	wnw.	14	6.3			6			0.015	0.4	d. clouds	W. Boswell.
Armagh, Observatory	29.60	751.8	29.83	757.7	50.9	10.5	66	nw.	12	5.4									S. Call.
Bidston, Liverpool Obs'y			29.75	755.6	50.8	10.4	81	wnw.	25	11.2			8					overcast	John Hartnup.
Bolton, Sharples	29.19	741.4	29.74	755.4	48.0	8.9	92	nw.	12	5.4			8					raining	Thomas Mackereth.
Bradford, Yorkshire																0.01	0.3		[A.S. J.McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.74	755.4	52.0	11.1	82	w.			0.2		9					overcast	John McLaren.
Chatham, School M. E.	29.69	754.1	29.82	757.4	50.1	10.1	88	nw.			1		10					gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.71	754.6	29.94	760.5	54.2	12.3	60	nw.			6		10					overcast	The Staff.
Fort Napier, Natal	27.30	693.4	29.52	749.8	91.2	32.9	88	nw.			6		3					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.64	752.8	29.87	758.7	88.0	31.1	84	sw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College					54	12.2	93	w.			2		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.98	761.5	30.04	763.0	74.6	23.7	82	w.			3		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.37	746.0	29.58	751.3	51.0	10.6	61	wnw.			1		5					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.64	752.8	29.81	757.2	47.7	8.7	88	wsw.			1		10					overcast	The Staff.
Guernsey	29.66	753.4	29.88	758.9	55.5	13.1	73	wsw.			2		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.78	756.4	29.82	757.4	49.5	9.7	82	w.	8	3.6			10					drizzling	The Staff.
Leicester, Museum	29.49	749.0	29.74	755.4	49.1	9.5	77	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.86	758.4	29.93	760.2	78.0	25.6	80	se.			2		8			0	0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.01	762.2	30.06	763.5	78.2	25.7	79	e.			2		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.24	742.7	29.77	756.1	45.9	7.7	98	sw.			2		10					raining	John Mac Email.
Oxford, Radcliffe Obs'y	29.57	751.1	29.80	756.9	49.3	9.6	81	wsw.			3		10					showery	The Staff.
Plymouth	29.81	757.2	29.89	759.2	53.1	11.7	90	nw.			3		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			29.51	749.5	49.1	9.5	76	w.	12	5.4			5					showery	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	30.10	764.5	30.16	766.1	63.2	17.3	46	ne.			2		5					d. clouds	Serg't W. H. Lyne.
Sheffield	29.46	748.3	29.74	755.4	47.9	8.8	93	nw.			3		8			0.03	0.8	overcast	W. F. Cooper.
Silloth Rectory	29.64	752.8	29.67	753.6	52.4	11.3	71	nw.			4		6			0.020	0.5	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.72	754.9	50.0	10.0	67	nw.	19	8.5			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	29.62	752.3	29.83	757.7	50.4	10.2	83	sw.			3		10					drizzling	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.88	758.9	29.92	760.0	58	14.4	64	nw.			6		6					d. clouds	W. Newcombe.
Valencia, Observatory	30.03	762.7	30.06	763.5	55.2	12.9	66	nw.	22	9.8			9					d. clouds	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.68	753.9	29.72	754.9	57	13.9	83	w.	10	4.5		0	0			0	0	clear	H. J. Cundall, C. E.
Chatham, N. B. *	29.69	754.1	29.75	755.6	49	9.4	93	sw.	1	0.4		0	0			0.02	0.5	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	29.74	755.4	29.76	755.9	47	8.3	86	w.	3	1.3			10 s		nw.	0.42	10.7	cloudy	J. McWilliams.
Fort Garry, Manitoba *	29.67	753.6	30.55	776.0	28	— 2.2	96	n	5	2.2		5 k	5 s	n.	n.	0	0	cloudy.	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.65	753.1	29.78	756.4	56	13.3	93	w.	6	2.7		0	8 k		nw.	inap.	inap.	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.69	754.1	30.02	762.5	51	10.7	93	sw.	2	0.9		8 ck	0	calm		0.14	3.6	fair	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.75	755.6	29.95	760.7	53	11.7	93	w.	12	5.4		5 ck	2 ks	w.		0.37	9.4	fair	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.38	746.2	30.08	764.0	41	5.0	100	calm	0	0			fg.			0.04	1.0	foggy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.42	747.3	30.11	764.8	50	10.0	100	nw.	4	1.8		0	0			0.29	7.4	clear	H. Morgan.
Port Stanley, Ontario	29.47	748.5	30.11	764.8	50	10.0	100	n.	6	2.7		5 k	0	w.		0.18	4.6	fair	M. Payne.
Quebec, Quebec *	29.58	751.3	29.91	759.7	50	10.0	96	w.			1	0	hz.			0.57	14.5	fair	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.55	750.6	30.02	762.5	43	6.1	93	w.	3	1.3			fg.			0.30	7.6	dense fog	W. H. McIntyre.
Saugeen, Ontario *	29.37	746.0	30.10	764.5	45	7.2	89	sw.	3	1.3		0	0			0.12	3.0	clear	K. Stewart.
St. Andrews, N. B.	29.80	756.9	29.85	758.2	54	12.2	89	nw.	1	0.4		2 c	0	nw.		0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	29.61	752.1	29.66	753.4	58	14.4	90	w.	10	4.5			10 n		w.	0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario *	29.71	754.6	30.10	764.5	50	10.0	80	nw.	6	2.7		2 cs	0	w.		0.03	0.8	clear	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	29.79	756.7	29.86	758.4	54	12.2	96	nw.	6	2.7		8 ck	0	w.		0.01	0.3	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.84	757.9	30.09	764.3	44	6.7	100	sw.					10 n			0.05	1.3	showery	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	29.84	757.9	29.87	758.7	62.0	16.7	88	wsw.	10.1	4.5		0	3 k			0.120	3.0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester *†	29.22	742.2			62.7	17.0	42	w.			2	0	2			0	0	fine	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.02	762.6	30.05	763.3	63.1	17.3	90	s.	4.0	1.8		5 c;cs	0	w.		0	0	cloudy	M. Marc Dechevrens, S. J.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.64	752.9	29.69	754.1	52.0	11.1	80	s.	18	8			9						Oversergent Fischer.
Fanöe	29.54	750.2	29.56	750.7	52.0	11.1	95	sw.			4		10						Overloerer Lauridsen.
Godthaab, Greenland	29.49	749.0	29.53	750.1	26.1	—3.3	82	calm			0		9						S. Kleinschmidt.
Stykkisholm, Iceland	29.28	743.6	29.32	744.7	35.6	2.0	96	sw.			4		10					raining	A. O. Thorlacius.
Thorshavn	29.36	745.7	29.39	746.6	46.0	7.8	85	w.	16	7			3					raining	Overloerer Bergh.
Vestervig	29.42	747.3	29.51	749.6	50.4	10.2	94	se.			2		10						Loerer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.46	748.2	30.11	764.7	57.9	14.4	55	se.			1		8 n	nw.	nw.			very cloudy	M. Labroue, Director.
Alençon Normal School	29.43	747.4	30.03	762.8	55.4	13	93	sw.			2		n		se.	0.319	8.1		M. Nicot, Director.
Arras, Engineer School	29.52	749.9	29.78	756.5	51.4	10.8	77	w.					kn		w.				M. Klein, Commandant.
Avignon, Normal School	29.88	759.0	29.96	761.0	59.7	15.4	93	n.			1		10		s.	0.185	4.7	covered	M. Giraud, Director.
Bar-sur-Seine	29.35	745.5	29.91	759.7	50.7	10.4	69	wsw.			1		10		w.	0.138	3.5	covered	M. Saillard, Director.
Beauvais, Normal School	29.61	752.2	29.88	758.9	53.2	11.8	74	wnw.			1		8		nw.	0.205	5.2	very cloudy.	M. Frère Eugène Marie.
Besançon, Normal School	29.07	738.3	29.96	761.0	54.5	12.5	51	s.			1		5 cn		e.	0.55	14.	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.76	755.9	30.02	762.5	58.8	14.9	95	wsw.			1		10	wsw.	sw.	0.008	0.2	raining	M. Rayet, Director.
Bourges, Normal School	29.41	747.0	29.96	760.9	54.5	12.5	72	w.			2		k		w.	0.177	4.5		M. Postel, Director.
Brest, Naval Observatory	29.71	754.5	29.95	760.7	59.4	15.2	95	w.			1		10		w.	0.118	3.0	raining	M. de Rermaree, Dir.
Caen, Normal School	29.82	757.4	29.89	759.3	56.1	13.4	73	wsw.			1		2		w.	0.24	6.	slightly cl'dy	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.48	748.7	29.80	756.8	50.0	10.0	86	w.			3		8		w.	0.295	7.5	very cloudy.	M. Jadot, Director.
Charleville, Normal School	29.29	743.9	29.80	757.0	46.8	8.2	83	sw.			1		2			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.62	726.9	29.97	761.1	57.2	14.0	58	sw.			1		10		w.	0	0	covered	M. Alluard, Director.
Cluny, Normal School	29.14	740.2	29.99	761.8	54.3	12.4	69	sw.			3		3		sw.	0.04	1.		M. de Villemontée, Dir.
Commercy, Normal School	28.98	736.1	29.89	759.2	47.1	8.4	86	w.			4		10 kn	w.	w.	0.059	1.5	covered	Dr. Coulet, Director.
Gap, Normal School	27.41	696.3	29.92	760.0	56.8	13.8	91	se.			1		3 n		se.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.89	733.7	30.03	762.7	63.9	17.7	96	nw.			2		10		nw.	0	0	covered	M. Kina, Director.
Grenoble, Normal School	29.19	741.4	29.95	760.8	54.3	12.4	93	e.			1		n			0.08	2.		M. Ablard, Director.
Guéret, Normal School	28.41	721.5	29.99	761.8	50.0	10	82	w.			1		5 c	o	e.	0	0	cloudy	M. Rivoire, Director.
Lamballe, Normal School	29.70	754.3	29.97	761.2	56.3	13.5	84	w.			1		5		w.	0.28	7.	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.56	750.7	30.12	765.0	61.9	16.6	58	w.			3					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	29.90	759.5	30.00	762.1	57.2	14	95	sw.			1		10			0.024	0.6	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.93	734.8	29.98	761.5	56.1	13.4	77	n.			1		1c n		w.	0.165	4.2	covered	M. André, Director.
Mans, Normal School	29.67	753.5	29.98	761.4	54.5	12.5	69	nw.			1		8		ne.	0.323	8.2	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.65	753.1	29.91	759.8	66.0	18.9	82	sw.			1		10		sse.	0.008	0.2		M. Stephan, Director.
Montlouis l'instituteur	24.82	630.4	30.06	763.4	48.2	9.0	73	n.	3.8	1.7			8			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.82	757.5	29.93	760.2	64.8	18.2	67	nw.			2		10			0.59	15.	covered.	M. Pourle, Director.
Nancy, Normal School	29.08	738.7	29.86	758.5	46.8	7.8	89	ssw.			1		8 n		w.	0.208	6.8	very cloudy	M. Hasse.
Nantes, Observatory	29.87	758.6	30.03	762.7	56.8	13.8	69	w.			0-1		9 k;n		wnw.	0	0	covered	M. Larocque, Director.
Nice	29.84	757.9	29.87	758.8	67.3	19.6	68	nw.			3		10	nw.	nw.	0.134	3.4	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.85	758.3	29.96	761.0	61.3	16.3	55	nw.	15.0	6.7			9	n.	nw.	0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					66.2	19	63	n.			4		10	n.	s.	0	0	covered	M. Talhen.
Puy de Dôme Obs'y, Summit	25.04	636.0			36.3	2.4	100	w.			6		10			0.031	0.8	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.02	762.4	30.05	763.2	59.4	15.2	78	calm			0		8		n.	0	0	¼ covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.80	757.0	30.02	762.5	54.9	12.7	79	w.			1		10			0	0	covered	M. Mouillot, Director.
Rodez, Normal School	27.89	708.3	30.04	763.0	51.4	10.8	68	w.			2		10		nw.	0	0	covered	M. Richard, Director.
Rouen, Normal School	29.81	757.1	29.89	759.3	52.5	11.4	83	w.			1					0.67	17.		M. Platrier, Director.
Saint Lô, Normal School	29.76	756.0	29.92	760.0	52.2	11.2	83	w.			1		10		w.	0.055	1.4	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.74	755.4	29.91	759.6	52.3	11.3	69	nw.			2		10		nw.	0.303	7.7		M. Renou, Director.
Toulouse, Observatory	29.38	740.3	30.11	764.7	56.5	13.6	80	nw.			2		10			0	0	covered	M Bailland, Director.
Tours																0.087	2.2		M. de Tastes.
Versailles, Observatory	29.41	747.1	29.91	759.6	51.4	10.8	70	n.			1					0.217	5.5		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.63	752.3	29.91	759.7	51.3	10.7	74	wnw.			2		10		nw.	0.374	9.5		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.94	735.0	29.79	756.7	48.4	9.1	90	s.			1	0	9 n			0.157	4.0	raining	Prof. Dr. Hoh.
Berlin	29.51	749.6	29.69	754.0	55.4	13.0	77	s.			2		10			0	0		Prof. Dr. Arndt.
Breslau	29.28	743.7	29.81	757.1	59.7	15.4	63	sse.			4		4	s.		0	0		Royal University Obs'y.
Carlsruhe	29.37	746.1	29.80	756.9	52.2	11.2	78	sw.			2		1c	sw.		0.244	6.2		Albert Senz.
Cassel	28.97	735.8	29.69	754.0	47.3	8.5	94	ssw.			1		10	s.		0	0		Dr. H. Mohl.
Frankfort on the Main	29.37	740.1	29.74	755.5	47.7	8.7	92	s.			1		10			0.224	5.7		Physical Society.
Friedrichshafen	28.43	722.2	29.87	758.7	51.3	10.7	89	w.			2		10	w.		0.004	0.1		Wilhelm, Chief Tel.
Hamburg	29.59	751.6	29.69	754.0	50.0	10.0	92	sw.			3		10			0	0	foggy	E. Preller.
Kiel	29.63	752.6	29.65	753.0	51.3	10.7	90	sw.			3		1c			0	0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.30	744.2	29.72	754.8	54.7	12.6	72	ssw.			2		10	wsw.		0	0		H. Leppig, Asst.
Magdeburg	29.50	749.2	29.68	753.9	54.7	12.6	85	calm			0		10ks;n			0	0		Dr. Assmann.
Memel	29.82	757.3	29.86	758.5	54.7	12.6	66	se.			4		0						Issermann.
Munich	28.00	711.3	29.85	758.3	58.3	14.6	62	nw.			3		6	nw.		0	0		Central Station.
Neufahrwasser	29.79	756.6	29.80	757.0	59.7	15.4	55	ese.			3		0			0	0		A. Lothes.
Neustadt, Palatinate	29.27	743.4	29.79	756.7	50.4	10.2	76	sw.			3		10	sw.		0.126	3.2		Dicknether.
Stuttgart	28.84	732.5	29.73	755.1	53.2	11.8	73	w.			2		8	w.		0.102	2.6	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.33	719.6	29.84	757.9	49.5	9.7	86	calm			0		10	w.		0.031	0.8		Fischer.
Wustrow	29.64	752.9	29.67	753.5	51.3	10.7	83	sse.			4		1c s			0.217	5.5		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.75	755.6	30.13	765.4	67.1	19.5		ne.			4.0		0			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.74	755.3	29.79	756.6	83.9	28.8	76	sw.	22.0	9.8			0			0	0	blue sky	
Deesa	29.42	744.7	29.79	756.6	87.7	30.9	56	wsw.	5.0	2.2			0			0	0	blue sky	
Bombay	29.77	756.2	29.81	757.2	80.8	27.1	84	nw.	18.0	8.0			0			0	0	blue sky	
Poona, Yarrowda.	27.94	709.7	29.78	756.3	82.5	28.1	56	wnw.	15.0	6.7			7	w.		0	0	d. clouds	
Belgaum	27.26	692.3	29.78	756.5	77.0	25.0	77	w.	6.0	2.7			2	s.	w.	0	0	d. clouds	
Lahore	28.98	736.1	29.71	754.6	87.0	30.6	45	calm	1.1	0.5			0			0	0	blue sky	
Roorkee	28.82	732.1	29.71	754.7	82.8	28.2	69	calm	2.8	1.2			1			0	0		
Agra	29.19	741.4	29.74	755.4	90.2	32.3	34	nw.	4.8	2.2			0			0	0		
Nagpur	28.71	729.3	29.74	755.4	86.5	30.3	36	n.	4.7	2.1			2	e.		0	0	d. clouds	
Jubbulpore	28.40	721.3	29.74	755.3	85.5	29.7	32	n.	2.4	1.1			0			0	0	blue sky	
Lucknow	29.31	744.6	29.68	754.0	86.1	30.1	53	nne.	3.2	1.4			0			0	0	blue sky	
Allahabad	29.39	746.6	29.70	754.5	81.7	27.6	82	calm	0.9	0.4			0			0	0	blue sky	
Patna	29.56	750.8	29.74	755.4	78.5	25.8	90	ne.	3.8	1.7			8	ne.	ne.	0.30	7.6	d. clouds	
Hazaribagh	27.66	702.6	29.67	753.6	75.8	24.3	68	w.	6.0	2.7			2			0	0		
Cuttack	29.62	752.4	29.70	754.4	84.1	28.9	78	calm	0.1	0.4			7			0	0	d. clouds	
Calcutta, Alipore	29.70	754.3	29.72	754.9	78.5	25.8	91	ese.	6.0	2.7			9		s.	0.23	5.8	d. clouds	
Dhubri	29.62	752.3	29.74	755.3	78.5	25.8	88	calm	1.4	0.6			9					thnd'r storm	
Goalpara																			
Chittagong	29.65	753.0	29.74	755.3	82.3	27.9	84	w.	3.7	1.6			2			0	0	blue sky	
Sibsagar	29.38	746.3	29.71	754.7	82.2	27.9	90	ene.	1.3	0.6			2		nw.	0.62	15.7	blue sky	
Jeypore	28.34	720.0	29.76	755.8	91.2	32.9	22	nw.	5.5	2.5			2			0	0	d. clouds	
Zanzibar, Africa			29.94	760.5	86.7	30.4	47	se.	6	2.7			2			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.53	750.1	29.94	760.5	54.7	12.6	79	calm	0	0			10			1.122	28.5		Prof. Giovanni Clodig.
Milan	29.43	747.5	29.93	760.2	56.3	13.5	86	ne.	0.7	0.3			10	ese.		0.417	10.6		Prof. Schiaparelli.
Padua	29.81	757.1	29.92	759.9	60.3	15.7	83	n.	1.3	0.6			10	e.		0.248	6.3		Prof. Dott. Lorenzoni.
Moncalieri	29.02	737.1	29.93	760.1	58.1	14.5	74	nw.	0.7	0.3			8			0	0		Prof. P. F. Denza.
Genoa	29.72	754.8	29.91	759.6	61.3	16.3	76	n.	2.5	1.1			10	s.		0.335	8.5		Prof. G. M. Garibaldi.
Mondovi	28.01	711.5	29.93	760.3	57.4	14.1	87	nw.			2		8			0.075	1.9		Prof. D. C. Bruno.
Pesaro	29.86	758.4	29.91	759.6	62.1	16.7	96	nw.	9.4	4.2			9	sw.		0.433	11.0		Prof. Luigi Guidi.
Florence	29.61	752.2	29.87	758.6	68.0	20.0	70	nne.			2		3	wnw.		0.787	20.0		Prof. Costantino Pitter.
Leghorn	29.82	757.4	29.91	759.6	68.2	20.1	72	sw.	7.4	3.3			5			0.362	9.2		Prof. P. Monte.
Rome	29.69	754.1	29.86	758.5	74.1	23.4	68	sse.	13.6	6.1			9			1.646	41.8		Prof. P. S. Ferrari.
Lecce	29.78	756.4	30.03	762.7	71.2	21.8	65	sse.	15.0	6.7			5	s.		0	0		Prof. C. de Giorgi.
Cosenza	29.12	739.6	30.00	761.9	70.2	21.2	63	sse.	3.8	1.7			8	se.		0	0		Prof. D. Conti.
Cagliari	29.69	754.0	29.87	758.7	73.8	23.2	65	nw.			4		10			0.642	16.3		Prof. A. Pacinotti.
Palermo	29.63	752.6	29.87	758.8	81.9	27.7	42	wsw.	0.7	0.3			10			0	0		Prof. G. Ciacciatore.
Syracuse	29.91	759.6	29.95	760.7	73.4	23.0	83	ese.	11.9	5.3			10	ese.		0.039	1.0		Prof. Vincenzo Guiliano
Sub-Series.																			
Naples, S. R.	29.25	747.9	29.94	760.4	61.0	16.1	88	ne.	1.3	0.6			10	ne.		0.315	8.0		Prof. F. Brioschi.
Stelvio	22.07	560.5			36.9	2.7	82	sw.			6		10 kn	s.		0.071	1.8	covered	Prof. P. F. Denza.
Valdobbia	22.09	561.1			36.1	2.3	78	sse.			6		10 n			0.039	1.0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.89	759.2	29.90	759.4	61.0	16.1	80	ne.	1.8	0.8		3 ck	0			0	0	fair	K. Sasaki.
Kioto	29.68	753.9	29.85	758.1	62.8	17.1	77	nw.	3.9	1.7		ck	8 s		w.	0.380	9.6	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.78	756.4	29.99	761.7	63.4	17.4	81	n.	0.5	0.2		0	0			0	0	clear	S. Takehayashi
Nemuro	29.49	749.0	29.55	750.6	60.1	15.6	98	calm	0	0			10			0.120	3.0		
Niigata	29.63	752.6	29.66	753.3	64.2	17.9	77	wsw.	23.9	10.7		ck	10 n			0.490	12.4	raining	
Nobiru	29.53	750.0	29.55	750.6	62.3	16.8	98		1.0	0.4			10ks;s			0.775	19.7	cloudy	
Supporo	29.39	746.5	29.45	748.0	54.4	12.4	99	se.	9.6	4.3			10			0	0		
Tokei Obs'y, Yeddo	29.56	750.8	29.62	752.3	60.5	15.8	97	nw.	3.0	1.3		3 ck	0	s.		0.128	3.2	fair	The Staff.
Wakayama	29.81	757.2	29.86	758.4	66.2	19.0	72	nw.	4.3	1.9		0	0			0.041	1.0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.96	761.0	30.16	766.1	74.8	23.8	67	e.	23.5	10.5		0	8 k		e.	0.04	1.0	cloudy	A. N. Figon
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.4	29.90	759.4	60.8	16.0	85	e.	2.2	1.0		0	6 k		s.	0.080	2.1	fair	Vicente Fernandez.
Leon	24.41	620.1	30.02	762.5	65.4	18.0	90	sw.			1	8 ck	0			0.024	0.6	cloudy	Prof. M. Leal.
Mazatlan	29.59	751.6	29.85	758.1	80.0	26.7	93	e.	0.9	0.4		4 cs	1 k			0	0	fair	F. Quijano, C. E.
Mexico, Central Obs'y	23.11	587.1	30.13	765.4	56.3	13.5	90	nw.	0.7	0.3		1 c	7 k		se.	0	0	cloudy	The Staff.
Morelia	24.18	614.2	30.26	768.7	61.3	16.3	77	sse.			2	6	1	se.	se.	0.050	1.3	cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.93	607.6	29.89	759.2	63.7	17.6	86	calm			0		10 kn		se.	inap.	inap.	covered	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.43	595.3	30.20	767.0	55.4	13.0	70	calm	0	0		0	1		e.	0	0	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.76	755.8	29.76	755.8	53.8	12.1		wnw.			3					0.059	1.5		
Groningen	29.61	752.0	29.66	753.4	48.7	9.3		sw.			1					0.039	1.0		
Helder	29.67	753.5	29.67	753.5	51.4	10.8		w.			3					0.110	2.8		
Hellevoetsluis	29.72	755.0	29.72	755.0	49.3	9.6	94	s.			2					0.004	0.1		
Utrecht	29.67	753.5	29.71	754.7	48.2	9.0	94	nw.			2		10			0.083	2.1	dull	H. van der Brink

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.44	747.7	29.50	749.3	46.0	7.8	94	calm	0	0			10					raining	
Christiania	29.43	747.6	29.58	751.3	53.8	12.1	71	calm	0	0			9			0	0		
Gjæsvær	29.37	746.0	29.39	746.6	43.2	6.2		w.			7		10						
Lodingen	29.56	750.7	29.60	751.9	46.2	7.9	75	sw.			6		8			0.071	1.8		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.31	769.8	30.46	773.7	66.9	19.4	70	ene.	11.2	5.0			3			0	0		Dr. J. A. Sampaio.
Campo Major	29.06	738.0	30.04	763.1	66.2	19.0	63	wsw.	0.7	0.3			2			0.039	1.0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.09	764.2	30.17	766.4	71.1	21.7	54	sw.	4.9	2.2			7			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.75	755.7	30.11	764.7	66.2	19.0	56	e.	4.9	2.2			0			0	0		The Staff.
Ponta Delgada, Azores	30.38	771.7	30.45	773.5	69.4	20.8	57	ne.	3.8	1.7			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.97	735.9	30.07	763.7	42.6	5.9	63	wsw.	13	6		0	7 k						Capt. Lasarew.
Archangel	29.68	753.9	29.70	754.4	49.8	9.9	78	w.	13	6		2 cs	0						Capt. Sseliwerstow.
Astrakhan	30.10	764.6	30.02	762.5	55.4	13.0	45	w.	18	8			10 s						Capt. Wisganow.
Barnaul ‡	29.61	752.0	30.12	765.0	39.6	4.2	65	calm	0	0			10						Meteorological Obs'y.
Dorpat	29.82	757.5	30.06	763.6	58.3	14.6	58	ssw.	7	3		1 c	0						Observatory.
Ekaterinburg	28.73	729.7	29.70	754.4	38.8	3.8	65	wnw.	9	4			9						Meteorological Obs'y.
Kasan	29.68	753.8	29.95	760.7	46.4	8.0	65	wnw.	4	2			3						Observatory.
Kertch	30.21	767.3	30.23	767.8	54.9	12.7	70	n.	4	2		2 cs	0			0	0		Lagorio & Sastyrea.
Kieff	29.58	751.3	30.21	767.3	57.9	14.4	41	s.	2	1		0	0						Observatory.
Lugan	29.94	760.4	30.14	765.5	61.2	16.2	40	wnw.	13	6			0						Meteorological Obs'y.
Moscow	29.55	750.6	30.03	762.7	56.1	13.4	56	calm	0	0		0	0						Meteorological Obs'y.
Nikolaiev	30.29	769.3	30.36	771.1	59.4	15.2	57	calm	0	0		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.75	755.6	29.84	757.8	47.3	8.5	94	e.			4		10 n			0	0		Lieut. Iwanow.
Pekin, China	29.73	755.1	29.87	758.7	66.9	19.4	53	sw.	4	2		2 c	0			0	0		Physical Observatory.
St. Petersburg	30.01	762.2	30.02	762.6	50.5	10.3	78	w.	7	3		0	1 s						Central Physical Obs'y.
Tashkend, Laboratory	28.72	729.6	30.35	770.9	43.7	6.5	86	calm	0	0			9			0.327	8.3		Teich, A. M.
Tiflis	28.76	730.5	30.18	766.6	55.8	13.2	48	e.	2	1		0	4 k						Physical Observatory.
Warsaw	29.52	749.8	29.94	760.4	59.2	15.1	47	se.	13	6		0	0						Astronomical Obs'y.
Wilna	29.69	754.2	30.11	764.9	56.8	13.8	54	se.	7	3			4						Berg, Assistant.
Yeniseisk	29.87	758.7	30.17	766.3	30.9	— 0.6	78	w.	7	3			2						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.63	752.6	51.2	10.7	52	nw.			2	0	8 k			0	0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.58	751.3	51	10.6	93	nw.			6	10	0	nw.		0.1	3.	showery	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.80	756.9	29.91	759.6	66.2	19.	72	ese.	1.8	0.8			1			0.197	5.0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.08	764.0	30.13	765.4	65.1	18.4	64	n.	0.9	0.4			10			0	0	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.14	689.4			54.9	12.7	78	e.	10.5	4.7		0	1			0	0	almost clear	Domingo Martin.
Madrid, Royal Obs'y	27.82	706.7	30.05	763.3	56.7	13.7	84	se.	5.1	2.3		0	3			0.063	1.6	foggy	The Staff.
Murcia, Met. Obs'y ‡	29.82	757.5	29.97	761.3	67.8	19.9	79	nnw.	2.7	1.2		3	3	ene.		0.004	0.1	misty	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.21	741.8	30.10	764.4	61.3	16.3	74	ne.	10.5	4.7			8			0	0	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.95	760.7	30.01	762.4	75.0	23.9	82	e.	4.3	1.9		6 ck	2 k;s	ne.	e.	0.047	1.2	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.84	758.0	29.89	759.3	84.2	29.0	77	se.	4.4	2.0		0	1 ks			0	0	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.98	761.5	30.08	764.0	68.5	20.3	72	s.	7.3	3.3		0	4		s.	0.684	17.4		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.80	756.8	29.89	759.1	79.2	26.2	84	calm	0	0		2 k	0			0	0	clear	E. Cadea, Chief Enga'r.
Tuguegarao, Philippine Ids	29.80	757.0	29.94	760.4	77.3	25.2	80	nw.	1.7	0.8		0	0			0	0	very fair	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.74	755.5	29.78	756.5	50.4	10.2	74	calm			0		10			0	0		
Umea	29.72	754.9	29.77	756.2	46.8	8.2	92	s.			2		10			0.878	22.3		
Hernosand	29.67	753.7	29.72	755.0	52.0	11.1	79	ssw.			2		10			0	0		
Stockholm	29.63	752.6	29.81	757.1	54.5	12.5	72	s.			2		0			0	0		
Wisby	29.76	756.0	29.82	757.5	56.5	13.6	58	sw.			4		0			0	0		
Sub-Series.																			
Upsala	29.68	753.9	29.77	756.1	56.3	13.5	61	sse.	11.6	5.2			0			0.071	1.8		S. H. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.54	724.8	29.96	760.9	55.4	13.0	72	w.			3		10			0.591	15.0	covered	The Observatory.
Zurich ‡	28.27	718.1	29.93	760.2	48.9	9.4	96	w.			2		8			0.177	4.5	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.21	767.3	61.2	16.2	53	ene.	18	8.0			6		ne.	0	0		The Observatory.
Valona			30.11	764.7	72.5	22.5		sw.			1		2			0	0	slightly cl'dy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.91	759.8	75.0	23.9	45	nw.			2	0	1 k		nw.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	29.95	760.7	30.03	762.7	62.5	16.9	84	nw.	4	1.8		1 c	3 ks			0.09	2.3	fair	
Alpena, Michigan	29.47	748.5	30.16	766.1	44	6.7	93	nw.	4	1.8		0	0			0.17	4.3	clear	
Atlanta, Georgia	29.07	738.4	30.29	769.4	65.0	18.3	78	e.	3	1.3		0	0			0	0	clear	
Atlantic City, New Jersey	30.02	762.5	30.03	762.7	66.2	19.0	84	w.	5	2.2		8 ck	2 s	w.	calm	0	0	cloudy	
Augusta, Georgia	30.07	763.8	30.27	768.8	64.1	17.8	84	calm	0	0		0	0			0	0	clear	
Baltimore, Maryland	30.02	762.5	30.07	763.8	66	18.9	84	w.	2	0.9			10 s		w.	inap.	inap.	cloudy	
Barnegat, New Jersey	29.99	761.7	30.01	762.2	68.2	20.1	76	w.	9	4.0			10 s		w.	0	0	cloudy	
Bismarck, Dakota	28.61	726.7	30.53	775.4	28	— 2.2	77	n.	10	4.5		1 cs	0	calm		0	0	clear	
Boise City, Idaho	27.31	693.7	30.23	767.8	35	1.7	72	nw.	4	1.8		0	0			0	0	clear	
Boston, Massachusetts	29.83	757.7	29.99	761.7	64.0	17.8	68	nw.	4	1.8		7 ck	hz.	w.		0.01	0.3	fair	
Brackettville, Texas	28.93	734.8	29.95	760.7	74	23.3	97	e.	8	3.6			10 s		se.	0.29	7.4	cloudy	
Brownsville, Texas	29.99	761.7	30.04	763.0	79	26.1	97	e.	4	1.8			10 ks		e.	0.31	7.9	cloudy	
Buffalo, New York	29.39	746.5	30.13	765.3	58.4	14.7	71	w.	4	1.8		2 ck	2 s	w.	w.	0.36	9.1	fair	
Burlington, Vermont	29.71	754.6	30.01	762.2	54.2	12.3	89	se.	3	1.3		6 cs	0	w.		0.05	1.3	fair	
Cairo, Illinois	29.81	757.2	30.22	767.6	67.6	19.8	96	sw.	4	1.8			10 n		calm	0.38	9.7	light rain	
Campo, California	27.38	695.4	29.95	760.7	42.7	5.9	56	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.10	764.5	30.12	765.0	66	18.9	73	sw.	15	6.7		0	4 s			0	0	fair	
Cape May, New Jersey	30.02	762.5	30.05	763.3	67	19.4	84	w.	12	5.4			10 ks		w.	0	0	cloudy	
Castroville, Texas	29.27	743.4	29.95	760.7	76	24.4	90	se.	10	4.5			10 n		e.	1.47	37.3	heavy rain	
Cedar Keys, Florida	30.17	766.3	30.19	766.8	69	20.6	84	ne.	6	2.7		0	0			0	0	clear	
Champaign, Illinois	29.37	746.0	30.17	766.3	54.5	12.5	75	n.	9	4.0		0	0			0.51	13.0	clear	
Charleston, S. Carolina	30.19	766.8	30.25	768.3	68	20.0	90	nw.	4	1.8		0	0			0	0	clear	
Charlotte, N. Carolina	29.33	745.0	30.24	768.1	60.0	15.6	87	calm	0	0		0	hz.		calm	0	0	clear	
Chattanooga, Tennessee	29.43	747.5	30.28	769.1	59.4	15.2	92	calm	0	0		5 cs	fg.	calm	calm	0	0	fair	
Cheyenne, Wyoming	24.28	616.7	30.41	772.4	34.7	1.5	73	w.	5	2.2		0	0			0	0	clear	
Chicago, Illinois	29.47	748.5	30.21	767.3	52.6	11.4	73	nw.	4	1.8		0	0			0.02	0.5	clear	
Chincoteague, Virginia	30.08	764.0	30.10	764.5	67	19.4	90	sw.	6	2.7			8 s		calm	0	0	cloudy	
Cincinnati, Ohio	29.48	748.8	30.16	766.1	67.4	19.7	92	sw.	4	1.8			10 s		w.	0.39	9.9	cloudy	
Cleveland, Ohio	29.36	745.7	30.13	765.3	60.4	15.8	74	e.	3	1.3			10 n		e.	0.21	5.3	light rain	
Coleman City, Texas																			
Columbus, Ohio	29.24	742.7	30.13	765.3	64	17.8	93	sw.	3	1.3			10 n			0.53	13.5	light rain	
Concho, Texas	28.10	713.7	30.10	764.5	70	21.1	97	ne.	6	2.7			10 s		se.	0.40	10.2	cloudy	
Corsicana, Texas	29.70	754.4	30.18	766.6	76	24.4	85	calm	0	0			10 ks			0	0	cloudy	
Davenport, Iowa	29.59	751.6	30.27	768.8	52	11.1	86	n.	3	1.3		1 cs	0	calm		0	0	clear	
Dayton, Washington T'y	28.37	720.6	30.23	767.8	39	3.9	82	sw.	2	0.9		0	0			0	0	clear	
Deadwood, Dakota	25.62	650.7	30.48	774.2	31	— 0.6	74	calm	0	0		0	0			0	0	clear	
Decatur, Texas	28.98	736.1	30.12	765.0	74	23.3	100	calm	0	0			10 n		se.	0.07	1.8	light rain	
Delaware Breakwater, Del.	30.03	762.7	30.05	763.3	66	18.9	90	sw.	8	3.6		3 c	6 ks	sw.		0	0	cloudy	
Denison, Texas	29.37	746.0	30.20	767.1	74	23.3	85	s.	4	1.8			10 s		s.	0	0	cloudy	
Denver, Colorado	25.01	635.2	30.38	771.6	43.0	6.1	76	s.	4	1.8		0	0			0	0	clear	
Des Moines, Iowa	29.39	746.5	30.34	770.6	40	7.8	93	calm	0	0		0	1 s			inap.	inap.	clear	
Detroit, Michigan	29.43	747.5	30.17	766.3	55.0	12.8	86	nw.	7	3.1		4 k	0	n.		0.09	2.3	fair	
Dodge City, Kansas	27.64	702.0	30.33	770.4	57.3	14.1	95	ne.	11	4.9			10 s			0.18	4.6	cloudy	
Dubuque, Iowa	29.51	749.5	30.25	768.3	49.3	9.6	77	w.	1	0.4		0	fg.		calm	0	0	clear	
Duluth, Minnesota	29.66	753.4	30.38	771.6	39	3.9	73	nw.	1	0.4		0	0			0	0	clear	
Eagle Pass, Texas	29.25	742.9	30.10	764.5	74.1	23.4	97	se.	9	4.0		4 ck	2 s	s.	s.	0.89	22.6	fair	
Eagle Rock, Idaho	25.42	645.7	30.41	772.4	23	— 5.0	56	n.	4	1.8		0	0			0	0	clear	
Eastport, Maine	29.80	756.9	29.87	758.7	56.5	13.6	83	nw.	7	3.1		2 c	0	nw.		0.06	1.5	clear	
El Paso, Texas	26.34	669.0	30.18	766.6	55.1	12.8	74	ne.	4	1.8		0	6 s		ne.	0	0	fair	
Erie, Pennsylvania	29.36	745.7	30.12	765.0	60	15.6	70	ne.	1	0.4		0	5 ks			0.37	9.4	fair	
Escanaba, Michigan	29.51	749.5	30.19	766.8	48	8.9	63	nw.	4	1.8		0	0			0	0	clear	
Florence, Arizona	28.39	721.1	29.99	761.7	70.3	21.3	62	e.	4	1.8		0	0			0	0	clear	
Fort Apache, Arizona	25.12	638.0	30.16	766.1	49	9.4	86	e.	2	0.9		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.66	702.6	30.60	777.2	25	— 3.9	88	ne.	10	4.5			10 s		ne.	0	0	cloudy	
Fort Bennett, Dakota	28.73	729.7	30.34	770.6	38	3.3	65	ne.	8	3.6		0	0			0	0	clear	
Fort Benton, Montana	27.66	702.6	30.64	778.2	24	— 4.4	88	ne.	6	2.7			10 s		calm	0	0	cloudy	
Fort Buford, Dakota	28.51	724.1	30.62	777.7	31	— 0.6	81	n.	7	3.1			10 s		calm	0	0	cloudy	
Fort Custer, Montana	27.20	690.9	30.59	777.0	29	— 1.7	63	nw.	6	2.7		0	0			0	0	clear	
Fort Davis, Texas	25.13	638.3	30.09	764.3	57	13.9	100	ne.	4	1.8			10 n			0.70	17.8	light rain	
Fort Elliott, Texas	27.42	696.5	30.72	780.3	65	18.3	84	calm	0	0			fg.			0	0	dense fog	
Fort Gibson, Indian T'y	29.61	752.1	30.18	766.6	72.0	22.2	90	e.	2	0.9			10 s		s.	0	0	cloudy	
Fort Grant, Arizona					69	20.6	59	e.	20	8.9		0	0			0	0	clear	
Fort Griffin, Texas	28.87	733.3	30.10	764.5	72.0	22.2	100	calm	0	0			10 n			0.58	14.7	light rain	
Fort Keogh, Montana	27.89	708.4	30.56	776.2	32	0.0	62	ne.	17	7.6		6 ck	0	sw.		0	0	fair	
Fort Macon, North Carolina	30.21	767.3	30.22	767.6	69	20.6	90	w.	7	3.1		hz.	hz.	calm	calm	0	0	light haze	
Fort McKavett, Texas	27.94	709.7	29.81	757.2	70.2	21.2	95	e.	11	4.9			10 n		s.	1.04	26.4	light rain	
Fort Missoula, Montana	26.83	681.5	30.48	774.2	41	5.0	92	sw.	2	0.9			10 ks			0	0	cloudy	
Fort St. Michaels	30.41	772.4	30.45	773.4	40	4.4	82	se.	3	1.3		0	5 s			0.03	0.8	fair	
Fort Shaw, Montana	26.80	680.7	30.54	775.7	23	— 5.0	88	ne.	5	2.2			10 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.93	734.8	30.22	767.6	71.3	21.8	92	sw.	1	0.4			10 s		sw.	0	0	cloudy	
Fort Stevenson, Dakota	28.61	726.7	30.57	776.5	27	— 2.8	84	n.	4	1.8		0	0			0	0	clear	
Fort Verde, Arizona					59	15.0	78	sw.			1	0	0			0	0	clear	
Fredericksburg, Texas					71	21.7	97	e.	5	2.2			10 ks		e.	0.60	15.2	threatening	
Galveston, Texas	28.38	720.8	29.90	759.4	79.4	26.3	78	se.	12	5.4		3 cs	5 ks	nw.	se.	0.12	3.0	cloudy	
Grand Haven, Michigan	30.08	764.0	30.12	765.0	47.0	8.3	93	calm	0	0		0	fg.			0.10	2.5	clear	
Hatteras, North Carolina	29.48	748.8	30.18	766.6	71	21.7	76	sw.	20	8.9		0	0			0	0	clear	
Helena, Montana	30.16	766.1	30.18	766.6	28	— 2.2	88	nw.	13	5.8		0	8 s		calm	0	0	cloudy	
Henrietta, Texas	26.09	662.7	30.68	779.3	76	24.4	82	s.	5	2.2			10 s		calm	0.31	7.9	cloudy	
Huron, Dakota	29.12	739.6	30.02	762.5	32.2	0.1	85	n.	9	4.0		0	0			0	0	clear	
Indianapolis, Indiana	28.98	736.1	30.44	773.2	56	13.9	86	n.	1	0.4		2 c	5 s	calm	n.	0.82	20.8	fair	
Indianola, Texas	29.36	745.7	30.19	766.8	81.0	27.2	74	se.	18	8.0		3 cs	4 k;ks	se.	se;c	0.36	9.1	fair	
Jacksboro, Texas	30.06	763.5	30.09	764.3	72	22.2	100	s.	4	1.8			10 n		s.	0.27	6.9	light rain	
Jacksonville, Florida	29.01	736.8	30.11	764.8	66	18.9	90	ne.	3	1.3		0	0			0	0	clear	
Keokuk, Iowa	30.18	766.6	30.22	767.6	52.0	11.1	86	n.	2	0.9		0	0			0.81	20.6	clear	
Key West, Florida	29.59	751.6	30.27	768.8	76.0	24.4	84	ne.	17	7.6		0	4 ks;k		ne.	0.09	2.3	fair	
Kittyhawk, North Carolina	30.02	762.5	30.05	763.3	67	19.4	84	w.	14	6.3		hz.	0			0	0	clear	
Knoxville, Tennessee	29.14	765.5	30.16	766.1	57	13.9	96	sw.	1	0.4		3 ck	3 s	w.	calm	0	0	fair	
La Crosse, Wisconsin	29.25	742.9	30.32	770.1	50	10.0	77	sw.	5	2.2		0	0			0	0	clear	
La Mesilla, New Mexico	29.51	749.5	30.31	769.9	63.0	17.2	90	calm	0	0		1 c	0	se.		0	0	clear	
Laredo, Texas	26.20	665.5	30.35	770.9	76.0	24.4	97	se.	1	0.4		1 ck	3 ks	calm	se.	0.49	12.4	fair	
Leavenworth, Kansas	29.58	751.3	29.91	759.7	58	14.4	57	ne.	4	1.8		2 cs	0			0.01	0.3	clear	
Lewiston, Idaho	29.36	745.7	30.29	769.4	43	6.1	83	calm	0	0		1 k	0	calm		0	0	clear	
Little Rock, Arkansas	29.31	744.5	30.19	766.8	69	20.6	90	s.	1	0.4			10 ks			0	0	cloudy	
Los Angeles, California	29.86	758.4	30.18	766.6	49.2	9.6	77	sw.	1	0.4		c	5 s		sw.	0	0	fair	
Louisville, Kentucky	29.58	751.3	29.96	761.0	67.0	19.4	90	sw.	7	3.1			10 s		calm	0.74	18.8	cloudy	
Lynchburg, Virginia	29.56	750.8	30.14	765.5	65.8	18.8	73	calm	0	0		0	9 ks		w.	0	0	cloudy	
Madison, Wisconsin	29.44	747.8	30.15	765.8	50	10.0	86	w.	8	3.6		0	0			0	0	clear	
Marquette, Michigan	29.20	741.7	30.27	768.8	46	7.8	53	nw.	10	4.5		0	0			0	0	clear	
Mason, Texas	29.48	748.8	30.24	768.1	72.5	22.5	90	e.	7	3.1			10 s		e.	0.69	17.5	cloudy	
Memphis, Tennessee	28.50	723.9	30.21	767.3	68.5	20.3	78	se.	4	1.8		0	9 s			0	0	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.43	747.5	30.21	767.3	51	10.6	72	nw.	9	4.0		0	0			0	0	clear	
Mobile, Alabama	30.14	765.5	30.21	767.3	68.0	20.0	93	n.	5	2.2		7 c	0			0	0	fair	
Montgomery, Alabama	30.01	762.2	30.25	768.3	63.4	17.4	86	se.	1	0.4		7 c	0	nw.		0	0	fair	
Moorhead, Minnesota	29.43	747.5	30.49	774.4	31	— 0.6	88	n.	8	3.6		0	0			0	0	clear	
Morgantown, W. Virginia	29.10	739.1	30.06	763.5	64.5	18.1	88	sw.	4	1.8			10 n		sw.	0.28	7.1	light rain	
Mt. Washington, N. H.	23.73	602.7	30.10	764.5	33.0	0.6	100	nw.	46	20.6			fg		nw.	0.90	22.9	dense fog	
Nashville, Tennessee	29.68	753.9	30.24	768.1	66.1	18.9	82	sw.	1	0.4			10 ks		sw.	0	0	cloudy	
New Haven, Connecticut	29.87	758.7	29.98	761.5	66	18.9	78	n.	7	3.1		3 k	6 s	sw.		inap.	inap.	cloudy	
New London, Connecticut	29.92	760.0	29.97	761.2	68	20.0	73	sw.	1	0.4		4 k	0	w.		0	0	fair	
New Orleans, Louisiana	30.12	765.0	30.18	766.6	73.5	23.1	90	e.	5	2.2		2 c	0			inap.	inap.	clear	
Newport, Rhode Island	29.93	760.2	29.98	761.5	65.0	18.3	87	nw.	2	0.9		6 k	3 n	w.	n.	0.05	1.3	light rain	
New River, N. Carolina					70	21.1	76	w.			1	0	0			0	0	clear	
New Shoreham, Rhode I'd.	29.93	760.2	29.96	761.0	65.2	18.4	84	nw.	5	2.2		7 k	0	nw.		0	0	fair	
New York, New York	29.84	757.9	30.02	762.5	67	19.4	84	nw.	4	1.8		0	9 s		nw.	inap.	inap.	cloudy	
Norfolk, Virginia	30.10	764.5	30.13	765.3	64	17.8	90	sw.	5	2.2		1 k	2 ks		w.	0	0	fair	
North Platte, Nebraska	27.36	694.9	30.42	772.7	45.8	7.7	91	se.	2	0.9		0	fg			0	0	light fog	
Olympia, Washington T'y	30.15	765.8	30.19	766.8	41.0	5.0	82	s.	2	0.9		0	0			0.05	1.3	clear	
Omaha, Nebraska	29.16	740.7	30.40	772.1	50	10.0	86	n.	3	1.3		0	0			0	0	clear	
Oswego, New York	29.72	754.9	30.06	763.5	58.0	14.4	86	w.	4	1.8		4 k	4 s	nw.	nw.	0.10	2.5	cloudy	
Pensacola, Florida	30.18	766.6	30.21	767.3	65	18.3	90	ne.	4	1.8		0	0			0	0	clear	
Philadelphia, Pa.	29.98	761.5	30.04	763.0	66	18.9	90	w.	6	2.7			10 n		calm	inap.	inap.	light rain	
Phœnix, Arizona	28.74	730.0	30.47	773.9	73	22.8	59	calm	0	0		0	0			0	0	clear	
Pike's Peak, Colorado	18.00	457.2	30.21	767.3	26	— 3.3	74	sw.	18	8.0		0	0			0	0	clear	
Pioche, Nevada	24.21	614.9	30.40	772.1	49	9.4	27	nw.	6	2.7		3 k	0	sw.		0	0	fair	
Pittsburg, Pennsylvania	29.28	743.7	30.13	765.3	65.7	18.7	90	sw.	1	0.4			10 n		calm	0.24	6.1	light rain	
Port Eads, Louisiana	30.16	766.1	30.17	766.3	76.3	24.6	84	e.	10	4.5		hz	3 s	calm	e.	inap.	inap.	fair	
Port Huron, Michigan	29.44	747.8	30.15	765.8	55.0	12.8	86	calm	0	0		0	0			0.13	3.3	clear	
Portland, Maine	29.91	759.7	29.96	761.0	58.5	14.7	70	nw.	2	0.9		3 cs	0	calm		inap.	inap.	clear	
Portland, Oregon	30.15	765.8	30.22	767.6	49.0	9.4	86	calm	0	0			10 ks		sw.	0	0	cloudy	
Portsmouth, N. Carolina					71	21.7	82	sw.	14	6.3		0	0			0	0	clear	
Prescott, Arizona	24.83	630.7	30.14	765.5	50	10.0	80	s.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	30.08	764.0	30.09	764.3	72.5	22.5	83	ne.	12	5.4		1 ck	0	calm		0	0	clear	
Red Bluff, California	29.62	752.3	29.97	761.2	50.0	10.0	74	n.	2	0.9		0	0			0	0	clear	
Rio Grande City, Texas	29.82	757.4	30.03	762.7	75	23.9	97	e.	6	2.7		4 c	fg	calm		0.08	2.0	fair	
Rochester, New York	29.44	747.8	30.10	764.5	53	11.7	80	w.	5	2.2		0	8 s		calm	0.21	5.3	cloudy	
Roseburg, Oregon	29.61	752.1	30.20	767.1	41	5.0	92	calm	0	0			fg			0	0	dense fog	
Sacramento, California	29.88	758.9	29.96	761.0	48.8	9.3	63	n.	5	2.2		0	0			0	0	clear	
St. Louis, Missouri	29.63	752.6	30.26	768.6	63.2	17.3	68	n.	7	3.1			9 s		w.	2.14	54.4	cloudy	
St. Paul, Minnesota	29.43	747.5	30.35	770.9	46.2	7.9	76	nw.	4	1.8		0	0			0	0	clear	
Salt Lake City, Utah	25.80	655.3	30.25	768.3	44	6.7	34	calm	0	0		2 k	0	calm		0	0	clear	
San Antonio, Texas	29.44	747.8	30.16	766.1	75.1	23.9	97	e.	7	3.1			10 s		calm	0.63	16.0	cloudy	
San Diego, California	29.82	757.4	29.90	759.4	62.3	16.8	73	ne.	3	1.3			10 s			0	0	cloudy	
Sandusky, Ohio	29.41	747.0	30.12	765.0	59.8	15.4	81	sw.	8	3.6			10 s			0.18	4.6	cloudy	
Sandy Hook, New Jersey	29.96	761.0	29.99	761.7	67.0	19.4	84	nw.	8	3.6		0	8 ks		nw.	0	0	threatening	
San Francisco, California	29.91	759.7	29.98	761.5	54	12.2	86	w.	3	1.3		0	fg		se.	0	0	clear	
Santa Fé, New Mexico	23.46	595.9	30.45	773.4	51.8	11.0	70	e.	3	1.3		0	0			0	0	clear	
Savannah, Georgia	30.16	766.1	30.24	768.1	68	20.0	90	nw.	4	1.8		hz	fg			0	0	clear	
Shreveport, Louisiana	29.95	760.7	30.18	766.6	72.3	22.4	84	s.	3	1.3			10 ks		e.	0	0	cloudy	
Silver City, New Mexico	24.40	619.7	30.08	764.0	59	15.0	90	calm	0	0		0	9 ks			0	0	cloudy	
Sitka, Alaska	30.45	773.4	30.52	775.2	36.1	2.3	61	ne.	12	5.4		0	0			0	0	clear	
Smithville, North Carolina	30.19	766.8	30.23	767.8	65	18.3	90	nw.	5	2.2		hz.	1 ks		calm	0	0	clear	
Spokane Falls, Wash. Ter.	28.08	713.2	30.15	765.8	39	3.9	92	calm	0	0		10 ck	0	w.		0	0	cloudy	
Springfield, Illinois	29.56	750.8	30.26	768.6	56	13.3	80	n.	5	2.2		0	2 s; hz		w.	1.15	29.2	clear	
Springfield, Massachusetts	29.88	758.9	30.00	762.0	62.4	16.9	84	nw.	3	1.3		5 ck	0	w.		inap.	inap.	fair	
Stockton, Texas	27.11	688.6	30.26	768.6	68.0	20.0	100	ne.	8	3.6			10 n		ne.	1.05	26.7	light rain	
St. Vincent, Minnesota	29.64	752.8	30.57	776.5	28	— 2.2	100	nw.	8	3.6		0	2 s		calm	0	0	fair	
Thatcher's Island, Mass.	29.90	759.4	29.96	761.0	57.2	14.0	80	ne.	9	4.0			10 s		ne.	0	0	cloudy	
Toledo, Ohio	29.41	747.0	30.13	765.3	58	14.4	87	w	3	1.3		0	3 k		sw.	1.01	25.7	fair	
Tucson, Arizona	27.43	696.7	29.87	758.7	65	18.3	73	se.	5	2.2		0	0			0	0	clear	
Umatilla, Oregon	29.81	757.2	30.24	768.1	39.0	3.9	82	se.	5	2.2		1 c	0	calm		0	0	clear	
Uvalde, Texas																			
Vicksburg, Mississippi	29.97	761.2	30.23	767.8	70	21.1	84	se.	4	1.8		7 k	0	e.		0	0	fair	
Visalia, California	29.57	751.1	29.94	760.5	46.5	8.1	80	s.	2	0.9		0	0			0	0	clear	
Washington, D. C.	29.97	761.2	30.09	764.3	65	18.3	84	w.	1	0.4		1 c	8 ks		w.	0	0	cloudy	
West Los Animas, Colorado	26.24	666.5	30.32	770.1	58	14.4	93	ne.	6	2.7			10 s		ne.	0	0	cloudy	
Wickenburg, Arizona					63	17.2	73	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.16	766.1	30.22	767.6	66	18.9	90	w.	3	1.3		0	0			0	0	clear	
Winnemucca, Nevada	25.73	653.5	30.19	766.8	26	— 3.3	48	n.	8	3.6		0	0			0	0	clear	
Wood's Holl, Mass.	29.92	760.0	29.96	761.0	65	18.3	84	nw.	7	3.1		9 k	0	w.		0.01	0.3	cloudy	
Yankton, Dakota	29.04	737.6	30.41	772.4	45	7.2	82	calm	0	0		0	5 s			0	0	fair	
Yuma, Arizona	29.67	753.6	29.81	757.2	68.0	20.0	87	calm	0	0		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	29.91	759.7	29.93	760.2	81	27.2	91	se.	2	0.9		2 k	5 ks			0	0		J. A. Racker.
Bogota, U. S. Columbia	22.03	559.6			55.0	12.8	79	calm	0	0			8 s; n			0	0	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.83	757.7	29.83	757.7	81	27.2	87	e.				0	5 ks		e.	0	0		B. Bigar.
Havana, Cuba, W. I.	30.00	762.0	30.05	763.3	77	25.0	85	calm	0	0			10 ks		calm	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.90	759.4	29.91	759.7	76.2	24.6	85	calm	0	0		7 cs	0	w.		0	0	fair	Robert Johnstone.
Navassa, W. I.	29.83	757.7	29.91	759.7	78	25.6	86	ne.	7	3.1		8 ks	2 k	ne.	e.	2.05	52.1	fair	F. M. Everett.
Paramaribo, S. A.	29.97	761.2	29.97	761.2	82	27.8	79	e.			2	3 c	4 k	e.		0.500	12.7	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.45	748.0	30.01	762.2	76	24.4		calm					10 ks		calm	0.40	10.2	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					73.8	23.2	98	nw.			1		10 ks		nw.	0.31	8.		Earl Flint.
Santingo de Cuba, W. I.	29.92	760.0	29.94	760.5	78	25.6	78	nne.	10.8	4.8		3 c	3 s	ne.		0.10	2.5	fair	Robert Mason.
St. Thomas, W. I.‡	29.78	756.4	29.89	759.2	81	27.2	82	s.	8	3.6		1 c	3 ks	sw.	s.	0.36	9.1	clear	G. O. Gyllich.
York Factory, B. A.	29.95	760.7	30.00	762.0	21.0	— 6.1	93	n.	15	6.7		4 k	4 s	n.	n.	0.10	2.5	cloudy	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, S. 10° 40′, E. 140° 40′	29.96	761.0	78.2	25.7	79	ese.			4–6		2							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 36° 23′, W. 2° 50′	29.98	761.5	73	22.8	71	wnw.			3		3	wnw.				2	wnw.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 40° 25′, E. 29° 09′	30.22	767.6	61	16.1		ese.			3		2	se.				sm'h		d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche																			Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.01	762.2	70.5	21.4	73	se.			2		7	ese.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.96	761.0	61	16.1	94	s.			1		10							threatening.	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 39° 44, W. 1° 13′	29.84	757.9	65	18.3	89	nw.			3–5		7					5–7	nne.	showery	Comm. F. W. Egerton.
H. M. S. Coquette Gibralter, Mediterranean	29.86	758.4	71	21.7		calm			0		1	nw.				1	nw.	blue sky	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. J. A. T. Bruce.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 11′, E. 20° 28′	30.04	763.0	73	22.8		se.			1		1	calm						blue sky	Lt. Comm. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido																			Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.17	766.3	72	22.2	63	nne.			1–2		2	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	29.50	749.3	54	12.2	86	sw.			2–3		10	sw.						squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 27° 05′, E. 52° 20′	29.74	755.4	88	31.1		w.			1		c					1	w.	blue sky	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.76	755.9	86	30.0		ne.			3–5		10	e.						raining	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 18° 23′, E. 178° 33′	29.78	756.4	80	26.7	95	calm			0		4	e.						d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.78	756.4	84	28.9	83	e.			1		8	e.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Capt. R. F. Roskyn.
H. M. S. Gannet, N. 18° 00′, W. 157° 45′	29.98	761.5	76	24.4	81	e.			4		8	s.				2	nw.	d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	30.01	762.2	62	16.7	94	calm			0		10							drizzling	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Hecla																			Capt. T. L. H. Ward.
H. M. S. Humber																			Capt. J. L. Way.
H. M. S. Inconstant, N. 24° 00′, E. 146° 30′	30.00	762.0	82	27.8	78	se.			3–4		5	n.				2	se.	d. clouds	Capt. C. C. P. Fitzgerald.
H. M. S. Iris																			Capt. E. H. Seymour.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	29.95	760.7	67	19.4		calm			0									d. clouds	Capt. R. E. Tracey.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.91	759.7	80	26.7		sse.			1		1	s.						blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 34° 16′, E. 26° 00′	29.79	756.7	64	17.8		wsw.			6		7	wsw.				6	wsw.	squally	Comm. F. H. Haygorth.
H. M. S. Lark, S. 35° 41′, W. 0° 47′	30.46	773.7	57	13.9	81	se.			2		4					1	ese.	d. clouds	Lt. C. F. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, N. 21° 23′, E. 111° 09′	29.87	758.7	80.5	26.9	81	ese.			1–2		0					2	se.	misty	Lieut. A. Balfour.
H. M. S. Midge																			
H. M. S. Malabar, N. 25° 23′, E. 35° 28′	29.91	759.7	82	27.8	87	nnw.			5		1	nnw.				3	nw.	d. clouds	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotaur, Vigo, Spain	29.94	760.5	63	17.2	72	calm			0		2							d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo Chili,	30.04	763.0	56	13.3	93	calm			0		10							overcast	Comm. F. Edwards.
H. M. S. Nelson,																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	29.74	755.4	59	15.0	87	wnw.			1		9							misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 33° 13′, W. 9° 45′	30.06	763.5	68	20.0	?	ssw.			3		10					3	ssw.	showery	Capt. R. G. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	30.18	766.6	40	4.4	91	calm			0		0							blue sky	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 17° 54′, E. 67° 06′	29.84	757.9	79.3	26.3	82	ne.			2-3		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sappho, N. 37° 13′, W. 37° 08′	30.20	767.1	67	19.4	79	nne.			4		5	nne.				4	nne.	d. clouds	
H. M. S. Sea Gull,																			Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb N. 36° 08′, W. 5° 22′	30.08	764.0	73	22.8	63	ssw.			2-3		1	sse.						showery	
H. M. S. Tamar,																			Capt. T. H. Boyse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 40° 50′, W. 128° 28′	30.22	767.6	60	15.6	88	n.			4		8					4	n.	d. clouds	Capt. P. W. Stephens.
H. M. S. Thunderer, Susa, Tunis,	29.89	759.2	82	27.8	76	ne.			2		5					2		misty	Capt. C. F. Hotham.
H. M. S. Triumph, Pisco Bay, Peru	29.97	761.2	60	15.6	88	calm			0		10	calm						misty	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne,																			
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.93	760.2	77	25.0		n.			1		5							d. clouds	Com. W. S. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	30.05	763.3	65	18.3	89	calm			0		10							d. clouds	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Muscat, Arabia	29.83	757.7	89.5	31.9	66	nw.			1		0							blue sky	Capt. T. P. Nesham.
H. M. S. Wrangler																			Capt. C. R. Arbuthnot.
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.94	760.5	79.2	26.2	72	wnw.			3		0					1		blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.04	762.9	83.8	28.8	80	ene.			1		9			10 h'r	10 h'r	2	e.	showery	Carlos M. de Silva Costa.
Rio Lima,																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.92	760.0	78.8	26.0	84	e.			2		2	e.						blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.26	768.6	71	21.7	85	n.	2	0.9			5		sw.	0	0			fair	
N. Yard, Portsmouth, N. H.	29.99	761.7	61	16.1	71	calm	0	0			0			0	0			clear	
Naval Hospital, Yokohama, Japan	29.50	749.3	63	17.2	94	calm			0		2		sw.	sl't	sl't			clearing	
Adams, S. 8° 05′, W. 79° 37′	29.91	759.7	62	16.7	94	se.			4		10					sm'h		cloudy	
Alaska, Callao, Peru	29.95	760.7	60	15.6	100	sse.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.48	748.8	68	20.0	90	wnw.			2		2		ssw.			sm'h		fair	
Alliance, N. 64° 40′, W. 24° 20′	29.31	744.5	41	5.0	65	ssw.			3		8			0	0	mod.		cloudy	
Ashuelot, Kobe, Japan	29.85	758.2	66	18.9	79	nw.			1		2		calm					clear	
Colorado, New York, N. Y.	29.99	761.7	70	21.1	75	nw.	3	1.3			5?		nw.					cloudy	
Constitution, New London, Conn	29.91	759.7	66	18.9	100	nw.	1	0.4			8		w.					cloudy	
Franklin, Norfolk, Va	30.05	763.3	64	17.8	89	wsw.	6	2.7			5		w.	0	0			fair	
Galena, N. 36° 51′, E. 19° 47′	30.06	763.5	71	21.7	80	sse.			5		10		sse.			r'gh	se.	overcast	
Independence, N. Yard, Mare I'd, Cal	29.84	757.9	55	12.8	68	calm	0	0			0							clear	
Kearsarge, Hudson River, N. Y.	29.99	761.7	69	20.6	80	nw.			1		10		nnw.			sm'h		cloudy	
Lackawanna, San Francisco, Cal †	30.17	766.3	59	15.0	94	sw.			1		0							clear	
Lancaster, New York, N. Y.	29.98	761.5	71	21.7	90	w.	7	3.1			8		calm	0	0			d. clouds	
Marion, Montevideo, Uruguay	29.87	758.7	63	17.2		ese.			3		10		s.	mod.	mod.	mod.	sse.	gloomy	
Michigan, Erie, Pa	30.04	763.0	55	12.8	93	s.			1		8							fair	
Minnesota, Newport, R. I.	29.95	760.7	67	19.4	79	ne.			2		8		nw.			sm'h		fair	
Monocacy, Yokohama, Japan	29.62	752.3	66	18.9	94	nnw.			1		5		n.					fair	
Nipsic, Genoa, Italy	29.92	760.0	64	17.8	73	n.			2		10					sm'h		overcast	
Onward, Callao, Peru †	30.02	762.5	59	15.0	94	sse.			1		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.92	760.0	78	25.6	82	ese.			1		5		n;e.					fair	
Passaic, Washington, D. C.	30.07	763.8	67	19.4	95	sw.			1		8							cloudy	
Pensacola, Callao, Peru,	30.03	762.7	60	15.6	88	sse.			0–1		10			0	0			cloudy	
Portsmouth, N. 40° 15′, W. 73° 53′	29.99	761.7	68	20.0	100	wsw.			2		8		w.			sm'h		fair	
Powhatan, N. 24° 33′, W. 80° 53′	30.03	762.7	77	25.0	91	e.			4		10		e.			mod.	e.	fair	
Quinnebaug, Marseilles, France	29.91	759.7	67	19.4	84	wsw.			2		10					sm'h		cloudy	
Ranger, Mare Island, Cal. *	29.95	760.7	59	15.0	70	calm			0		0							clear	
Richmond, Panama, Panama	29.92	760.0	80	26.7	96	s.			2		5		s.	0.04	1.0	sm'h	s.	cloudy	
Saratoga, New York, N. Y.	29.96	761.0	69	20.6	100	calm			0		8			light	light	sm'h		cloudy	
Shenandoah, Montevideo, Uruguay *	30.08	704.0	62	16.7	94	se.			3		0					sm'h		clear	
St. Louis, League Island, Pa	29.77	756.1	68	20.0	74	sw.	2	0.9			8		sw.	0.22	5.6			cloudy	
Swatara, Chefoo, China †	29.96	761.0	68	20.0	79	s.			1		5		calm			sm'h		hazy	
Tennessee, N. 37° 42′, W. 75° 15′	30.11	764.8	71	21.7	100	wsw.	14	6.3			5			0.25	6.3	long	n.	fair	
Trenton, N. 28° 30′, W. 64° 34′ *	30.14	765.5	76	24.4	91	ne.			4–5		5			0	0	mod.	ne.	fair	
Vandalia, New York, N. Y.	29.99	761.7	64	17.8	?	nw.			2		8		calm					fair	
Wabash, Boston, Mass.	29.97	761.2	66	18.9	68	n.	3	1.3			8		w.	c	0			cloudy	
Wachusetts, Sitka, Alaska	30.56	776.2	37	2.8	90	n.			1		0							clear	
Wyoming, Port Royal, S. C.	30.23	767.8	71	21.7	85	nnw.	4	1.8			2		calm	0	0			clear	
Yantic, N. 37° 00′, W. 76° 00′ *	30.09	764.3	67	19.4	84	wsw.			3		5					light	ssw.	fair	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 49° 00′, W. 61° 32′ *†	29.66	753.4				wnw.	4		0					mod.	nw.	clear	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, Halifax, N. S.	29.87	758.7	63	17.2		nw.	2		0							clear	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, Agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, N. 51° 25′, W. 29° 57′ †	30.24	768.1	54	12.2	93	wsw.	4		10		wsw.			mod.	wsw.	overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 44° 34′, W. 57° 52′ †	29.75	755.6	64	17.8	73	w.	3		8		nw.	light	light	sm'h	w.	cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Philadelphia, Penn.			68	20.0	94	w.	1		8		nw.					rainy	
S. S. Pennsylvania, Capt. G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, Capt. E. J. Moloney																	
Bq. Caldew, Capt. N. W. Petersen S. 53° 30′, W. 63° 49′	29.90	759.4	40	4.4		sw.	4		8							misty	
S. S. Clipero, Capt. W. N. Lailey, Roman River, Honduras, C. A.	29.93	760.2	76.5	24.7	95	sw.	2		6					4	ne.	d. clouds	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton,																	
S. S. Gordon Castle, Capt. W. Waring, N. 12° 33′, E. 48° 37′	29.81	757.2	90.5	32.5	66	ne.	1–2		1							blue sky	
Bg. Hermine, Capt. S. G. Jones, S. 27° 35′, W. 42° 21′	30.10	764.5	69.3	20.7	75	ne.	3		9							overcast	
Bkt. Hope, Capt. Jas. Campbelle, N. 39° 54′, W. 25° 05′ ‡	30.50	774.7	64.7	18.2	94	nne.	3–4		7							d. clouds	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 23° 10′, E. 84° 00′	30.11	764.8	66.3	19.1	68	s.	4		4							d. clouds	
Bk. Mertola, Capt. E. W. Turner N. 47° 43′, W. 13° 26′	30.26	768.6	57.5	14.2	81	nnw.	6		10							overcast	
Bk. Moorhill, Capt. J. Brown,																	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renaut, S. 44° 57′, E. 95° 03′	30.31	769.9	46	7.8	69	nne.	4		0							blue sky	
Queen of Cambria, Capt. M. Parry N. 2° 53′, W. 23° 04′	29.97	761.2	82.5	28.1	74	se.	3		10							overcast	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. N. Gray, ‡ N. 39° 19′, W. 34° 12′	30.47	773.9	68.0	20.0	84	ese.	3–4		3							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson N. 35° 26′, E. 139° 41′	29.55	750.6	64.0	17.8	94	nw.	2		6							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
S. S. Wyberton, Capt R. J. Blacklin S. 7° 47′, E. 72° 54′	29.71	754.6	83.5	28.6		ene.	3		3							d. clouds	
CALIFORNIA, AND MEXICAN S.S. CO.																	
J. Birmingham, Agent San Francisco.																	
S. S. Newbern, Capt. E. Rogers N. 29° 28′, W. 116° 50′ †	29.92	760.0	64	17.8	83	n.	2		1		nw.	0	0	g'tl	wnw	clear	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., Agents, New York.																	
S. S. Gallia, Capt. W. H. P. Hains, Off Queenstown, Ireland	30.03	762.7	60	15.6		w.											J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD.																	
A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.																	
Braunschweig, Capt. C. Pohle N. 45° 17′, W. 54° 53′	29.66	753.4	58.0	14.4	82	w.	6		2		w.			sm'h		fair	
S. S. Hermann, Capt. H. Baur N. 49° 12′, W. 18° 58′	30.39	771.9	57.2	14.0		nw.	6		8		n.	0	0	mod.	nw.	fine	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jungst, S. 40° 49′, W. 65° 39′	30.00	762.0	64.0	17.8	97	w.	4		10		n; w.	0	0	sm'h	w.	cloudy	T. Jüngst.
S. S. Leipsic, Capt. F. Pfeiffer, N. 50° 15′, W. 11° 22′	30.14	765.5	59.0	15.0	70	nnw.	6		8		n.	6 h'r	6 h'r	cross	n.	drizzling	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche,																	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, Yokohama, Japan †	29.78	756.4	66	18.9	84	calm	0		1		ne.	0	0	sm'h			J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 36° 20′, E. 143° 14′ *†	29.62	752.3	72	22.2	90	sw.	8		9		nw.			high	sw.	gloomy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 37° 23′, W. 124° 11′	30.05	763.3	54	12.2	100	nw.	5		3		nw.	0	0	mod.	nw.	fine	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Oterendorp, Agent, San Francisco.																	
S. S. City of Chester, Capt. G. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles,																	
S. S. Oregon, Capt. Polemann, Po tland, Oregon †	30.19	766.8	49	9.4	93	calm	0		10		e.					covered	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.				Character.	Direction.		
								Up'er	Lo'er	Upper.	Lower.						
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 33° 36′, W. 118° 07′ †.	29.94	760.5	63	17.2	83	nw.	3		10		w.			sm'h		cloudy	J. W. Ingalls.
S. S. Dakota, Capt. ——,																	
S. S. Idaho, Capt. T. Huntington, Irondale, Washington Ter. †.	30.22	767.6	48	8.9	92	nw.	3		10		nw.					cloudy	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,																	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 36° 15′, W. 121° 53′ †.	29.93	760.2	54	12.2	93	nw.	2		0					mod.		clear	T. Wallace.
S. S. State of California, Capt. Debney, N. 40° 26′, W. 124° 30′ †.	30.01	762.2	53	11.7	93	nw.	5		5		nw.			short	nw.	fair	G. Debney.
S. S. Victoria, H. M. Hayward, N. 39° 11′, W. 124° 00′ †.	30.06	763.5	56	13.3	81	nw.	4		0					light	w.	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——,																	U. Bannermann, 2d Offi.
S. S. City of New York, Capt. W. B. Cobb, S. 34° 10′, E. 169° 28′ †.	30.15	765.8	63	17.2	94	s.	6		10		s.			h'vy	s.	cloudy	W. H. Hawes, 2d Offi.
S. S. City of Panama. Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, Hong Kong, China *†.	30.04	763.0	79	26.1	82	e.	2		2		e.			sm'h		clear	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 22° 54′, W. 108° 21′ †.	29.87	758.7	82	27.8	91	e.	1		8		ne.	0	0	sm'h	n.	cloudy	
S. S. City of Sydney, Capt. H. C. Dearborn, S. 7° 29′, W. 168° 19′ *†.	29.68	753.9	80	26.7	74	ese.	3		5		se.	0	0	long	se.	fair	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 41° 00′, W. 162° 21′ †.	29.79	756.7	66	18.9	84	s.	4		10		se.			mod.	se.	cloudy	A. L. Ritchie, 2d Offi.
S. S. Colima, R. R. Searle Panama, Panama †.	29.94	760.5	80	26.7	?	sw.	3		7		s.	0	0	mod.	s.	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 17° 50′, W. 102° 35′ †.	29.86	758.4	82	27.8	83	nne.	2		2		calm	4 h'r	4 h'r	small	sse.	clear	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.09	764.3	67	19.4	84	wnw.	2–4		2?		nw.					cloudy?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Feddersen, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, N. 40° 35′, W. 70° 45′ †.	30.09	764.3	60	15.6	88	wsw.	2		10		e.	0.25	6.3	high	e.	dull	C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings New York, N. Y †.	29.97	761.2	65	18.3		w.	3		8		w.	sh's	sh's			fair	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 40° 21′, W. 68° 40′ †.	30.10	764.5	64	17.8	78	wsw.	3		8		sw.	0	0	sm'h		fair	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 51° 18′, W. 24° 35′ †.	30.51	774.9	50	10.0	93	wnw.	6		10		w.	driz.	driz.	mod.	wsw.	raining	W. A. Ward.
S. S. Republic, Capt. P. J. Irving																	
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Off New York, N. Y †.	30.13	765.3	69	20.6	?	wsw.	1	4 k	5 n			0	0			fair	
Golden Fleece																	
Hassler Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	
S. Pawashick, Capt. E. Fry, N. 37° 07′, W. 1° 07′ *†.	29.91	759.7	68	20.0	95	nw.	2		1		nw.			sm'h	sw.	fine	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz Off Cape Henlopen, Del. †.	30.30	769.6	69	20.6		w.	2		2		nw.			mod.	sse.	fair	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, N. 37° 51′, W 13° 10′ †.	30.22	767.6	66	18.9	68	n.	6		10		n.	0	0	r'gh	n.	cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

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Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 10, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.01	762.3	69.8	21.0	94	sw.			2		3			1.555	39.5	pretty fair...	Moiroud.
Algiers ‡			29.94	760.5	72.0	22.2	83	nne.			6		10			1.984	50.4	covered.....	Nicolas.
La Calle ‡			29.91	759.6	73.8	23.2	87	n.			1		4			1.614	41.0	cloudy.....	Fonfréde.
Tunis ‡			29.88	758.9															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.00	762.1	59.0	15.0	85	nw.			1		3			0.020	0.5	pretty fair...	Dumas.
Tebessa ‡			30.00	762.0	55.8	13.2	85	nw.			2		4			0	0	cloudy.....	Derché.
Geriville ‡					57.9	14.4	55	n.			7		5			0.055	1.4	cloudy.....	Lonchamp.
Laghouat ‡			30.02	762.6	66.6	19.2	31	ne.			4		3			inap.	inap.	pretty fair...	Herbin.
Biskra ‡			30.00	762.1	69.8	21.0	46	nnw.			3		10			0	0	covered.....	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.85	758.2	29.94	760.5	56.0	13.3	86	nne.	6	2.7			10			0.02	0.5	showery.....	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.40	746.8	29.95	760.8	51.8	11.0	84	ne.			3		10			1.134	28.8	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.25	743.0	30.02	762.5	54.7	12.6	61	w.	3.1	1.4			1			0	0		Dr. Wiersbicki.
Eperies	29.10	739.0	29.97	761.3	52.9	11.6	78	calm			0		10 s			0.016	0.4		Julius Mikolik.
Gratz ‡	28.77	730.7	30.03	762.7	49.6	9.8	92	wsw.			2		10			0.394	10.0		Andreas Rospini.
Hermannstadt	28.55	725.2	29.96	760.9	60.4	15.8	40	sse.			5		0			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.68	728.5	30.03	762.8	50.5	10.3	78	calm			0		10			0	0	gloomy.....	The Staff.
Lemberg	29.00	736.5	29.97	761.3	57.9	14.4	64	nw.			2		6			0	0		Dr. T. Stanecki.
Pola	29.73	755.1	29.84	757.9	56.1	13.4	78	ene.			4		10			0.335	8.5		I. R. Hydrographic Office.
Szathmar	29.50	749.3	29.96	760.9	63.3	17.4	42	nw.			2		0			0	0		Jozsef Midlinszky, S. J.
Szegedin	29.65	753.2	29.93	760.2	63.3	17.4	61	s.			2		4			0	0		Karl Stancel.
Trieste	29.78	756.5	29.89	759.1	57.1	14.0	85	ene.			4		10			0.071	1.8		Rieder.
Vienna	29.32	744.7	30.04	763.0	54.0	12.8	61	calm			0		10			0.173	4.4		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.44	747.8	29.54	750.3	54.0	12.2	68	wsw.	11	4.9			9			0.040	1.0	overcast	W. Boswell.
Armagh, Observatory	29.66	753.4	29.90	759.4	53.0	11.7	79	sw.	11	4.9			10					overcast	S. Call.
Bidston, Liverpool Obs'y			29.90	759.4	55.0	12.8	79	wsw.	35	15.6			9					overcast	John Hartnup.
Bolton, Sharples	29.36	745.7	29.89	759.2	50.9	10.5	93	wsw.	18	8.0			10					raining	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.44	747.8	29.84	757.9	52.1	11.2	85	w.			3		10			0.10	2.5	raining	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.97	761.2	53.2	11.8	87	w.			1.0		7					d clouds	John McLaren.
Chatham, School M. E.	29.93	760.2	30.06	763.5	53.6	12.0	74	nw.			1		10					gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.93	760.2	30.16	766.1	57.5	14.2	69	w.			4		9					overcast	The Staff.
Fort Napier, Natal	27.47	697.7	29.68	753.9	58.1	14.5	87	se.			4		9					overcast	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.72	754.9	29.95	760.7	88.0	31.1	66	sw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.92	760.0	58	14.4	76	w.			3		10					showery	J. O'Donaghue.
Gibraltar, Mediterranean	30.04	763.0	30.10	764.5	74.5	23.6	88	sw.			3		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.48	748.8	29.69	754.1	54.0	12.2	77	w.			8		7					squally	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.87	758.7	30.04	763.0	53.4	11.9	73	sw.			2		9					light clouds	The Staff.
Guernsey	29.92	760.0	30.14	765.5	58	14.4	67	wnw.			3		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.02	762.5	30.05	763.3	54.1	12.3	60	sw.	12	5.4			9					threatening	The Staff.
Leicester, Museum	29.69	754.1	29.95	760.7	53.7	12.1	76	sw.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.70	754.4	29.78	756.4	77.0	25.0	73	nw.			2		3			0.23	5.8	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.96	761.0	30.01	762.2	79.0	26.1	73	ne.			3		6					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.44	747.8	29.97	761.2	52.4	11.3	86	sw.			3		10					overcast	John Mac Email.
Oxford, Radcliffe Obs'y	29.79	756.7	30.02	762.5	55.3	12.9	68	wsw.			6		6					squally	The Staff.
Plymouth	30.06	763.5	30.13	765.3	55.3	12.9	86	wsw.			2		10					misty	John Merrifield.
Sandwick Manse, Orkneys			29.39	746.5	52	11.1	79	w.	35	15.6			3					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.92	760.0	29.98	761.5	70.8	21.6	43	ne.			2		1					blue sky	Serg't W. H. Lyne.
Sheffield	29.62	752.3	29.90	759.4	53.9	12.2	90	wsw.			3		8			0	0	overcast	W. F. Cooper.
Silloth Rectory	29.75	755.6	29.78	756.4	54.1	12.3	80	wsw.			5		7			0.232	5.9	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.88	758.9	51.8	11.0	85	w.	22	9.8			10					threatening	Rev. S. J. Perry.
Stratfield Turgiss	29.84	757.9	30.06	763.5	56.7	13.7	71	w.			4		10					squally	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.11	764.8	30.15	765.8	61	16.1	70	w.			7		5					d. clouds	W. Newcombe.
Valencia, Observatory	30.08	764.0	30.11	764.8	54.9	12.7	79	wsw.	22	9.8			10			blank	blank	squally	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.82	757.4	29.86	758.4	52	11.1	92	sse.	10	4.5		0	0			0	0	clear	H. J. Cundall, C. E.
Chatham, N. B.*	29.84	757.9	29.90	759.4	43	6.1	96	nw.	11	4.9			10 n		nw.	0.03	0.8	light rain	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.00	762.0	30.02	762.5	37	2.8	61	n.	18	8.0			10 s		n.	0.01	0.3	threatening	J. McWilliams.
Fort Garry, Manitoba*	29.63	752.6	30.52	775.2	19	— 7.2	95	sw.	1	0.4		2 cs	5 s	sw.	sw.	0	0	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.79	756.7	29.92	760.0	46	7.8	96	calm	0	0		2 c	hz.			0	0	hazy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.83	757.7	30.17	766.3	41	5.0	79	n.	8	3.6			10 s		n.	0	0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.92	760.2	30.13	765.3	39	3.9	70	n.	7	3.1		10 k	0	w.		0.01	0.3	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.63	752.6	30.36	771.1	33	0.6	89	n.	14	6.3		2 k	2 ks	n.	n.	0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.56	750.8	30.27	768.8	44	6.7	92	nw.	7	3.1		0	0			0	0	clear	H. Morgan.
Port Stanley, Ontario	29.63	752.6	30.29	769.4	43	6.1	79	nw.	8	3.6		8 k	0	nw.		0	0	cloudy	M. Payne.
Quebec, Quebec*	29.71	754.6	30.04	763.0	38	3.3	61	ne.			3		10 n		n.	0.16	4.1	light snow	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.81	757.2	30.29	769.4	32	0.0	71	nw.	4	1.8		0	5 ks		nw.	0	0	fair	W. H. McIntyre.
Saugeen, Ontario*	29.48†	748.8†	30.21†	767.3†	41	5.0	86	n.	35	15.6			10 ks			0.05	1.3	cloudy	K. Stewart.
St. Andrews, N. B.	29.81	757.2	29.86	758.4	47	8.3	92	nw.	1	0.4		2 k	2 ks	nw.		0	0	fair	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.89	759.2	29.95	760.7	46	7.8	93	calm	0	0		8 c	0	sw.		0	0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.85	758.2	30.24	768.1	44	6.7	76	nw.	24	10.7			10 ks		n.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.83	757.7	29.90	759.4	49	9.4	96	calm	0	0		2 ck	0	w.		0	0	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.85	758.2	30.10	764.5	52	11.1	96	sw.				0	0			0.05	1.3		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	29.98	761.5	30.01	762.2	60.0	15.6	82	ssw.	4.1	1.8		0	7 n			0.310	7.9	showery	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.23	742.4			61.9	16.6	51	sse.			1	4	4			0	0	cloudy	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Decheyrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.93	760.1	29.95	760.7	68.2	20.1	99		1.8	0.8			10 n			1.390	35.3	raining	M. Marc Decheyrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.60	751.8	29.65	753.0	51.6	10.9	68	wnw.	27	12			6					raining	Oversergent Fischer.
Fanöe	29.67	753.6	29.69	754.1	52.7	11.5	69	w.			6		7						Overloerer Lauridsen.
Godthaab, Greenland	29.37	746.0	29.41	747.1	18.7	—7.4	81	ene.			4		0						S. Kleinschmidt.
Stykkisholm, Iceland	29.05	737.9	29.10	739.0	37.0	2.8	96	se.			4		10					raining	A. O. Thorlacius.
Thorshavn	29.22	742.1	29.25	743.0	47.3	8.5	69	se.	18	8			3						Overloerer Bergh.
Vestervig	29.47	748.4	29.56	750.7	50.7	10.4	72	w.			6		3						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.56	750.7	30.21	767.2	56.8	13.8	67	nnw.			2		10 kn		nw.			covered	M. Labroue, Director.
Alençon Normal School	29.70	754.4	30.31	769.8	55.4	13	95	nw.			2		k		se.	0	0		M. Nicot, Director.
Arras, Engineer School	29.82	757.4	30.08	764.0	52.7	11.5	59	nw.				ck	0	nw.					M. Klein, Commandant.
Avignon, Normal School	29.88	759.0	29.96	761.0	63.0	17.2	49	n.			4		0			0.094	2.4	clear	M. Giraud, Director.
Bar-sur-Seine	29.59	751.6	30.15	765.8	53.6	12.0	60	nne.			1		8		n.	0.024	0.6	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.89	759.1	30.15	765.9	55.0	12.8	55	wnw.			1		8		nw.	0.12	3.	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.26	743.1	30.17	766.2	50.0	10	74	ssw.			1		5 cn			0	0	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.97	761.2	30.23	767.8	60.6	15.9	57	n.			1		8			0.185	4.7	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.64	752.9	30.17	766.4	56.3	13.5	61	n.			2	ck	0	n.		0	0		M. Postel, Director.
Brest, Naval Observatory	30.00	762.0	30.24	768.1	63.3	17.4	73	nw.			1		7		nw.	0.079	2.0		M. de Kermaree, Dir.
Caen, Normal School	30.15	765.8	30.22	767.6	57.6	14.2	73	w.			1		2		w.	0.08	2.	slightly cl'dy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.76	755.8	30.08	763.9	57.0	13.9	64	w.			2		5		n.	0.039	1.0	cloudy	M. Jadot, Director.
Charleville, Normal School	29.58	751.4	30.10	764.6	55.0	12.8	88	w.			1		2			0.110	2.8		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.76	730.4	30.12	765.0	53.6	12.0	63	n.			1		8		n.	0.091	2.3	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.28	743.8	30.13	765.2	57.9	14.4	58	nw.			2		3		nnw.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.25	742.9	30.16	766.1	53.1	11.7	57	w.			1		5 kn	w.	w.	0.020	0.5	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.42	696.5	29.93	760.2	56.1	13.4	62	nw.			6	1 c	0	se.		0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.84	732.4	29.98	761.4	64.2	17.9	39	nw.			2		2		nw.	0.098	2.5	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.24	742.7	30.00	762.0	58.6	14.8	54	nne.			3		k			0.106	2.7		M. Ablard, Director.
Guéret, Normal School	28.58	725.8	30.17	766.3	50.9	10.5	75	ne.			1		5 kn		sw.	0	0	cloudy	M. Rivoire, Director.
Lamballe, Normal School	29.93	760.3	30.21	767.3	56.8	13.8	69	sw.			2		5 k		sw.	0.12	3.	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.76	755.9	30.33	770.3	59.4	15.2	58	nw.			1					0.04	1.		M. Chauvin, Director.
Lorient, Naval Observatory	30.17	766.3	30.27	768.9	61.7	16.5	75	wnw.			1		8		nw.	0.020	0.5	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.05	737.9	30.11	764.9	53.6	12.0	74	n.			2		10 n		n.	0	0	covered	M. André, Director.
Mans, Normal School	29.90	759.5	30.29	769.4	55.2	12.9	56	w.			1		5		n.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.63	752.6	29.90	759.4	65.3	18.5	53	nw.			3.4		0			0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.85	631.2	30.09	764.2	50.9	10.5	35	nw.	3.8	1.7			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.85	758.1	29.95	760.8	68.7	20.4	58	nw.			3		2		nw.			slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.35	745.5	30.12	765.1	51.8	11	52	wnw.			1		2 k			0.350	8.9	slightly cl'dy	M. Hasse.
Nantes, Observatory	30.12	765.1	30.28	769.2	60.3	15.7	57	nw.			2-3	ck	9 k		nw.	0.059	1.5		M. Larocque, Director.
Nice	29.79	756.6	29.82	757.4	68.0	20.0	62	se.			2	1	1	se.	se.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	29.93	760.1	30.03	762.8	61.2	16.2	48	nw.	44.7	20.0			1		nw.	0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					57.2	14	78	calm			0		2	n.		0	0	slightly cl'dy	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.20	640.1			33.6	0.9	100	n.			3		8			0.307	7.8	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.21	767.3	30.24	768.1	60.3	15.7	72	n.			1		5		nne.	0.004	0.1	¼ covered	Lt. E. Decante, Dirc'tor.
Roche-sur-Yon, N. School	29.98	761.6	30.20	767.0	57.2	14	67	n.			1		5			0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School	27.93	709.4	30.08	764.1	53.2	11.8	78	nw.			2		10		n.	0	0	covered	M. Richard, Director.
Rouen, Normal School	30.02	762.5	30.11	764.7	55.8	13.2	55	nw.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School	30.04	762.9	30.19	766.9	56.5	13.6	77	nw.			2		5		nw.	0.020	0.5	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	30.00	762.0	30.17	766.2	55.6	13.1	52	nw.			2		6	n.	nw.	0.067	1.7		M. Renou, Director.
Toulouse, Observatory	29.50	749.2	30.22	767.7	52.3	11.3	95	nw.			4		10			0.106	2.7	covered	M Bailland, Director.
Tours	29.97	761.1	30.16	766.1	57.9	14.4	55	n.			1		8	calm	n.	0.024	0.6	¾ covered	M. de Tastes.
Versailles, Observatory	29.67	753.6	30.17	766.2	55.8	13.2	52	nw.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.89	759.1	30.18	766.5	53.6	12.0	51	nw.			1		6		wsw.	0.039	1.0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.20	741.6	30.06	763.5	50.0	10.0	77	w.			2		5 k	w.		0.047	1.2	raining	Prof. Dr. Hoh.
Berlin	29.71	754.7	29.89	759.1	55.0	12.8	66	sw.			2		6			0.043	1.1	raining	Prof. Dr. Arndt.
Breslau	29.46	748.2	29.99	761.7	57.0	13.9	50	sw.			3		3	w.		0.161	4.1		Royal University Obs'y.
Carlsruhe	29.64	752.9	30.08	763.9	50.9	10.5	88	ssw.			1		2	nw.		0	0		Albert Senz.
Cassel	29.24	742.8	29.96	761.0	51.4	10.8	65	w.			3		7	sw.		0.272	6.9		Dr. H. Mohl.
Frankfort on the Main	29.67	753.7	30.04	763.0	54.0	12.2	61	w.			1		4			0.126	3.2		Physical Society.
Friedrichshafen	28.62	727.0	30.06	763.5	53.6	12.0	68	sw.			2		10	sw.		0	0		Wilhelm, Chief Tel.
Hamburg	29.76	755.8	29.85	758.2	47.1	8.4	87	wsw.			4		6			0.488	12.4	squally	E. Preller.
Kiel	29.73	755.2	29.75	755.6	51.1	10.6	70	w.			6		4			0.602	15.3		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.51	749.5	29.93	760.2	52.2	11.2	68	sw.			4		7	sw.		0.177	4.5		H. Leppig, Asst.
Magdeburg	29.72	754.8	29.91	759.6	54.0	12.2	67	sw.			5	0	5 k		sw.	0.240	6.1		Dr. Assmann.
Memel	29.74	755.5	29.79	756.7	52.3	11.3	73	sw.			6		10 k						Issermann.
Munich	28.21	716.5	30.08	763.9	52.3	11.3	56	calm			0		3	sw.		0.031	0.8		Central Station.
Neufahrwasser	29.82	757.3	29.83	757.7	55.4	13.0	55	sw.			5		9			0.012	0.3		A. Lothes.
Neustadt, Palatinate	29.49	749.1	30.02	762.5	55.8	13.2	55	w.			1		6	w.		0.020	0.5		Dicknether.
Stuttgart	29.11	739.3	30.01	762.3	47.7	8.7	81	e.			1		9	w.		0	0	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.58	725.9	30.11	764.8	46.4	8.0	86	w.			2		10	w.		0	0		Fischer.
Wustrow	29.72	755.0	29.75	755.7	49.1	9.5	87	sw.			5		10 ks			0.138	3.5		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	OBSERVERS.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.63	752.7	30.02	762.5	68.4	20.2		ne.			0.5		9			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.79	756.6	29.84	758.0	83.2	28.4	78	sw.	22.0	9.8			0			0	0	blue sky	
Deesa	29.37	745.9	29.84	757.8	88.3	31.3	49	sw.	5.0	2.2			0			0	0	blue sky	
Bombay	29.81	757.2	29.85	758.2	81.8	27.7	84	nw.	15.0	6.7			0			0	0	blue sky	
Poona, Yarrowda.	27.98	710.7	29.81	757.2	85.4	29.7	47	nnw.	13.0	5.8			8	w.		0	0	d. clouds	
Belgaum	27.30	693.4	29.81	757.2	80.8	27.1	48	nw.	5.0	2.2			6	e.		0	0	d. clouds	
Lahore	28.99	736.3	29.72	754.8	88.1	31.2	45	se.	1.3	0.6			0			0	0	blue sky	
Roorkee	28.84	732.4	29.73	755.0	82.8	28.2	61	calm	1.4	0.6			0			0	0		
Agra	29.21	741.8	29.76	755.9	91.2	32.9	33	nw.	5.8	2.6			0			0	0		
Nagpur	28.74	730.0	29.77	756.2	85.5	29.7	33	n.	4.5	2.0			0			0	0	blue sky	
Jubbulpore	28.43	722.0	29.76	756.0	87.0	30.6	62	n.	2.2	1.0			0			0	0	blue sky	
Lucknow	29.36	745.8	29.73	755.2	85.7	29.8	55	calm	0.8	0.4			0			0	0	blue sky	
Allahabad	29.41	747.0	29.72	754.8	81.5	27.5	83	calm	0.5	0.2			0			0	0	blue sky	
Patna	29.56	750.7	29.74	755.3	80.6	27.0	75	n.	0.7	0.3			2	n.	n.	0	0		
Hazaribagh	27.73	704.4	29.74	755.4	77.6	25.3	76	nnw.	3.6	1.6			2			0	0		
Cuttack	29.67	753.5	29.75	755.6	80.0	26.7	86	ene.	0.1	0.04			10					drizzling	
Calcutta, Alipore	29.69	754.1	29.71	754.7	81.0	27.2	89	calm	0	0			7			0.02	0.5	d. clouds	
Dhubri	29.60	752.0	29.73	755.0	76.0	24.4	93	ese.	0.8	0.4			10			0.20	5.1	thund'r st'm.	
Goalpara																			
Chittagong	29.64	752.9	29.73	755.2	82.7	28.2	85	se.	2.5	1.1			8			0	0	d. clouds	
Sibsagar	29.40	746.8	29.74	755.3	79.9	26.6	91	ene.	2.1	0.9			2			0.58	14.7	blue sky	
Jeypore	28.28	718.2	29.69	754.0	90.7	32.6	22	nw.	7.0	3.1			0			0	0	blue sky	
Zanzibar, Africa			29.92	760.0	81.4	27.4	67	w.	3	1.3			2			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.52	749.8	29.93	760.2	58.1	14.5	77	calm	0	0			10			0.240	6.1		Prof. Giovanni Clodig.
Milan	29.41	746.9	29.91	759.6	62.2	16.8	76	e.	1.8	0.8			7	ese.		0	0		Prof. Schiaparelli.
Padua	29.79	756.6	29.90	759.4	60.6	15.9	71	ne.	15.0	6.7			10	ne.		0.106	2.7		Prof. Dott. Lorenzoni.
Moncalieri	29.01	736.8	29.91	759.8	61.0	16.1	76	wsw.	1.3	0.6			7			0	0		Prof. P. F. Denza.
Genoa	29.67	753.5	29.85	758.3	63.5	17.5	61	n.	8.1	3.6			2	w.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.00	711.3	29.93	760.1	54.7	12.6	83	wnw.			2		2	w.		0	0		Prof. D. C. Bruno.
Pesaro	29.79	756.7	29.84	757.9	60.4	15.8	89	ne.	6.9	3.1			10	n.		0.236	6.0		Prof. Luigi Guidi.
Florence	29.54	750.3	29.79	756.7	68.0	20.0	61	n.			4		5	ne.		0	0		Prof. Costantino Pitter.
Leghorn	29.73	755.2	29.82	757.4	73.2	22.9	55	nw.	0.7	0.3			10			0	0		Prof. P. Monte.
Rome	29.60	751.8	29.77	756.2	68.4	20 2	73	nw.	8.7	3.9			10			0.319	8.1		Prof. P. S. Ferrari.
Lecce	29.59	751.6	29.84	757.9	65.8	18.8	83	ssw.	24.2	10.8			10	s.		0.024	0.6		Prof. O. de Giorgi.
Cosenza	28.93	734.8	29.81	757.1	68.7	20.4	63	ese.	4.3	1.9			9	se.		0	0		Prof. D. Conti.
Cagliari	29.61	752.2	29.80	756.9	71.6	22.0	60	nw.			2		6	ne.		0	0		Prof. A. Pacinotti.
Palermo	29.58	751.4	29.83	757.6	71.1	21.7	57	ne.	2.5	1.1			8			0.272	6.9		Prof. G. Cincciatore.
Syracuse	29.73	755.2	29.78	756.3	70.5	21.4	81	ese.	4.3	1.9			10	ese.		1.803	45.8		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.24	742.6	29.76	755.9	66.6	19 2	85	wsw.	0.7	0.3			10	s.		1.378	35.0		Prof. F. Brioschi.
Stelvio	22.13	562.0			35.4	1.9	65	se.			1		3 ks	se.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.19	563.5			37.4	3.0	64	n.			2		4 k	n.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.94	760.5	29.96	769.0	60.6	15.9	87	nne.	6.8	3.0		ck	9 s			0	0	very cloudy	K. Sasaki.
Kioto	29.83	757.7	30.00	762.0	55.9	13.3	88	nnw.	1.5	0.7		ck;cs	6 s			0	0	fair	M. Tojima.
Nagasaki, I. M. Obs'y	29.80	756.9	30.00	762.0	63.5	17.5	70	ne.	2.6	1.2		1 cs	0			0	0	clear	S. Takehayashi.
Nemuro	29.54	750.3	29.61	752.1	51.9	15.1	75	n.	43.8	19.6		0	1			0	0		
Niigata	29.97	761.2	30.01	762.2	55.5	13.1	94	wsw.	1.0	0.4		10	0			0	0	cloudy	
Nobiru	29.85	758.2	29.87	758.7	60.1	15.6	71	nnw.	28.9	12.9		0	0			0	0		
Supporo	29.72	754.9	29.79	756.6	53.2	11.8	83	nnw.	6.6	2.9			4			1.935	49.2		
Tokei Obs'y, Yeddo	29.84	757.9	29.91	759.7	59.3	15.2	62	nw.	6.3	2.8		7 c;cs	0	w.		0	0	fair	The Staff.
Wakayama	29.92	759.9	29.98	761.5	63.6	17.6	92	ne.	3.8	1.7		10 ck	0			0	0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.98	761.5	30.17	766.3	74.0	23.3	60	e.	24.0	10.7		1 cs	5 k;ks		ese.	0.13	3.3	fair	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.71	602.2	29.93	760.2	61.9	16.6	86	calm	0	0		1 k	2 s		n.	inap.	inap.	clear	Vicente Fernandez.
Leon	24.45	621.0	30.09	764.3	62.6	17.0	87	w.			1	2 c	1 k			0	0	clear	Prof. M. Leal.
Mazatlan	29.64	752.8	29.90	759.3	79.0	26.1	89	e.	0.9	0.4		8 cs	1 k	ne.		0	0	very cloudy	F. Quijano, U. E.
Mexico, Central Obs'y	23.12	587.4	30.13	765.4	58.3	14.6	77	n.	3.8	1.7		1 c	9 k		ne.	0.091	2.3	covered	The Staff.
Morelia	24.01	610.0	30.11	764.8	60.8	16.0	76	ese.			1	2	2	s.	se.	0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.97	608.8	29.95	760.7	59.5	15.3	80	calm			0	5 c	1 s	sse.		0	0	½ cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	595.0	30.14	765.6	58.3	14.6	60	calm	0	0		10			e.	0	0	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.05	763.3	30.05	763.3	55.4	13.0		w.			4					0.118	3.0		
Groningen	29.84	757.9	29.89	759.3	51.8	11.0		w.			4					0.118	3.0		
Helder	29.91	759.7	29.91	759.7	52.3	11.3		wsw.			4					0	0		
Hellevoetsluis	30.01	762.2	30.01	762.2	53.4	11.9	83	w.			4					0.197	5.0		
Utrecht	29.95	760.6	29.99	761.8	54.3	12.4	67	w.			3		5			0.067	1.7	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.25	743.0	29.32	744.6	48.6	9.2	56	calm	0	0			6			2.134	54.2		
Christiania	28.99	736.3	29.13	739.9	50.5	10.3	75	wsw.	4	2			9			0.390	9.9		
Gjesvær	29.16	740.7	29.19	741.3	39.9	4.4		e.			6		10						
Lodingen	28.88	733.5	28.93	734.7	44.8	7.1	85	nne.			4		10			0.746	19.4	raining	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.36	771.1	30.51	775.0	68.4	20.2	80	ene.	3.1	1.4			4			0	0		Dr. J. A. Sampaio.
Campo Major	29.14	740.2	30.11	764.9	74.8	23.8	40	nne.	6.3	2.8			2			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.17	766.2	30.25	768.4	71.4	21.9	58	sw.	2.0	0.9			9			0.016	0.4		Capt. D. A. de Cunha.
Lisbon, Observatory	29.83	757.7	30.18	766.6	72.3	22.4	38	nne.	18.1	8.1			3	nnw.		0	0		The Staff.
Ponta Delgada, Azores	30.45	773.3	30.48	774.1	72.0	22.2	62	ne.	5.6	2.5			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.19	741.4	30.30	769.6	41.4	5.2	72	wsw.	9	4		3 c	0						Capt. Lasarew.
Archangel	29.65	753.1	29.67	753.6	47.3	8.5	88	s.	9	4		0	8 ks						Capt. Sselliwerstow.
Astrakhan	30.45	773.3	30.36	771.2	52.5	11.4	42	ese.	4	2		0	0						Capt. Wisganow.
Barnaul ‡	29.48	748.8	29.99	761.8	43.5	6.4	47	sw.	13	6			10						Meteorological Obs'y.
Dorpat	29.47	748.4	29.71	754.6	52.7	11.5	65	sw.	11	5		0	8 k						Observatory.
Ekaterinburg	29.09	738.9	30.07	763.7	42.6	5.9	79	w.	7	3			10						Meteorological Obs'y.
Kasan	29.91	759.8	30.19	766.9	45.5	7.5	86	sw.	2	1			10						Observatory.
Kertch	30.12	765.0	30.14	765.5	56.7	13.7	75	se.	4	2		0	0			0	0		Lagorio & Sastyrez.
Kieff	29.45	748.0	30.08	764.1	60.6	15.9	34	s.	9	4		0	0						Observatory.
Lugan	30.06	763.4	30.26	768.5	59.2	15.1	46	ese.	18	8			0						Meteorological Obs'y.
Moscow	29.56	750.7	30.02	762.6	60.6	15.9	45	s.	7.8	3.5		0	0						Meteorological Obs'y.
Nikolaiev	30.12	765.0	30.19	766.8	55.6	13.1	44	ene.	4	2		0	0						Capt. Kurdiakow.
Nikolaievsk, on the Amoor	29.65	753.0	29.73	755.2	48.4	9.1	87	e.			3		10 s			0	0		Lieut. Iwanow.
Pekin, China	29.84	758.0	29.98	761.6	65.3	18.5	87	calm	0	0		0	8 n			0	0	lunar corona	Physical Observatory.
St. Petersburg	29.63	752.7	29.65	753.1	55.0	12.8	62	ssw.	22	10			7 n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.60	726.5	30.21	767.4	46.0	7.8	94	calm	0	0			10			0.087	2.2		Teich, A. M.
Tiflis	28.85	732.8	30.27	768.9	56.5	13.6	51	se.	2	1			10 ks						Physical Observatory.
Warsaw	29.54	750.4	29.97	761.1	67.3	19.6	56	wsw.	9	4		1 ck	0						Astronomical Obs'y.
Wilna	29.49	749.0	29.95	760.6	52.5	11.4	73	s.	9	4			6						Berg, Assistant.
Yeniseisk	29.59	751.6	29.89	759.1	35.4	1.9	71	ssw.	4	2			7						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.66	753.4	55.1	12.8	77	w.			6		10 k			0.01	0.3	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.47	748.5	54	12.2	93	sw.			7		10					showery	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.87	758.6	29.97	761.2	65.7	19.7	66	sse.	2.7	1.2			0			0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.24	768.2	30.30	769.6	62.6	17.0	78	nw.	1.3	0.6		3	6	n.		0.646	16.4	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.29	693.1			53.6	12.0	78	ne.	7.6	3.4		0	8			0	0	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.93	709.4	30.13	765.2	65.8	18.8	54	n.	2.2	1.0		0	4			0	0	clouds	The Staff.
Murcia, Met. Obs'y ‡	29.89	759.1	30.04	762.9	71.6	22.0	60	nnw.	2.7	1.2		0	3			0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.38	746.2	30.27	768.8	61.2	16.2	57	nne.	20.6	9.2			3			0.016	0.4		R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.92	759.9	29.98	761.6	75.4	24.1	87	e.	2.0	0.9		3 ck	2 k	ene.	e.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.80	758.0	29.89	759.3	84.8	29.3	75	sw.	2.9	1.3		0	1 ks			0	0	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.05	763.1	30.14	765.6	70.0	21.1	75	calm	0	0		6	2	wnw.	wnw.	0.857	21.8		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.79	756.6	29.88	758.9	82.0	27.8	85	e.	2.2	1.0		2 k	0	e.		1.134	28.8	clear	E. Cadea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.82	757.5	29.96	760.9	77.6	25.3	86	nnw.	8.2	3.6		0	8 kn		n.	inap.	inap.	cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.19	741.3	29.22	742.3	43.5	6.4	98	se.			4		10			0.524	13.3	raining	
Umea	28.97	735.9	29.02	737.2	46.8	8.2	100	s			6		10			1.366	34.7		
Hernosand	28.89	733.8	28.94	735.1	48.4	9.1	88	s.			6		10			0.039	1.0		
Stockholm	29.00	736.6	29.18	741.1	50.4	10.2	79	sw.			7		10			0.043	1.1		
Wisby	29.33	745.0	29.39	746.5	51.4	10.8	83	wsw.			7		5			0.035	0.9		
Sub-Series.																			
Upsala	29.00	736.7	29.09	738.9	47.3	8.5	89	ssw.	23.0	10.3			10		sw.	0.118	3.0	raining	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.65	727.7	30.08	763.9	54.7	12.6	55	nne.			2		2			0	0	clear	The Observatory.
Zurich ‡	28.45	722.7	30.10	764.5	51.8	11.0	67	w.			2		8			0.004	0.1	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.05	763.3	63.7	17.6	53	ene.	13	6.0			1		ne.	0	0		The Observatory.
Valona			29.97	761.2	64.2	17.9		se.			1		10			0	0	covered	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.95	760.7	76.8	24.9	43	wnw.			1	1 c	0			0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Albany, New York	30.00	762.0	30.08	764.0	53	11.7	66	w.	8	3.6		0	0			0	0	clear	
Alpena, Michigan	29.77	756.1	30.46	773.7	36	2.2	61	nw.	16	7.2		4 k	0	nw.		0	0	fair	
Atlanta, Georgia	28.98	736.1	30.20	767.1	65.0	18.3	84	nw.	8	3.6		9 c	0	calm		0	0	cloudy	
Atlantic City, New Jersey	30.09	764.3	30.10	764.5	53.2	11.8	93	nw.	9	4.0		0	0			0.47	11.9	clear	
Augusta, Georgia	29.96	761.0	30.16	766.1	66.1	18.9	84	calm	0	0		3 cs	hz.	w.		0	0	fair	
Baltimore, Maryland	30.10	764.5	30.15	765.8	58	14.4	75	n.	4	1.8		0	0			0.42	10.7	clear	
Barnegat, New Jersey	30.06	763.5	30.08	764.0	53.2	11.8	90	nw.	14	6.3		0	0			0.16	4.1	clear	
Bismarck, Dakota	28.46	722.9	30.38	771.6	32	0.0	62	e.	18	8.0			10 s		sw.	0	0	cloudy	
Boise City, Idaho	27.08	687.8	30.00	762.0	38.5	3.6	64	nw.	2	0.9		0	0			0	0	clear	
Boston, Massachusetts	29.84	757.9	30.00	762.0	51.4	10.8	82	w.	8	3.6		0	fg.		w.	0	0	light fog	
Brackettville, Texas	28.90	734.0	29.92	760.0	72	22.2	97	e.	12	5.4			10 s		e.	0.35	8.9	cloudy	
Brownsville, Texas	29.99	761.7	30.04	763.0	75	23.9	97	calm	0	0		4 cs	0			0.38	9.7	fair	
Buffalo, New York	29.50	749.3	30.24	768.1	45	7.2	68	w.	10	4.5		1 ck	8 ks	w.	w.	0	0	cloudy	
Burlington, Vermont	29.81	757.2	30.11	764.8	43.3	6.3	57	ne.	11	4.9		3 ck	7 s	nw.	w.	0	0	cloudy	
Cairo, Illinois	29.94	760.5	30.35	770.9	55.6	13.1	74	ne.	8	3.6		5 ck	0	w.		0.06	1.5	fair	
Campo, California	27.37	695.2	29.94	760.5	34.6	1.4	82	nw.	2	0.9		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.12	765.0	30.14	765.5	65	18.3	68	nw.	24	10.7		4 k	0	nw.		0.64	16.3	fair	
Cape May, New Jersey	30.07	763.8	30.10	764.5	61	16.1	78	nw.	24	10.7		0	0			0.45	11.4	clear	
Castroville, Texas	29.30	744.2	29.98	761.5	75	23.9	85	se.	6	2.7			10 s		se.	0.10	2.5	cloudy	
Cedar Keys, Florida	30.10	764.5	30.12	765.0	69	20.6	84	ne.	4	1.8		0	0			0	0	clear	
Champaign, Illinois	29.54	750.3	30.36	771.1	47.6	8.7	81	n.	8	3.6		0	0			0	0	clear	
Charleston, S. Carolina	30.06	763.5	30.12	765.0	70	21.1	90	w.	8	3.6		9 cs	0	w.		0	0	cloudy	
Charlotte, N. Carolina	29.28	743.7	30.19	766.8	67.0	19.4	73	n.	9	4.0		6 k	0	calm		0	0	fair	
Chattanooga, Tennessee	29.38	746.2	30.23	767.8	64.0	17.8	81	n.	3	1.3		4 cs	3 ks	w.	ne.	0	0	fair	
Cheyenne, Wyoming	24.16	613.6	30.29	769.4	42.2	5.7	76	w.	5	2.2		0	0			0	0	clear	
Chicago, Illinois	29.69	754.1	30.43	772.9	51.3	10.7	82	ne.	12	5.4		0	1 k		ne.	0	0	clear	
Chincoteague, Virginia	30.11	764.8	30.13	765.3	57	13.9	93	nw.	11	4.9		0	0			0.31	7.9	clear	
Cincinnati, Ohio	29.68	753.9	30.36	771.1	55.4	13.0	62	n.	4	1.8		0	0			0.02	0.5	clear	
Cleveland, Ohio	29.61	752.1	30.38	771.6	49.5	9.7	60	n.	18	8.0		0	7 k		n.	0.01	0.3	fair	
Coleman City, Texas																			
Columbus, Ohio	29.46	748.3	30.35	770.9	52	11.1	72	n.	6	2.7		0	0			0.72	18.3	clear	
Concho, Texas	28.19	716.0	30.19	766.8	69	20.6	97	ne.	10	4.5			10 s		se.	1.21	30.7	cloudy	
Corsicana, Texas	29.71	754.6	30.19	766.8	73	22.8	97	calm	0	0		0	8 ks		ne.	0.14	3.6	cloudy	
Davenport, Iowa	29.75	755.6	30.43	772.9	48	8.9	63	ne.	6	2.7		0	0			0	0	clear	
Dayton, Washington T'y	28.22	716.8	30.08	764.0	46.8	8.2	66	sw.	6	2.7			10 s		sw.	0	0	cloudy	
Deadwood, Dakota	25.40	645.1	30.26	768.6	26	— 3.3	80	calm	0	0		0	0			0	0	hazy	
Decatur, Texas																1.03	26.2		
Delaware Breakwater, Del.	30.08	764.0	30.10	764.5	59	15.0	93	nw.	18	8.0		0	0			0.35	8.9	clear	
Denison, Texas	29.38	746.2	30.21	767.3	73	22.8	90	e	1	0.4			10 n		calm	0.76	19.3	light rain	
Denver, Colorado	24.86	631.4	30.23	767.8	49.2	9.6	68	s.	5	2.2		4 c	0	calm		0	0	fair	
Des Moines, Iowa	29.48	748.8	30.43	772.9	50	10.0	71	e.	3	1.3		4 ck	1 s	w.		0	0	fair	
Detroit, Michigan	29.69	754.1	30.43	772.9	44.0	6.7	76	nw.	4	1.8		0	0			0	0	clear	
Dodge City, Kansas	27.58	700.5	30.27	768.8	63	17.2	100	se.	9	4.0			fg.			0.07	1.8	dense fog	
Dubuque, Iowa	29.69	754.1	30.43	772.9	45.5	7.5	76	ne.	8	3.6		3 k	5 ks	nw.	e.	0	0	fair	
Duluth, Minnesota	29.79	756.7	30.52	775.2	32	0.0	60	nw.	7	3.1		0	2 s		calm	0	0	clear	
Eagle Pass, Texas	29.29	744.0	30.14	765.5	73.0	22.8	97	se.	8	3.6			10 s		se.	0.21	5.3	cloudy	
Eagle Rock, Idaho	25.27	641.8	30.26	768.6	28	— 2.2	80	n.	6	2.7		0	0			0	0	clear	
Eastport, Maine	29.82	757.4	29.89	759.2	49	9.4	82	nw.	3	1.3		3 k	0	nw.		0	0	fair	
El Paso, Texas	26.28	667.5	30.12	765.0	64.3	17.9	84	calm	0	0		0	5 s			0.02	0.5	fair	
Erie, Pennsylvania	29.54	750.3	30.30	769.6	50	10.0	64	nw.	23	10.3		8 k	0	nw.		0	0	cloudy	
Escanaba, Michigan	29.82	757.4	30.50	774.7	34	1.1	79	nw.	6	2.7			10 s		nw.	0	0	cloudy	
Florence, Arizona	28.36	720.3	29.96	761.0	76	24.4	69	e.	3	1.3		0	0			0	0	clear	
Fort Apache, Arizona	25.06	636.5	30.10	764.5	53	11.7	83	ne.	3	1.3		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.22	691.4	30.16	766.1	31	— 0.6	88	calm	0	0			10 s		calm	0	0	cloudy	
Fort Bennett, Dakota	28.58	725.9	30.19	766.8	38	3.3	82	e.	4	1.8			9 ks		w.	0.25	6.3	cloudy	
Fort Benton, Montana	27.25	692.1	30.23	767.8	28	— 2.2	88	calm	0	0			10 ks		calm	0	0	cloudy	
Fort Buford, Dakota	28.22	716.8	30.32	770.1	34	1.1	82	e.	10	4.5			10 s		calm	inap.	inap.	cloudy	
Fort Custer, Montana	26.82	681.2	30.21	767.3	21	— 6.1	58	s.	2	0.9		0	0			0	0	clear	
Fort Davis, Texas	25.71	637.8	30.07	763.8	56	13.3	100	ne.	9	4.0			10 n		ne.	1.11	28.2	light rain	
Fort Elliott, Texas	27.43	696.7	30.73	780.5	62	16.7	78	calm	0	0			fg.			0	0	dense fog	
Fort Gibson, Indian T'y	29.61	752.1	30.18	766.6	70.0	21.1	90	se.	6	2.7			10 s		e.	0.30	7.6	cloudy	
Fort Grant, Arizona					65	18.3	75	e.	18	8.0		0	0			0	0	clear	
Fort Griffin, Texas	28.86	733.0	30.10	764.5	70.0	21.1	100	e.	4	1.8			10 n		e.	0.62	15.7	light rain	
Fort Keogh, Montana	27.57	700.3	30.24	768.1	35	1.7	71	e.	4	1.8		0	0			0	0	clear	
Fort Macon, North Carolina	30.09	764.3	30.10	764.5	69	20.6	93	n.	10	4.5		0	9 s		nw.	0	0	cloudy	
Fort McKavett, Texas	27.88	708.1	29.75	755.6	69.2	20.7	90	e.	8	3.6			10 n			0.25	6.3	light rain	
Fort Missoula, Montana	26.67	677.4	30.32	770.1	40	4.4	67	ne.	5	2.2			10 ks			0	0	cloudy	
Fort St. Michaels	30.45	773.4	30.49	774.4	39	3.9	91	se.	6	2.7		0	0			0	0	clear	
Fort Shaw, Montana	26.41	670.8	30.15	765.8	27	— 2.8	88	w.	3	1.3			10 s		calm	0.01	0.3	cloudy	
Fort Sill, Indian Territory	28.95	735.3	30.24	768.1	69.5	20.8	89	s.	5	2.2			10 s		s.	0.49	12.4	cloudy	
Fort Stevenson, Dakota	28.40	721.3	30.36	771.1	30	— 1.1	88	se.	10	4.5		10 ck	0	s.		0	0	cloudy	
Fort Verde, Arizona					65.2	18.4	90	se.			2	6 k	0	s.		0.13	3.3	fair	
Fredericksburg, Texas					69	20.6	100	e.	3	1.3			10 ks		e.	0.05	1.3	cloudy	
Galveston, Texas	28.38	720.8	29.90	759.4	69	25.6	82	e.	8	3.6		6 c	3 ks	w.	se.	0	0	cloudy	
Grand Haven, Michigan	30.08	764.0	30.12	765.0	78	6.7	76	ne.	4	1.8		0	3 s		nw.	0	0	clear	
Hatteras, North Carolina	29.75	755.6	30.45	773.4	44.0	21.1	79	n.	15	6.7			10 s		n.	0	0	cloudy	
Helena, Montana	30.07	763.8	30.09	764.3	70	— 2.2	100	calm	0	0			10 s		calm	0	0	cloudy	
Henrietta, Texas	25.77	654.5	30.36	771.1	28	21.1	94	se.	8	3.6			10 s			1.71	43.4	cloudy	
Huron, Dakota	29.20	741.7	30.11	764.8	70	6.1	74	se.	14	6.3			9 ks		se.	0	0	cloudy	
Indianapolis, Indiana	28.86	733.0	30.32	770.1	43	8.9	80	n.	4	1.8		0	fg.		calm	0	0	clear	
Indianola, Texas	29.56	750.8	30.39	771.9	48	26.5	85	se.	12	5.4		2 ck	3 k	nw.	se.	0	0	fair	
Jacksboro, Texas	30.06	763.5	30.09	764.3	79.7	20.0	100	ne.	6	2.7			10 ks		e.	0.91	23.1	cloudy	
Jacksonville, Florida	29.01	736.8	30.12	765.0	68	19.4	84	ne.	2	0.9		0	0			0	0	clear	
Keokuk, Iowa	30.09	764.3	30.13	765.3	67	10.0	71	ne.	6	2.7		0	0			0	0	clear	
Key West, Florida	29.70	754.4	30.38	771.6	50.0	25.0	84	ne.	15	6.7		0	1 ks		ne.	0.35	8.9	clear	
Kittyhawk, North Carolina	30.00	762.0	30.03	762.7	77.0	18.9	90	n.	18	8.0			10 ks		ne.	0.22	5.6	cloudy	
Knoxville, Tennessee	30.10	764.5	30.12	765.0	66	15.0	87	ne.	6	2.7		0	7 s		ne.	0.06	1.5	fair	
La Crosse, Wisconsin	29.22	742.2	30.29	769.4	59	8.9	63	ne.	3	1.3			10 s			0	0	cloudy	
La Mesilla, New Mexico	29.64	752.8	30.44	773.2	48	15.7	93	calm	0	0		0	3 s			0.40	10.2	fair	
Laredo, Texas	26.15	664.2	30.30	769.6	60.3	24.1	90	se.	2	0.9		0	4 s		se.	0	0	fair	
Leavenworth, Kansas	29.60	751.8	29.93	760.2	75.3	13.3	69	e.	2	0.9		5 k	0	sw.		0	0	fair	
Lewiston, Idaho	29.40	746.7	30.34	770.6	56	10.0	77	calm	0	0			10 s		calm	0	0	cloudy	
Little Rock, Arkansas	29.12	739.6	30.00	762.0	50	19.4	90	ne.	6	2.7			10 n			0.07	1.8	light rain	
Los Angeles, California	29.89	759.2	30.21	767.3	67	12.9	80	se.	1	0.4			10 s		calm	0	0	cloudy	
Louisville, Kentucky	29.58	751.3	29.96	761.0	55.2	11.4	80	n.	7	3.1		0	0			inap.	inap	clear	
Lynchburg, Virginia	29.73	755.1	30.31	769.9	52.5	15.8	87	calm	0	0			fg.			0.01	0.3	dense fog	
Madison, Wisconsin	29.49	749.0	30.20	767.1	60.5	5.6	82	ne.	6	2.7		6 cs	0	w.		0	0	fair	
Marquette, Michigan	29.41	747.0	30.48	774.2	42	1.1	79	nw.	6	2.7			10 s		w.	0.27	6.9	cloudy	
Mason, Texas	29.76	755.9	30.52	775.2	34	21.7	90	e.	5	2.2			10 s		e.	0.20	5.1	cloudy	
Memphis, Tennessee	28.48	723.4	30.20	767.1	71	18.3	63	ne.	4	1.8		9 cs	hz.	calm	calm	0	0	cloudy	
	29.91	759.7	30.25	768.6	65														

STATIONS.	Barometer. Corrected for instrumental error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.70	754.4	30.48	774.2	44	6.7	68	n.	11	4.9		0	7 s		nw.	0	0	fair	
Mobile, Alabama	30.07	763.8	30.14	765.5	70.0	21.1	84	nw.	3	1.3		5 cs	hz			0	0	fair	
Montgomery, Alabama	29.93	760.2	30.17	766.3	67.2	19.6	78	w.	1	0.4		10 cs	0	nw.		0	0	cloudy	
Moorhead, Minnesota	29.38	746.2	30.44	773.2	35	1.7	79	se.	8	3.6			10 s			0	0	cloudy	
Morgantown, W. Virginia	29.28	743.7	30.28	769.1	53.5	11.9	84	n.	1	0.4		0	2 s	n.		0.77	19.6	clear	
Mt. Washington, N. H.	23.62	599.9	29.99	761.7	26.2	— 3.2	100	nw.	70	31.3			fg			0	0	dense fog	
Nashville, Tennessee	29.72	754.9	30.28	769.1	59.4	15.2	73	ne.	3	1.3		2 c	0	w.		0	0	clear	
New Haven, Connecticut	29.92	760.0	30.04	763.0	53	11.7	66	n.	3	1.3		0	0			0.12	3.0	clear	
New London, Connecticut	29.97	761.2	30.02	762.5	57	13.9	74	ne.	1	0.4		0	0			0.05	1.3	clear	
New Orleans, Louisiana	30.08	764.0	30.14	765.5	74.5	23.6	90	ne.	3	1.3		8 cs	hz	n.		0.04	1.0	fair	
Newport, Rhode Island	29.96	761.0	30.01	762.2	57.3	14.1	79	nw.	6	2.7		0	0			0.08	2.0	clear	
New River, N. Carolina					67	19.4	100	se.			2		9 s		sw.	0	0	cloudy	
New Shoreham, Rhode I'd.	29.98	761.5	30.01	762.2	57.6	14.2	69	n.	6	2.7		0	0			0.49	12.4	clear	
New York, New York	29.92	760.0	30.10	764.5	56	13.3	74	n.	3	1.3		0	fg			0.17	4.3	clear	
Norfolk, Virginia	30.10	764.5	30.13	765.3	63	17.2	90	n.	8	3.6		0	2 k		n.	0	0	fair	
North Platte, Nebraska	27.22	691.4	30.28	769.1	55.4	13.0	86	se.	20	8.9			10 s			0	0	cloudy	
Olympia, Washington T'y	30.01	762.2	30.05	763.3	43.0	6.1	93	nw.	1	0.4			10 s		calm	inap.	inap.	cloudy	
Omaha, Nebraska	29.16	740.7	30.40	772.1	51.5	10.8	70	se.	6	2.7		0	2 s		w.	0	0	clear	
Oswego, New York	29.80	756.9	30.14	765.5	49.0	9.4	58	ne.	10	4.5			10 s		nw.	0	0	cloudy	
Pensacola, Florida	30.11	764.8	30.14	765.5	68	20.0	90	n.	4	1.8		2 ck	0	calm		0	0	clear	
Philadelphia, Pa.	30.06	763.5	30.12	765.0	56	13.3	86	nw.	10	4.5		0	fg			0.33	8.4	clear	
Phœnix, Arizona	28.69	728.7	30.40	772.1	78	25.6	64	e.	3	1.3		2 k	0	se.		0	0	fair	
Pike's Peak, Colorado	17.98	456.7	30.19	766.8	28	— 2.2	84	sw.	20	8.9		0	0			0	0	clear	
Pioche, Nevada	24.05	610.9	30.24	768.1	54	12.2	48	s.	2	0.9		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.47	748.5	30.32	770.1	51	10.6	86	w.	3	1.3		1 k	0	w.		0.44	11.2	clear	
Port Eads, Louisiana	30.12	765.0	30.13	765.3	74.9	23.8	84	ne.	8	3.6		1ck;hz	0	ne.; c.		0.07	1.8	clear	
Port Huron, Michigan	29.67	753.6	30.38	771.6	40.0	4.4	69	nw.	11	4.9		0	0			0	0	clear	
Portland, Maine	29.90	759.4	29.96	761.0	54	12.2	80	nw.	4	1.8		0	fg			0	0	clear	
Portland, Oregon	30.00	762.0	30.07	763.8	47.8	8.8	86	n.	4	1.8			10 s		n.	0	0	cloudy	
Portsmouth, N. Carolina					70	21.1	76	ne.	21	9.4			10 s		ne.	0	0	cloudy	
Prescott, Arizona	24.75	628.6	30.06	763.5	61	16.1	84	se.	6	2.7		0	0			0.01	0.3	clear	
Punta Rassa, Florida	30.04	763.0	30.05	763.3	73	22.8	82	ne.	10	4.5		0	0			0	0	clear	
Red Bluff, California	29.46	748.3	29.81	757.2	53.0	11.7	61	n.	4	1.8		0	0			0	0	clear	
Rio Grande City, Texas	29.88	758.9	30.08	764.0	75	23.9	94	e.	5	2.2		0	0			0	0	clear	
Rochester, New York	29.51	749.5	30.17	766.3	50	10.0	72	w.	9	4.0		0	7 s		nw.	0	0	fair	
Roseburg, Oregon	29.46	748.3	30.05	763.3	40.4	4.7	91	calm	0	0			fg			0	0	dense fog	
Sacramento, California	29.74	755.4	29.82	757.4	53.0	11.7	61	nw.	4	1.8		0	0			0	0	clear	
St. Louis, Missouri	29.76	755.9	30.39	771.9	54.2	12.3	74	e.	5	2.2		1 c	0			0	0	clear	
St. Paul, Minnesota	29.58	751.3	30.50	774.7	39.8	4.3	82	ne.	6	2.7		6 k	2 ks	nw.	ne.	0.02	0.5	cloudy	
Salt Lake City, Utah	25.57	649.5	30.02	762.5	53	11.7	50	calm	0	0			10 s		calm	0	0	cloudy	
San Antonio, Texas	29.43	747.5	30.15	765.8	72.0	22.2	97	e.	6	2.7			10 s		calm	0.01	0.3	cloudy	
San Diego, California	29.85	758.2	29.92	760.0	61.5	16.4	78	sw.	4	1.8			10 s		e.	0	0	cloudy	
Sandusky, Ohio	29.67	753.6	30.38	771.6	50.5	10.3	72	n.	24	10.7		5 k	0	n.		0	0	fair	
Sandy Hook, New Jersey	30.05	763.3	30.08	764.0	58.0	14.4	70	n.	13	5.8		0	0			0.16	4.1	clear	
San Francisco, California	29.81	757.2	29.88	758.9	52	11.1	90	w.	16	7.2		0	fg		sw.	0	0	clear	
Santa Fé, New Mexico	23.41	594.6	30.40	772.1	47	8.3	71	calm	0	0			10 s		calm	0	0	cloudy	
Savannah, Georgia	30.05	763.3	30.14	765.5	71	21.7	82	sw.	6	2.7		0	3 ks			0	0	fair	
Shreveport, Louisiana	29.93	760.2	30.16	766.1	71.5	21.9	94	n.	2	0.9			10 s		calm	0.20	5.1	cloudy	
Silver City, New Mexico	24.35	618.5	30.03	762.7	62	16.7	90	calm	0	0		3 k	6 ks		calm	0	0	cloudy	
Sitka, Alaska	30.29	769.4	30.36	771.1	40.2	4.6	65	nw.	6	2.7		0	0			0	0	clear	
Smithville, North Carolina	30.05	763.3	30.09	764.3	70	21.1	84	nw.	6	2.7		6 k	hz	calm		0	0	fair	
Spokane Falls, Wash. Ter.	27.90	708.6	29.97	761.2	44	6.7	86	nw.	1	0.4			10 s		calm	0	0	cloudy	
Springfield, Illinois	29.69	754.1	30.40	772.1	53.8	12.1	67	ne.	4	1.8		0	4 s		nw.	0	0	fair	
Springfield, Massachusetts	29.91	759.7	30.04	763.0	49.8	9.9	86	w.	1	0.4		0	fg			0	0	clear	
Stockton, Texas	27.04	686.8	30.19	766.8	68.0	20.0	90	se.	16	7.2			10 s		se.	0.75	19.0	cloudy	
St. Vincent, Minnesota	29.57	751.1	30.50	774.7	23	— 5.0	88	se.	1	0.4		0	8 s		calm	0	0	fair	
Thatcher's Island, Mass.	29.92	760.0	29.98	761.5	58.0	14.4	70	nw.	12	5.4		0	0			0	0	clear	
Toledo, Ohio	29.65	753.1	30.37	771.4	45	7.2	76	w.	6	2.7		0	sk.			0	0	clear	
Tucson, Arizona	27.41	696.2	29.85	758.2	77	25.0	97	se.	12	5.4		0	0			0	0	clear	
Umatilla, Oregon	29.64	752.8	30.07	763.8	52.0	11.1	47	e.	7	3.1			10 s		w.	0	0	cloudy	
Uvalde, Texas																			
Vicksburg, Mississippi	29.91	759.7	30.17	766.3	72	22.2	84	e.	1	0.4		4 ck	3 s	calm	calm	0	0	fair	
Visalia, California	29.44	747.8	29.81	757.2	56	13.3	61	s.	4	1.8		7 k	0			0	0	fair	
Washington, D. C.	30.05	763.3	30.17	766.3	55	12.8	93	nw.	5	2.2		0	0			0.43	10.9	clear	
West Los Animas, Colorado	26.16	664.5	30.24	768.1	60.3	15.7	82	sw.	6	2.7			10 s		sw.	0	0	cloudy	
Wickenburg, Arizona					62	16.7	78	calm			0	1 k	0			0	0	clear	
Wilmington, N. Carolina	30.03	762.7	30.09	764.3	70	21.1	84	nw.	4	1.8		10 k	0	calm		0	0	cloudy	
Winnemucca, Nevada	25.55	649.0	30.01	762.2	32	0.0	29	ne.	8	3.6		0	0			0	0	clear	
Wood's Holl, Mass.	29.95	760.7	29.99	761.7	58	14.4	93	w.	5	2.2		0	0			0.09	2.3	clear	
Yankton, Dakota	28.98	736.1	30.35	770.9	45	7.2	83	e.	1	0.4		10 cs	0	n.		0	0	cloudy	
Yuma, Arizona	29.63	752.6	29.77	756.1	67.6	19.8	82	w.	2	0.9		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.88	758.9	29.90	759.4	83	28.3	91	se.	2	0.9		2 k	5 k	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.03	559.6			54.2	12.3	88	e.	2	0.9			8 n;s			0.34	8.6	cloudy	Joaquin Gomez.
Guadeloupe, W. I.‡	29.76	755.9	29.77	756.1	82	27.8	90	e.				0	5 ks		e.	0.1	3.		B. Bigar.
Havana, Cuba, W. I.	29.97	761.2	30.02	762.5	77	25.0	85	calm	0	0		1 cs	8 ks	calm	e.	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.89	759.2	29.90	759.4	76.3	24.6	84	calm	0	0			10 n			0	0	cloudy	Robert Johnstone.
Navassa, W. I.	29.80	756.9	29.88	758.9	80	26.7	82	ne.	12	5.4			10 k		e.	0.01	0.3	cloudy	F. M. Everett.
Paramaribo, S. A.	29.97	761.2	29.97	761.2	80	26.7	87	ne.			2	7 ck	5 k		e.	0	0		Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.44	747.8	30.00	762.0	76	24.4	94	n.					10 n		calm	2.85	72.4	raining	Francesco J. Cisneros.
Rivas, Nicaragua					73.0	22.8	98	sw.			1		10 n		se.	2.01	51.		Earl Flint.
Santiago de Cuba, W. I.	29.90	759.4	29.92	760.0	78	25.6	82	n.	1.2	0.5		6 c	2 ks			0.31	7.9	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.79	756.7	29.90	759.4	83	28.3	80	se.	4	1.8		1 c	4 ks	sw.	se.	0	0		G. O. Gyllich.
York Factory, B. A.	30.08	764.0	30.13	765.3	18.0	— 7.8	92	n.	10	4.5		3 k	3 s	ne.	ne.	0.01	0.3	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross																			
H. M. S. Alert, N. 10° 02′, E. 140° 18′	29.97	761.2	78	25.6	85	e.			2		5							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, S. 37° 42′, E. 0° 18′	30.02	762.5	70	21.1	79	ssw.			2-3		1	ssw.				1	ese.	blue sky	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 40° 25′, E. 29° 09′	30.08	764.0	59	15.0		var.			1		1							blue sky	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche																			Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.05	763.3	71	21.7	75	sse.			1-3		6	sse.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.97	761.2	62	16.7	94	calm			0		10							d. clouds	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, Barcelona, Spain	29.97	761.2	72	22.2	71	nw.			6-7		5							d. clouds	Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.09	764.3	73	22.8		ssw.			2		1	ssw.				1	ssw.	blue sky	Lt. Comm. J. L. Burr.
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile																			Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 11′, E. 20° 28′	29.71	754.6	65	18.3		e.			1		10	calm						raining	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido																			Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.12	765.0	73	22.8	78	ese.			1		1							blue sky	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	29.85	758.2	50	10.0	86	sw.			1		2	w.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 40′, E. 50° 45′	29.83	757.7	88	31.1		sse.			2		0					1	s.	blue sky	Comm. John Hext.
H. M. S. Eclipse, N. 8° 33′, E. 81° 13′	29.83	757.7	85	29.4		sw.			1-2		10	w.						raining	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 20° 38′, E. 178° 48′	29.76	755.9	78	25.6	100	ene.			3		9	e.						d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.82	757.4	79	26.1	95	e.			1		5	ne.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 58′, E. 32° 55′	29.66	753.4	74.5	23.6	88	se.			4		4					2	se.	misty	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 15° 30′, W. 157° 45′	29.96	761.0	77	25.0	84	e.			4		7	s.				2	ese.	showery	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	30.09	764.3	59	15.0	100	ene.			5		10							drizzling	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 25° 00′, E. 145° 00′	29.97	761.2	80	26.7	82	sw.			2		7					2	s. to se.	misty	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	29.97	761.2	66	18.9		calm			0									blue sky	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. N. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.86	758.4	81	27.2		s.			2		1	s.						blue sky	Comm. R. H. Thornton.
H. M. S. Lapwing, Port Elizabeth, Cape Colony	29.95	760.7	61	16.1		sw.			6		4	wsw.						squally	Comm. F. H. Haygarth.
H. M. S. Lark, S. 35° 34′, —. 0° 00′	30.43	772.9	64	17.8	73	ene.			2		3					1	ssw.	d. clouds	Lieut. Comm. C. Oldham.
H. M. S. Magpie, N. 21° 34′, E. 111° 45′	29.89	759.2	80.8	27.1	88	e.			2-3		2					1	se.	misty	Lieut. A. Balfour.
H. M. S. Malabar, N. 21° 31′, E. 38° 03′	29.88	758.9	84	28.9	91	n.			3-4		1	n.				3	n.	d. clouds	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	30.11	764.8	64	17.8	73	nne.			3		4	nne.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.07	763.8	57	13.9	87	calm			0		10							overcast	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	29.83	757.7	50	10.0	93	calm			0		3							misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 30° 26′, W. 13° 35′	30.21	767.3	71	21.7	90	nnw.			4		9					3	nnw.	showery	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	30.05	763.3	34	1.1	79	calm			0		1							blue sky	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.83	757.7	81.3	27.4	87	ne.			2		2							d. clouds	Capt. C. E. Foot.
H. M. S. Salamis																			Capt A. Fitz George.
H. M. S. Sappho, N. 34° 44′, W. 14° 34′	30.31	769.9	69	20.6	95	nne.			4		3	nne.				3	nne.	d. clouds	
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb, N. 36° 26′, W. 3° 35′	30.09	764.3	72	22.2	75	sse.			1		1	ese.						blue sky	
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 38° 32′, W. 128° 14′	30.12	765.0	61	16.1	88	n.			5–6		8					4	nne.	d. clouds	Capt. P. W. Stephens.
H. M. S. Thunderer, Susa, Tunis	29.87	758.7	74	23.3	68	nnw.			3		9					3	nnw.	d. clouds	Capt. C. F. Hotham.
H. M. S. Triumph, S. 14° 40′ W. 76° 33′	30.00	762.0	61	16.1	88	se.			4		10	se.				5	sse.	overcast	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne, N 36° 33′, W. 1° 40′	30.10	764.5	69.5	20.8	92	ese.			1		1	calm				sm'h		blue sky	Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.86	758.4	77	25.0		nnw.			1		6							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.98	761.5	63	17.2	94	se.			1		8	se.						showery	Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Muscat, Arabia	29.87	758.7	89.5	31.9	73	nw.			1–2		0							blue sky	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.92	760.0	77.4	25.2	82	wnw.			3		1					1		blue sky	Carlos Candid dos Reis
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Id's	30.06	763.6	82.8	28.2	87	ene.			2		9			2 h'r	2 h'r	2	e.	d. clouds	Carlos M. de Silva Costa. C. da Silva Costa. G. A. de Brito Capello.
Rio Lima																			
Sado																			P. I. de Rio Carvallio.
Tamega, Macao, China	29.93	760.3	79.7	26.5	88	e.			2		2		e.					blue sky	
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	30.20	767.1	72	22.2	85	ne.	3	1.3			2		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	29.95	760.7	54	12.2	80	wnw.	4	1.8			0			0	0			clear	
Naval Hospital, Yokohama, Japan	29.70	754.4	61.5	16.4	61	e.			1		2		nw.	0	0			clear	
Adams, Chimbote, Peru	29.79	756.7	61	16.1	88	sse.			1		10					sm'h		cloudy	
Alaska, Callao, Peru	29.92	760.0	60	15.6	100	wsw.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.73	755.1	67	19.4	69	calm			0		8		calm	0	0	sm'h		hazy	
Alliance, Reikiavik, Iceland	29.10	739.1	39	3.9	82	e.			3		10			0	0	sm'h		overcast	
Ashuelot, Kobe, Japan	30.00	762.0	67	19.4	64	wnw.			1		10		w.					overcast	
Colorado, New York, N. Y.	30.07	763.8	57	13.9	81	nw.	4	1.8			0							clear	
Constitution, New London, Conn.	29.96	761.0	53	11.7	?	nnw.	3	1.3			5		nw.					clear	
Franklin, Norfolk, Va.	30.02	762.5	64	17.8	100	n.	8.4	3.8			2		n.	0	0			fair	
Galena, N. 36° 24′, E. 22° 51′	30.03	762.7	68	20.0	90	ene.			5		10		e.			sm'h		overcast	
Independence, N. Yard, Mare I'd, Cal.	29.71	754.6	56	13.3	87	sw.	12.0	5.4			0							clear	
Kearsarge, Stapleton, N. Y.	30.07	763.8	58	14.4	76	nnw.			2		0					sm'h		clear	
Lackawanna, San Francisco, Cal. †	30.05	763.3	53	11.7	100	sw.			2–4		0							clear	
Lancaster, New York, N. Y.	30.04	763.0	58	14.4	94	nnw.	4.5	2.0			0			0	0			blue sky	
Marion, Montevideo, Uruguay	29.91	759.7	61	16 1		e.			5		10		calm			mod.	e.	misty	
Michigan, Erie, Pa.	30.27	768.8	52	11.1	86	nnw.			5		10							cloudy	
Minnesota, Newport, R. I.	30.02	762.5	58	14.4	82	n.			2		0					sm'h		clear	
Monocacy, Yokohama, Japan	29.90	759.4	74	23.3	56	calm			0		2		calm					fair	
Nipsic, Genoa, Italy	29.85	758.2	66	18.9	64	n.			4		2					sm'h		d. clouds	
Onward, Callao, Peru †	29.99	761.7	59	15.0	94	sw.			1		10		n.			long	w.	misty	
Palos, Hong Kong, China	29.94	760.5	79	26.1	86	e.			1		2		n;e.					fair	
Passaic, Washington, D. C.	30.14	765.5	57	13.9	94	nw.			1		0							clear	
Pensacola, Callao, Peru	30.00	762.0	60	15.6	82	sw.			0–1		10			0	0	sm'h		cloudy	
Portsmouth, N. 38° 10′, W. 74° 43′	30.09	764.3	62	16.7	94	nw.			4		2		nw.			sm'h		fair	
Powhatan, N. 26° 51′, W. 79° 34′	30.08	764.0	81	27.2	70	ne			3–4		2		ne.			sm'h	ne.	fair	
Quinnebaug, Marseilles, France	29.90	759.4	63	17.2	?	nnw.			5		2		calm			sm'h		clear	
Ranger, Mare Island, Cal. *	29.80	756.9	59	15.0	76	sw.			5		0							clear	
Richmond, Panama, Panama	29.85	758.2	80	26.7	96	ssw.			3–5		5		s.	0.04	1.0	sm'h	s.	cloudy	
Saratoga, N. 38° 40′, W. 73° 48′	30.05	763.3	62	16.7	100	nw.			3–4		0			light	light	sm'h		clear	
Shenandoah, Montevideo, Uruguay *	30.13	765.3	61	16.1	94	ese.			5		10					sm'h		cloudy	
St. Louis, League Island, Pa.	29.79	756.7	56	13.3	87	calm	0	0			0			0.40	10.2			clear	
Swatara, Chefoo, China †	30.00	762.0	70	21.1	80	calm			0		2					sm'h		fair	
Tennessee, N. 37° 00′, W. 76° 10′	30.15	765.8	66	18.9	100	n.	4	1.8			2		n.	0.01	0.3			clear	
Trenton, N. 30° 50′, W. 68° 00′ *	30.14	765.5	74	23.3	68	nw.			1		2			0	0	sm'h		clear	
Vandalia, N. 37° 25′, W. 75° 24′	30.09	764.3	63	17.2	89	nnw.			4		5		nnw.					fair	
Wabash, Boston, Mass.	30.00	762.0	53	11.7	73	wnw.					2			0	0			clear	
Wachusetts, Sitka, Alaska	30.37	771.4	37	2.8	71	ene.			1		0							clear	
Wyoming, Port Royal, S. C.	30.10	764.5	70	21.1	90	sw.	5	2.2			8		sw.	0	0			fair	
Yantic, Hampton Roads, Va.	30.11	764.8	64	17.8	89	nnw.			2		2							clear	

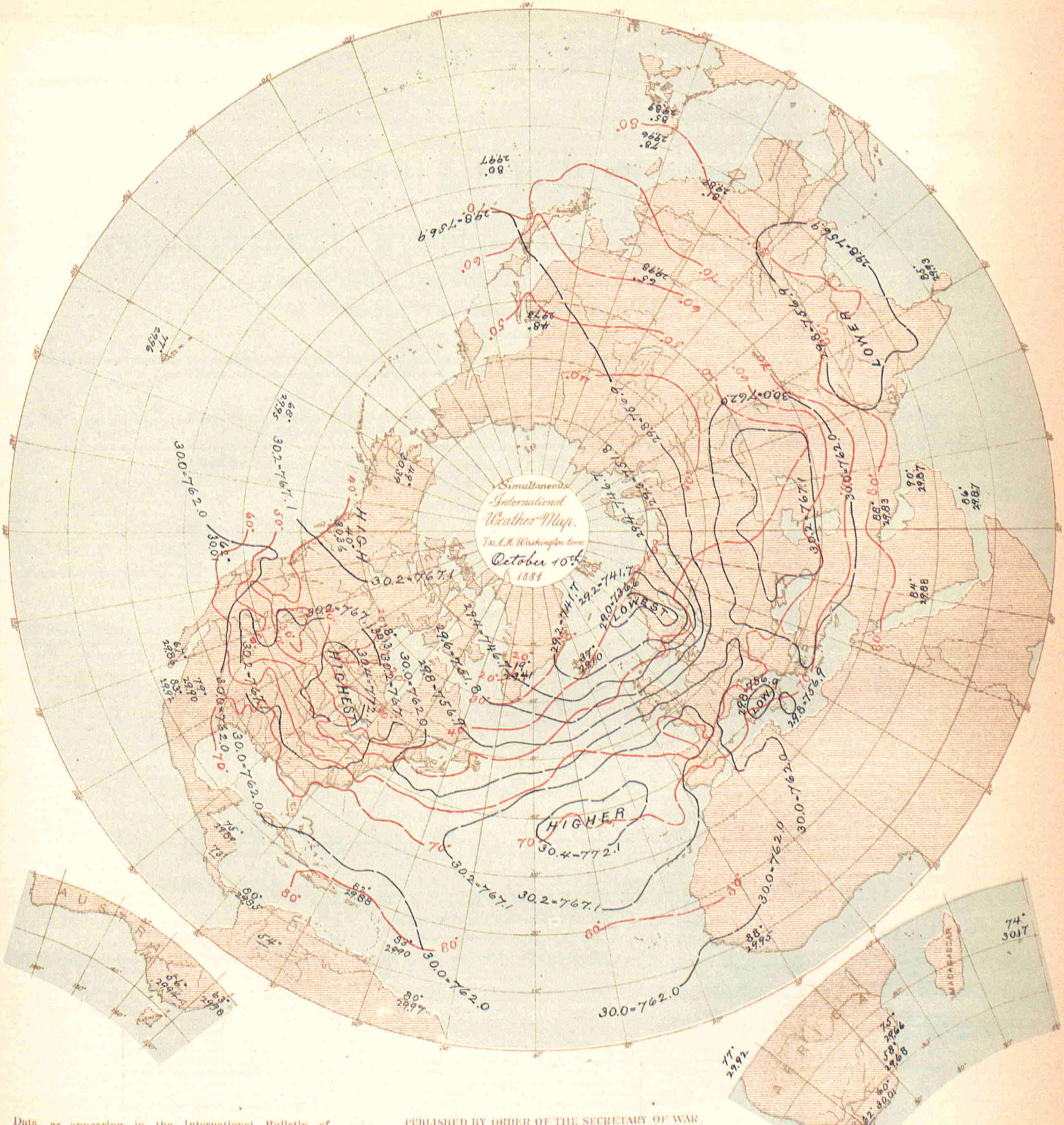
VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 49° 00′, W. 67° 00′ *†	30.08	764.0				n.	3		8		nne.			sm'h		cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson Halifax, N. S.	29.99	761.7	47	8.3		var-	1–2		5		se.					fair	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 50° 38′, W. 35° 43′ †.	29.86	758.4	55	12.8	93	w.	6		2		w.			h'vy	wsw.	fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 46° 54′, W. 52° 22′ †.	29.93	760.2	50	10.0	64	w.	3		8		w.	light	light	sm'h	w.	cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Philadelphia, Pa.			54	12.2	93	w.	1		0							clear	
S. S. Pennsylvania, Capt G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall																	
S. British Merchant, Capt. E. J. Moloney,																	
Bk. Caldew, Capt. W. Petersen, S. 55° 37′, W. 65° 16′	29.69	754.1	42.2	5.7		nnw.	6		3							d. clouds	
S. S. Cipero, Capt. W. N. Lailey, Roman River, Honduras, C. A.	29.89	759.2	75	23.9	95	ssw.	2		9					2	nne.	showery	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton,																	
S. S. Gordon Castle, Capt. W. Waring, N. 12° 26′, E. 52° 37′	29.87	758.7	85.5	29.7	75	sse.	1–2		0							blue sky	
Bg. Hermine, Capt. S. G. Jones, S. 28° 43′, W. 43° 30	30.11	764.8	68.8	20.4	84	nne.	3		10							misty	
Bkt. Hope, Capt. Jas. Campbelle N. 39° 45′, W. 23° 55′ ‡.	30.53	775.4	64.5	18.1	94	n.	3		7							d. clouds	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 19° 50′, E. 83° 50′	30.06	763.5	69	20.6	70	sse.	5		8							d. clouds	
Bk. Mertoin, Capt. E. W. Turner, N. 49°, 14′ W. 11° 40′	30.26	768.6	58.1	14.5	87	w.	6		10							overcast	
Naiad, Capt. J. Smith,																	
Bk. Moorhill, Capt. J. Brown.																	
S. Pieione, Capt. C. H. Renant, S. 45° 13′, E. 99° 15′	30.36	771.1	48	8.9	71	n.	1		10							d. clouds	
Queen of Cambria, Capt. M. Parry																	
S. S. Rosetta, Capt. A. E. Barlow																	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 40° 41′, W. 32° 10′	30.49	774.4	69.5	20.8	84	ssw.	3		4							d. clouds	
S. S. Strathleven, Capt. C. W. Pearson, N. 35° 26′, E. 139° 41′	29.81	757.2	64.5	18.1	94	w.	2		6							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin, S. 6° 48′, E. 69° 16′	29.73	755.1	80	26.7		ene.	5		10							threatening	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, N. 26° 28′, W. 113° 56′ †.	29.86	758.4	67	19.4	89	nnw.	3		4		nnw.	0	0	small	wnw.	fair	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains, N. 51° 05′, W. 15° 07′	30.14	765.5	59	15.0		w.	6		8		w.	0	0	high	w.	cloudy	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 42° 36′, W. 60° 30′	29.82	757.4	57.0	13.9	94		1		10					r'gh	n.	foggy	
S. S. Hermann, Capt. H. Baur N. 49° 29′, W. 11° 38′	30.36	771.1	59.0	15.0		w.	6		8		w.	0	0	long	wnw.	clearing	E. Schmidt, 3d Officer
S. S. Köln, Capt. T. Jüngst, N. 42° 21′, W. 60° 20′	29.98	761.5	55.0	12.8	100	n.	1		10		e.	0	0	sm'h	w.	foggy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer, N. 50° 34′, W. 16° 27′	30.14	765.5	58.0	14.4	76	wsw.	6		10		wsw.	1 h'rs	1 h'rs	r'gh	wsw.	cloudy	Walter & Reichler.
S. S. Strassburg, Capt. Heimbrouch,																	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, Yokohama, Japan †.	29.97	761.2	65	18.3	78	nw.	1		2		nnw.	0	0	sm'h		clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley N. 35° 05′, E. 140° 28′ *†.	30.09	764.3	72	22.2	55	nw.	5		3		sw.			r'gh	nw.	clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 36° 21′, W. 130° 00′	30.21	767.3	62	16.7	88	nw.	3		7		w.	0	0	sli't	nw.	cloudy	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. E. Polemann Portland, Oregon †	30.03	762.7	59	15.0	93	nw.	1		10		nw.					covered	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO.																	
Goodall, Perkins & Co., Agents, San Francisco.																	
S. S. Ancon, Capt. J. W. Ingalls, N. 34° 22′, W. 119° 52′ †	29.94	760.5	61	16.1	88	se.	3		10		sw.			sm'h		cloudy	J. W. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, Esquimalt, Vancouver's Id. †	30.08	764.0	39	3.9	100	calm	0		10							cloudy	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson,																	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal. †	30.03	762.7	52	11.1	93	w.	2		0							clear	T. Wallace.
S. S. State of California, Capt. Debney, N. 44° 49′, W. 124° 20′ †	29.99	761.7	46	7.8	?	nnw.	3		5?		nw.			sm'h	nw.	clear ?	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, San Francisco, Cal. †	29.90	759.5	52	11.1	86	sw.	4		0							clear	J. C. Hunter.
PACIFIC MAIL S. S. CO.																	
Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.																	
S. S. Australia, Capt. ——																	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, S. 35° —′, E. 175° —′ †	30.05	763.3	60	15.6	88	ssw.	2		10		s.			h'vy	s.	cloudy	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, Hong Kong, China *†	30.06	763.5	80	26.7	78	ene.	3		1		ese.	0	0	sm'h		clear	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 21° 35′, W. 106° 03′ †	29.92	760.0	83	28.3	87	se.	2		5?		se.	0	0	long	w.	cloudy?	
S. S. City of Sidney, Capt. H. C. Dearborn, S. 12° 18′ W. 170° 01′ *†	29.70	754.4	80	26.7	87	ese.	3		2		e.	0	0	long	se.	fair	E. L. Saik.
S. S. City of Tokio, Com. J. Maury, N. 40° 56′, W. 156° 34′ †	29.95	760.7	68	20.0	84	s.	4		2		se.			mod.	se.	clear	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, Panama, Panama †	29.84	757.9	79	26.1	100	ssw.	2		6		s.	0.05	1.3	mod.	sw.	fair	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 20° 30′, W. 105° 50′ †	29.82	757.4	82	27.8	87	n.	1		2		calm	0	0	mod.	sw.	clear	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.05	763.3	62	16.7	77	sw.	2		5?		s.					cloudy ?	H. Webber.
RED STAR LINE.																	
Peter Wright & Sons, Agents, New York and Philadelphia.																	
S. S. Nederland, Capt. Ueberweg, N. 49° 59′, W. 8° 22 †	30.59	777.0	59	15.0		w.	5		8		w.	light	light	chop	w.	gloomy	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 41° 18′, W. 64° 05′ †	29.99	761.7	58	14.4	88	e.	3		10		ne.	0.05	1.3	light	nne.	dull	C. H. Grant, 2d Off.
WHITE STAR LINE.																	
R. J. Cortis, Agent, New York.																	
S. S. Adriatic, Capt. J. W. Jennings, New York, N. Y. †	30.02	762.5	57	13.9		nnw.	3		2		nw.	shr's	shr's			fine	R. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 40° 50′ W. 61° 52′ †	29.96	761.0	64	17.8	?	n.	4		10		ne.	3 h'r	3 h'r	chop	n.	dull	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic. Capt. C. W. Kennedy, N. 50° 16′, W. 32° 15′ †	30.03	762.7	60	15.6	94	wsw.	6		10		w.	0	0	r'gh	wsw.	overcast	
S. S. Republic. Capt. P. J. Irving																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, N. 38° 39′, W. 73° 11′ †	30.17	766.3	66	18.9	94	nne.	2	3 c	3 k			0.26	6.6			fair	
Hassler, Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	
S. Pawashick. Capt. E. Fry, N. 37° 23′, E. 0° 04′ *†	29.91	759.7	69	20.6	82	ne.	4		5		e.			mod.	ene.	cloudy	W. Randall.
Bk. Peppina, Capt. Glov. S. d'Anconz, N. 38° 50′, W. 72° 52′ †	30.31	769.9	62	16.7		nnw.	5		2		ne.			mod.	nnw.	fair	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, N. 36° 58′, W. 17° 52′ †	30.37	771.4	70	21.1	80	nne.	6		5		nne.	light	light	r'gh	n.	fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,

Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 11, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.08	763.9	67.6	19.8	94	w.			2		1			0	0	very fair	Moiroud.
Algiers ‡			30.12	765.0	70.2	21.2	61	nw.			3		4			0.543	13.8	cloudy	Nicolas.
La Calle ‡			30.01	762.2	71.2	21.8	72	nw.			7		6			0.413	10.5	very cloudy	Fonfréde.
Tunis ‡			29.97	761.1															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.10	764.6	67.6	19.8	57	n.			1		1			0	0	very fair	Dumas.
Tebessa ‡			30.09	764.3	58.6	14.8	68	ese.			7		6			0	0	very cloudy	Derché.
Geriville ‡					66.9	19.4	56	nw.			3		3			0	0	pretty fair	Lonchamp.
Laghouat ‡			30.12	765.0	67.6	19.8	36	e.			1		1			0	0	very fair	Herbin.
Biskra ‡			30.10	764.6	79.5	26.4	33	nnw.			2		4			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.65	753.1	29.74	755.4	54.5	12.5	90	s.	1	0.4			7			0.20	5.1	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.39	746.6	29.95	760.6	51.8	11.0	65	ne.			3		10			0.047	1.2	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.27	743.4	30.04	762.9	54.7	12.6	68	n.	5.6	2.5			1			0	0		Dr. Wiersbicki.
Eperies	29.06	738.0	29.93	760.1	57.2	14.0	66	calm			0		10 ns			0	0		Julius Mikolik.
Gratz ‡	28.71	729.3	29.96	761.0	55.0	12.8	84	nw.			2		10			0.571	14.5		Andreas Rospini.
Hermannstadt	28.48	723.5	29.91	759.7	55.4	13.0	65	sse.			1		9			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.65	727.8	30.00	762.0	50.7	10.4	61	w.			1		8			0	0	very cloudy	The Staff.
Lemberg	28.97	735.7	29.95	760.7	54.5	12.5	67	ne.			2		6			0	0		Dr. T. Stanecki.
Pola	29.77	756.1	29.88	758.9	59.2	15.1	62	ene.			3		7			0.268	6.8		I. R. Hydrographic Office.
Szathmar	29.41	747.1	29.87	758.7	60.1	15.6	55	s.			2		10			0	0		Jozsef Midlin szky, S. J.
Szegedin	29.60	751.7	29.87	758.7	58.3	14.6	72	nw.			1		10			0	0		Karl Stancel.
Trieste	29.80	756.8	29.90	759.4	58.3	14.6	53	ene.			2		6			0	0		Rieder.
Vienna	29.30	744.3	30.02	762.6	52.5	11.4	64	nw.			2		7			0.063	1.6		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	OBSERVERS.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.13	739.9	29.22	742.2	56.7	13.7	54	wsw.	27	12.1			3			0	0	squally	W. Boswell.
Armagh, Observatory	29.39	746.5	29.61	752.1	54.1	12.3	79	w.	10	4.5			9					overcast	S. Call.
Bidston, Liverpool Obs'y			29.64	752.8	56.8	13.8	73	wsw.	32	14.3			10					overcast	John Hartnup.
Bolton, Sharples	29.14	740.1	29.66	753.4	54.7	12.6	76	w.	18	8.0			8					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29.18	741.2	29.58	751.3	56.1	13.4	73	sw.			2		10			0.03	0.8	overcast	[A.S. J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.67	753.6	62.0	16.7	83	w.			3.0		8					overcast	John McLaren.
Chatham, School M. E.	29.66	753.4	29.79	756.7	59.4	15.2	88	sw.			1		10			blank	blank	gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.66	753.4	29.88	758.9	59.5	15.3	76	w.			4		9					overcast	The Staff.
Fort Napier, Natal	27.86	707.6	30.08	764.0	56.1	13.4	45	s.			2		8					overcast	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.72	754.9	29.95	760.7	88.0	31.1	91	sw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.70	754.4	56	13.3	93	wsw.			6		10					showery	J. O'Donaghue.
Gibraltar, Mediterranean	30.09	764.3	30.14	765.5	74.9	23.8	88	sw.			3		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.21	741.9	29.41	747.0	51.5	10.8	88	wsw.			7		8					squally	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.58	751.3	29.74	755.4	61.1	16.2	81	sw.			3		10					overcast	The Staff.
Guernsey	29.66	753.4	29.88	758.9	59	15.0	90	wsw.			5		10					squally	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.71	754.6	29.75	755.6	60.7	15.9	75	sw.	14	6.3			10					threatening	The Staff.
Leicester, Museum	29.46	748.3	29.71	754.6	60.0	15.6	66	w.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.74	755.4	29.82	757.4	75.0	23.9	64	nw.			2		5			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.00	762.0	30.05	763.3	79.0	26.1	67	ne.			4		5					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.16	740.7	29.68	753.9	59.8	15.4	74	wsw.			4		7					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.50	749.3	29.73	755.1	58.3	14.6	89	ssw.			4		10					threatening	The Staff.
Plymouth	29.77	756.1	29.85	758.2	60.0	15.6	84	w.			1		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			28.92	734.6	51.5	10.8	61	w.	57	25.5			5					showery	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.83	757.7	29.89	759.2	70.0	21.1	56	ssw.			1		5					d. clouds	Serg't W. H. Lyne.
Sheffield	29.36	745.7	29.64	752.8	57.0	13.9	84	sw.			3		9			0.02	0.5	overcast	W. F. Cooper.
Silloth Rectory	29.48	748.8	29.51	749.5	53.2	11.8	80	w.			6		10			0.260	6.6	raining	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.62	752.3	54.4	12.4	76	w.	29	13.0			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	29.55	750.6	29.76	755.9	59.6	15.3	85	w.			3		9					squally	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.86	758.4	29.89	759.2	63	17.2	71	w.			6		8					gloomy	W. Newcombe.
Valencia, Observatory	29.86	758.4	29.88	758.9	57.6	14.2	69	wnw.	20	8.9			6			blank	blank	squally	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.28	769.1	30.33	770.4	37	2.8	57	n.	20	8.9			10 n			0.200	5.1	threatening	H. J. Cundall, C. E.
Chatham, N. B.*	30.40	772.1	30.45	773.4	33	0.6	75	nw.	8	3.6		2 k	8 ks	nw.	nw.	0.10	2.5	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.51	774.9	30.53	775.4	35	1.7	72	n.	6	2.7		0	0			0	0	clear	J. McWilliams.
Fort Garry, Manitoba*	29.11	739.4	29.97	761.2	30	— 1.1	88	ne.	6	2.7		5 k	5 k	ne.	ne.	inap.	inap.	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.16	766.1	30.29	769.4	40	4.4	76	nw.	20	8.9		5 k	0	n.		inap.	inap.	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	30.23	767.8	30.59	777.0	31	— 0.6	81	n.	2	0.9		0	0			0.02	0.5	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	30.38	771.6	30.59	777.0	30	— 1.1	81	se.	2	0.9		0	0			0.01	0.3	light fog	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.77	756.1	30.50	774.7	30	— 1.1	92	se.	12	5.4		0	0			0	0	clear	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.78	756.4	30.50	774.7	43	6.1	83	se.	14	6.3		0	0			0	0	clear	H. Morgan.
Port Stanley, Ontario	29.79	756.7	30.45	773.4	45	7.2	76	e.	20	8.9			8 k		se.	inap.	inap.	cloudy	M. Payne.
Quebec, Quebec*	30.23	767.8	30.57	776.5	27	— 2.8	53	n.			1	0	0			0	0	clear	Capt. Ashe, R. N.
Rockliffe, Ontario*	30.06	763.5	30.55	776.0	23	— 5.0	80	se.	4	1.8			fg.			0	0	dense fog	W. H. McIntyre.
Saugeen, Ontario*	29.71	754.6	30.46	773.7	30	— 1.1	88	se.	10	4.5		0	0			0	0	clear	K. Stewart.
St. Andrews, N. B.	30.41	772.4	30.46	773.7	32	0.0	65	n.	6	2.7		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.10	764.5	30.17	766.3	39	3.9	79	n.	20	8.9			10 n			0.04	1.0	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	30.14	765.5	30.55	776.0	32	0.0	78	e.	12	5.4		2 ck	2 k	sw.	w.	0	0	fair	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.33	770.4	30.40	772.1	37	2.8	76	e.	9	4.0		0	2 s		ne.	0	0	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.93	760.2	30.18	766.6	47	8.3	100	ne.					10 n			0.70	17.8	raining	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.40	772.1	30.43	772.9	60.0	15.6	82	s.	12.8	5.7		0	5 k			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y.																			The Staff, for D. Gill.
Worcester*†	29.46	748.3			66.9	19.4	40	se.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.92	760.0	29.95	760.6	68.5	20.3	98	w.	2.2	1.0			10			0.736	18.7	covered	M. Marc Dechevrens, S. J

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.66	753.4	29.71	754.6	50.4	10.2	86	sw.	22	10			10					foggy	Oversergent Fischer.
Fanöe	29.49	749.0	29.51	749.5	53.8	12.1	100	sw.			4		10					raining	Overloerer Lauridsen.
Godthaab, Greenland	29.78	756.5	29.83	757.6	23.4	—4.8	81	ene.			2		8						S. Kleinschmidt.
Stykkisholm, Iceland	29.16	740.6	29.20	741.7	37.9	3.3	97	ne.			7		10						A. O. Thorlacius.
Thorshavn	28.34	719.9	28.38	720.8	48.2	9.0	92	sw.	9	4			10					raining	Overloerer Bergh.
Vestervig	29.28	743.8	29.37	746.1	53.2	11.8	100	sw.			6		10					raining	Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.55	750.5	30.21	767.3	52.9	11.6	87	w.			1		8 n					very cloudy	M. Labroue, Director.
Alençon Normal School	29.49	749.1	30.10	764.4	56.5	13.6	91	sw.			3		n		s.	0	0		M. Nicot, Director.
Arras, Engineer School	29.59	751.5	29.85	758.1	55.0	12.8	83	sw.					10 k		sw.			covered	M. Klein, Commandant.
Avignon, Normal School	29.93	760.2	30.01	762.2	57.2	14	45	n.			4					0	0		M. Giraud, Director.
Bar-sur-Seine	29.50	749.4	30.06	763.5	55.2	12.9	71	sw.			1		8 n		w.	0	0	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.70	754.3	29.96	761.0	57.7	14.3	76	sw.			2		10		wsw.	0	0	covered	M. Frère Eugène Marie.
Besançon, Normal School	29.21	742.0	30.11	764.9	50.4	10.2	71	s.			1		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.91	759.7	30.17	766.4	53.2	11.8	94	ssw.			1		10		sw.	0.004	0.1	light rain	M. Rayet, Director.
Bourges, Normal School	29.56	750.8	30.11	764.9	52.7	11.5	86	nw.			1		sn		nw.	0	0		M. Postel, Director.
Brest, Naval Observatory	29.74	755.4	29.98	761.6	60.4	15.8	91	wnw.			1		10		wnw.	0.039	1.0		M. de Kermaree, Dir.
Caen, Normal School	29.87	758.8	29.95	760.7	57.9	14.4	91	ssw.			4		5		sw.	0.08	2.	cloudy	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.64	752.9	29.92	760.0	56.3	13.5	82	sw.			3		8		sw.	0	0	very cloudy	M. Jadot, Director.
Charleville, Normal School	29.47	748.5	29.98	761.5	53.1	11.7	71	sw.			1		4			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.74	730.0	30.10	764.4	56.7	13.7	47	ne.			1		8			0.020	0.5	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.26	743.1	30.10	764.6	58.5	14.7	56	se.			1		7		se.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.18	741.1	30.09	764.3	52.5	11.4	78	w.			1		8 kn	w.	w.	0	0	very cloudy	Dr. Coulet, Director.
Gap, Normal School	27.47	697.7	29.95	760.8	62.6	17	71	nw.			2	ck	0	se.		0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.87	733.4	30.02	762.4	58.5	14.7	45	nw.			3		5		nw.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.32	744.6	30.09	764.2	54.0	12.2	58	nw.			4		k			0	0		M. Ablard, Director.
Guéret, Normal School	28.54	724.8	30.13	765.4	46.4	8	91	sw.			2		10		sw.	0	0	foggy	M. Rivoire, Director.
Lamballe, Normal School	29.74	755.4	30.02	762.4	60.3	15.7	87	w.			2		5 n		w.	0	0	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.64	752.8	30.21	767.2	57.2	14	76	sw.			1		ks			0	0		M. Chauvin, Director.
Lorient, Naval Observatory	29.93	760.2	30.03	762.8	59.9	15.5	93	wsw.			3		10			0.012	0.3	light rain	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.05	737.9	30.11	764.8	56.1	13.4	48	n.			1	0	k	n.	nw.	0	0		M. André, Director.
Mans, Normal School	29.73	755.2	30.04	763.0	56.7	13.7	83	w.			1		5		n.	0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.66	753.4	29.93	760.2	61.5	16.4	49	nw.			3		9		nw.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.85	631.3	30.09	764.3	43.7	6.5	56	n.	9.4	4.2			5		nw.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.91	759.7	30.02	762.5	63.0	17.2	76	nnw.			4		5		nnw.	0	0	cloudy	M. Pourle, Director.
Nancy, Normal School	29.31	744.5	30.08	764.1	53.2	11.8	65	s.			1		8 kn		ne.	0	0	very cloudy	M. Hasse.
Nantes, Observatory	29.93	760.2	30.09	764.3	59.9	15.5	81	wsw.			2–3		10 r		wsw.			rainy	M. Larocque, Director.
Nice	29.85	758.3	29.89	759.1	66.9	19.4	68	s.			3		5	s.	s.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	29.97	761.2	30.08	763.9	59.5	15.3	39	nw.	15.0	6.7			9	w.	nw.	0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					54.9	12.7	50	n.			3		10	n.		0	0	covered	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.18	639.6			34.2	1.2	100	wnw.			2		10			0.028	0.7	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.14	765.6	30.17	766.4	59.0	15.0	82	sw.			1		10			0.031	0.8	covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.84	758.0	30.06	763.5	59.0	15	87	n.			1		10			0	0	covered	M. Mouillot, Director.
Rodez, Normal School	27.98	710.8	30.15	765.9	50.4	10.2	60	nw.			2		10		nw.	0	0	covered	M. Richard, Director.
Rouen, Normal School																			M. Platrier, Director.
Saint Lô, Normal School	29.80	756.8	29.95	760.8	56.8	13.8	99	wsw.			3		10		w.	0.063	1.6	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.84	757.9	30.03	762.9	55.6	13.1	81	sw.			2		10		w; sw	0	0		M. Renou, Director.
Toulouse, Observatory	29.50	749.4	30.23	767.0	55.0	12.8	70	nw.			2		10			0	0	covered	M Bailland, Director.
Tours	29.85	758.3	30.05	763.3	59.4	15.2	75	w.			2		8	calm	sw.	0	0	very cloudy	M. de Tastes.
Versailles, Observatory	29.50	749.4	30.00	761.9	55.4	13.0	81	sw.			2					0.047	1.2		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.74	755.3	30.03	762.7	55.9	13.3	84	ssw.			3		10		sw.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.18	741.1	30.04	763.0	53.6	12.0	50	sw.			2		3 k	w.		0	0		Prof. Dr. Hoh.
Berlin	29.74	755.4	29.91	759.8	55.8	13.2	63	sw.			3		0			0.043	1.1		Prof. Dr. Arndt.
Breslau	29.51	749.6	30.04	763.1	53.2	11.8	61	sse.			2		1			0	0		Royal University Obs'y.
Carlsruhe	29.62	752.4	30.05	763.3	53.2	11.8	69	sw.			2		0			0.067	1.7		Albert Senz.
Cassel	29.21	741.8	29.92	760.0	54.0	12.2	72	ssw.			6		2	s.		0.016	0.4		Dr. H. Möhl.
Frankfort on the Main	29.64	752.8	30.00	762.1	53.8	12.1	65	sw.			2		6			0	0		Physical Society.
Friedrichshafen	28.61	726.7	30.06	763.6	49.5	9.7	83	sw.			2		3	w.		0.217	5.5		Wilhelm, Chief Tel.
Hamburg	29.68	753.9	29.78	756.3	52.7	11.5	87	ssw.			6		10			0.016	0.4		E. Preller.
Kiel	29.68	753.9	29.70	754.3	51.4	10.8	89	sw.			6		10			0.024	0.6		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.57	751.0	29.99	761.7	53.2	11.8	54	wsw.			4		3			0.008	0.2		H. Leppig, Asst.
Magdeburg	29.72	754.8	29.90	759.5	56.8	13.8	65	s.			6	0	2 k		sw.	0.031	0.8		Dr. Assmann.
Memel	29.89	759.1	29.93	760.3	52.0	11.1	75	sw.			6	4 cs	0						Issermann.
Munich	28.21	716.6	30.08	764.0	49.5	9.7	62	n.			1		3	nw.		0.008	0.2		Central Station.
Neufahrwasser	29.92	759.9	29.93	760.3	56.3	13.5	49	sw.			4		5			0.008	0.2		A. Lothes.
Neustadt, Palatinate	29.43	747.6	29.96	761.0	55.0	12.8	65	wsw.			2		5	s.		0	0		Dicknether.
Stuttgart	29.08	738.7	29.98	761.5	52.7	11.5	58	nw.			1		5	w.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.54	724.8	30.05	763.2	51.1	10.6	46	w.			4		4	w.		0	0		Fischer.
Wustrow	29.76	755.9	29.79	756.6	56.3	13.5	69	s.			5		10 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.40	746.7	29.78	756.5	67.6	19.8		e.			0.5		8			0.008	0.2		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.70	754.3	29.75	755.5	83.4	28.6	73	wsw.	19.0	8.5			0			0	0	blue sky	
Deesa	29.31	744.5	29.78	756.4	86.4	30.2	45	w.	7.6	3.4			0			0	0	blue sky	
Bombay	29.77	756.2	29.81	757.2	82.1	27.8	82	nw.	18.0	8.0			0			0	0	blue sky	
Poona, Yarrowda.	27.94	709.6	29.77	756.1	84.3	29.1	41	wnw.	14.0	6.3			6	wsw.	wsw.	0	0	d. clouds	
Belgaum	27.27	692.6	29.79	756.8	77.9	25.5	73	w.	5.0	2.2			0			0	0	blue sky	
Lahore	28.86	733.1	29.59	751.5	88.1	31.2	39	calm	1.1	0.5			0			0	0	blue sky	
Roorkee	28.72	729.6	29.61	752.1	83.2	28.4	53	w.	1.2	0.5			0			0	0		
Agra	29.10	739.2	29.65	753.2	90.7	32.6	41	w.	7.2	3.2			0			0	0		
Nagpur	28.69	728.6	29.72	754.9	85.0	29.4	41	n.	4.6	2.1			2			0	0	d. clouds	
Jubbulpore	28.38	720.8	29.72	754.8	86.1	30.1	64	calm	2.9	1.3			0			0	0	blue sky	
Lucknow	29.28	743.8	29.65	753.2	85.1	29.5	43	wnw.	3.1	1.4			0			0	0	blue sky	
Allahabad	29.34	745.2	29.65	753.0	80.2	26.8	70	calm	1.5	0.7			0			0	0	blue sky	
Patna	29.50	749.2	29.68	753.8	81.2	27.3	75	nw.	1.1	0.5			4	nw.	nw.	0	0	d. clouds	
Hazaribagh	27.67	702.7	29.67	753.7	76.8	24.9	75	nw.	4.9	2.2			2			0	0		
Cuttack	29.59	751.6	29.67	753.6	83.2	28.4	74	e.	0.1	0.04			8			0.37	9.4	d. clouds	
Calcutta, Alipore	29.64	753.0	29.67	753.5	79.0	26.1	86	e.	2.0	0.9			8			0	0	d. clouds	
Dhubri	29.54	750.4	29.66	753.5	78.9	26.1	86	calm	0.3	0.1			2			0.17	4.3	d. clouds	
Goalpara																			
Chittagong	29.62	752.4	29.71	754.7	81.9	27.7	87	sw.	1.8	0.8			8			0	0	d. clouds	
Sibsagar	29.41	746.9	29.75	755.5	74.9	23.8	93	se.	1.2	0.5			10	w.	w.	0.29	7.4	d. clouds	
Jeypore	28.29	718.4	29.70	754.4	89.2	31.8	27	wnw.	9.3	4.2			0			0	0	blue sky	
Zanzibar, Africa			29.94	760.5	81.4	27.4	73	ene.	3	1.3			6		se.	0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.52	749.9	29.94	760.4	59.2	15.1	54	e.	0.7	0.3			8			0	0		Prof. Giovanni Clodig.
Milan	29.44	747.8	29.96	760.9	63.0	17.2	61	s.	2.5	1.1			7	ene.		0	0		Prof. Schiaparelli.
Padua	29.83	757.6	29.94	760.4	61.0	16.1	53	e.	2.5	1.1			8	ne.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.06	738.1	29.97	761.2	57.7	14.3	87	s.	1.3	0.6			4	nw.		0	0		Prof. P. F. Denza.
Genoa	29.71	754.7	29.91	759.6	64.8	18.2	55	n.	5.6	2.5			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.03	712.0	29.97	761.1	56.8	13.8	78	n.			4		3	nnw.		0	0		Prof. D. C. Bruno.
Pesaro	29.83	757.7	29.88	758.9	59.7	15.4	61	ne.			4		8	ne.		0	0		Prof. Luigi Guidi.
Florence	29.65	753.0	29.90	759.4	62.2	16.8	47	ne.			4		2	ne.		0	0		Prof. Costantino Pitter.
Leghorn	29.79	756.7	29.88	758.9	64.4	18.0	80	ene.	4.9	2.2			3			0	0		Prof. P. Monte.
Rome	29.60	751.8	29.77	756.2	68.5	20.3	52	n.	4.9	2.2			0			0.059	1.5		Prof. P. S. Ferrari.
Lecce	29.47	748.5	29.72	754.8	62.8	17.1	79	n.	10.5	4.7			10	nw.		0.220	5.6		Prof. C. de Giorgi.
Cosenza	28.88	733.5	29.76	756.0	67.3	19.6	62	ese.	3.1	1.4			5	se.		0	0		Prof. D. Conti.
Cagliari	29.67	753.6	29.86	758.5	67.5	19.7	74	wnw.			4		8	w.		0	0		Prof. A. Pacinotti.
Palermo	29.58	751.2	29.82	757.4	64.9	18.3	85	nw.	7.4	3.3			10	nw.		0.303	7.7		Prof. G. Ciacciatore.
Syracuse	29.69	754.2	29.74	755.3	70.9	21.6	75	wnw.	4.9	2.2			8	sw.		0.283	7.2		Prof. Vincenzo Guiliane.
Sub-Series.																			
Naples, S. R	29.30	744.2	29.75	755.6	67.3	19.6	69	ene.	1.3	0.6			7	nne		0	0		Prof. F. Brioschi.
Stelvio	22.09	561.0			31.1	— 0.5	70	se.			1	0	0			0	0	clear	Prof. P. F. Denza.
Valdobbia	22.12	561.9			36.0	2.2	71	n.			2	4 ck	0	n.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.94	760.5	29.96	761.0	59.6	15.3	85	nne.	8.5	3.8		7ck;cs	0			0	0	cloudy	K. Sasaki.
Kioto	29.83	757.7	30.00	762.0	57.9	14.4	90	nw.	1.1	0.5		ck	9 s		nw.	0	0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.80	756.9	30.00	762.0	66.8	19.3	90	sw.	1.2	0.5			10 s			0.550	14.0	overcast	S. Takehayashi
Nemuro	29.73	755.1	29.79	756.6	59.0	15.0	97	sse.	1.8	0.8		0	1		nnw.	0	0		
Niigata	29.96	761.0	30.00	762.0	60.1	15.6	91	s.	1.1	0.5		10 cs;ck	0			0	0	cloudy	
Nobiru	29.95	760.7	29.97	761.2	54.7	12.6	97	nw.	3.8	1.7			10 s			0	0	cloudy	
Supporo	29.71	754.6	29.77	756.1	53.0	11.7	64	nw.	13.8	6.2			4			0.020	0.5		
Tokei Obs'y, Yeddo	29.92	759.9	29.99	761.7	61.2	16.2	83	n.	4.4	2.0		ck	10 s			0	0	cloudy	The Staff.
Wakayama	29.94	760.5	29.99	761.7	59.0	15.0	81	ne.	5.1	2.3		2 ck	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.00	762.0	30.19	766.8	75.0	23.9	57	ene.	22.0	9.8		0	2 k		e.	0.08	2.0	clear	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.71	602.2	29.93	760.2	57.2	14.0	73	ene.	0	0		0	1 k		n.	0	0	clear	Vicente Fernandez.
Leon	24.47	621.4	30.14	765.5	60.5	15.8	85	sw.			1	0	0			0	0	clear	Prof. M. Leal.
Mazatlan	29.64	752.9	29.90	759.4	80.2	26.8	96	calm	0	0		0	8 n		nw.	0	0	cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.13	587.5	30.18	766.7	52.7	11.5	85	nw.	1.8	0.8		2 c	2 ks	ne		0	0		The Staff.
Morelia	24.22	615.2	30.28	769.3	58.8	14.9	68	e.			1	1	1	se.	s.	0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.97	608.8	29.95	760.6	59.4	15.2	85	nw.			1	0	4 ks		e.	0	0		M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	594.9	30.22	767.6	52.7	11.5	68	calm	0	0		0	0			0	0		Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.82	757.3	29.82	757.3	55.8	13.2		ssw.			5					0	0		
Groningen	29.67	753.6	29.72	755.0	52.9	11.6		sw.			5					0.004	0.1		
Helder	29.68	753.9	29.68	753.9	55.6	13.1		sw.			5					0.016	0.4		
Hellevoetsluis	29.79	756.7	29.79	756.7	54.5	12.5	93	sw.			5					0	0		
Utrecht	29.74	755.5	29.79	756.7	54.1	12.3	90	ssw.			4		8			0.075	1.9	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	28.94	735.1	29.00	736.7	52.2	11.2	93	s.	26.8	12.0			10			0.984	25.0	raining	
Christiania	29.02	737.2	29.17	740.8	50.7	10.4	95	ssw.	18	8			10			0.181	4.6	raining	
Gjæsvær	28.58	725.8	28.60	726.4	42.1	5.6		calm			0		10						
Lodingen	28.90	734.1	28.95	735.3	42.3	5.7	69	w.			2		8			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.41	772.5	30.57	776.4	67.6	19.8	83	ene.	6.9	3.1			4			0	0		Dr. J. A. Sampaio.
Campo Major	29.17	740.8	30.15	765.8	70.5	21.4	39	wnw.	3.8	1.7			10			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.18	766.5	30.26	768.7	71.4	21.9	47	ene.	4.3	1.9			5			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.89	759.1	30.24	768.2	65.7	18.7	58	nnw.	19.2	8.6			10			0	0		The Staff.
Ponta Delgada, Azores	30.49	774.5	30.56	776.3	69.1	20.6	69	ne.	11.9	5.3			4	ese.		0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.12	739.7	30.22	767.5	48.7	9.3	72	sw.	13	6		4 cs	0						Capt. Lasarew.
Archangel	29.26	743.2	29.28	743.7	48.3	8.5	77	s.	22	10			10					raining	Capt. Sselilwerstow.
Astrakhan	30.48	774.3	30.40	772.2	54.7	12.6	51	ese.	16	7		0	1 ks						Capt. Wisganow.
Barnaul ‡	29.68	753.8	30.19	766.9	36.9	2.7	82	sw.	2	1			7						Meteorological Obs'y.
Dorpat	29.52	749.8	29.76	756.0	50.4	10.2	68	ssw.	18	8			10n;ks					light rain	Observatory.
Ekaterinburg	29.13	739.8	30.09	764.2	51.4	10.8	56	wsw.	27	12		4 c	0						Meteorological Obs'y.
Kasan	29.95	760.6	30.21	767.4	59.2	15.1	47	sw.	13	6		3 c	0						Observatory.
Kertch	30.05	763.2	30.07	763.7	59.4	15.2	80	e.	4	2		0	0			0	0		Lagorio & Sastyrex.
Kieff	29.41	747.0	30.04	763.0	57.9	14.4	44	se.	9	4		0	0						Observatory.
Lugan	30.02	762.6	30.23	767.8	55.8	13.2	49	ese.	34	15			0						Meteorological Obs'y.
Moscow	29.52	749.7	29.98	761.6	60.8	16.0	36	s.	4	2		0	0						Meteorological Obs'y.
Nikolaiev	30.01	762.2	30.08	764.0	62.8	17.1	63	s.	4	2		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.56	750.7	29.64	752.9	44.8	7.1	77	e.			5		10 n			0.016	0.4		Lieut. Iwanow.
Pekin, China	29.99	761.8	30.13	765.4	55.9	13.3	60	se.	7	3		2 cs	0			0	0	lunar cor'na	Physical Observatory.
St. Petersburg	29.64	752.9	29.66	753.3	47.7	8.7	88	sw.	22	10			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.88	733.5	30.52	775.2	41.0	5.0	81	nw.	13	6			10			0.354	9.0		Teich, A. M.
Tiflis	28.92	734.6	30.36	771.1	53.8	12.1	67	s.	2	1			10 n						Physical Observatory.
Warsaw	29.62	752.4	30.04	763.1	53.8	12.1	60	wsw.	2	1		1 cs;c	0						Astronomical Obs'y.
Wilna	29.60	751.9	30.02	762.5	54.1	12.3	52	sw.	2	1			2					light clouds	Berg, Assistant.
Yeniseisk	29.63	752.5	29.92	760.0	30.0	— 1.1	76	w.	7	3			3						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.39	746.5	56.0	13.3	66	w.			6	0	8 k			0.22	5.6	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.25	742.9	53	11.7	93	w.			8	10	0	wnw.		0.4	10.	showery	J. Youngclause
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.94	760.4	30.04	763.1	65.5	18.6	59	wsw.	3.8	1.7			7			0	0	fair	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.16	766.2	30.22	767.6	60.4	15.8	82	e.	1.1	0.5			10			0.193	4.9	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.25	692.1			55.4	13.0	79	ne.	8.7	3.9		0	6			0	0	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.93	709.5	30.15	765.8	62.2	16.8	62	se.	3.6	1.6		9	0	n.		0	0	light clouds	The Staff.
Murcia, Met. Obs'y ‡	29.96	760.9	30.11	764.7	68.2	20.0	56	wnw.	5.8	2.6		5	4	e.		0	0	almost cov'd	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.32	744.7	30.21	767.3	60.4	15.8	72	w.	0	0			10			0	0	covered	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.93	760.3	30.00	762.0	75.8	24.3	88	e.	4.3	1.9		ck	1 k;s	ne.	ene.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.76	756.0	29.82	757.3	84.4	29.1	77.0	ssw.	8.8	4.0		0	1 s			0	0	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.08	763.9	30.17	766.3	71.1	21.7	70	w.	7.0	3.1		1	4	w.	w.	0.275	7.0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.80	757.0	29.89	759.3	78.1	25.6	92	calm	0	0		4 k	5 kn			0.039	1.0	cloudy	E. Cadea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.76	755.8	29.89	759.2	78.2	25.7	87	nnw.	5.1	2.3		0	1 s		n.	0	0	clear	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	28.98	736.2	29.02	737.2	45.0	7.2	72	sw.			4		0			0	0		
Umea	29.14	740.1	29.19	741.4	48.9	9.4	95	sw.			2		1			0.079	2.0		
Hernosand	29.19	741.3	29.24	742.6	48.0	8.9	65	sw.			4		5			0.248	6.3		
Stockholm	29.30	744.2	29.48	748.7	53.1	11.7	79	sw.			6		10			0.035	0.9		
Wisby	29.56	750.9	29.62	752.4	53.2	11.8	84	wsw.			7		7			0.067	1.7		
Sub-Series.																			
Upsala	29.32	744.7	29.41	746.9	52.0	11.1	84	ssw.	17.4	7.8			10		wsw.	0.047	1.2	raining	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.65	727.8	30.00	762.1	53.8	12.1	64	nne.			1		7			0	0		The Observatory.
Zurich ‡	28.43	722.1	30.09	764.2	51.4	10.8	70	w.			2		3			0.039	1.0	clear	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.95	760.8	66.6	19.2	67	se.	4	2.0			4		ne.	0.217	5.5		The Observatory.
Valona			29.90	759.4	63.3	17.4		w.			1		10			0.28	7.	covered	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.03	762.8	78.3	25.7	46	w.			1	0	1 k		w.	0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Albany, New York	30.54	775.7	30.62	777.7	40	4.4	73	nw.	4	1.8		0	0			inap.	inap.	clear	
Alpena, Michigan	29.70	754.4	30.39	771.9	41	5.0	73	sw.	18	8.0		9 cs	0	sw.		0	0	cloudy	
Atlanta, Georgia	29.18	741.2	30.40	772.1	58.8	14.9	61	ne.	13	5.8		0	0			0	0	clear	
Atlantic City, New Jersey	30.53	775.4	30.54	775.7	41.1	5.1	73	n.	13	5.8		2 k	0	calm		0	0	clear	
Augusta, Georgia	30.20	767.1	30.40	772.1	61.2	16.2	60	ne.	10	4.5		0	0			0	0	clear	
Baltimore, Maryland	30.56	776.2	30.61	777.5	42	5.6	65	n.	5	2.2		0	0			0	0	clear	
Barnegat, New Jersey	30.52	775.2	30.54	775.7	47.2	8.4	56	ne.	15	6.7		0	5 k		ne.	0	0	fair	
Bismarck, Dakota	28.05	712.5	29.97	761.2	33	0.6	88	n.	20	8.9			10 s		calm	0.03	0.8	cloudy	
Boise City, Idaho	27.05	687.1	29.97	761.2	36.3	2.4	82	w.	8	3.6			10 s		calm	0.03	0.8	cloudy	
Boston, Massachusetts	30.42	772.7	30.58	776.7	36.5	2.5	65	n.	12	5.4		0	hz.			0	0	clear	
Brackettville, Texas	28.87	733.3	29.89	759.2	72	22.2	90	se.	10	4.5			10 s		se.	inap.	inap.	cloudy	
Brownsville, Texas	30.00	762.0	30.05	763.3	75	23.9	97	calm	0	0		0	1 k			0	0	clear	
Buffalo, New York	29.81	757.2	30.55	776.0	30.6	— 0.8	76	e.	4	1.8		0	sk			inap.	inap.	dense smoke	
Burlington, Vermont	30.30	769.6	30.60	777.2	30.3	— 0.9	80	e.	3	1.3		0	0			inap.	inap.	clear	
Cairo, Illinois	29.86	758.4	30.27	768.8	56.6	13.7	71	se.	8	3.6		2 ck	0	calm		0	0	fair	
Campo, California	27.39	695.7	29.96	761.0	32.8	0.4	81	nw.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.48	774.2	30.50	774.7	49	9.4	63	n.	14	6.3		0	0			0	0	clear	
Cape May, New Jersey	30.49	774.4	30.52	775.2	40	4.4	57	ne.	17	7.6		0	0			0	0	clear	
Castroville, Texas	29.27	743.4	29.95	760.7	75	23.9	85	se.	3	1.3			10 s		se.	0.10	2.5	cloudy	
Cedar Keys, Florida	30.16	766.1	30.18	766.6	70	21.1	84	ne.	8	3.6		7 ck	0			0	0	fair	
Champaign, Illinois	29.42	747.3	30.24	768.1	47.3	8.5	86	se.	13	5.8		6 c	0	s.		0	0	fair	
Charleston, S. Carolina	30.26	768.6	30.32	770.1	64	17.8	73	ne.	16	7.2		0	0			0.02	0.5	clear	
Charlotte, N. Carolina	29.56	750.8	30.47	773.9	54.0	12.2	55	ne.	7	3.1		hz.	0	calm		0	0	clear	
Chattanooga, Tennessee	29.53	750.0	30.38	771.6	56.0	13.3	74	se.	3	1.3		1 cs	sk.	calm	calm	0	0	clear	
Cheyenne, Wyoming	23.88	606.5	30.01	762.2	53.5	11.9	49	w.	20	8.9		0	1 s			0	0	clear	
Chicago, Illinois	29.53	750.0	30.27	768.8	47.3	8.5	79	s.	8	3.6		1 c	0			0	0	clear	
Chincoteague, Virginia	30.46	773.7	30.48	774.2	45	7.2	68	nw.	19	8.5		0	5 ks		ne.	0	0	fair	
Cincinnati, Ohio	29.73	755.1	30.41	772.4	48.5	9.2	77	ne.	5	2.2		0	0			0	0	clear	
Cleveland, Ohio	29.73	755.1	30.50	774.7	37.4	3.0	78	se.	9	4.0		0	0			0	0	clear	
Coleman City, Texas																			
Columbus, Ohio	29.56	750.8	30.45	773.4	43	6.1	74	e.	6	2.7		3 cs	0			0	0	clear	
Concho, Texas	28.10	713.7	30.10	764.5	67	19.4	93	s.	10	4.5		5 ck	0	s.		0	0	fair	
Corsicana, Texas	29.62	752.3	30.10	764.5	71	21.7	84	se.	2	0.9		0	8 s			0	0	cloudy	
Davenport, Iowa	29.49	749.0	30.17	766.3	54	12.2	67	s.	10	4.5		4 cs	3 s	w.	w.	0	0	fair	
Dayton, Washington T'y	28.11	714.0	29.97	761.2	34	1.1	88	sw.	4	1.8			10 n		calm	0.36	9.1	light snow	
Deadwood, Dakota	25.19	639.8	30.05	763.3	34	1.1	79	ne.	4	1.8		0	sk.			0	0	smoky	
Decatur, Texas																			
Delaware Breakwater, Del.	30.48	774.2	30.50	774.7	49	9.4	86	n.	40	17.9		0	1 ks			0	0	clear	
Denison, Texas	29.29	744.0	30.12	765.0	68	20.0	93	se.	8	3.6			fg.			0.02	0.5	foggy	
Denver, Colorado	24.57	624.1	29.94	760.5	57.0	13.9	51	nw.	4	1.8		0	0			0	0	clear	
Des Moines, Iowa	29.08	738.6	30.03	762.7	59	15.0	70	s.	16	7.2			10 s		sw.	0	0	cloudy	
Detroit, Michigan	29.70	754.4	30.44	773.2	52.0	11.1	59	se.	6	2.7		0	9 s		s.	0	0	cloudy	
Dodge City, Kansas	27.26	692.4	29.95	760.7	66	18.9	93	s.	17	7.6			10 n		s.	0.14	3.6	light rain	
Dubuque, Iowa	29.30	744.2	30.04	763.0	52.5	11.4	72	s.	8	3.6			10 s		calm	0	0	threatening.	
Duluth, Minnesota	29.17	740.9	29.90	759.4	50	10.0	93	ne.	2	0.9			10 s		ne.	0.51	13.0	threatening.	
Eagle Pass, Texas	29.25	742.9	30.10	764.5	74.1	23.4	90	se.	5	2.2			10 s		se.	0	0	cloudy	
Eagle Rock, Idaho	24.96	634.0	29.95	760.7	38	3.3	52	calm	0	0		5 cs	2 s	sw.	sw.	0	0	fair	
Eastport, Maine	30.40	772.1	30.47	773.9	33.5	0.8	78	n.	16	7.2		0	0			0	0	clear	
El Paso, Texas	26.19	665.2	30.03	762.7	61.4	16.3	67	nw.	3	1.3			10 s			0	0	cloudy	
Erie, Pennsylvania	29.76	755.9	30.52	775.2	36	2.2	69	se.	15	6.7		hz.	0			0	0	dense haze	
Escanaba, Michigan	29.54	750.3	30.22	767.6	51	10.6	93	se.	13	5.8			10 n		se.	0.05	1.3	light rain	
Florence, Arizona	28.38	720.8	29.98	761.5	56.2	13.4	66	sw.	2	0.9		0	0			0	0	clear	
Fort Apache, Arizona	25.04	636.0	30.08	764.0	45	7.2	80	e.	2	0.9		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.18	690.4	30.12	765.0	21	— 6.1	87	ne.	10	4.5			10 n		ne.	0.12	3.0	light snow	
Fort Bennett, Dakota	28.14	714.7	29.75	755.6	43	6.1	100	n.	12	5.4			10 n		n.	0.03	0.8	light rain	
Fort Benton, Montana	27.25	692.1	30.23	767.8	20	— 6.7	100	ne.	12	5.4			10 n		ne.	0.70	17.8	heavy snow	
Fort Buford, Dakota	28.01	711.4	30.12	765.0	30	— 1.1	88	n.	14	6.3			10 s; sk		calm	0	0	cloudy	
Fort Custer, Montana	26.70	678.2	30.09	764.3	35	1.7	68	n.	8	3.6			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.09	637.3	30.05	763.3	57	13.9	83	e.	8	3.6		10 k	0			0.12	3.0	cloudy	
Fort Elliott, Texas	27.22	691.4	30.52	775.2	63	17.2	84	se.	20	8.9			10 s		se.	0.07	1.8	threatening.	
Fort Gibson, Indian T'y	29.51	749.5	30.08	764.0	63.8	17.7	79	se.	8	3.6			10 s		sw.	0.20	5.1	cloudy	
Fort Grant, Arizona					59	15.0	54	ne.	6	2.7		0	0			0	0	clear	
Fort Griffin, Texas	28.74	730.0	29.97	761.2	69.8	21.0	90	e.	8	3.6		0	4 s			0.02	0.5	fair	
Fort Keogh, Montana	27.40	695.9	30.07	763.7	35	1.7	71	e.	11	4.9			10 s		e.	0	0	cloudy	
Fort Macon, North Carolina	30.38	771.6	30.39	771.9	60	15.6	69	n.	20	8.9		hz.	hz.	calm	calm	0	0	light haze	
Fort McKavett, Texas	27.83	706.9	29.70	754.4	68	20.0	65	e.	9	4.0		4 ck	1 k		s.	0.01	0.3	fair	
Fort Missoula, Montana	26.44	671.6	30.09	764.3	28	— 2.2	88	ne.	18	8.0			10 n			0.17	4.3	heavy snow	
Fort St. Michaels	30.32	770.1	30.36	771.1	39	3.9	82	se.	30	13.4			10 ks		se.	0	0	cloudy	
Fort Shaw, Montana	26.34	669.0	30.08	764.0	19	— 7.2	100	nw.	10	4.5			10 n		calm	0.42	10.7	heavy snow	
Fort Sill, Indian Territory	28.78	731.0	30.07	763.8	70	21.1	97	s.	20	8.9			10 s		s.	0.21	5.3	cloudy	
Fort Stevenson, Dakota	28.07	713.0	30.03	762.7	29	— 1.7	88	n.	20	8.9			10 s		n.	0	0	cloudy	
Fort Verde, Arizona					46	7.8	56	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.34	719.8	29.86	758.4	69	20.6	97	s.	8	3.6		7 k	c	sw.		0	0	fair	
Galveston, Texas	30.06	763.5	30.10	764.5	78	25.6	73	se.	10	5.4		hz.	3 ks		se.	inap.	inap.	dense haze	
Grand Haven, Michigan	29.61	752.1	30.31	769.9	42.0	5.6	82	se.	10	4.5		0	4 s		calm	0	0	fair	
Hatteras, North Carolina	30.38	771.6	30.40	772.1	62	16.7	56	n.	26	11.6		5 k	0	n.		0	0	fair	
Helena, Montana	25.65	651.5	30.24	768.1	23	— 5.0	100	nw.	11	4.9			10 n		calm	inap.	inap.	light snow	
Henrietta, Texas	29.06	738.1	29.95	760.7	73	22.8	66	se.	11	4.9		0	5 s			0	0	fair	
Huron, Dakota	28.23	717.0	29.69	754.1	61.9	16.6	90	se.	20	8.9			10 n		s.	0.11	2.8	thund'r st'm.	
Indianapolis, Indiana	29.53	750.0	30.36	771.1	47	8.3	74	se.	4	1.8		0	hz.		calm	0	0	clear	
Indianola, Texas	30.05	763.3	30.08	764.0	76.5	24.7	82	se.	8	3.6		0	1 k		s.	0.02	0.5	clear	
Jacksboro, Texas	28.89	733.8	29.99	761.7	68	20.0	93	se.	9	4.0		0	4 ks		se.	0	0	fair	
Jacksonville, Florida	30.16	766.1	30.20	767.1	76	24.4	69	ne.	12	5.4		5 cs; k	0	ne.		0	0	fair	
Keokuk, Iowa	29.47	748.5	30.15	765.8	53.0	11.7	72	se.	8	3.6		1 k	0			0	0	clear	
Key West, Florida	30.01	762.2	30.04	763.0	77.2	25.1	83	ne.	14	6.3		0	1 ks		calm	0	0	clear	
Kittyhawk, North Carolina	30.42	772.7	30.44	773.2	58	14.4	57	ne.	30	13.4		0	5 ks		ne.	0	0	fair	
Knoxville, Tennessee	29.34	745.2	30.40	772.1	51.3	10.7	84	ne.	2	0.9		0	0			0	0	clear	
La Crosse, Wisconsin	29.22	742.2	30.02	762.5	57	13.9	69	s.	22	9.8			10 s			0	0	threatening.	
La Mesilla, New Mexico	26.09	662.7	30.24	768.1	59.3	15.2	93	calm	0	0		2 c	1 s			0	0	fair	
Laredo, Texas	29.60	751.8	29.93	760.2	73.0	22.8	84	se.	1	0.4		0	0			0	0	clear	
Leavenworth, Kansas	29.14	740.1	30.07	763.8	63	17.2	68	s.	14	6.3			10 s			0	0	cloudy	
Lewiston, Idaho	28.94	735.1	29.82	757.4	42	5.6	83	w.	8	3.6			10 s		w.	0.13	3.3	cloudy	
Little Rock, Arkansas	29.84	757.9	30.16	766.1	60	15.6	93	ne.	3	1.3		3 cs	0	sw.		0.53	13.5	fair	
Los Angeles, California	28.61	726.7	29.99	761.7	53.2	11.8	86	s.	4	1.8		0	4 s		sw.	0	0	fair	
Louisville, Kentucky	29.74	755.4	30.32	770.1	50.0	10.0	93	e.	7	3.1		1 c	0			0	0	clear	
Lynchburg, Virginia	29.82	757.4	30.53	775.4	49.5	9.7	56	ne.	3	1.3		0	0			0	0	clear	
Madison, Wisconsin	29.12	739.6	30.19	766.8	49	9.4	86	s.	14	6.3			10 s		sw.	0	0	cloudy	
Marquette, Michigan	29.37	746.0	30.13	765.3	46	7.8	93	s.	16	7.2			10 n		sw.	0.51	13.0	light rain	
Mason, Texas	28.42	721.9	30.12	765.0	69.8	21.0	90	se.	6	2.7		0	2 s		se.	0.04	1.0	clear	
Memphis, Tennessee	29.87	758.7	30.22	767.6	59	15.0	75	e.	4	1.8		2 cs	3 s	calm	e.	0	0	fair	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.45	748.0	30.23	767.8	49	9.4	77	s.	17	7.6	.....	.....	10 s	.....	.....	0	0	cloudy	
Mobile, Alabama	30.10	764.5	30.17	766.3	70.0	21.1	90	ne.	4	1.8	.....	5 c	0	e.	.....	0	0	fair	
Montgomery, Alabama	30.02	762.5	30.26	768.6	69.1	20.6	70	e.	12	5.4	.....	2 k	3 ks	nw.	se.	0	0	fair	
Moorhead, Minnesota	28.74	730.0	29.80	756.9	38	3.3	100	n.	16	7.2	.....	.....	10 n	.....	n.	0.27	6.9	light rain	
Morgantown, W. Virginia	29.46	748.3	30.50	774.7	39.0	3.9	89	calm	0	0	.....	.....	fg	.....	.....	0	0	dense fog	
Mt. Washington, N. H.	23.98	609.1	30.35	770.9	11.0	—11.7	66	nw.	29	13.0	.....	0	0	.....	.....	0	0	clear	
Nashville, Tennessee	29.73	755.1	30.29	769.4	55.4	13.0	76	e.	1	0.4	.....	0	0	.....	.....	0	0	clear	
New Haven, Connecticut	30.46	773.7	30.59	777.0	35	1.7	69	ne.	8	3.6	.....	0	0	.....	.....	0	0	clear	
New London, Connecticut	30.55	776.0	30.60	777.2	42	5.6	65	ne.	5	2.2	.....	0	0	.....	.....	0	0	clear	
New Orleans, Louisiana	30.08	764.0	30.14	765.5	73.5	23.1	84	n.	5	2.2	.....	1 c	hz	.....	.....	0	0	clear	
Newport, Rhode Island	30.52	775.2	30.57	776.5	39.0	3.9	67	n.	9	4.0	.....	0	0	.....	.....	0	0	clear	
New River, N. Carolina	.....	.....	.....	.....	56	13.3	74	n.	.....	.....	2	0	0	.....	.....	0	0	clear	
New Shoreham, Rhode I'd.	30.51	774 9	30.54	775.7	42.2	5.7	82	n.	26	11.6	.....	0	0	.....	.....	0	0	clear	
New York, New York	30.41	772.4	30.59	777.0	40	4.4	45	n.	16	7.2	.....	0	0	.....	.....	0	0	clear	
Norfolk, Virginia	30.46	773.7	30.49	774.4	51	10.6	66	ne.	15	6.7	.....	0	5 k	.....	n.	0	0	fair	
North Platte, Nebraska	26.77	679.9	29.83	757.7	65	18.3	82	s.	30	13.4	.....	4 ck	2 ks	sw.	s.	0	0	fair	
Olympia, Washington T'y	29.92	760.0	29.96	761.0	39.0	3.9	73	se.	2	0.9	.....	9 k	0	nw.	.....	0	0	cloudy	
Omaha, Nebraska	28.71	729.2	29.95	760.7	62	16.7	84	s.	12	5.4	.....	.....	10 s	.....	s.	0.01	0.3	cloudy	
Oswego, New York	30.25	768.3	30.59	777.0	34.0	1.1	71	se.	3	1.3	.....	1 c	0	.....	.....	inap.	inap.	clear	
Pensacola, Florida	30.14	765.5	30.17	766.3	67	19.4	90	e.	5	2.2	.....	1 cs	0	n.	.....	0	0	clear	
Philadelphia, Pa.	30.53	775.4	30.59	777.0	38.8	3.8	54	ne.	13	5.8	.....	0	hz	.....	.....	0	0	clear	
Phœnix, Arizona	28.76	730.5	30.55	776.0	56	13.3	24	e.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Pike's Peak, Colorado	17.67	448.8	29.88	758.9	25	— 3.9	100	sw.	28	12.5	.....	.....	fg	.....	sw.	0	0	dense fog	
Pioche, Nevada	23.98	609.1	30.17	766.3	51	10.6	41	sw.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Pittsburg, Pennsylvania	29.68	753.9	30.54	775.7	36.2	2.3	79	ne.	6	2.7	.....	0	0	.....	.....	0	0	clear	
Port Eads, Louisiana	30.13	765.3	30.14	765.5	76.0	24.4	88	ne.	12	5.4	.....	0	0	.....	.....	0	0	clear	
Port Huron, Michigan	29.73	755.1	30.44	773.2	35.3	1.8	85	se.	4	1.8	.....	0	5 ks	.....	s.	0	0	fair	
Portland, Maine	30.52	775.2	30.57	776.5	36	2.2	53	nw.	11	4.9	.....	0	0	.....	.....	0	0	clear	
Portland, Oregon	29.96	761.0	30.03	762.7	41.2	5.1	92	s.	1	0.4	.....	.....	1c ks	.....	sw.	0.24	6.1	cloudy	
Portsmouth, N. Carolina	.....	.....	.....	.....	60	15.6	70	ne.	36	16.1	.....	2 k	0	ne.	.....	0	0	clear	
Prescott, Arizona	24.74	628.4	30.05	763.3	38	3.3	66	w.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Punta Rassa, Florida	30.07	763.8	30.08	764.0	73	22.8	83	ne.	10	4.5	.....	0	0	.....	.....	0	0	clear	
Red Bluff, California	29.58	751.3	29.93	760.2	56.0	13.3	57	nw.	2	0.9	.....	0	5 s	.....	w.	0	0	fair	
Rio Grande City, Texas	29.83	757.7	30.04	763.0	71	21.7	94	se.	2	0.9	.....	2 c	0	calm	.....	0	0	clear	
Rochester, New York	29.88	758.9	30.58	776.7	35	1.7	64	s.	4	1.8	.....	0	0	.....	.....	0.15	3.8	clear	
Roseburg, Oregon	29.52	749.8	30.11	764.8	41.2	5.1	92	calm	0	0	.....	6 k	0	nw.	.....	0.09	2.3	fair	
Sacramento, California	29.85	758.2	29.93	760.2	52.2	11.2	86	se.	8	3.6	.....	.....	9 s	.....	.....	0	0	cloudy	
St. Louis, Missouri	29.63	752.6	30.26	768.6	52.3	11.3	80	se.	11	4.9	.....	1 c	0	.....	.....	0	0	clear	
St. Paul, Minnesota	28.98	736.1	29.90	759.4	55.0	12.8	86	s.	16	7.2	.....	.....	10 s	.....	s.	0.07	1.8	threatening	
Salt Lake City, Utah	25.42	645.7	29.88	758.9	56	13.3	53	se.	7	3.1	.....	8 k	0	sw.	.....	0.09	2.3	cloudy	
San Antonio, Texas	29.40	746.7	30.12	765.0	72.0	22.2	90	calm	0	0	.....	0	0	.....	.....	0	0	clear	
San Diego, California	29.84	757.9	29.91	759.7	62.7	17.1	73	n.	2	0.9	.....	.....	10 s	.....	.....	0	0	cloudy	
Sandusky, Ohio	29.74	755.4	30.45	773.4	44	6.7	68	se.	10	4.5	.....	0	0	.....	.....	0	0	clear	
Sandy Hook, New Jersey	30.54	775.7	30.57	776.5	44.5	6.9	30	ne.	26	11.6	.....	2 k	0	ne.	.....	0	0	clear	
San Francisco, California	29.91	759.7	29.98	761.5	53	11.7	90	sw.	16	7.2	.....	3 ck	fg.	sw.	sw.	0	0	fair	
Santa Fé, New Mexico	23.29	591.6	30.28	769.1	50	10.0	77	se.	1	0.4	.....	.....	10 s	.....	calm	0.42	10.7	cloudy	
Savannah, Georgia	30.21	767.3	30.30	769.6	67.8	19.9	73	ne.	10	4.5	.....	0	0	.....	.....	0	0	clear	
Shreveport, Louisiana	29.90	759.4	30.13	765.3	69	20.6	97	e.	3	1.3	.....	.....	10 s	.....	calm	0	0	cloudy	
Silver City, New Mexico	24.29	617.0	29.97	761.2	52	11.1	80	nw.	2	0.9	.....	2 c	1 s	.....	.....	0	0	clear	
Sitka, Alaska	30.30	769.6	30.37	771.4	42.2	5.7	66	ne.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Smithville, North Carolina	30.32	770.1	30.36	771.1	57	13.9	74	ne.	12	5.4	.....	0	1 k	.....	ne.	0	0	clear	
Spokane Falls, Wash. Ter.	27.69	703.3	29.76	755.9	36	2.2	92	w.	5	2.2	.....	.....	10 n	.....	calm	0.28	7.1	light rain	
Springfield, Illinois	29.53	750.0	30.24	768.1	52	11.1	72	se.	10	4.5	.....	1 c	2 s	nw.	nw.	0	0	clear	
Springfield, Massachusetts	30.47	773.9	30.60	777.2	38.6	3.7	65	n.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Stockton, Texas	26.98	685.3	30.13	765.3	67.2	19.6	93	se.	6	2.7	.....	1 cs	6 s	calm	se.	0	0	fair	
St. Vincent, Minnesota	29.00	736.6	29.93	760.2	30	— 1.1	100	n.	16	7.2	.....	.....	10 s	.....	calm	0.07	1.8	cloudy	
Thatcher's Island, Mass.	30.52	775.2	30.58	776.7	36.0	2.2	69	n.	20	8.9	.....	6 k	0	n.	.....	0	0	fair	
Toledo, Ohio	29.69	754.1	30.41	772.4	43	6.1	74	se.	2	0.9	.....	4 c	0	.....	.....	0	0	fair	
Tucson, Arizona	27.43	696.7	29.87	758.7	60	15.6	62	se.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Umatilla, Oregon	29.60	751.8	30.03	762.7	37.6	3.1	87	nw.	2	0.9	.....	.....	10 n	.....	calm	0.09	2.3	light rain	
Uvalde, Texas	29.08	738.6	29.88	758.9	73	22.8	90	s.	4	1.8	.....	.....	10 s	.....	s.	0	0	cloudy	
Vicksburg, Mississippi	29.91	759.7	30.17	766.3	68	20.0	78	se.	8	3.6	.....	5 cs	0	calm	.....	0	0	fair	
Visalia, California	29.55	750.6	29.92	760.0	46	7.8	83	nw.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Washington, D. C.	30.49	774.4	30.61	777.5	40	4.4	73	n.	5	2.2	.....	0	0	.....	.....	0	0	clear	
West Los Animas, Colorado	25.88	657.3	29.96	761.0	65	18.3	65	s.	16	7.2	.....	0	0	.....	.....	0	0	clear	
Wickenburg, Arizona	.....	.....	.....	.....	46	7.8	63	calm	.....	.....	0	0	0	.....	.....	0	0	clear	
Wilmington, N. Carolina	30.33	770.4	30.39	771.9	57	13.9	69	ne.	11	4.9	.....	0	hz	.....	calm	0	0	dense haze	
Winnemucca, Nevada	25.38	644.6	29.84	757.9	55	12.8	23	s.	20	8.9	.....	5 ck	0	sw.	.....	0	0	fair	
Wood's Holl, Mass.	30.50	774.7	30.54	775.7	44	6.7	51	n.	8	3.6	.....	8 k	0	ne.	.....	0	0	cloudy	
Yankton, Dakota	28.39	721.1	29.76	755.9	65	18.3	93	s.	16	7.2	.....	.....	10s	.....	s.	0.17	4.3	cloudy	
Yuma, Arizona	29.67	753.6	29.81	757.2	61.3	16.3	74	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.93	760.2	29.96	761.0	83	28.3	91	se.	1	0.4	.....	2 k	5 ks	.....	.....	0	0	.....	J. A. Racker.
Bogota, U. S. Columbia	22.03	559.6	.....	.....	54.0	12.2	82	calm	0	0	.....	8 cs; k	1ks;s	ne.	.....	0.02	0.5	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	30.01	762.2	30.03	762.7	77	25.0	86	sw.	.....	.....	.....	0	0	.....	.....	0.10	2.5	clear	J. B. Dougherty.
Guadeloupe, W. I.‡	29.80	756.9	29.80	756.9	81	27.2	87	e.	.....	.....	.....	2 c	0	.....	.....	0	0	clear	B. Bigar.
Havana, Cuba, W. I.	29.98	761.5	30.02	762.5	78	25.6	82	calm	0	0	.....	1 cs	2 ks	calm	se.	0.03	0.8	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.89	759.2	29.90	759.4	75.6	24.2	88	calm	0	0	.....	.....	10 s	.....	.....	0.05	1.3	rainy	Robert Johnstone.
Navassa, W. I.	29.77	756.1	29.85	758.2	81	27.2	82	ne.	9	4.0	.....	8 ks	2 k	ne.	e.	0	0	cloudy	F. M. Everett.
Paramaribo, S. A.	30.01	762.2	30.01	762.2	79	26.1	78	e.	.....	.....	2	3 c	5 k	.....	.....	0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.40	746.7	29.95	760.7	79	26.1	85	n.	.....	.....	.....	.....	9 ks	.....	s.	1.42	36.1	raining	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	73.4	23	98	w.	.....	.....	1	7 ck	0	n.	.....	.....	.....	.....	Earl Flint.
Santiago de Cuba, W. I.	29.90	759.4	29.93	760.2	77	25.0	82	n.	9.6	4.3	.....	9 cs	0	.....	.....	0.31	7.9	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.80	756.4	29.91	759.7	82	27.8	82	e.	2	0.9	.....	4 c	3 ks	.....	.....	0	0	.....	G. O. Gyllich.
York Factory, B. A.	30.12	765.0	30.17	766.3	19.0	— 7.2	92	ne.	8	3.6	.....	2 c	2 s	n.	ne.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, S. 11° 15′, E. 139° 48′	29.92	760.0	77	25.0	84	sw.			0–1		1							blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 38° 55′, E. 2° 53′	30.07	763.8	69	20.6	77	n.			1–2		2	nne.				4	nne.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 40° 25′, E. 29° 09′	29.94	760.5	70	21.1		var.			1		2	se.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 44° 28′, W. 60° 54′	30.08	764.0	49	9.4	100	n.			7		10					3	nnw.	overcast	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.09	764.3	74	23.3	69	e.			3–5		4	sse.						squally	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.96	761.0	62	16.7	94	w.			1		10							d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 40° 30′, E. 4° 21′	30.02	762.5	64	17.8	94	n.			6–7		8					7	nne.	squally	Comm. F. W. Egerton.
H. M. S. Coquette Gibralter, Mediterranean	30.15	765.8	73	22.8		calm			0		1	wnw.				1	wnw.	blue sky	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 39° 11′, W. 9° 47′	30.28	769.1	63	17.2		n.			5		9	ene.				2–3	ene.	d. clouds	Capt. C. S. Cardell.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.71	754.6	65	18.3		calm			0		10	calm						raining	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido																			Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.02	762.5	74	23.3	74	ssw.			1		3	ssw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 27′, W. 56° 09′	30.16	766.1	39	3.9	94	n.			2–3		10	ne.				1	nne.	snowing	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.81	757.2	87	30.6		se.			2		5	s.				3	se.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 7° 46′, E. 81° 33′	29.71	754.6	88	31.1		ssw.			1–2		4	sw.				3	wsw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 22° 54′, E. 178° 20′	29.83	757.7	69	20.6	?	e.			3–4		10	e.				5	se.	raining	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.77	756.1	86	30.0	72	ne.			2		9	ne.						raining	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 49° 30′, W. 55° 48′	30.03	762.7	39	3.9		nne.			1		9	ne.				sm'h		misty	Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 58′, E. 32° 55′	30.12	765.0	63.5	17.5	94	ssw.			6		10					2	ssw.	overcast	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Moskyn.
H. M. S. Gannet, N. 13° 40′, W. 157° 35′	29.90	759.4	78	25.6	86	ene.			4		7	s.				2	ese.	d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet																			Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 26° 20′, E. 144° 00′	29.97	761.2	80	26.7	82	e.			3–4		2					3	cross se.	d. clouds	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	29.95	760.7	67	19.4		calm			0		6							d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.96	761.0	81	27.2		s.			1		1	s.						blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 34° 00′, E. 25° 30′	30.36	771.1	60	15.6		ssw.			2		6	ssw.				5	sse.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 36° 17′, E. 2° 31′	30.33	770.4	61	16.1	70	n.			4–5		8					2	nne.	d. clouds	Lt. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, N. 21° 34′, E. 111° 45′	29.87	758.7	80.7	27.1	85	sse.			2		1					2	s.	misty	Lieut. A. Balfour.
H. M. S. Midge																			
H. M. S. Malabar, N. 17° 46′, E. 40° 42′	29.88	758.9	89	31.7	88	nw.			2		2	n.				2	n.	d. clouds	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	30.12	765.0	65	18.3	78	wnw.			1		6	wnw.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch																			Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo Chili	30.14	765.5	55	12.8	87	s.			1		10							misty	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.21	767.3	44.5	6.9	51	nnw.			4-6		3	nnw.						squally	Capt. E. B. Drummond.
H. M. S. Orontes, N. 27° 32′, W. 17° 00′	30.16	766.1	74	23.3	81	nne.			6		2					3	nne.	d. clouds	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	29.98	761.5	32	0.0	79	calm			0		1							blue sky	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.82	757.4	81.3	27.4	87	nw.			2-3		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sappho, N. 32° 38′, W. 16° 39′	30.31	769.9	70	21.1	84	ene.			3		3	nne.				1	ene.	d. clouds	
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb N. 37° 09′, W. 0° 35′	30.09	764.3	70	21.1	56	nne.			3		3	wsw.				3	nne.	d. clouds	
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 36° 21′, W. 127° 22′	30.11	764.8	63	17.2	88	ne.			5		10					4	nne.	drizzling	Capt. P. W. Stephens.
H. M. S Thunderer, Susa, Tunis	29.94	760.5	76	24.4	52	nw.			5		5					4	nw.	squally	Capt. C. F. Hotham.
H. M. S. Triumph, S. 15° 50′, W. 77° 56′	30.06	763.5	61	16.1	77	se.			5		10	se.				5	se.	overcast	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne, N. 37° 02′, E. 2° 59′	30.17	766.3	71	21.7	98	n.			1		9	nne.				2	nne.	showery	
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.89	759.2	78	25.6		n.			1		9							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	30.10	764.5	65	18.3	83	calm			0		5	e.						d. clouds	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Muscat, Arabia	29.85	758.2	90.5	32.5	60	nw.			3		0							blue sky	Capt. T. P. Nesham.
H M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.98	761.6	79.2	26.2	73	nw.			2		9			1½h'r	1½h'r	1		overcast	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.06	763.5	81.7	27.6	84	ene.			4		2		wnw.			3	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.96	760.9	79.7	26.5	88	e.			2									blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

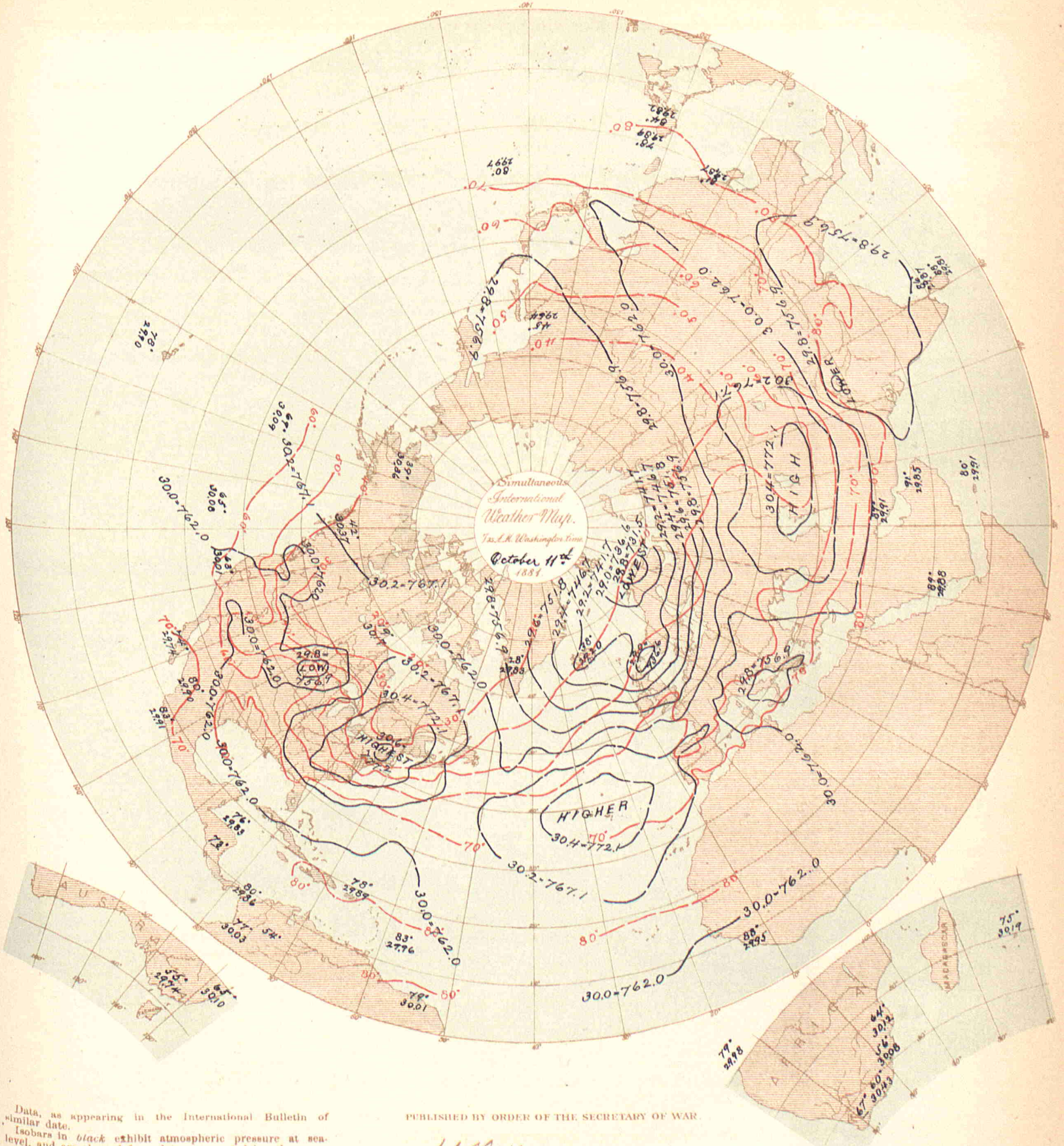
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.23	767.8	74	23.3	81	ne.	4	1.8			8		se.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.57	776.5	35	1.7	80	n.	8	3.6			0			0	0			clear	
Naval Hospital, Yokohama, Japan	29.79	756.7	62	16.7	77	nw.			1		10		w.	0	0			overcast	
Adams, S. 9° 14′, W. 78° 37′	29.81	757.2	62	16.7	88	se.			1–2		10					sm'h		cloudy	
Alaska, Callao, Peru	29.95	760.7	60	15.6	100	wsw.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.82	757.4	67	19.4	74	wnw.			1		10		wnw.	0	0			cloudy	
Alliance, Reikiavik, Iceland	29.17	740.9	40	4.4	82	se.			2		10			0	0	sm'h		cloudy	
Ashuelot, Kobe, Japan	29.98	761.5	68	20.0	74	calm			0		8		wsw.					cloudy	
Colorado, New York, N. Y	29.53	750.0	53	11.7	14	nw.	4	1.8			0							clear	
Constitution, New London, Conn	30.51	774.9	36	2.2	100	n.	3	1.3			5?		n.					clear?	
Franklin, Norfolk, Va	30.41	772.4	50	10.0	65	nne.	14	6.3			2			0	0			fair	
Galena, N. 38° 25′, E. 25° 43′	29.88	758.9	67	19.4	79	ne.			4		5		calm			sm'h		fair	
Independence, N. Yard, Mare I'd, Cal	29.88	758.9	59	15.0	82	wsw.	8.4	3.8			10		wsw.					overcast	
Kearsarge, Stapleton, N. Y	29.57	751.1	45	7.2	61	ne.			3		2					sm'h		hazy	
Lackawanna, San Francisco, Cal †	30.15	765.8	57	13.9	100	sw.			5		2		sw.					fair	
Lancaster, N. 37° 40′ W. 70° 00′	30.31	769.9	61	16.1	82	ne.	30	13.4			5		ne.	0	0	mod.	ne.	d. clouds	
Marion, Montevideo, Uruguay	29.90	759.4	62	16.7		e.			4		10		ne.	light	light	mod.	ese.	cloudy	
Michigan, Erie, Pa	30.47	773 9	35	1.7	54	se.			2		0							clear	
Minnesota, Newport, R. I	30.57	776.5	38	3.3	33	n.			4		2		se.			mod.	n.	clear	
Monocacy, Yokohama, Japan	29.97	761.2	67	19.4	79	nw.			1		10		nw.					cloudy	
Nipsic, Genoa, Italy	29.88	758.9	66	18.9	64	n.			3		2					sm'h		d. clouds	
Onward, Callao, Peru †	29.98	761.5	61	16.1	94	sw.			1		10		nw.			long	w.	cloudy	
Palos, Hong Kong, China	29.91	759.7	79	26.1	86	calm			0		2		calm					fair	
Passaic, Washington, D. C	30.57	776.5	43	6.1	92	ne.			1		0							clear	
Pensacola, Callao, Peru	30.04	763.0	60	15.6	88	w.			0–1		10			0	0	sm'h		cloudy	
Portsmouth, Inside of Cape Henry, Va.	30.49	774.4	50	10.0	79	nne.			6		2		ne.			mod.	ne.	clear	
Powhatan, N. 30° 18′, W. 79° 57′	30.16	766.1	78	25.6	69	ne.			5–6		2		ne.			light	ne.	fair	
Quinnebaug, Marseilles, France	29.94	760.5	60	15.6	55	nnw.			3		8		calm	0	0	sm'h		fair	
Ranger, Mare Island, Cal. *	29.90	759.4	59	15.0	88	wsw.			2–3		8?		calm					clear?	
Richmond, Panama, Panama	29.86	758.4	80	26.7	96	sse.			3		2		se.	0	0	mod	ssw.	clear	
Saratoga, N. 37° 02′, W. 74° 58′	30.39	771.9	57	13.9	100	nw.			4–5		2		nw.	0	0	sm'h		fair	
Shenandoah, Montevideo, Uruguay *	30.13	765.3	61	16.1	94	e.			4		10		e.			mod	e.	cloudy	
St. Louis, League Island, Pa	30.20	767.1	44	6.7	45	n.	8	3.6			0			0	0			clear	
Swatara, N. 37° 38′, E. 122° 15′ †	30.04	763.0	63	17.2	?	ne.			3		5					r'gh	ne.	fair	
Tennessee, Yorktown, Va	30.54	775.7	50	10.0	100	nnw.	4	1.8			2			0	0			fair	
Trenton, N. 33° 10′, W. 71° 10′ *	30.17	766.3	74	23.3	68	nne.			6–7		5			4 h'r	light	sm'h		fair	
Vandalia, Yorktown, Va	30.49	774.4	43	6.1	?	n.			3		5		calm					fair	
Wabash, Boston, Mass	30.57	776.5	37	2.8	62	nnw.	5	2.2			2		calm	0	0			fair	
Wachusetts, Sitka, Alaska	30.35	770.9	41	5.0	82	calm			0		0							clear	
Wyoming, Port Royal, S. C	30.27	768.8	66	18.9	74	ne.	18	8.0			5		e.	0	0			fair	
Yantic, Yorktown, Va *	30.48	774.2	50	10.0	72	n.			3		2		n.					clear	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 46° 50′, W. 71° 00′ *†	30.54	775.7	.....	.....	.....	nne.	4	.....	2	.....	ne.	.....	.....	sm'h	.....	clear	N. McLean.
S. S. Circassian, Capt. W. H. Smith	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, N. 41° 55′, W. 65° 54′	30.33	770.4	42	5.6	.....	nnw.	4	.....	10	.....	nnw.	.....	.....	mod.	nnw.	dull	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 49° 28′, W. 42° 19′ †	30.00	762.0	56	13.3	93	wsw.	4	.....	10	.....	wsw.	.....	.....	mod.	sw.	overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 48° 50′, W. 45° 57′ †	29.96	761.0	49	9.4	85	ne.	3	.....	8	.....	e.	light	light	mod.	ne.	cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Philadelphia, Penn. *†	30.62	777.7	40	4.4	91	n.	2	.....	0	.....	.....	.....	.....	.....	.....	clear	.....
S. S. Pennsylvania, Capt. G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. British Merchant, Capt. E. J. Moloney	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bq. Caldew, Capt. N. W. Petersen S. 56° 35′, W. 68° 18′	29.44	747.8	46	7.8	.....	nne.	3	.....	10	.....	.....	.....	.....	.....	.....	misty	.....
S. S. Cipero, Capt. W. N. Lailey, Roman River, Honduras, C. A.	29.83	757.7	76	24.4	95	s.	3	.....	10	.....	.....	.....	.....	2	nne.	raining	.....
Bk. Commeywyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Glaramara, Capt. R. Morton,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Gordon Castle, Capt. W. Waring, N. 11° 39′, E. 57° 09′	29.91	759.7	79.5	26.4	82	wsw.	1	.....	9	.....	.....	.....	.....	.....	.....	gloomy	.....
Bg. Hermine, Capt. S. G. Jones, S. 29° 45′, W. 44° 37′	30.11	764.8	66.7	19.3	90	ene.	5	.....	10	.....	.....	.....	.....	.....	.....	misty	.....
Bkt. Hope, Capt. Jas. Campbelle, N. 39° 40′, W. 22° 25′ ‡	30.57	776.5	64.7	18.2	94	nne.	3	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	.....
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, S. 16° 42′, E. 87° 00′	29.97	761.2	72	22.2	67	se.	4	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	.....
Bk. Mertola, Capt. E. W. Turner N. 51° 08′, W. 8° 17′	29.88	758.9	57.5	14.2	93	w.	6	.....	10	.....	.....	.....	.....	.....	.....	overcast	.....
Bk. Moorhill, Capt. J. Brown, S. 58° 43′, W. 74° 25′	29.50	749.3	39.5	4.2	83	e.	2	.....	7	.....	.....	.....	.....	.....	.....	misty	.....
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pleione, Capt. C. H. Renant, S. 45° 20′, E. 100° 29′	30.52	775.2	51	10.6	72	ese.	3	.....	10	.....	.....	.....	.....	.....	.....	misty	.....
Queen of Cambria, Capt. M. Parry S. 0° 28′, W. 26° 20′	30.03	762.7	80.8	27.1	74	sse.	5	.....	8	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Rosetta, Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sierra Estralla, Capt. P. Murdoch,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 41° 31′, W. 30° 38′	30.57	776.5	69.8	21.0	84	ssw.	3–4	.....	1	.....	.....	.....	.....	.....	.....	blue sky	.....
S. S. Strathleven, Capt. C. W. Pearson N. 35° 26′, E. 139° 41′	29.84	757.9	64.5	18.1	94	calm	0	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	.....
S. S. Thames, Capt. Luckhurst N. 50° 02′, W. 5° 55′	29.89	759.2	62.2	16.8	77	wnw.	5	.....	10	.....	.....	.....	.....	.....	.....	overcast	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin S. 5° 21′, E. 66° 09′	29.70	754.4	78	25.6	.....	e.	4	.....	10	.....	.....	.....	.....	.....	.....	heavy rain	.....
CALIFORNIA, AND MEXICAN S.S. CO. *J. Birmingham, Agent San Francisco.*																	
S. S. Newbern. Capt. E. Rogers N. 24° 00′, W. 111° 26′ †	29.74	755.4	74	23.3	90	nnw.	2	.....	0	.....	.....	0	0	g'tl	nw.	clear	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains, N. 50° 13′, W. 21° 47	30.19	766.8	58	14.4	.....	w.	6	.....	8	.....	wnw.	0	0	high	w.	cloudy	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
Braunschweig, Capt. C. Pohle N. 40° 40′ W. 65° 50′	30.17	766.3	53.0	11.7	67	n.	6	.....	8	.....	n.	.....	.....	sm'h	nw.	cloudy	.....
S. S. Hermann, Capt. H. Baur N. 50° 02′, W. 4° 26′	29.91	759.7	59.0	15.0	.....	wsw.	6	.....	8	.....	wsw.	0	0	long	wsw.	covered	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N. 44° 01′, W. 55° 15′	30.01	762.2	53.0	11.7	93	nne.	4–5	.....	10	.....	ne.	12h'r	12h'r	mod.	ne.	cloudy	T. Jüngst.
S. S. Leipsic, Capt. F. Pfeiffer, N. 50° 35′, W. 20° 28′	30.16	766.1	60.0	15.6	67	w.	5	.....	5	.....	w.	2 h'r	2 h'r	long	w.	fair	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 35° 20′, E. 141° 11′ †	30.12	765.0	78	25.6	61	ssw.	4	.....	8	.....	ne.	0	0	light	ssw.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, Yokohama, Japan *†	30.17	766.3	71	21.7	80	w.	5	.....	3?	.....	w.	.....	.....	r'gh	nw.	overcast?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 35° 57′, W. 135° 16′	30.28	769.1	65	18.3	84	n.	3	.....	3	.....	nw.	0	0	sli't	n.	fine	.....
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon, Capt. E. Polemann, N. 43° 34′, W. 124° 36′ †	30.05	763.3	51	10.6	86	var.	.....	.....	8	.....	nw.	.....	.....	sm'h	nw.	clearing	C. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 35° 33′, W. 121° 10′ †	29.95	760.7	55	12.8	87	nnw.	3		10		nw.			mod.	nw.	hazy	J. W. Ingalls.
S. S. Dakota, Capt. ——, N. 40° 18′, W. 124° 27′ †	30.00	762.0	52	11.1	86	nw.	5		4		nw.	0	0	mod.	nw.	clear	
S. S. Idaho, Capt. T. Huntington,																	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 35° 14′, W. 121° 06′ †	30.00	762.0	60	15.6	71	calm	0		0					sm'h		fine	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal. †	30.07	763.8	54	12.2	87	w.	3		0							clear	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †	29.95	760.7	41	5.0	91	se.	3		10		se.					cloudy	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, San Francisco, Cal. †	30.00	762.0	52	11.1	86	sw.	2		0							clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——,																	A. Bannermann, 2d Offi.
S. S. City of New York, Capt. W. B. Cobb, S. 31° 30′, E. 178° —′ †	29.98	761.5	62	16.7	88	nw.	4		10		nw.			mod.	nw.	cloudy	W. H. Hawes, 2d Offi. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,																	
S. S. City of Peking, Capt. G. G. Barry.. Hong Kong, China *†	30.00	762.0	80	26.7	82	e.	2		2		ene.	0	0	sm'h		clear	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 18° 00′, W. 103° 25′ †	29.91	759.7	83	28.3	87	ese.	1		8		se.	0	0	mod.	s.	cloudy	
S. S. City of Sidney, Capt. H. C. Dearborn, S. 16° 53′ W. 172° 00′ *†	29.68	753.9	76	24.4	86	ssw.	5		8		sw.	0	0	h'vy	sw.	cloudy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury, N. 40° 30′. W. 151° 09′ †	30.09	764.3	69	20.6	85	se.	4		10		se.			long	ne.	cloudy	A. L. Richie, 2d Offi.
S. S. Colima, Capt. R. R. Searle, Panama, Panama †	29.85	758.2	81	27.2	100	s.	3		5?		s.	0	0	mod.	ssw.	clear?	R. R. Searle.
S. S. Grenada. Capt. M. Connolly, Mazatlan, Mexico †	29.86	758.4	84	28.9	83	calm	0		5?		wsw.	0	0	small	sw.	clear?	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	29.78	756.4	58	14.4	76	sw.	3		2?		s.					cloudy?	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 50° 29′, W. 13° 22 †	30.44	773.2	60	15.6		wnw.	6		5		nw.	6 h'r	6 h'r	high	wnw	squally	A. Fedderson, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, N. 42° 15′, W. 57° 08′ †	30.03	762.7	57	13.9	81	nne.	5		10			0	0	mod.	ssw.	cloudy	C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings, New York, N. Y. †	30.18	766.6	59	15.0		n.	3		c			0	0			fine	R. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 41° 36′ W. 53° 00′ †	30.06	763.5	65	18.3	94	s.	4		2		s.	8 h'r	8 h'r	sl't	s.	fine	
S. S. Celtic, Capt. B. Gleadell.																	B. Gleadell.
S. S. Germanic. Capt. C. W. Kennedy, N. 48° 43′, W. 39° 04′ †	30.20	767.1	37	2.8	81	sw.	4		8		w.	shr's	shr's	mod.	sw.	misty	
S. S. Republic. Capt. P. J. Irving																	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, N. 38° 20′, W. 73° 42′ †	30.54	775.7	62	16.7	77	nne.	3	6 c	0			0	0			fair	
Hassler, Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	
S. Pawashick, Capt. E. Fry, N. 37° 55′, E. 0° 46′ *†	29.96	761.0	68	20.0	90	nne.	2		5		e.			mod.	e.	fine	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 37° 50′, W. 68° 55′ †	30.52	775.2	61	16.1		nne.	6		2		nw.			r'gh	ne.	fair	E. Fry.
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, N. 36° 22′, W. 21° 58′ †	30.52	775.2	69	20.6	80	nne.	6		5		nne.	0	0	mod.	nne.	fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 12, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours.		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.13	765.3	75.2	24.0	79	nw.			2		0			0	0	clear	Moiroud.
Algiers ‡			30.18	766.5	67.6	19.8	69	nnw.			3		10			0.087	2.2	covered	Nicolas.
La Calle ‡			30.07	763.7	71.6	22.0	60	nw.			3		4			0.787	20.0	cloudy	Fonfréde.
Tunis ‡			30.06	763.5															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.16	766.1	68.4	20.2	54	nw.			1		1			0	0	very fair	Dumas.
Tebessa ‡			30.13	765.2	56.8	13.8	69	n.			3		5			0	0	cloudy	Derché.
Geriville ‡					65.5	18.6	47	nnw.			4		2			0	0	fair	Lonchamp.
Laghouat ‡			30.14	765.6	67.3	19.6	38	sw.			3		0			0	0	clear	Herbin.
Biskra ‡			30.14	765.6	77.4	25.2	32	nnw.			2		2			0	0	fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.50	749.3	29.59	751.6	52.0	11.1	97	wsw.	6	2.7			10			0.06	1.5	showery	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.36	745.8	29.91	759.7	55.4	13.0	70	se.			1		7			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.02	737.2	29.78	756.4	56.7	13.7	46	wsw.	10.5	4.7			1			0	0		Dr. Wiersbicki.
Eperies	28.91	734.4	29.78	756.5	54.5	12.5	71	calm			0		10 s			0	0		Julius Mikolik.
Gratz ‡	28.63	727.2	29.86	758.5	56.5	13.6	63	sse.			1		3			0	0		Andreas Rospini.
Hermannstadt	28.40	721.3	29.81	757.2	56.7	13.7	69	ssw.			1		10			0.091	2.3		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.56	725.5	29.90	759.5	52.0	11.1	67	wsw.			2		10			0	0	gloomy	The Staff.
Lemberg	28.78	731.1	29.76	755.9	53.1	11.7	81	nw.			1		7			0	0		Dr. T. Stanecki.
Pola	29.78	756.3	29.89	759.1	61.9	16.6	63	ene.			1		6			0	0		I. R. Hydrographic Office.
Szathmar	29.32	744.7	29.78	756.3	58.8	14.9	65	s.			1		10			0.059	1.5		Jozsef Midlinszky, S. J.
Szegedin	29.56	750.8	29.84	757.8	58.6	14.8	77	w.			2		10			0	0		Karl Stancel.
Trieste	29.80	757.0	29.91	759.6	61.7	16.5	59	calm			0		10			0	0		Rieder.
Vienna	29.15	740.5	29.86	758.5	57.6	14.2	53	w.			3		3			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 13, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Aberdeen	29.17	740.9	29.26	743.2	46.9	8.3	48	w.	29	13.0			2			0	0	squally	W. Boswell.
Armagh, Observatory	29.48	748.8	29.71	754.6	49.3	9.6	77	wnw.	8	3.6			7					showery	S. Call.
Bidston, Liverpool Obs'y			29.70	754.4	49.3	9.6	89	w.	40	17.9			9					raining	John Hartnup.
Bolton, Sharples	29.14	740.1	29.67	753.6	51.7	10.9	75	w.	24	10.7			8					raining	Thomas Mackereth.
Bradford, Yorkshire	29.24	742.7	29.63	752.6	51.6	10.9	65	w.			4		2			0.12	3.0	blue sky	J. McLandsborough, F. R. A.S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.72	754.9	54.0	12.2	79	w.			3.0		8					overcast	John McLaren.
Chatham, School M. E.	29.71	754.6	29.84	757.9	55.7	13.2	77	sw.			1		9					gloomy	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.76	755.9	29.99	761.7	57.5	14.2	71	w.			4		10					overcast	The Staff.
Fort Napier, Natal	28.05	712.5	30.27	768.8	61.0	16.1	59	se.			2		4						Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.73	755.1	29.96	761.0	89.0	31.7	80	se.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.78	756.4	52	11.1	74	nw.			4		10					showery	J. O'Donaghue.
Gibraltar, Mediterranean	30.14	765.5	30.19	766.8	73.8	23.2	88	w.			1		0			blank	blank	blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.21	741.9	29.48	748.8	48.8	9.3	59	w.			10		6					squally	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.62	752.3	29.80	756.9	55.4	13.0	76	wsw.			4		10					overcast	The Staff.
Guernsey	29.75	755.6	29.97	761.2	56	13.3	80	wnw.			5		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.77	756.1	29.81	757.2	55.9	13.3	68	sw.	18	8.0			10					threatening.	The Staff.
Leicester, Museum	29.46	748.3	29.72	754.9	53.5	11.9	76	w.			1		10						J. C. Smith.
Malta, Mediterranean	29.84	757.9	29.92	760.0	71.0	21.7	67	nw.			3		8			0.05	1.3	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.08	764.0	30.12	765.0	80.0	26.7	70	ne.			3		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.22	742.2	29.74	755.4	55.2	12.9	76	w.			6		6					squally	John Mac Email.
Oxford, Radcliffe Obs'y	29.56	750.8	29.79	756.7	55.2	12.9	70	w.			6		10					showery	The Staff.
Plymouth	29.88	758.9	29.95	760.7	57.6	14.2	81	w.			4		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			29.05	737.9	47	8.3	67	wnw.	50	22.4			2					showery	Rev. C. Clouston, L. L. D
Scutari Cemetery, Turkey	29.63	752.6	29.69	754.1	66.0	18.9	79	sw.			1		9			blank	blank	gloomy	Serg't W. H. Lyne.
Sheffield	29.37	746.0	29.67	753.6	53.1	11.7	83	w.			5		7			0.18	4.6	overcast	W. F. Cooper.
Silloth Rectory	29.55	750.6	29.58	751.3	50.3	10.2	72	wnw.			6		3			0.140	3.6	squally	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.67	753.6	51.1	10.6	61	w.	28	12.5			10					squally	Rev. S. J. Perry.
Stratfield Turgiss	29.62	752.3	29.83	757.7	57.3	14.1	71	w.			4		9					squally	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.93	760.2	29.96	761.0	60	15.6	82	w.			7		10					gloomy	W. Newcombe.
Valencia, Observatory	29.89	759.2	29.91	759.7	53.9	12.2	90	w.	20	8.9			10			blank	blank	misty	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected	Mill.	Reduced	Mill.	Temperature	Cent.	Rel. Hum.	Wind. Direction.	Velocity. Miles	Mtrs	Force	Clouds. Up'er	Lo'er	Direction. Upper.	Lower.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.31	769.9	30.35	770.9	38	3.3	66	sw.	4	1.8		5 cs	2 s			0	0	fair	H. J. Cundall, C. E.
Chatham, N. B.*	30.28	769.1	30.34	770.6	35	1.7	69	s.	1	0.4		8 cs	2 s	calm	calm	0	0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.23	767.8	30.25	768.3	41	5.0	67	sw.	20	8.9			10 s		calm	0	0	threatening	J. McWilliams.
Fort Garry, Manitoba*	29.17	740.9	30.03	762.7	27	— 2.8	96	n.	4	1.8		5 k	5 ks	n.	n.	0.150	3.8	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.28	769.1	30.42	772.7	35	1.7	82	w.	6	2.7		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.72	754.9	30.06	763.5	49	9.4	83	s.	28	12.5			10 s		s.	inap.	inap.	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.98	761.5	30.18	766.6	44	6.7	71	s.	14	6.3			10 s		w.	0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.14	740.1	29.83	757.7	46	7.8	100	se.	24	10.7			10 n		se.	0.76	19.3	light rain	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.25	742.9	29.93	760.2	57	13.9	100	s.	22	9.8			10 n		sw.	0.38	9.7	light rain	H. Morgan.
Port Stanley, Ontario	29.29	744.0	29.91	759.7	61	16.1	93	s.	25	11.2			10 n		sw.	0.90	22.9	heavy rain	M. Payne.
Quebec, Quebec*	29.98	761.5	30.31	769.9	40	4.4	82	calm			0		10 k		nw.	0	0	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.50	749.3	29.96	761.0	41	5.0	93	se.	12	5.4			10 s		se.	0.16	4.1	heavy rain	W. H. McIntyre.
Sangeen, Ontario*	29.07	738.4	29.77	756.1	59	15.0	96	sw.	16	7.2			10 ks			0.32	8.1	cloudy	K. Stewart.
St. Andrews, N. B.	30.33	770.4	30.38	771.6	39	3.9	81	w.	3	1.3		2k	2 ks	nw.		0	0	fair	
St. John, N. B.																		clear	G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.29	744.0	30.36	771.1	38	3.3	79	w.	1	0.4		0	0			0.01	0.3	clear	T. C. Hill, C. E.
Toronto, Ontario*	29.54	750.3	29.92	760.0	55	12.8	96	sw.	29	13.0			10 ks		sw.	0.74	18.8	light rain	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.36	771.1	30.43	772.9	42	5.6	76	w.	5	2.2		0	0			0	0		Lt. F. E. Wilmot, R. N.
Sub-Series.																		clear	
St. Johns, Newfoundland	30.02	762.5	30.28	769.1	43	6.1	100	w.				5 k	5 s			0.08	2.0		John Delany.
St. Pierre, N. F.																		fair	N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected	Mill.	Reduced	Mill.	Temperature	Cent.	Rel. Hum.	Wind. Direction.	Velocity. Miles	Mtrs	Force	Clouds. Up'er	Lo'er	Direction. Upper.	Lower.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Cape St. Francis Lt. House†	30.43	772.9	30.46	773.7	63.0	17.2	94	e.	7.7	3.4		0	2 k			0	0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.46	748.3			75.9	24.4	32	s.			1	0				0	0	fine	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected	Mill.	Reduced	Mill.	Temperature	Cent.	Rel. Hum.	Wind. Direction.	Velocity. Miles	Mtrs	Force	Clouds. Up'er	Lo'er	Direction. Upper.	Lower.	Rain-fall. Inch.	Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.92	759.9	29.94	760.5	72.5	22.5	95	n.	1.3	0.6			10			0	0	covered	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.41	747.0	29.46	748.2	49.5	9.7	71	w.	18	8			5						Oversergent Fischer.
Fanöe	29.36	745.8	29.38	746.3	48.0	8.9	92	w.			7		8						Overloerer Lauridsen.
Godthaab, Greenland	29.90	759.5	29.95	760.6	20.7	—6.3	76	e.			2		3						S. Kleinschmidt.
Stykkisholm, Iceland	29.43	747.6	29.48	748.7	33.8	1.0	89	ne.			7		5						A. O. Thorlacius.
Thorshavn	28.89	733 7	28.92	734.6	40.3	4.6	78	nw.	25	11			10					raining	Overloerer Bergh.
Vestervig	29.15	740.4	29.24	742.7	46.8	8.2	83	w.			6		9					raining	Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.59	751.6	30.20	767.1	60.1	15.6	67	n.			1		kn;n		w.				M. Labroue, Director.
Alençon Normal School	29.55	750.5	30.15	765.9	56.8	13.8	91	sw.			3		n		ne.	0.098	2.5		M. Nicot, Director.
Arras, Engineer School	29.61	752.1	29.87	758.7	54.1	12.3	78	w.					10 k		w.			covered	M. Klein, Commandant.
Avignon, Normal School	29.96	761.0	30.04	763.0	67.3	19.6	58	n.			2		2			0	0	slightly cl'dy	M. Giraud, Director.
Bar-sur-Seine	29.48	748.8	30.03	762.8	58.6	14.8	65	wsw.			1		8 kn		wnw.	0.031	0.8	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.71	754.6	29.97	761.3	58.5	14.7	74	wsw.			2		8		wnw.	0	0	very cloudy.	M. Frère Eugène Marie.
Besançon; Normal School	29.18	741.2	30.08	763.9	54.0	12.2	87	s.			1		10 n		ne.	0.138	3.5	raining	M. Gobin, Director.
Bordeaux, Observatory	29.95	760.7	30.21	767.3	62.6	17.0	69	w.			1		8		w.	0.114	2.9	very cloudy.	M. Rayet, Director.
Bourges, Normal School	29.58	751.2	30.12	765.1	59.0	15	68	w.			1		kn		w.	0.04	1.		M. Postel, Director.
Brest, Naval Observatory	29.86	758.5	30.11	764.7	60.1	15.6	76	wnw.			2		10		wnw.	0.130	3.3		M. de Rermaree, Dir.
Caen, Normal School	29.91	759.6	29.98	761.4	58.6	14.8	82	w.			1		5		w.	0.031	0.8	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.61	752.0	29.93	760.2	57.7	14.3	62	w.			3		10		w.	0.008	0.2	covered	M. Jadot, Director.
Charleville, Normal School	29.41	747.0	29.92	760.0	56.5	13.6	62	sw.			1		4			0.04	1.		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.76	730.4	30.10	764.4	60.1	15.6	57	w.			2		8		w.	0	0	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.29	744.0	29.98	761.6	59.0	15	68	sw.			1		7		sw.	0.16	4.		M. de Villemontée, Dir.
Commercy, Normal School	29.17	740.9	30.08	763.9	55.9	13.3	66	w.			4		8 kn	w.	w.	0.08	2.	very cloudy	Dr. Coulet, Director.
Gap, Normal School	27.52	698.9	30.01	762.2	61.7	16.5	55	sw.			1		1 k		ne.	0	0		M. Jeanglrard, Director.
Gréasque, du. Rhone	28.90	734.1	30.04	763.1	65.1	18.4	51	nw.			4		2		nw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.29	744.0	30.06	763.5	56.8	13.8	67	nnw.			3		k			0	0		M. Ablard, Director.
Guéret, Normal School	28.56	725.3	30.15	765.9	54.5	12.5	76	sw.			3		5 ck	0	sw.	0	0	cloudy	M. Rivoire, Director.
Lamballe, Normal School	29.85	758.2	30.13	765.2	59.0	15	74	sw.			2		5 kn		sw.	0	0	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.69	754.0	30.26	768.5	59.0	15	93	wnw.			2					0.071	1.8		M. Chauvin, Director.
Lorient, Naval Observatory	30.05	763.3	30.15	765.9	60.8	16	69	w.			4		10			0.024	0.6	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.05	737.8	30.10	764.6	56.8	13.8	84	e.			1		kn		nnw.	0.059	1.5		M. André, Director.
Mans, Normal School	29.64	752.8	29.95	760.6	58.1	14.5	62	nw.			3		5		s.	0.047	1.2	cloudy	M. Piboen, Director.
Marseille, Observatory	29.69	754.2	29.96	761.0	68.0	20.0	46	nw.			4		4		nw.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.93	633.2	30.17	766.2	55.0	12.8	49	nw.	7.4	3.3			3		nw.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.89	759.3	30.00	762.0	67.3	19.6	51	nw.			6		2	se.	nw.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.21	741.8	29.97	761.2	56.8	13.8	67	wsw.			1		5 kn			0.091	2.3	cloudy	M. Hasse.
Nantes, Observatory	30.01	762.2	30.17	766.3	60.3	15.7	69	wsw.			1-3		10 kn		wsw.	0.08	2.		M. Larocque, Director.
Nice	29.88	758.9	29.91	759.8	66.2	19.0	69	w.			3	1	1	w.	w.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	30.00	762.0	30.11	764.7	64.2	17.9	61	n.	28.0	12.5			8	w.	nw.	0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					57.2	14	78	n.			3		mist	n.		0	0	misty	M. Talliou.
Puy de Dôme Obs'y, Summit	25.18	639.6			37.4	3.0	100	wnw.			4		10			0.425	10.8	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.17	766.4	30.21	767.2	59.0	15.0	85	calm			0		10			0	0	covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.91	759.6	30.12	765.0	57.9	14.4	76	w.			1		10			0.16	4.	covered	M. Mouillot, Director.
Rodez, Normal School	28.00	711.1	30.17	766.2	49.6	9.8	79	nw.			1		10		w.	0.122	3.1	covered.	M. Richard, Director.
Rouen, Normal School																			M. Platrier, Director.
Saint Lô, Normal School	29.87	758.8	30.03	762.8	56.3	13.5	81	wnw.			3		10		wnw.	0.071	1.8	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.85	758.1	30.01	762.3	59.2	15.1	73	wsw.			2		10		wnw;w	0.051	1.3		M. Renou, Director.
Toulouse, Observatory	29.52	749.7	30.24	768.2	61.2	16.2	66	wnw.			3		8	nw.		0	0	very cloudy	M Bailland, Director.
Tours	29.91	759.7	30.11	764.7	59.4	15.2	64	wsw.			2		10	calm	w.	0.039	1.0	covered	M. de Tastes.
Versailles, Observatory	29.52	749.7	30.01	762.2	57.2	14.0	69	w.			3					0.028	0.7		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.73	755.1	30.02	762.5	57.9	14.4	71	wsw.			3		10		sw.	0.016	0.4		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.00	736.7	29.86	758.5	55.4	13.0	60	sw.			3		7 k	wsw.		0.079	2.0	raining	Prof. Dr. Hoh.
Berlin	29.50	749.3	29.67	753.6	55.9	13.3	66	w.			2		9			0.020	0.5	light rain	Prof. Dr. Arndt.
Breslau	29.26	743.3	29.79	756.7	51.1	10.6	80	w.			2		10					light rain	Royal University Obs'y.
Carlsruhe	29.48	748.7	29.90	759.5	56.3	13.5	86	sw.			4		10	sw.		0.063	1.6		Albert Senz.
Cassel	29.06	738.0	29.78	756.3	54.3	12.4	63	sw.			4		8	s.		0.043	1.1		Dr. H. Möhl.
Frankfort on the Main	29.48	748.8	29.84	758.0	60.3	15.7	51	w.			2		6			0.031	0.8		Physical Society.
Friedrichshafen	28.57	725.7	30.02	762.6	48.6	9.2	92	s.			1		10	sw.		0.075	1.9	rain and fog.	Wilhelm, Chief Tel.
Hamburg	29.52	749.8	29.61	752.2	54.0	12.2	72	w.			6		5			0.205	5.2		E. Preller.
Kiel	29.48	748.8	29.50	749.2	52.3	11.3	72	sw.			5		6			0.236	6.0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.35	745.4	29.77	756.1	53.2	11.8	81	wsw.			3		9	w.		0	0		H. Leppig, Asst.
Magdeburg	29.52	749.8	29.71	754.6	52.7	11.5	74	sw.			5		10 ks		sw.	0.047	1.2		Dr. Assmann.
Memel	29.50	749.2	29.54	750.3	47.8	8.8	96	sw.			6		10 n					raining	Issermann.
Munich	28.13	714.5	29.99	761.7	49.5	9.7	84	nw.			2		10	sw.		0.008	0.2		Central Station.
Neufahrwasser	29.59	751.5	29.60	751.9	49.5	9.7	87	sw.			3		10			0.012	0.3	sprinkling	A. Lothes.
Neustadt, Palatinate	29.37	745.9	29.89	759.2	57.6	14.2	65	w.			3		7	w.		0.039	1.0		Dicknether.
Stuttgart	28.99	736.4	29.88	759.0	56.3	13.5	70	w.			3		8	w.		0.028	0.7		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.41	721.5	29.95	760.7	51.8	11.0	75	w.			4		9	w.		0.031	0.8		Fischer.
Wustrow	29.52	749.9	29.55	750.6	48.4	9.1	81	w.			4	0	4 ks			0.256	6.5		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.40	746.7	29.78	756.4	71.1	21.7		sw.			1.5		8			0.012	0.3		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.62	752.4	29.67	753.6	84.1	28.9	74	sw.	13.0	5.8			3		sw.	0	0	d. clouds	
Deesa	29.24	742.7	29.71	754.6	84.8	29.3	47	sw.	10.4	4.6			0			0	0	blue sky	
Bombay	29.74	755.3	29.77	756.2	81.7	27.6	79	nw.	12.0	5.4			0			0	0	blue sky	
Poona, Yarrowda.	27.90	708.8	29.74	755.4	82.3	27.9	50	wnw.	10.0	4.5			4	wsw.		0	0	d. clouds	
Belgaum	27.23	691.6	29.75	755.7	77.8	25.4	76	wnw.	7.0	3.1			1	n.		0	0	d. clouds	
Lahore	28.83	732.2	29.55	750.5	90.7	32.6	34	e.	1.6	0.7			0			0	0	blue sky	
Roorkee	28.73	729.7	29.61	752.1	84.8	29.3	59	se.	2.5	1.1			0			0	0		
Agra	29.09	739.0	29.64	752.9	91.2	32.9	40	w.	7.9	3.5			0			0	0		
Nagpur	28.68	728.5	29.71	754.7	83.5	28.6	45	calm	5.2	2.3			0			0	0	blue sky	
Jubbulpore	28.36	720.4	29.71	754.5	82.8	28.2	47	nw.	1.7	0.8			0			0	0	blue sky	
Lucknow	29.28	743.6	29.65	753.0	88.3	31.3	39	w.	4.1	1.8			0			0	0	blue sky	
Allahabad	29.34	745.2	29.65	753.1	81.5	27.5	71	calm	1.7	0.8			0			0	0	blue sky	
Patna	29.49	749.0	29.67	753.6	81.8	27.7	75	ssw.	1.8	0.8			0			0	0	blue sky	
Hazaribagh	27.67	702.8	29.67	753.6	78.3	25.7	56	nw.	5.0	2.2			0			0	0	blue sky	
Cuttack	29.59	751.5	29.67	753.5	84.8	29.3	79	calm	0.1	0.04			0			0	0	blue sky	
Calcutta, Alipore	29.63	752.5	29.65	753.1	84.5	29.2	72	calm	0	0			0			0	0	blue sky	
Dhubri	29.54	750.3	29.66	753.4	80.7	27.1	96	calm	1.1	0.5			0			0.04	1.0	blue sky	
Goalpara																			
Chittagong	29.59	751.6	29.68	753.9	82.2	27.9	86	calm	2.6	1.2			9			0	0	d. clouds	
Sibsagar	29.38	746.1	29.71	754.7	76.5	24.7	91	ene.	2.4	1.1			10	w.	w.	0.02	0.5	overcast	
Jeypore	28.25	717.5	29.65	753.2	91.6	33.1	23	nw.	6.2	2.8			0			0	0	blue sky	
Zanzibar, Africa			29.93	760.2	76.0	24.4	85	e.	3	1.3			9		sse.	0.19	4.8	drizzling	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.50	749.4	29.92	759.9	60.4	15.8	46	calm	0	0			1			0	0		Prof. Giovanni Clodig.
Milan	29.42	747.2	29.93	760.3	62.1	16.7	73	sw.	3.1	1.4			1			0	0		Prof. Schiaparelli.
Padua	29.79	756.7	29.90	759.5	62.6	17.0	56	ssw.	1.8	0.8			1	sw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.00	736.5	29.91	759.6	59.0	15.0	71	ese.	2.5	1.1			0			0	0		Prof. P. F. Denza.
Genoa	29.74	755.3	29.93	760.1	66.2	19.0	44	sw.	1.3	0.6			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.12	714.2	29.93	760.3	57.9	14.4	57	e.			2		0			0	0		Prof. D. C. Bruno.
Pesaro	29.85	758.3	29.90	759.5	60.4	15.8	65	n.			4		6	n.		0	0		Prof. Luigi Guidi.
Florence	29.66	753.4	29.91	759.8	64.9	18.3	48	n.			2		3			0	0		Prof. Costantino Pitter.
Leghorn	29.83	757.6	29.91	759.8	64.8	18.2	58	sw.	0.7	0.3			0			0	0		Prof. P. Monte.
Rome	29.68	753.8	29.85	758.2	65.3	18.5	52	n	9.4	4.2			4			0	0		Prof. P. S. Ferrari.
Lecce	29.58	751.3	29.83	757.6	65.8	18.8	64	ne.	9.8	4.4			4	n.		0.067	1.7		Prof. C. de Giorgi.
Cosenza	28.98	736.0	29.86	758.5	65.5	18.6	61	sse.	3.8	1.7			10	se.		0.256	6.5		Prof. D. Conti.
Cagliari	29.69	754.2	29.89	759.1	67.5	19.7	44	nw.			4		6	w.		0	0		Prof. A. Pacinotti.
Palermo	29.67	753.5	29.91	759.7	65.3	18.5	76	calm	0	0			10	nw.		0.665	16.9		Prof. G. Ciacciatore.
Syracuse	29.78	756.4	29.82	757.5	71.2	21.8	64	wsw.	4.3	1.9			6	sw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.40	746.7	29.81	757.2	65.8	18.8	63	sw.	7.4	3.3			3	nw.		0	0		Prof. F. Brioschi.
Stelvio	22.10	561.3			35.2	1.8	71	ne.			1		8 ks	ne.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.15	562.5			37.9	3.3	68	n.			2	0	1 s			0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.88	758.9	29.89	759.2	66.4	19.1	83	wnw.	4.5	2.0			10 s			0.025	0.6	covered	K. Sasaki.
Kioto	29.75	755.6	29.92	759.9	64.0	17.8	86	se.	1.2	0.5		10cs;ck	0			0.004	0.1	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.75	755.6	29.95	760.7	67.4	19.7	90	ne.	0.7	0.3			10 s			0.030	0.8	overcast	S. Takehayashi
Nemuro	29.73	755.1	29.80	756.9	57.0	13.9	87	sw.	6.6	2.9		0	2		ne.	0	0		
Niigata	29.95	760.7	29.98	761.5	61.3	16.3	59	nne.	5.5	2.5		ck	10 s			0	0	cloudy	
Nobiru	29.95	760.7	29.96	761.0	56.7	13.7	66	nnw.	10.4	4.6		cs;ck	9 s			0	0	cloudy	
Supporo	29.81	757.2	29.88	758.9	46.9	8.3	87	s.	4.8	2.1			10			0.035	0.9		
Tokei Obs'y, Yeddo	29.88	758.9	29.94	760.5	62.9	17.2	91	ese.	3.0	1.3		2 ck	7 ks		se.	0.061	1.6	cloudy	The Staff.
Wakayama	29.88	758.9	29.93	760.2	67.8	19.9	69	s.	3.0	1.3			10 n			0.066	1.7	gloomy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.94	760.5	30.13	765.3	75.1	23.9	63	e.	23.5	10.5		0	6k;ks		ese.	0	0	fair	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.74	603.0	29.96	761.0	57.2	14.0	73	ese.	0	0		0	4 s			0	0		Vicente Fernandez.
Leon	24.49	622.0	30.19	766.9	58.5	14.7	86	w.			1	4 c	0	nw.		0	0		Prof. M. Leal.
Mazatlan	29.65	753.1	29.91	759.6	79.0	26.1	91	ne.	0.9	0.4		3 cs	1 k	e.		0.039	1.0	fair	F. Quijano, C. E.
Mexico, Central Obs'y	23.17	588.6	30.26	768.7	50.9	10.5	83	w.	2.0	0.9		1 c	8 ks		ne.	0	0	very cloudy	The Staff.
Morelia	24.20	614.9	30.28	769.0	59.0	15.0	52	ese.			2	0	0			0	0	fine	M. Tena, M. D.
Pabellon, Aguascalientes	24.01	609.8	30.00	761.9	57.7	14.3	80	nnw.			1	2 cs	0			0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	595.0	30.28	769.2	49.1	9.5	77	calm	0	0		0	4		s.	0	0		Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.82	757.3	29.82	757.3	55.9	13.3		w.			5					0.031	0.8		
Groningen	29.58	751.2	29.63	752.6	53.1	11.7		w.			5					0.087	2.2		
Helder	29.65	753.0	29.65	753.0	53.6	12.0		wsw.			5					0.071	1.8		
Hellevoetsluis	29.76	756.0	29.76	756.0	54.5	12.5	76	sw.			5					0.039	1.0		
Utrecht	29.70	754.4	29.75	755.6	56.7	13.7	66	wsw.			4		5			0.059	1.5	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	28.77	730.7	28.83	732.3	46.8	8.2	75	ssw.	34.4	15.4			10			0.882	22.4	raining	
Christiania	28.83	732.3	28.97	735.9	49.5	9.7	60	sw.	13	6			8			0.008	0.2		
Gjæsvær	29.10	739.2	29.13	739.8	37.0	2.8		ene.			4		10						
Lodingen	28.82	731.9	28.86	733.1	40.5	4.7	63	ne.			6		10			0.232	5.9		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.39	772.0	30.47	773.9	65.1	18.4	83	e.	2.5	1.1			5			0	0		Dr. J. A. Sampaio.
Campo Major	29.24	742.8	30.22	767.7	72.7	22.6	33	ese.	2.5	1.1			0			0	0		Dr. A. M. R. dos Santos.
Funchal, Madeira	30.17	766.3	30.26	768.5	74.5	23.6	46	ne.	4.0	1.8			4			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.95	760.6	30.30	769.7	67.8	19.9	62	nnw.	9.8	4.4			1			0	0		The Staff.
Ponta Delgada, Azores	30.47	774.0	30.54	775.8	69.1	20.6	62	ne.	3.8	1.7			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.09	738.9	30.17	766.3	53.1	11.7	47	nw.	7	3		1 c	0						Capt. Lasarew.
Archangel	29.50	749.4	29.52	749.9	48.0	8.9	88	s.	18	8			10						Capt. Sselliwerstow.
Astrakhan	30.26	768.7	30.18	766.6	53.6	12.0	55	ese.	13	6		c	7 s					light clouds	Capt. Wisganow.
Barnaul ‡	29.67	753.6	30.17	766.4	46.6	8.1	57	sw.	13	6			10						Meteorological Obs'y.
Dorpat	29.37	746.1	29.61	752.2	53.1	11.7	58	s.	13	6		6 ck	0						Observatory.
Ekaterinburg	29.16	740.6	30.11	764.9	53.4	11.8	53	wsw.	22	10		9c;cs;ck	0					light clouds	Meteorological Obs'y.
Kasan	29.96	761.0	30.23	767.9	55.6	13.1	43	ssw.	11	5		0	0						Observatory.
Kertch	29.82	757.3	29.84	757.8	61.9	16.6	91	se.	7	3		0	2 k			0	0		Lagorio & Sastyres.
Kieff	29.21	741.8	29.84	757.8	55.8	13.2	60	ese.	7	3		c	2 ks						Observatory.
Lugan	29.83	757.6	30.03	762.8	51.3	10.7	84	ese.	22	10			10			blank	blank		Meteorological Obs'y.
Moscow	29.49	749.0	29.96	761.0	55.8	13.2	47	s.	13	6		0	0						Meteorological Obs'y.
Nikolaiev	29.81	757.2	29.88	759.0	50.4	10.2	89	sse.	4	2			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.91	759.8	30.00	762.0	38.5	3.5	93	calm			0		10 n			0.087	2.2	raining	Lieut. Iwanow.
Pekin, China	29.97	761.1	30.11	764.7	58.8	14.9	75	calm	0	0		0	8 n			0	0		Physical Observatory.
St. Petersburg	29.63	752.7	29.65	753.1	53.1	11.7	70	s.	16	7		cs	7 kn						Central Physical Obs'y.
Tashkend, Laboratory	28.73	729.7	30.35	770.8	46.0	7.8	78	calm	0	0			0			0	0		Teich, A. M.
Tiflis	28.57	725.7	29.97	761.2	63.3	17.4	53	se.	4	2		0	0						Physical Observatory.
Warsaw	29.30	744.2	29.72	754.8	56.5	13.6	59	ssw.	9	4		cs	8 k						Astronomical Obs'y.
Wilna	29.30	744.2	29.71	754.7	57.6	14.2	54	s.	13	6			2						Berg, Assistant.
Yeniseisk	29.79	756.6	30.08	764.1	30.4	— 0.9	67	s.	7	3			10					light clouds	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.47	748.5	55.0	12.8	22	w.			6	0	5 k			0.08	2.0	showery	Andrew Gibb.
Monach Lt. House, Hebrides			29.37	746.1	47	8.3	92	wnw.			8	10	0	wnw.		0.2	5.	showery	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.96	761.0	30.06	763.6	69.1	20.6	46	w.	3.6	1.6		1 c	0			0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.21	767.4	30.27	768.8	62.8	17.1	87	nw.	1.1	0.5			10			0.181	4.6	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.32	694.0			55.4	13.0	74	ne.	2.7	1.2		0	7			0	0	cloudy	Domingo Martin.
Madrid, Royal Obs'y	28.02	711.8	30.23	767.8	65.7	18.7	57	sw.	3.1	1.4		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	30.04	763.0	30.19	766.8	71.1	21.7	52	nnw.	3.4	1.5		0	0			0	0	clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.39	746.5	30.20	767.1	60.8	16.0	60	n.	5.6	2.5			9			0.047	1.2	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.99	761.8	30.06	763.5	76.7	24.8	86	e.	5.4	2.4		0	3 k		ene.	0.079	2.0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.60	751.7	29.65	753.0	82.6	28.1	89	sw.	46.2	21.0			10 n		sw.	0.77	19.5	raining	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.13	765.3	30.23	767.8	72.1	22.3	52	w.	4.5	2.0		0	1		nw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.85	758.2	29.94	760.5	78.4	25.8	94	nw.	3.6	1.6		0	2 kn		nw.	2.441	62.0	clear	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.16	740.8	29.30	744.2	75.2	24.0	98	se.	40.7	18.1			10 kn		se.	0.76	19.4	stormy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.07	738.3	29.11	739.3	47.8	8.8	78	sw.			4		8			0.304	12.8		
Umea	29.02	737.1	29.07	738.4	48.6	9.2	89	s.			4		10			0.657	16.7		
Hernosand	28.94	735.1	28.99	736.4	46.9	8.3	91	s.			6		7			0.787	20.0		
Stockholm	28.98	736.1	29.16	740.6	45.7	7.6	98	wsw.			6		10			0.012	0.3	raining	
Wisby	29.23	742.4	29.29	743.9	51.4	10.8	90	wsw.			6		7			0.260	6.6		
Sub-Series.																			
Upsala	28.99	736.4	29.08	738.6	48.6	9.2	89	ssw.	13.2	5.9			10		sw.	0.055	1.4		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.66	728.0	30.08	764.0	57.6	14.2	59	ssw.			2		8			0	0	covered	The Observatory.
Zurich ‡	28.40	721.4	30.06	763.5	48.2	9.0	92	s.			1		10			0.118	3.0	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.73	755.2	64.9	18.3	84	e.	3	1.5			10		n.	0.091	2.3		The Observatory.
Valona			29.94	760.4	63.0	17.2		w.			1		10			1.339	34.	covered	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.94	760.5	77.5	25.5	56	nw.			1	5 c	0	sw.		0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Albany, New York	30.27	768.8	30.35	770.9	49.5	9.7	59	s.	10	4.5		7 cs	3 s			0	0	cloudy	
Alpena, Michigan	29.10	739.1	29.79	756.7	54	12.2	93	sw.	3	1.3			10 s			1.47	37.3	cloudy	
Atlanta, Georgia	29.23	742.4	30.45	773.4	54.0	12.2	80	e.	9	4.0		4 k	0	calm		0	0	fair	
Atlantic City, New Jersey	30.43	772.9	30.44	773.2	58	14.4	64	s.	11	4.9			10 s		sw.	0	0	cloudy	
Augusta, Georgia	30.27	768.8	30.47	773.9	56.0	13.3	69	e.	1	0.4		0	0			0	0	clear	
Baltimore, Maryland	30.38	771.6	30.43	772.9	50	10.0	72	s.	3	1.3		7c;ck;cs	0	c;w;sw		0	0	fair	
Barnegat, New Jersey	30.40	772.1	30.42	772.7	55.0	12.8	74	s.	6	2.7			9 s		sw.	0	0	cloudy	
Bismarck, Dakota	28.34	719.8	30.26	768.6	25	— 3.9	88	nw.	20	8.9			10 s		calm	0.02	0.5	cloudy	
Boise City, Idaho	27.22	691.4	30.14	765.5	34	1.1	89	w.	4	1.8			10 s		w.	0.05	1.3	cloudy	
Boston, Massachusetts	30.29	769.4	30.45	773.4	42.0	5.6	68	sw.	8	3.6		6 cs	hz.	w.		0	0	fair	
Brackettville, Texas	28.88	733.5	29.91	759.7	72	22.2	90	e.	8	3.6			10 s		se.	0	0	cloudy	
Brownsville, Texas	30.01	762.2	30.06	763.5	77	25.0	90	calm	0	0		0	0			0	0	clear	
Buffalo, New York	29.28	743.7	30.02	762.5	52	11.1	86	sw.	16	7.2			10 n		sw.	0.29	7.4	light rain	
Burlington, Vermont	29.94	760.5	30.24	768.1	43.7	6.5	59	s.	23	10.3			10 s		sw.	0	0	cloudy	
Cairo, Illinois	29.79	756.7	30.20	767.1	69.1	20.6	81	s.	14	6.3			10 s		s.	inap.	inap.	cloudy	
Campo, California	27.38	695.4	29.95	760.7	27.4	— 2.6	88	se.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.43	772.9	30.45	773.4	56	13.3	69	s.	6	2.7		7 cs	0			0	0	fair	
Cape May, New Jersey	30.41	772.4	30.44	773.2	58	14.4	69	s.	16	7.2			10 s		s.	0	0	cloudy	
Castroville, Texas	29.27	743.4	29.95	760.7	75	23.9	85	s.	5	2.2			10 s		s.	0	0	cloudy	
Cedar Keys, Florida	30.25	768.3	30.27	768.8	69	20.6	84	ne.	10	4.5		0	0			0	0	clear	
Champaign, Illinois	29.14	740.1	29.90	759.4	70.0	21.1	78	sw.	23	10.3		0	6 s		sw.	0.25	6.3	fair	
Charleston, S. Carolina	30.35	770.9	30.41	772.4	60	15.6	81	ne.	11	4.9		9 c	0	e.		0	0	cloudy	
Charlotte, N. Carolina	29.58	751.3	30.49	774.4	48.0	8.9	77	n.	3	1.3		hz.	hz.	calm	calm	0	0	dense haze	
Chattanooga, Tennessee	29.59	751.6	30.44	773.2	60.0	15.6	70	se.	4	1.8		9 ck	sk.	sw.	calm	0	0	cloudy	
Cheyenne, Wyoming	24.01	609.8	30.14	765.5	33.5	0.8	80	ne.	8	3.6		0	0			0	0	clear	
Chicago, Illinois	29.15	740.4	29.89	759.2	68.5	20.3	80	sw.	12	5.4		0	9 k		sw.	0.80	20.3	cloudy	
Chincoteague, Virginia	30.43	772.9	30.45	773.4	61	16.1	60	s.	14	6.3		0	4 s		calm	0	0	fair	
Cincinnati, Ohio	29.51	749.5	30.19	766.8	66	18.9	63	sw.	9	4.0		2 cs	3 ks		w.	0	0	fair	
Cleveland, Ohio	29.26	743.2	30.04	763.0	59	15.0	81	s.	24	10.7			10 n		sw.	0.34	8.6	light rain	
Coleman City, Texas																			
Columbus, Ohio	29.26	743.2	30.15	765.8	64	17.8	68	s.	10	4.5			10 s		sw.	0	0	cloudy	
Concho, Texas	28.11	714.0	30.11	764.8	69	20.6	90	s.	6	2.7			10 s		s.	0	0	cloudy	
Corsicana, Texas	29.66	753.4	30.14	765.5	74	23.3	90	s.	8	3.6		0	8 ks		s.	0	0	cloudy	
Davenport, Iowa	29.21	741.9	29.89	759.2	67	19.4	90	sw.	8	3.6			10 s		w.	0.32	8.1	cloudy	
Dayton, Washington T'y	28.41	721.6	30.27	768.8	28	— 2.2	88	se.	1	0.4		7 k	0	calm		0.20	5.1	fair	
Deadwood, Dakota	25.52	648.2	30.38	771.6	21	— 6.1	87	nw.	4	1.8			10 ks		sw.	0	0	cloudy	
Decatur, Texas																			
Delaware Breakwater, Del.	30.40	772.1	30.42	772.7	56	13.3	69	se.	7	3.1		9 c;k	0	w:se.		0	0	cloudy	
Denison, Texas	29.27	743.4	30.10	764.5	74	23.3	90	s.	12	5.4			10 ks		s.	0	0	cloudy	
Denver, Colorado	24.80	629.9	30.17	766.3	46.3	7.9	57	nw.	6	2.7		0	0			0	0	clear	
Des Moines, Iowa	29.04	737.6	29.99	761.7	46	9.4	93	n.	8	3.6			10 n		n.	0.31	7.9	light rain	
Detroit, Michigan	29.21	741.9	29.95	760.7	67.0	19.4	73	sw.	17	7.6			10 n		sw.	0.85	21.6	light rain	
Dodge City, Kansas	27.28	692.9	29.97	761.2	62.7	17.1	94	sw.	12	5.4		0	3 s		sw.	inap.	inap.	fair	
Dubuque, Iowa	29.08	738.6	29.82	757.4	59.6	15.3	93	sw.	5	2.2			10 s		w.	0.63	16.0	cloudy	
Duluth, Minnesota	29.10	739.1	29.83	757.7	51	10.6	93	ne.	1	0.4			fg.			0.84	21.3	dense fog	
Eagle Pass, Texas	29.27	743.4	30.12	765.0	72.0	22.2	90	se.	5	2.2		0	5 s		se.	0	0	fair	
Eagle Rock, Idaho	25.25	641.3	30.24	768.1	10	—12.2	83	ne.	5	2.2		0	0			0	0	clear	
Eastport, Maine	30.33	770.4	30.40	772.1	41.5	5.3	78	sw.	3	1.3		4 ck	2 s	w.	w.	0	0	fair	
El Paso, Texas	26.22	666.0	30.06	763.5	59.1	15.1	60	n.	1	0.4		0	2 s			0	0	clear	
Erie, Pennsylvania	29.24	742.7	30.00	762.0	55	12.8	93	s.	25	11.2			10 n		sw.	0.58	14.7	light rain	
Escanaba, Michigan	29.07	738.4	29.75	755.9	54	12.2	93	w.	3	1.3			10 s		w.	1.83	46.5	cloudy	
Florence, Arizona	28.37	720.6	29.97	761.2	60.3	15.7	83	w.	2	0.9		1 cs	0	calm		0	0	clear	
Fort Apache, Arizona	25.05	636.3	30.09	764.3	43	6.1	76	e.	2	0.9		0	2 s		calm	0	0	clear	
Fort Assinnaboine, Montana	27.57	700.3	30.51	774.9	8	—13.3	80	sw.	13	5.8		0	5 s		w.	0.06	1.5	fair	
Fort Bennett, Dakota	28.55	725.2	30.16	766.1	33	0.0	81	n.	13	5.8			10 s		n.	0.06	1.5	cloudy	
Fort Benton, Montana	27.58	700.5	30.56	776.2	7	—13.9	80	ne.	12	5.4			10 s		calm	0.30	7.6	cloudy	
Fort Buford, Dakota	28.33	719.6	30.44	773.2	10	—12.2	80	w.	4	1.8		0	0			0.19	4.8	clear	
Fort Custer, Montana	27.20	690.9	30.59	777.0	13	—10.6	92	s.	1	0.4		1 cs	0	calm		0.10	2.5	clear	
Fort Davis, Texas	24.99	634.7	29.95	760.7	61	16.1	78	se.	6	2.7		0	0			0	0	clear	
Fort Elliott, Texas	27.21	691.1	30.51	774.9	65	18.3	73	se.	8	3.6			10 s		se.	0	0	cloudy	
Fort Gibson, Indian T'y	29.45	748.0	30.02	762.5	74.0	23.3	76	s.	16	7.2			10 s		s.	0.02	0.5	cloudy	
Fort Grant, Arizona					58	14.4	57	ne.	3	1.3		2 cs	3 s			0	0	fair	
Fort Griffin, Texas	28.73	729.7	29.95	760.7	73.2	22.9	84	se.	8	3.6		0	4 s			0.01	0.3	fair	
Fort Keogh, Montana	27.82	706.6	30.49	774.4	14	—10.0	83	w.	12	5.4		0	0			0.03	0.8	clear	
Fort Macon, North Carolina	30.40	772.1	30.42	772.7	61	16.1	84	n.	8	3.6		6 c	3 s	n.	calm	0	0	cloudy	
Fort McKavett, Texas	27.82	706.6	29.69	754.1	69.1	20.6	85	s.	9	4.0		1 cs	4 s		w.	0	0	fair	
Fort Missoula, Montana	27.00	685.8	30.65	778.5	22	— 5.6	88	ne.	6	2.7			10 s		ne.	0.10	2.5	cloudy	
Fort St. Michaels	30.29	769.4	30.32	770.1	40	4.4	100	se.	13	5.8			10 n			0.34	8.6	light rain	
Fort Shaw, Montana	26.71	678.4	30.45	773.4	4	—15.6	76	nw.	7	3.1		6 cs	0	calm		0.33	8.4	fair	
Fort Sill, Indian Territory	28.76	730.5	30.05	763.3	71.3	21.8	89	s.	24	10.7			10 s		s.	0	0	cloudy	
Fort Stevenson, Dakota	28.32	719.3	30.28	769.1	22	— 5.6	87	nw.	16	7.2			10 s		nw.	0.05	1.3	cloudy	
Fort Verde, Arizona					45	7.2	63	ne.			2	2 cs	0	e.		0	0	clear	
Fredericksburg, Texas	28.34	719.8	29.85	758.2	70	21.1	97	sw.	12	5.4			10 ks		sw.	0	0	cloudy	
Galveston, Texas	30.08	764.0	30.12	765.0	79	26.1	78	s.	11	4.9		4 c	2 ks		s.	0.07	1.8	fair	
Grand Haven, Michigan	29.15	740.4	29.85	758.2	63.0	17.2	92	s.	25	11.2			10 s		sw.	1.39	35.3	cloudy	
Hatteras, North Carolina	30.41	772.4	30.43	772.9	65	18.3	63	ne.	16	7.2		4 c	0			0	0	fair	
Helena, Montana	26.04	661.4	30.63	778.0	14	—10.0	100	se.	8	3.6			10 s		calm	1.37	34.8	cloudy	
Henrietta, Texas	29.06	738.1	29.95	760.7	75	23.9	85	s.	16	7.2		0	5 s			0	0	fair	
Huron, Dakota	28.68	728.5	30.14	765.5	34	1.1	89	nw.	18	8.0			10 n			0.54	13.7	light rain	
Indianapolis, Indiana	29.26	743.2	30.09	764.3	68	20.0	73	sw.	10	4.5		2 k	8 ks;s	sw.	sw.	inap.	inap.	cloudy	
Indianola, Texas	30.07	763.8	30.10	764.5	76.2	24.6	85	se.	6	2.7		2 k	1 ks	se.	calm	inap.	inap.	fair	
Jacksboro, Texas	28.78	731.0	29.86	758.4	70	21.1	90	s.	11	4.9			10 ks		s.	0	0	cloudy	
Jacksonville, Florida	30.27	768.8	30.31	769.9	73	22.8	66	ne.	4	1.8		2 cs	0			0.10	2.5	clear	
Keokuk, Iowa	29.22	742.2	29.90	759.4	70.0	21.1	81	sw.	17	7.6		6 k	0	w.		0.16	4.1	fair	
Key West, Florida	30.08	764.0	30.12	765.0	77.0	25.0	79	ne.	15	6.7		0	2 k		ne.	0.01	0.3	clear	
Kittyhawk, North Carolina	30.43	772.9	30.45	773.4	63	17.2	73	e.	11	4.9		2 c	2 k			0	0	fair	
Knoxville, Tennessee	29.37	746.0	30.44	773.2	54.3	12.4	91	e.	2	0.9		4 ck	3 s	nw.	calm	0	0	fair	
La Crosse, Wisconsin	29.05	737.9	29.85	758.2	61	16.1	87	w.	4	1.8			10 s		w.	1.32	33.5	cloudy	
La Mesilla, New Mexico	26.11	663.2	30.26	768.6	55.3	12.9	86	calm	0	0		0	8 s			0	0	cloudy	
Laredo, Texas	29.60	751.8	29.93	760.2	75.0	23.9	85	se.	2	0.9			10 s		se.	0	0	cloudy	
Leavenworth, Kansas	29.00	736.6	29.93	760.2	69	20.6	76	s.	3	1.3		0	8 s		sw.	0.14	3.6	cloudy	
Lewiston, Idaho	29.34	745.2	30.22	767.6	31	— 0.6	78	calm	0	0		0	2 s		calm	inap.	inap.	clear	
Little Rock, Arkansas	29.82	757.4	30.14	765.5	71	21.7	84	s.	5	2.2		0	9 ks		s.	0	0	cloudy	
Los Angeles, California	29.57	751.1	29.95	760.7	56.1	13.4	74	s.	5	2.2		0	3 s		sw.	0	0	clear	
Louisville, Kentucky	29.59	751.6	30.17	766.3	67.5	19.7	55	s.	11	4.9		6 cs	0			0	0	fair	
Lynchburg, Virginia	29.72	754.9	30.43	772.9	47.2	8.4	63	calm	0	0		0	fg.			0	0	clear	
Madison, Wisconsin	28.77	730.7	29.84	757.9	66	18.9	93	sw.	8	3.6		2 cs	6 s	w.	sw.	0.35	8.9	cloudy	
Marquette, Michigan	29.01	736.8	29.77	756.1	48	8.9	86	nw.	4	1.8		3 k	5 s	nw.	nw.	1.30	33.0	cloudy	
Mason, Texas	28.42	721.9	30.12	765.0	73.7	23.2	84	se.	8	3.6			10 ks		se.	0	0	cloudy	
Memphis, Tennessee	29.89	759.2	30.24	768.1	73	22.8	76	s.	7	3.1		2 cs	6 s	calm	s.	0	0	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.05	737.9	29.83	757.7	65	18.3	93	sw.	18	8.0			10 s		sw.	0.46	11.7	cloudy	
Mobile, Alabama	30.20	767.1	30.27	768.8	73.0	22.8	71	e.	11	4.9		1 c	0			inap.	inap.	clear	
Montgomery, Alabama	30.12	765.0	30.36	771.1	63.9	17.7	78	e.	8	3.6		3 c	0			0	0	clear	
Moorhead, Minnesota	29.01	736.8	30.07	763.8	33	0.6	100	nw.	22	9.8			10 s		nw.	0.74	18.8	cloudy	
Morgantown, W. Virginia	29.22	742.2	30.21	767.3	54.5	12.5	63	sw.	3	1.3			10 n		nw.	inap.	inap.	light rain	
Mt. Washington, N. H.	24.01	609.8	30.38	771.6	34.0	1.1	74	sw.	30	13.4			10 s		sw.	0	0	cloudy	
Nashville, Tennessee	29.74	755.4	30.30	769.6	67.9	19.9	57	s.	7	3.1			10 ks		sw.	0	0	threatening.	
New Haven, Connecticut	30.30	769.6	30.42	772.7	46	7.8	76	calm	0	0		6 k	sk	sw.		0	0	dense smoke	
New London, Connecticut	30.42	772.7	30.47	773.9	52	11.1	72	sw.	13	5.8			10 s		w.	0	0	cloudy	
New Orleans, Louisiana	30.14	765.5	30.20	767.1	75.2	24.0	85	se.	6	2.7		hz	hz			0	0	clear	
Newport, Rhode Island	30.42	772.7	30.47	773.9	52.5	11.4	63	sw.	9	4.0			10 s		sw.	0	0	cloudy	
New River, N. Carolina					58	14.4	80	ne.			1	0	hz.			0	0	fair	
New Shoreham, Rhode I'd	30.45	773.4	30.48	774.2	51.4	10.8	66	sw.	12	5.4		0	7 ks		sw.	0	0	fair	
New York, New York	30.24	768.1	30.42	772.7	51	10.6	80	sw.	8	3.6		7 cs	0	sw.		0	0	fair	
Norfolk, Virginia	30.42	772.7	30.45	773.4	54	12.2	86	calm	0	0		4 cs	3 k; sk	nw.		0	0	fair	
North Platte, Nebraska	27.12	688.8	30.18	766.6	38.4	3.6	89	ne.	16	7.2			10 s		ne.	0	0	cloudy	
Olympia, Washington T'y	30.19	766.8	30.23	767.8	36.0	2.2	79.0	n.	1	0.4			10 s			inap.	inap.	cloudy	
Omaha, Nebraska	28.84	732.5	30.08	764.0	43	6.1	100	n.	15	6.7			10 n		n.	0.44	11.2	light rain	
Oswego, New York	29.77	756.1	30.11	764.8	49.0	9.4	66	s.	12	5.4			10 n			inap.	inap.	light rain	
Pensacola, Florida	30.26	768.6	30.29	769.4	67	19.4	84	ne.	14	6.3		0	6 s		se.	0	0	fair	
Philadelphia, Pa	30.38	771.6	30.44	773.2	49	9.4	77	sw.	2	0.9			8ks;hz		w.	0	0	cloudy	
Phœnix, Arizona	28.76	730.5	30.56	776.2	55	12.8	24	e.	2	0.9		0	0			0	0	clear	
Pike's Peak, Colorado	17.78	451.6	29.99	761.7	22	— 5.6	53	sw.	32	14.3		0	0			0	0	clear	
Pioche, Nevada	23.98	609.1	30.17	766.3	50	10.0	29	s.	8	3.6		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.36	745.7	30.20	767.1	57.8	14.3	64	s.	12	5.4			10 s		sw.	0	0	cloudy	
Port Eads, Louisiana	30.20	767.1	30.21	767.3	76.5	24.7	87	e.	16	7.2		0	8 ks; s		e.	0.10	2.5	threatening.	
Port Huron, Michigan	29.19	741.4	29.90	759.4	58.6	14.8	94	s.	18	8.0			10 n			0.58	14.7	light rain	
Portland, Maine	30.34	770.6	30.39	771.9	39.5	4.2	65	sw.	8	3.6		2 k	2 s	w.	calm	0	0	fair	
Portland, Oregon	30.17	766.3	30.24	768.1	37.8	3.2	82	nw.	5	2.2		8 k	0	nw.		0	0	cloudy	
Portsmouth, N. Carolina					66	18.9	68	ne.	20	8.9		3 k	0	ne.		0	0	clear	
Prescott, Arizona	24.73	628.1	30.04	763.0	40	4.4	62	s.	1	0.4		0	0			0	0	clear	
Punta Rassa, Florida	30.15	765.8	30.16	766.1	74	23.3	82	ne.	15	6.7		0	9 ks		ne.	0	0	cloudy	
Red Bluff, California	29.64	752.8	29.99	761.7	47.5	8.6	67	n.	4	1.8		0	0			0	0	clear	
Rio Grande City, Texas	29.88	758.9	30.09	764.3	72	22.2	90	se.	4	1.8			fg			0	0	foggy	
Rochester, New York	29.33	745.0	30.03	762.7	49	9.4	71	sw.	21	9.4			10 n		sw.	0.04	1.0	light rain	
Roseburg, Oregon	29.62	752.3	30.21	767.3	34	1.1	92	calm	0	0			fg			0.16	4.1	dense fog	
Sacramento, California	29.91	759.7	29.99	761.7	46.4	8.0	61	nw.	4	1.8		0	0			0	0	clear	
St. Louis, Missouri	29.45	748.0	30.08	764.0	70.4	21.3	84	s.	18	8.0		2 ck	6 s			0.01	0.3	fair	
St. Paul, Minnesota	28.98	736.1	29.90	759.4	48.8	9.3	93	w.	10	4.5			10 s		w.	1.29	32.8	cloudy	
Salt Lake City, Utah	25.56	649.2	30.01	762.2	44	6.7	41	calm	0	0			10 s			0	0	threatening.	
San Antonio, Texas	29.39	746.5	30.11	764.8	73.0	22.8	97	se.	3	1.3			10 s		se.	0	0	cloudy	
San Diego, California	29.83	757.7	29.90	759.4	59.5	15.3	75	sw.	3	1.3			10 s			0	0	cloudy	
Sandusky, Ohio	29.28	743.7	29.99	761.7	62.8	17.1	84	s.	25	11.2			10 s		w.	0.40	10.2	threatening.	
Sandy Hook, New Jersey	30.38	771.6	30.41	772.4	53.5	11.9	72	sw.	12	5.4		0	8 s		calm	0	0	cloudy	
San Francisco, California	29.94	760.5	30.01	762.2	52	10.6	86	w.	1	0.4		0	0			0	0	clear	
Santa Fé, New Mexico	23.34	592.8	30.33	770.4	44	6.7	51	calm	0	0		2 c	3 s	calm	calm	0	0	fair	
Savannah, Georgia	30.30	769.6	30.39	771.9	59	15.0	81	n.	6	2.7		3 cs	hz			0	0	fair	
Shreveport, Louisiana	29.91	759.7	30.14	765.5	72	22.2	90	s.	4	1.8		0	0			0	0	clear	
Silver City, New Mexico	24.30	617.2	29.98	761.5	50	10.0	74	nw.	1	0.4		0	3 s		calm	0	0	clear	
Sitka, Alaska	30.42	772.7	30.49	774.4	39.2	4.0	73	calm	0	0			fg		calm	0	0	dense fog	
Smithville, North Carolina	30.38	771.6	30.42	772.7	57	13.9	80	ne.	8	3.6		7 c	hz	calm		0	0	cloudy	
Spokane Falls, Wash. Ter.	28.17	715.5	30.24	768.1	26	— 3.3	88	ne.	5	2.2			10 s		e.	0.31	7.9	cloudy	
Springfield, Illinois	29.29	744.0	30.00	762.0	68.5	20.3	90	sw.	15	6.7		0	4 s		sw.	0.05	1.3	fair	
Springfield, Massachusetts	30.28	769.1	30.42	772.7	36.8	2.7	89	calm	0	0		10 cs	fg			0	0	cloudy	
Stockton, Texas	26.99	685.5	30.14	765.5	65.7	18.7	90	se.	6	2.7		0	1 s		calm	0	0	clear	
St. Vincent, Minnesota	29.16	740.7	30.09	764.3	27.5	— 2.5	82	n.	16	7.2			10 s		calm	0.07	1.8	cloudy	
Thatcher's Island, Mass	30.40	772.1	30.45	773.4	47.5	8.6	86	sw.	16	7.2		2 k	0	w.		0	0	clear	
Toledo, Ohio	29.26	743.2	29.98	761.5	62	16.7	93	se.	20	8.9			10 n		sw.	0.60	15.2	light rain	
Tucson, Arizona	27.42	696.5	29.86	758.4	65	18.3	65	se.	5	2.2		4 k	0	se.		0	0	fair	
Umatilla, Oregon	29.93	760.2	30.36	771.1	34.0	1.1	79	ne.	5	2.2			10 ks		ne.	0.17	4.3	cloudy	
Uvalde, Texas	29.10	739.1	29.89	759.2	74	23.3	90	s.	4	1.8			10 s		s.	0	0	cloudy	
Vicksburg, Mississippi	29.98	761.5	30.24	768.1	69	20.6	90	se.	7	3.1		3 cs	hz.	calm	calm	0	0	fair	
Visalia, California	29.56	750.8	29.94	760.5	48	8.9	63	nw.	3	1.3		0	0			0	0	clear	
Washington, D. C.	30.30	769.6	30.42	772.7	47	8.3	93	s.	1	0.4		2 c	fg			0	0	clear	
West Los Animas, Colorado	25.94	658.9	30.02	762.5	54	12.2	30	n.	9	4.0		4 cs	0	nw.		0	0	fair	
Wickenburg, Arizona					48	8.9	71	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.37	771.4	30.43	772.9	54	12.2	80	ne.	2	0.9		8 c	sk	n.	calm	0	0	fair	
Winnemucca, Nevada	25.56	649.2	30.02	762.5	22	— 5.6	80	ne.	1	0.4		0	0			0.20	5.1	clear	
Wood's Holl, Mass	30.42	772.7	30.46	773.7	52	11.1	66	sw.	16	7.2		8 k	0	sw.		0	0	cloudy	
Yankton, Dakota	28.77	730.7	30.14	765.5	38	3.3	89	nw.	12	5.4			10 s		calm	0.17	4.3	cloudy	
Yuma, Arizona	29.69	754.1	29.83	757.7	57.4	14.1	76	e.	1	0.4		0	0			0	0	clear	
Sun-Series.																			
Bridgetown, Barbados, W.I. ‡	29.94	760.5	29.96	761.0	85	29.4	83	s.	4	1.8		5 ck	5 ks			0.08	2.0		J. A. Racker.
Bogota, U. S. Columbia	22.03	559.6			54.5	12.5	79	se.	1	0.4		2 ck	8 n; s		w.	0	0	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	30.03	762.7	30.05	763.3	76	24.4	90	sw.					10			1.90	48.3	raining	J. B. Dougherty.
Guadeloupe, W. I. ‡	29.82	757.4	29.82	757.4	80	26.7	90	e.				0	2 k		e.	0.10	2.5	clear	B. Bigar.
Havana, Cuba, W. I.	30.04	763.0	30.08	764.0	78	25.6	76	e.	1.2	0.5		0	5 ks		e.	0	0	fair	A. Van Caneghem, Ass't
Kingston, Jamaica, W. I.	29.92	760.0	29.93	760.2	71.3	21.8	92	n.	2	0.9			10 n			1.41	35.8	rainy	Robert Johnstone.
Navassa, W. I.	29.81	757.2	29.89	759.2	83	28.3	74	ne.	14	6.3			10			0	0	stormy	F. M. Everett.
Paramaribo, S. A.	29.99	761.7	29.99	761.7	80	26.7	78	e.			2	0	4 k			0	0	clear	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.42	747.3	29.98	761.5	78	25.6	89	n.					10 ks		calm	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					73.8	23.2	99	sw.			1		9 n		sw.	1.97	50.		Earl Flint.
Santiago de Cuba, W. I.	29.94	760.5	29.97	761.2	77	25.0	82	ne.	2.4	1.1		10 cs	2 s		ne.	0.07	1.8	cloudy	Robert Mason.
St. Thomas, W. I. ‡	29.81	757.2	29.92	760.0	80	26.7	88	ne.	2	0.9		1 c	1 ks	w.	ne.	2.09	53.1	clear	G. O. Gyllich.
York Factory, B. A.	30.19	766.8	30.24	768.1	20.0	— 6.7	93	n.	10	4.5		0	0			0	0	clear	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross																			
H. M. S. Alert, S. 9° 42′, E. 139° 22′	29.92	760.0	76.8	24.9	86	e.			1-2		0							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 39° 51′, E. 4° 24′	30.12	765.0	71	21.7	71	wnw.			2-3		4					3	nnw.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 46° 25′, E. 29° 09′	29.76	755.9	65	18.3		var.			1		10	calm						showery	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche, N. 44° 05′, W. 58° 18′	30.25	768.3	50	10.0	100	n.			4-5		10					3	nnw.	overcast	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.07	763.8	71	21.7	75	ese.			1-3		6	sse.						squally	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.94	760.5	61	16.1	100	sse.			2		10					2	s.	d. clouds	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.21	767.3	73	22.8		wsw.			1		1	wsw.				1	wsw.	blue sky	Lt. Comm. J. L. Burr.
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 36° 06′, W. 6° 40′	30.21	767.3	68	20.0		ene.			2		1							blue sky	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.74	755.4	70	21.1		wnw.			1		5	nnw.						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido																			Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.12	765.0	69	20.6	73	nne.			5-6		8	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 27′, W. 56° 09′	30.21	767.3	38	3.3	90	s.			1		8	sw.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.73	755.1	86	30.0		nnw.			2-3		5	nw.				3	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 6° 54′, E. 82° 40′	29.72	754.9	86	30.0		ssw.			3		3	sw.				3-4	sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 25° 20′, E. 177° 30′	29.93	760.2	67	19.4	100	ese.			3-4		8	se.				4	se.	d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.76	755.9	86	30.0	69	sw.			3		9	ne.						raining	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 49° 30′, W. 55° 48′	30.11	764.8	36	2.2		w.			1		5	w.				sm'h		d. clouds	Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 11° 10′, W. 157° 25′	29.85	758.2	79.5	26.4	86	ene.			4		4	s.				2	ene; sse.	showery	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	30.16	766.1	62	16.7	94	ene.			6		10							drizzling	Capt. L. F. Jones.
H. M. S. Griffon, N. 17° 35′, W. 78° 06′	29.91	759.7	83	28.3	79	nnw.			2		2					2	ese.	d. clouds	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 27° 00′, E. 143° 00′	29.99	761.7	79	26.1	91	var.			2-3		9	e.				3	ne.	raining	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	29.93	760.2	69	20.6		calm			0									d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. N. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.82	757.4	82	27.8		sse.			2		1	s.						blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 34° 33′, E. 22° 00′	30.35	770.9	62	16.7		e.			4		5	sse.				5	sse.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 36° 27′, E. 5° 57′	30.34	770.6	67	19.4	50	nnw			3-4		7					3	nnw.	d. clouds	Lieut. Comm. C. Oldham.
H. M. S. Magpie, N. 21° 36′, E. 112° 34′	29.81	757.2	81.9	27.7	89	e.			1		0					1	se.	misty	Lieut. A. Balfour.
H. M. S. Malabar, N. 14° 06′, E. 42° 44′	29.88	758.9	90	32.2	92	sse.			1-2		4	se.				3	s.	d. clouds	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	30.20	767.1	64	17.8	78	n.			1		3	nnw.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead,
H. M. S Monarch, Sfax, Tunis	30.06	763.5	72	22.2	67	nw.			2		4	nnw.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.09	764.3	52	11.1	86	calm			0		0							blue sky	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S Northampton, Halifax, Nova Scotia	30.35	770.9	39	3.9	71	nw.			2		0							misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 23° 48′, W. 19° 30′	30.06	763.5	75	23.9	81	e.			2		3					2	ene.	d. clouds	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	30.30	769.6	36	2.2	80	n.			2									blue sky	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.82	757.4	81.3	27.4	87	nw.			2-3		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 32° 38′, W. 16° 39′	30.33	770.4	70	21.1	90	ene.			4		3	nne.				4	ene.	d. clouds	
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis, S. 34° 56′, E. 19° 20′	30.31	769.9	62	16.7	83	e.			6		0					4	ene.	blue sky	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb, N. 38° 29′, W. 2° 20′	30.20	767.1	72	22.2	45	wsw.			1-2		1	ese.				2-3	ene.	blue sky	
H. M. S. Tamar, S. 17° 46′, W. 3° 56′	30.12	765.0	69	20.6	75	se.			4		10	se.				3	se.	d. clouds	Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 34° 00′, W. 126° 25′	30.12	765.0	60	15.6	94	nne.			5-6		8					4	nne.	d. clouds	Capt. P. W. Stephens.
H. M. S. Thunderer, N. 35° 52′, E. 11° 15′	30.04	763.0	69.5	20.8	77	wnw.			4		9					5	wnw.	d. clouds	Capt. C. F. Hotham.
H. M. S. Triumph, S. 17° 16′ W. 78° 30′	30.06	763.5	62	16.7	71	se.			4		6	se.				5	se.	d. clouds	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.89	759.2	75	23.9		nnw.			1		9							raining	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	30.07	763.8	62	16.7	71	calm			0		0							blue sky	Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Muscat, Arabia	29.74	755.4	90.5	32.5	53	wnw.			2		0					3	nw.	blue sky	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.99	761.7	81.7	27.6	70	nnw.			3		8					1		overcast	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Id's	30.02	762.5	78.8	26.0	90	ene.			4		2		wnw.			3	ne.	blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.86	758.5	80.6	27.0	87	se.			1									blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

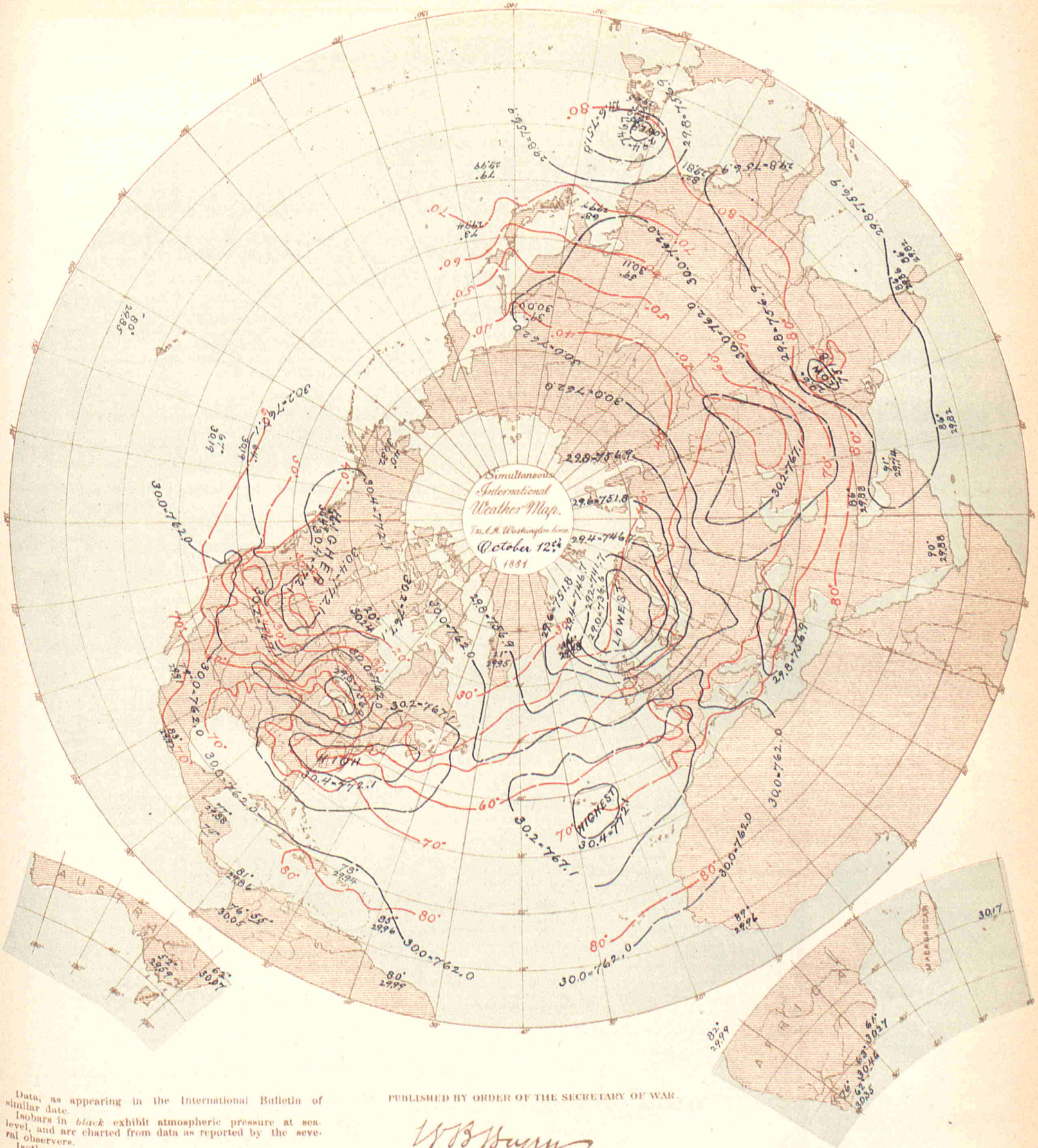
Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.28	769.1	76	24.4	73	se.	12	5.4			8		se.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.42	772.7	39	3.9	82	sw.	5	2.2		8 c	0	sw.		0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.80	756.9	66	18.9	92	e.			2		10		w.	0	0			cloudy	
Adams, S. 11° 34′, W. 77° 40′	29.78	756.4	62	16.7	94	se.			3		10					long	s.	cloudy	
Alaska, Callao, Peru	29.95	760.7	60	15.6	100	s.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.82	757.4	69	20.6	85	nne.			1		8		nne.	0	0	sm'h		cloudy	
Alliance, Reikiavik, Iceland	29.43	747.5	38	3.3	72	ne.			5		5		e.	0	0	sm'h		fair	
Ashuelot, Kobe, Japan	29.94	760.5	69	20.6	70	calm			0		10		calm					overcast	
Colorado, New York, N. Y.	30.41	772.4	54	12.2	74	ssw.	8	3.6			10							overcast	
Constitution, New London, Conn	30.41	772.4	52	11.1	93	sw.	2	0.9			2		ssw.					cloudy	
Franklin, Norfolk, Va	30.36	771.1	61	16.1	76	sw.	3	1.3			2		w.	0	0			fair	
Galena, Smyrna, Turkey in Asia	29.75	755.6	70	21.1	85	wsw.			1		10		calm			sm'h		rainy	
Independence, N. Yard, Mare I'd, Cal	29.77	756.1	49	9.4	71	wsw.	10.8	4.8			0							clear	
Kearsarge, Stapleton, N. Y.	30.42	772.7	53	11.7	73	ssw.			3		10					sm'h		cloudy	
Lackawanna, San Francisco, Cal †	30.17	766.3	59	15.0	100	ne.			1		0							clear	
Lancaster, N. 36° 11′ W. 68° 10′	30.37	771.4	64	17.8	83	ne.	12	5.4			10		ne.	0	0	mod.	ne.	squally	
Marion, Montevideo, Uruguay	29.95	760.7	64	17.8		e.			2		10		e.			sm'h		cloudy	
Michigan, Erie, Pa	29.89	759.2	55	12.8	80	s.			7		10		sw.					raining	
Minnesota, Newport, R. I.	30.44	773.2	53	11.7	86	sw.			2		10		sw.	0	0	sm'h		cloudy	
Monocacy, Yokohama, Japan	29.96	761.0	69	20.6	90	w.			1		8		ne.					fair	
Nipsic, Genoa, Italy	29.94	760.5	66	18.9	64	wsw.			1		0					sm'h		blue sky	
Onward, Callao, Peru †	29.98	761.5	61	16.1	94	sse.			1		10		nw.			long	w.	misty	
Palos, Hong Kong, China	29.86	758.4	80	26.7	87	s.			1		2		n;e.					fair	
Passaic, Washington, D. C.	30.42	772.7	51	10.6	93	sw.			1		5							fair	
Pensacola, Callao, Peru	30.00	762.0	61	16.1	88	s.			1		10			0	0			cloudy	
Portsmouth, Yorktown, Va	30.45	773.4	55	12.8	93	nw.			1		5		nw.			sm'h		clear	
Powhatan, N. 32° 03′, W. 79° 04′	30.34	770.6	78	25.6	59	e.			3		8		e.			mod.	ne.	fair	
Quinnebaug, Marseilles, France	29.96	761.0	68	20.0	51	nnw.			6		2		nnw.			mod	nnw.	fair	
Ranger, Mare Island, Cal *	29.96	761.0	54	12.2	67	calm			0		0							clear	
Richmond, Panama, Panama	29.86	758.4	81	27.2	96	ssw.			1		2		s.	0.01	0.3	mod.	s.	clear	
Saratoga, Yorktown, Va	30.45	773.4	56	13.3	?	calm			0		0			0	0	sm'h		clear	
Shenandoah, Montevideo, Uruguay *	30.19	766.8	63	17.2	94	e.			3		10					sm'h		cloudy	
St. Louis, League Island, Pa	30.17	766.3	47	8.3	85	calm	0	0			5			0.03	0.8			fair	
Swatara, N. 34° 42′, E. 124° 38′ †	29.97	761.2	68	20.0	79	ne.			5		10					mod.	ne.	misty	
Tennessee, Yorktown, Va	30.48	774.2	57	13.9	100	nw.	1	0.4			2			0	0			fair	
Trenton, N. 35° 20′, W. 73° 56′ *	30.47	773.9	71	21.7	66	n.			3		5			0	0	sm'h		fair	
Vandalia, Yorktown, Va	30.44	773.2	57	13.9	87	wnw.			1		0							clear	
Wabash, Boston, Mass	30.45	773.4	42	5.6	74	sw.	3	1.3			5		w.	0	0			fair	
Wachusetts, Sitka, Alaska	30.34	770.6	46	7.8	77	calm			0		0							clear	
Wyoming, Port Royal, S. C.	30.39	771.9	63	17.2	78	ne.	12	5.4			5		calm	0	0			fair	
Yantic, Off York Spit, Va *	30.42	772.7	62	16.7	72	ssw.			1		2							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 46° 47′, W. 71° 12′ *†	30.37	771.4				se.	2		10		s.			sm'h		cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 39° 23′, W, 70° 47′	30.47	773.9	63	17.2		s.	3		0					sm'h		hazy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 47° 49′, W. 49° 17′ †	29.92	760.0	45	7.2	92	n.	4		10		n.			mod.	nw.	misty	Caufman & Morse.
S. S. Indiana, Capt. R. W. Sargent.. N. 50° 09′, W. 38° 49′ †.	29.92	760.0	52	11.1	86	e.	3		8		e.	light	light	mod.	e.	cloudy	C. W. Walker, 2d Offi.
S. S. Ohio, Capt. H. Morrison, Philadelphia, Pa *.†.	30.45	773.4	48	8.9	92	nnw.	1		2		n.					fair	
S. S. Pennsylvania, Capt G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall S. 42° 10′, W. 17° 00′	30.66	778.7	53	11.7	100	nne.	4		3							blue sky	
S. British Merchant, Capt. E. J. Moloney,																	
Bk. Caldew, Capt. W. Petersen.																	
S. S. Cipero, Capt. W. N. Lailey, Truxillo, Honduras, C. A.	29.88	758.9	77.2	25.1	90	ese.	1		10							raining	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton, N. 45° 27′. W. 124° 53′ ‡.	30.24	768.1	46	7.8	77	n.	6		6							d. clouds	
S. S. Gordon Castle, Capt. W. Waring, N. 10° 50′, E. 61° 28′	29.82	757.4	85.5	29.7	86	w.	3		1							blue sky	
Bg. Hermine, Capt. S. G. Jones, S. 33° 03′, W. 46° 45	30.28	769.1	63	17.2	72	e.	6		10							d. clouds	
Bkt. Hope, Capt. Jas. Campbelle N. 39° 33′, W. 21° 11′ ‡.	30.52	775.2	66.5	19.2	97	nne.	4		7							d. clouds	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 13° 35′, E. 87° 45′	29.90	759.4	75	23.9	90	se.	6		10							drizzling	
Bk. Mertola, Capt. E. W. Turner, N. 53°, 04′ W. 5° 28′	29.79	756.7	53.5	11.9	86	w.	4		9							d. clouds	
Naiad, Capt. J. Smith,																	
Bk. Moorhill, Capt. J. Brown. S. 54° 36′, W. 76° 18′	29.74	755.4	40.8	4.9	75	sw.	6		5							d. clouds	
S. Pleione, Capt. C. H. Renant, S. 45° 09′, E. 102° 46′	30.37	771.4	49	9.4	77	w.	5		8							d. clouds	
Queen of Cambria, Capt. M. Parry S. 2° 37′. W. 28° 01′	29.99	761.7	81.2	27.3	74	se.	5		4							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow																	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 42° 19′, W. 29° 05′	30.50	774.7	70.2	21.2	79	ssw.	3		0							blue sky	
S. S. Strathleven, Capt. C. W. Pearson, N. 35° 26′, E. 139° 41′	29.88	758.9	65.5	18.6	90	nw.	2		6							d. clouds	
S. S. Thames, Capt. Luckhurst N. 50° 51′, W. 8° 51′	29.93	760.2	57.8	14.3	87	wsw.	6		10							overcast	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin, S. 3° 54′, E. 64° 02′	29.67	753.6	81.5	27.5		wnw.	2		8							d. clouds	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, N. 22° 58′, W. 109° 05′	29.67	753.6	83	28.3	79	sw.	2		5		se.	0	0	gentle	sw.	fair	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains.. N. 48° 49′, W. 29° 42′	30.15	765.8	59	15.0		wsw.	4		10		w.	light	light	mod.	wsw.	raining	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 38° 00′, W. 71° 30′	30.42	772.7	62.0	16.7	72		0–1		2					sm'h	nw.	fair	
S. S. Hermann, Capt. H. Baur N. 51° 26′, E. 1° 45′	29.84	757.9	56.3	13.5		wsw.	6		8		wsw.	0	0	long	wsw.	stormy	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N. 45° 31′. W. 50° 15′	30.03	762.7	50.0	10.0	93	nne.	3–4		10		nne.	20 h'r	20 h'r	mod.	nne.	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer.. N. 50° 35′, W. 25° 46′	30.08	764.0	60.0	15.6	88	w.	4		10		w.	8 h'rs	8 h'rs	mod.	sw.; nw.	misty	Walter & Reichler.
S. S. Strassburg, Capt. Heimbrouch,																	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 37° 30′, E. 146° 11′ †.	30.04	763.0	73	22.8	72	ese.	2		8		ne.	0	0	con.	ne; se.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley. N. 35° 02′, E. 138° 45′ *†.	30.12	765.0	70	21.1	75	calm	0		9		nw.			sm'h	nw.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 35° 44′, W. 140° 40′	30.39	771.9	67	19.4	84	sse.	4		8		sse.	0.07	1.8	mod.	sw.	cloudy	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles																	
S. S. Oregon, Capt. E. Polemann N. 38° 41′, W. 123° 36′ †	29.97	761.2	53	11.7	86	nw.	4		2		nw.				nw.	clear	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Erancisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 37° 36′, W. 122° 32′ †..	29.96	761.0	51	10.6	86	nnw.	5	.....	0	.....	.....	.....	.....	r'gh	nw.	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——, N. 44° 14′, W. 124° 43′ †..	30.15	765.8	52	11.1	86	n.	3	.....	3	.....	nw.	0	0	mod.	nw.	clear.....	.....
S. S. Idaho, Capt. T. Huntington, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 33° 42′, W. 118° 14′ †..	29.93	760.2	63	17.2	83	se.	2	.....	8	.....	sw.	.....	.....	long	sw.	cloudy.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal †..	30.09	764.3	50	10.0	86	e.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, Po tland, Oregon †..	29.78	756.4	38	3.3	91	se.	2	.....	5	.....	ne.	.....	.....	.....	.....	fair.....	G. Debney.
S. S. Victoria, H. M. Hayward, San Francisco, Cal †...	30.04	763.0	50	10.0	79	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulluy, Supt. New York.*																	
S. S. Australia, Capt. ——, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, S. 28° 30′, W. 178° —′ †.	30.10	764.5	68	20.0	74	e.	2	.....	5	.....	e.	.....	.....	mod.	e.	fair.....	W. H. Hawes, 2d Off.
S. S. City of Panama. Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, Hong Kong, China *†.	29.96	761.0	82	27.8	83	calm	0	.....	0	.....	.....	0	0	sm'h	.....	clear.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Acapulco, Mexico †..	29.92	760.0	83	28.3	87	calm	0	.....	10	.....	w.	0	0	long	s.	overcast.....	.....
S. S. City of Sydney, Capt. H. C. Dearborn, S. 21° 09′, W. 174° 10′ *†.	29.73	755.1	71	21.7	80	s.	5	.....	8	.....	s.	0	0	h'vy	s.	cloudy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 40° 07′, W. 146° 09′ †..	30.39	771.9	64	17.8	83	ese.	3	.....	10	.....	e.	.....	.....	mod.	ne.	cloudy.....	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle Panama, Panama †.	29.86	758.4	81	27.2	100	s.	3	.....	5?	.....	s.	0	0	mod.	ssw.	clear?	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 23° 02′, W. 108° 18′ †...	29.85	758.2	83	28.3	83	sw.	3	.....	5?	.....	sw.	0	0	light	ssw.	clear?.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	29.59	751.6	58	14.4	64	n.	4	.....	0	.....	.....	.....	.....	.....	.....	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 50° 58′, W. 18° 48′ †...	30.37	771.4	53	11.7	.....	w.	4	.....	8	.....	w.	2 h'r	2 h'r	mod.	w.	overcast.....	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 43° 24′, W. 50° 10′ †...	30.07	763.8	52	11.1	86	sse.	4	.....	.....	.....	nne.	0.1	3.	long	nne.	foggy.....	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings New York, N. Y †..	30.33	770.4	52	11.1	.....	w.	3	.....	10	.....	.....	0	0	.....	.....	foggy.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 43° 52′, W. 45° 40′ †..	30.06	763.5	67	19.4	?	sw.	2	.....	5	.....	sw.	2 h'r	2 h'r	mod.	sw.	hazy.....	.....
S. S. Celtic, Capt. B. Gleadell, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 46° 23′, W. 47° 39′ †..	30.07	763.8	51	10.6	86	wsw.	3	.....	10	.....	w.	sh's	sh's	mod.	sw.	foggy.....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving Queenstown, Ireland †.	29.86	758.4	62	16.7	83	nw.	6	.....	8	.....	wnw.	0	0	sm'h	.....	cloudy.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Potomac River †.	30.44	773.2	56	13.3	87	sw.	2	10	3 s	.....	.....	0	0	.....	.....	fair.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pawashick, Capt. E. Fry, N. 38° 05′, E. 2° 27′ *†...	30.01	762.2	66	18.9	89	nw.	1	.....	1	.....	nw.	.....	.....	sm'h	ene.	clear.....	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz N. 36° 02′, W. 65° 53′ †...	30.53	775.4	65	18.3	.....	ne.	5	.....	2	.....	ne.	.....	.....	r'gh	ne.	fair.....	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, N. 35° 52′, W 25° 48′ †...	30.52	775.2	71	21.7	.80	ne.	6	.....	10	.....	nne.	0	0	mod.	nne.	cloudy.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer. U. S. A.

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BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 13, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.15	765.9	74.1	23.4	80	e.			1		0			0	0	clear	Moiroud.
Algiers ‡			30.20	767.0	69.8	21.0	72	w.			2		0			0	0	clear	Nicolas.
La Calle ‡			30.12	765.1	73.8	23.2	68	nnw.			6		4			0.532	13.5	cloudy	Fonfrède.
Tunis ‡			30.10	764.5															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.19	766.7	68.4	20.2	71	n.			1		0			0	0	clear	Dumas.
Tebessa ‡			30.17	766.4	59.7	15.4	64	wnw.			4		3			0	0	pretty fair	Derché.
Geriville ‡					68.4	20.2	51	n.			3		0			0	0	clear	Lonchamp.
Laghouat ‡			30.18	766.6	68.7	20.4	27	w.			2		0			0	0	clear	Herbin.
Biskra ‡			30.19	766.7	79.2	26.2	37	nnw.			2		4			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.82	757.4	29.91	759.7	48.0	8.9	82	w.	11	4.9			3			0.47	11.9	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.25	743.0	29.80	756.8	57.6	14.2	68	s.			1		7			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	28.86	733.1	29.62	752.3	55.8	13.2	64	sw.	11.2	5.0			1			0.362	9.2		Dr. Wiersbicki.
Eperies	28.80	731.4	29.66	753.4	56.1	13.4	71	calm			0		10 n			0	0		Julius Mikolik.
Gratz ‡	28.52	724.4	29.75	755.7	57.9	14.4	91	s.			2		7			0	0		Andreas Rospini.
Hermannstadt	28.37	720.6	29.78	756.4	57.4	14.1	55	ssw.			3		1			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.41	721.6	29.75	755.6	49.3	9.6	88	wsw.			1		10			0.354	9.0	raining	The Staff.
Lemberg	28.66	728.0	29.63	752.7	55.4	13.0	64	nw.			2		5			0.047	1.2		Dr. T. Stanecki.
Pola	29.76	755.3	29.87	758.6	62.2	16.8	71	wsw.			1		5			0	0		I. R. Hydrographic Office.
Szathmar	29.28	743.7	29.74	755.3	58.5	14.7	58	s.			2		9			0.335	8.5		Jozsef Midlinszky, S. J.
Szegedin	29.53	750.1	29.81	757.1	59.4	15.2	64	sw.			1		6			0	0		Karl Stancel.
Trieste	29.77	756.2	29.87	758.8	59.9	15.5	82	calm			0		0			0	0		Rieder.
Vienna	29.05	737.8	29.76	756.0	52.2	11.2	78	w.			3		10			0.091	2.3		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 14, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.44	747.8	29.54	750.3	47.0	8.3	48	wnw.	25	11.2			3			1.530	38.9	squally	W. Boswell.
Armagh, Observatory	29.51	749.5	29.74	755.4	46.9	8.3	81	sw.	9	4.0			10					gloomy	S. Call.
Bidston, Liverpool Obs'y			29.77	756.1	50.0	10.0	71	w.	29	13.0			7					d. clouds	John Hartnup.
Bolton, Sharples	29.21	741.9	29.75	755.6	50.0	10.0	62	wsw.	24	10.7			8					d clouds	Thomas Mackereth.
Bradford, Yorkshire	29.31	744.5	29.71	754.6	49.1	9.5	65	nw.			3		8			1.43	36.3	d. clouds	J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.80	756.9	52.0	11.1	72	w.			1.0		8					overcast	John McLaren.
Chatham, School M. E.	29.76	755.9	29.89	759.2	52.1	11.2	74	w.			1		6			blank	blank	d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.72	754.9	29.94	760.5	56.5	13.6	71	sw.			2		10					overcast	The Staff.
Fort Napier, Natal	27.94	709.7	30.16	766.1	67.2	19.6	67	se.			3		2					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.65	753.1	29.88	758.9	85.0	29.4	79	w.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.61	752.1	49	9.4	93	s.			2		10					raining	J. O'Donaghue.
Gibraltar, Mediterranean	30.13	765.3	30.18	766.6	75.9	24.4	84	ne.			1		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.42	747.3	29.62	752.3	48.5	9.2	59	w.			6	5 ck	0					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.68	753.9	29.86	758.4	52.4	11.3	59	w.			4		9					d. clouds	The Staff.
Guernsey	29.74	755.4	29.95	760.7	56	13.3	68	wnw.			2		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.84	757.9	29.88	758.9	52.6	11.4	50	w.	13	5.8			9					d. clouds	The Staff.
Leicester, Museum	29.57	751.1	29.83	757.7	52.2	11.2	46	nw.			4		10						J. C. Smith.
Malta, Mediterranean	29.89	759.2	29.97	761.2	73.0	22.8	90	nw.			2		3			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.11	764.8	30.16	765.1	78.0	25.6	65	ne.			3		7					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.31	744.5	29.83	757.7	51.4	10.8	67	w.			3		5					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.64	752.8	29.87	758.7	52.2	11.2	56	w.			5		8					squally	The Staff.
Plymouth	29.86	758.4	29.94	760.5	54.3	12.4	79	sw.			2		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			29.47	748.5	44	6.7	60	nw.	35	15.6			4					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.71	754.6	29.77	756.1	60.2	15.7	79	n.			1		9			blank	blank	gloomy	Serg't W. H. Lyne.
Sheffield	29.50	749.3	29.78	756.4	51.2	10.7	75	w.			3		6			0.94	23.9	d. clouds	W. F. Cooper.
Silloth Rectory	29.67	753.6	29.70	754.4	49.9	9.9	69	w.			2		8			1.210	30.7	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.75	755.6	49.4	9.7	61	w.	23	10.3			10			blank	blank	overcast	Rev. S. J. Perry.
Stratfield Turgiss	29.67	753.6	29.89	759.2	53.2	11.8	60	w.			1		10					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.82	757.4	29.85	758.2	56	13.3	80	sw.			6		10					raining	W. Newcombe.
Valencia, Observatory	29.68	753.9	29.70	754.4	51.5	10.8	91	se.	25	11.2			10					raining	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.04	763.0	30.08	764.0	48	8.9	87	s.	17	7.6			10 n			0.010	0.3	light rain	H. J. Cundall, C. E.
Chatham, N. B.*	29.90	759.4	29.96	761.0	48	8.9	93	s.	7	3.1			10 n		s.	0.02	0.5	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.78	756.4	29.81	757.2	48	8.9	89	sw.	25	11.2			10 n		sw.	0.08	2.0	threatening	J. McWilliams.
Fort Garry, Manitoba*	29.68	753.9	30.58	776.7	17	— 8.3	91	w.	3	1.3		0	0			0.026	0.7	clear	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.07	763.8	30.19	766.8	52	1.1	86	sw.	8	3.6		0	8 k		sw.	0	0	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.70	754.4	30.03	762.7	59	15.0	90	w.	7	3.1			10 ks		w.	0.27	6.9	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.76	755.9	29.96	761.0	54	12.2	96	sw.	8	3.6			10 n			0.21	5.3	light rain	C. H. McLeod, C. E
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.42	747.3	30.11	764.8	53	11.7	93	s.	12	5.4			10 n		nw.	0.06	1.5	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.40	746.7	30.08	764.0	62	16.7	94	w.	10	4.5			10 n		sw.	0.05	1.3	threatening	H. Morgan.
Port Stanley, Ontario	29.44	747.8	30.07	763.8	61	16.1	100	n.	8	3.6			10 n		n.	0.07	1.8	light rain	M. Payne.
Quebec, Quebec*	29.61	752.1	29.94	760.5	46	7.8	83	calm			0		fg.			0.12	3.0	light rain	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.58	751.3	30.05	763.3	43	6.1	86	calm	0	0		0	5 ks		nw.	0.14	3.6	fair	W. H. McIntyre.
Saugeen, Ontario*	29.44	747.8	30.16	766.1	50	10.0	77	nw.	18	8.0			10 ks			inap.	inap.	cloudy	K. Stewart.
St. Andrews, N. B.	29.99	761.7	30.04	763.0	51	10.6	92	sw.	8	3.6			fg.			0.04	1.0	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.13	765.3	30.19	766.8	48	8.9	86	s.	13	5.8			10 s			0.01	0.3	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.73	755.1	30.11	764.8	57	13.9	77	n.	10	4.5		5 cs	5 s	w.	w.	0.13	3.3	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.09	764.3	30.16	766.1	52	11.1	93	s.	12	5.4			10 k		sw.	0.03	0.8	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.13	765.3	30.39	771.9	40	4.4	88	se.					10 s			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.19	766.8	30.22	767.6	63.6	17.6	96	ene.	28.1	12.6		0	0			0	0		John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.36	745.7			85	29.4	27	sw.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.92	760.0	29.95	760.7	72.5	22.5	91	ese.	8.9	4.0			10			0.035	0.9		M. Marc Dechevrens, S. J.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.24	742.7	29.29	743.9	46.6	8.1	63	w.	20	9			6						Oversergent Fischer.
Fanöe	29.24	742.6	29.26	743.1	47.3	8.5	86	w.			7		10						Overloerer Lauridsen.
Godthaab, Greenland	29.71	754 7	29.76	755.8	21.6	—5.8	69	ene.			4		2						S. Kleinschmidt.
Stykkisholm, Iceland	29.62	752.4	29.67	753.5	30.9	—0.6	83	e.			4		0						A. O. Thorlacius.
Thorshavn	29.40	746.7	29.43	747.6	39.2	4.0	50	nw.	16	7			6					snowing	Overloerer Bergh.
Vestervig	28.96	735.6	29.05	737.9	48.4	9.1	87	wnw.			7		6						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.54	750.2	30.19	766.7	59.4	15.2	69	w.			1		8		w.			very cloudy	M. Labroue, Director.
Alençon Normal School	29.50	749.4	30.11	764.8	57.9	14.4	98	nw.			3		ks		nw.	0.161	4.1		M. Nicot, Director.
Arras, Engineer School	29.61	752.1	29.87	758.7	53.2	11.8	56	nw.					kn		nw.				M. Klein, Commandant.
Avignon, Normal School	29.95	760.8	30.03	762.8	69.1	20.6	59	nw.			1					0	0		M. Giraud, Director.
Bar-sur-Seine	29.39	746.6	29.95	760.6	57.0	13.9	70	nne.			2		8kn		w.	0.264	6.7	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.69	754.2	29.96	760.9	54.0	12.2	59	nw.			2		5		nw.	0.16	4.	cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.11	739.5	30.02	762.4	51.8	11	86	sw.			1		10 n		n.	0.39	10.	raining	M. Gobin, Director.
Bordeaux, Observatory	29.87	758.7	30.13	765.3	61.2	16.2	98	w.			1		10		w.	0.016	0.4	raining	M. Rayet, Director.
Bourges, Normal School	29.47	748.5	30.02	762.4	59.0	15	84	sw.			1		n		sw.	0.16	4.		M. Postel, Director.
Brest, Naval Observatory	29.78	756.3	30.02	762.5	63.0	17.2	81	w.			1		10		w.	0.327	8.3		M. de Kermaree, Dir.
Caen, Normal School	29.93	760.2	30.00	762.1	58.3	14.6	76	nw.			1		5		nnw.	0.181	4.6	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.56	750.7	29.88	758.9	54.9	12.7	73	w.			3		5		sw.	0.268	6.8	cloudy	M. Jadot, Director.
Charleville, Normal School	29.41	747.1	29.97	761.2	54.7	12.6	59	w.			1		2			0.20	5.		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.66	728.0	30.00	761.9	61.9	16.6	68	wsw.			3		8			0	0	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.17	740.8	30.00	761.9	59.2	15.1	86	s.			2		8		s.	0.094	2.4		M. de Villemontée, Dir.
Commercy, Normal School	29.04	737.6	29.90	759.4	56.7	13.7	55	w.			4		5kn	w.	w.	0.374	9.5	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.44	697.0	29.90	759.5	66.6	19.2	53	w.			1		2 k		nw.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.94	735.1	30.08	764.1	64.8	18.2	46	nw.			4		5		nw.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.32	744.7	30.10	764.4	52.5	11.4	90	ssw.			1		k			0	0		M. Ablard, Director.
Guéret, Normal School	28.47	723.1	30.07	763.7	56.5	13.6	95	sw.			3		10	sw.		0.287	7.3	light rain	M. Rivoire, Director.
Lamballe, Normal School	29.76	756.0	30.04	763.0	59.9	15.5	85	w.			1		5 k		w.	0.087	2.2	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.62	752.4	30.19	766.8	65.5	18.6	72	wsw.			2		s		nw.	0.08	2.		M. Chauvin, Director.
Lorient, Naval Observatory	29.98	761.6	30.09	764.2	64.4	18	84	w.			1		8		w.	0.189	4.8	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.00	736.6	30.05	763.3	57.9	14.4	79	sse.			1		10 n		w.	0.008	0.2	covered	M. André, Director.
Mans, Normal School	29.72	755.0	30.03	762.8	58.5	14.7	67	nw.			1		5		se.	0.177	4.5	cloudy	M. Piboen, Director.
Marseille, Observatory	29.73	755.2	30.00	761.9	68.0	20.0	51	wnw.			4		6		nw.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.94	633.5	30.18	766.5	52.7	11.5	47	w.	13.0	5.8			2		sw.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.93	760.2	30.04	762.9	70.9	21.6	70	wnw.			6		2		wnw.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.17	740.9	29.93	760.3	56.8	13.8	55	wnw.			2		5 cn;k			0	0	cloudy	M. Hasse.
Nantes, Observatory	29.91	759.8	30.08	764.0	64.9	18.3	70	w.			0–2		9 kn	wnw.	wnw.	0.331	8.4	covered	M. Larocque, Director.
Nice	29.82	757.4	29.85	758.2	66.2	19.0	72	e.			3		5	e.	e.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	29.99	761.7	30.10	764.4	68.4	20.2	45	n.	15.0	6.7			9	w.	w.	0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					61.5	16.4	63	calm			0		2	n.		0	0	slightly cl'dy	M. Talliou.
Puy de Dôme Obs'y, Summit	25.12	638.0			43.3	6.3	100	w.			8		10			0.236	6.0	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.19	766 8	30.22	767.6	62.6	17.0	96	w.			2		10			0.031	0.8	covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.80	757.0	30.02	762.4	61.9	16.6	85	nw.			1		5			0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School	28.02	711.6	30.19	766.7	51.4	10.8	93	w.			1		10		w.	0	0	covered	M. Richard, Director.
Rouen, Naval School	30.02	762.5	30.06	763.6	55.8	13.2	55	nw.			1					0.28	7.		M. Platrier, Director.
Saint Lô, Normal School	29.84	758.0	30.00	762.0	57.2	14	84	n.			1		5		n.	0.291	7.4	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.81	757.1	29.97	761.3	58.3	14.6	53	nw.			3		5		wnw; nw.	0.217	5.5		M. Renou, Director.
Toulouse, Observatory	29.52	749.7	30.24	768.2	59.0	15.0	89	w.			3		8			0	0	very cloudy	M Bailland, Director.
Tours	29.83	757.7	30.03	762.7	63.0	17.2	67	wnw.			2		8	calm	w.	0.220	5.6	¾ covered	M. de Tastes.
Versailles, Observatory	29.48	748.9	29.98	761.4	57.9	14.4	53	nw.			3					0.287	7.3		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.69	754.0	29.98	761.4	56.7	13.7	55	nw.			2		7		wsw.	0.209	5.3		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.85	732.7	29.70	754.4	52.2	11.2	66	wnw.			4		4 k	nw.		0.433	11.0		Prof. Dr. Hoh.
Berlin	29.34	745.2	29.51	749.6	43.9	6.6	91	sw.			4		3			0.484	12.3	rain and hail	Prof. Dr. Arndt.
Breslau	29.00	736.6	29.52	749.9	52.0	11.1	62	w.			3		10			0.118	3.0	raining	Royal University Obs'y.
Carlsruhe	29.37	745.9	29.79	756.6	55.4	13.0	89	sw.			2		5	nw.		0.138	3.5		Albert Senz.
Cassel	28.95	735.4	29.07	753.6	48.2	9.0	69	wnw.			7		7	sw.		0.055	1.4		Dr. H. Möllt.
Frankfort on the Main	29.35	745.6	29.72	754.8	54.5	12.5	49	nw.			2		5			0.535	13.6		Physical Society.
Friedrichshafen	28.45	722.5	29.87	758.8	53.6	12.0	84	w.			7		10	w.		0.035	0.9		Wilhelm, Chief Tel.
Hamburg	29.39	746.6	29.49	749.0	42.8	6.0	90	wsw.			4		8			0.307	7.8	raining	E. Preller.
Kiel	29.37	746.0	29.39	746.4	46.0	7.8	80	sw.			5		5			0.866	22.0		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.21	741.8	29.03	752.6	40.3	4.6	94	nw.			4		9	wnw.		0.091	2.3	raining	H. Leppig, Asst.
Magdeburg	29.36	745.7	29.55	750.5	47.7	8.7	80	w.			6	0	8 kn		wnw.	0.059	1.5		Dr. Assmann.
Memel	29.23	742.4	29.28	743.6	49.8	9.9	70	ssw.			5		10 ks					thndr & light'g	Issermann.
Munich	27.97	710.3	29.81	757.2	52.3	11.3	73	wsw.			5		10	wsw.		0.071	1.8		Central Station.
Neufahrwasser	29.33	744.9	29.34	745.3	52.2	11.2	60	ssw.			5		5			0.020	0.5		A. Lothes.
Neustadt, Palatinate	29.22	742.2	29.74	755.5	55.8	13.2	52	wsw.			4		7	sw.		0.150	3.8		Dicknether.
Stuttgart	28.83	732.2	29.71	754.7	55.0	12.8	86	w.			3		9	w.		0.035	0.9	raining	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.29	718.6	29.81	757.2	46.9	8.3	87	w.			4		8	w.		0.311	7.9		Fischer.
Wustrow	29.35	745.5	29.37	746.1	47.3	8.5	98	wsw.			5	0	5 k			0.311	7.9	hailing	Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.45	747.9	29.83	757.7	70.9	21.6		w.			1.5		7			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.72	754.8	29.77	756.1	84.5	29.2	72	sw.	16.0	7.2			0			0	0	blue sky	
Deesa	29.33	744.9	29.80	756.8	85.0	29.4	44	sw.	8.8	3.9			0			0	0	blue sky	
Bombay	29.77	756.1	29.81	757.1	82.7	28.2	82	nnw.	16.0	7.2			0			0	0	blue sky	
Poona, Yarrowda	27.95	709.8	29.77	756.1	87.1	30.6	32	ne.	6.0	2.7			4		wnw.	0	0	d. clouds	
Belgaum	27.26	692.4	29.78	756.4	78.6	25.9	74	wsw.	7.0	3.1			2	ne.		0	0	d. clouds	
Lahore	28.95	735.3	29.68	753.8	85.0	29.4	58	calm	1.5	0.7			0			0	0	blue sky	
Roorkee	28.83	732.4	29.72	754.9	84.8	29.3	47	calm	1.2	0.5			0			0	0		
Agra	29.22	742.1	29.77	756.2	90.2	32.3	40	w.	5.4	2.4			0			0	0		
Nagpur	28.76	730.6	29.80	756.8	85.5	29.7	43	calm	3.8	1.7			2	w.		0	0	d. clouds	
Jubbulpore	28.47	723.2	29.83	757.6	79.8	26.6	42	calm	1.9	0.8			0			0	0	blue sky	
Lucknow	29.38	746.1	29.75	755.5	88.3	31.3	39	wnw.	3.8	1.7			0			0	0	blue sky	
Allahabad	29.44	747.8	29.75	755.7	82.3	27.9	79	sw.	2.4	1.1			0			0	0	blue sky	
Patna	29.57	751.1	29.75	755.6	84.6	29.2	62	w.	2.3	1.0			0			0	0	blue sky	
Hazaribagh	27.78	705.7	29.79	756.6	80.3	26.8	54	nw.	6.3	2.8			0			0	0	blue sky	
Cuttack	29.68	753.9	29.76	755.9	88.4	31.3	56	calm	0.3	0.1			0			0	0	blue sky	
Calcutta, Alipore	29.72	754.8	29.74	755.3	85.0	29.4	71	calm	0	0			0			0	0	blue sky	
Dhubri	29.63	752.6	29.75	755.7	81.1	27.3	83	calm	2.8	1.2			2			0	0	d. clouds	
Goalpara																			
Chittagong	29.66	753.4	29.75	755.7	80.6	27.0	85	se.	2.6	1.2			8			0	0	d. clouds	
Sibsagar	29.42	747.2	29.76	755.8	78.3	25.7	90	ne.	3.4	1.5			4			0.32	8.1	blue sky	
Jeypore	28.37	720.5	29.78	756.5	89.2	31.8	26	nw.	6.1	2.7			0			0	0	blue sky	
Zanzibar, Africa			29.95	760.7	86.0	30.0	55	sse.	6	2.7			2			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.47	748.4	29.88	758.9	59.5	15.3	70	w.	0.7	0.3			10			0	0		Prof. Giovanni Clodig.
Milan	29.36	745.7	29.87	758.8	62.8	17.1	75	sw.	3.8	1.7			8	wsw.		0	0		Prof. Schiaparelli.
Padua	29.74	755.4	29.85	758.2	62.1	16.7	67	sw.	2.5	1.1			7	wsw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	28.95	735.3	29.86	758.4	59.9	15.5	76	se.	1.8	0.8			3	n.		0	0		Prof. P. F. Denza.
Genoa	29.71	754.7	29.91	759.6	65.3	18.5	76	e.	10.5	4.7			8	s.		0	0		Prof. G. M. Garibaldi.
Mondovi	27.92	709.1	29.85	758.2	57.6	14.2	79	wnw.			2		1	nw.		0	0		Prof. D. C. Bruno.
Pesaro	29.77	756.2	29.82	757.4	65.8	18.8	61	w.			4		0			0	0		Prof. Luigi Guidi.
Florence	29.66	753.3	29.91	759.7	66.2	19.0	63	wsw.			2		3	w.		0	0		Prof. Costantino Pitter.
Leghorn	29.82	757.5	29.91	759.7	66.0	18.9	76	s.	0.7	0.3			5			0	0		Prof. P. Monte.
Rome	29.77	756.2	29.95	760.6	66.7	19.3	47	w.	3.1	1.4			0			0	0		Prof. P. S. Ferrari.
Lecce	29.66	753.4	29.91	759.7	65.3	18.5	62	nne.	9.4	4.2			3	n.		0	0		Prof. C. de Giorgi.
Cosenza	29.06	738.1	29.95	760.6	63.3	17.4	61	nnw.	4.9	2.2			3	nw.		0	0		Prof. D. Conti.
Cagliari	29.80	756.8	29.99	761.7	68.4	20.2	55	nw.			6		9	nw.		0	0		Prof. A. Pacinotti.
Palermo	29.74	755.5	29.99	761.7	68.5	20.3	54	nw.	10.5	4.7			5			0.106	2.7		Prof. G. Ciacciatore.
Syracuse	29.87	758.7	29.91	759.8	69.3	20.7	59	wnw.	4.9	2.2			7	wnw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.50	749.2	29.92	759.9	66.2	19.0	85	w.	0.7	0.3			1	sw.		0	0		Prof. F. Brioschi.
Stelvio	22.09	561.0			38.5	3.6	75	w.			2	cs	10 k			0	0	covered	Prof. P. F. Denza.
Valdobbia	22.12	561.6			40.5	4.7	72	n.			6		10 n			0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y†	29.99	761.7	30.00	762.0	65.1	18.4	84	nne.	7.8	3.5		3ck;cs	0			0	0	fair	K. Sasaki.
Kioto	29.90	759.4	30.08	764.0	54.9	12.7	89	nw.	2.3	1.0		1,ck	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.84	757.9	30.04	763.0	67.0	19.4	88	calm	0	0		1 cs	0			0	0	clear	S. Takehayashi.
Nemuro	29.83	757.7	29.89	759.2	56.0	13.3	93	nw.	21.0	9.4		1	3	ene.	se.	0	0		
Niigata	30.09	764.3	30.12	765.0	58.3	14.6	63	n.	4.7	2.1		ck	4 s	w.	w.	0	0	fair	
Nobiru	30.03	762.7	30.05	763.3	55.6	13.1	69	nw.	7.7	3.4		0	1 s			0	0	fair	
Supporo	29.89	759.2	29.96	761.0	47.0	8.3	93	calm	0	0			10			0	0		
Tokei Obs'y, Yeddo	29.99	761.7	30.06	763.5	60.6	15.9	86	ne.	3.5	1.6			9 s			0	0	cloudy	The Staff.
Wakayama	30.00	762.0	30.05	763.3	63.3	17.4	67	ne.	4.5	2.0			0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.88	758.8	30.07	763.8	74.5	23.6	56	e.	14.5	6.5		0	2 k;ks		ese.	0	0	fair	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.77	603.7	29.99	761.7	56.1	13.4	73	e.	7.4	3.3		1 k	1 s		ne.	0	0	clear	Vicente Fernandez.
Leon	24.53	623.0	30.22	767.5	60.2	15.7	80	s.			1	0	0			0	0	fine	Prof. M. Leal.
Mazatlan	29.68	753.8	29.93	760.3	79.5	26.4	93	ene.	0.9	0.4		1 cs	0			0	0	clear	F. Quijano, U. E.
Mexico, Central Obs'y	23.20	589.7	30.32	770.1	49.6	9.8	79	nw.	0.4	0.2		0	0			0	0	fine	The Staff.
Morelia	24.29	617.0	30.39	776.9	58.6	14.8	64	nw.			3	0	0			0	0	fine	M. Tena, M. D.
Pabellon, Aguascallientes	24.07	611.4	30.08	763.9	57.6	14.2	80	n.			1	2 cs	0	e.		0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.43	595.1	30.24	768.2	51.8	11.0	50	calm	0	0		0	2		se.	0	0	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.81	757.1	29.81	757.1	52.3	11.3		wnw.			5					0.130	3.3		
Groningen	29.53	750.0	29.58	751.4	50.2	10.1		nw.			6					0.150	3.8		
Helder	29.63	752.6	29.63	752.6	50.9	10.5		w.			6					0.551	14.0		
Hellevoetsluis	29.75	755.6	29.75	755.6	51.8	11.0	67	wnw.			6					0	0		
Utrecht	29.69	754.1	29.74	755.3	54.1	12.3	61	w.			4		5			0.059	1.5	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	28.69	728.6	28.75	730.2	46.0	7.8	94	n.	3.8	1.7			10			0.669	17.0	raining	
Christiania	28.79	731.3	28.93	734.9	48.0	8.9	59	ssw.	9	4			0			0	0		
Gjesvær	28.82	731.9	28.84	732.5	43.5	6.4		sse.			6		7						
Lodingen	28.72	729.4	28.76	730.6	44.6	7.0	75	nw.			2		8			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.20	767.1	30.35	771.0	64.8	18.2	72	ese.	1.8	0.8			4			0	0		Dr. J. A. Sampaio.
Campo Major	29.22	742.3	30.20	767.1	73.4	23.0	44	wnw.	1.8	0.8			0			0	0		Dr. A. M. R. dos Santos.
Funchal, Madeira	30.09	764.3	30.17	766.4	77.7	25.4	44	ese.	2.5	1.1			7			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.93	760.2	30.29	769.3	66.4	19.1	59	ese.	4.3	1.9			0			0	0		The Staff.
Ponta Delgada, Azores	30.29	769.3	30.36	771.1	68.0	20.0	80	ne.	9.6	4.4			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.25	743.0	30.34	770.7	51.3	10.7	61	e.	9	4		0	0						Capt. Lasarew.
Archangel	29.57	751.1	29.59	751.6	46.2	7.9	79	sse.	18	8			10					light clouds	Capt. Sselliwerstow.
Astrakhan	30.01	762.3	29.93	760.2	54.1	12.3	54	ese.	11	5			10 s			blank	blank		Capt. Wisganow.
Barnaul ‡	29.60	751.9	30.10	764.6	47.5	8.6	77	sw.	9	4			10						Meteorological Obs'y.
Dorpat	29.14	740.1	29.38	746.2	50.4	10.2	75	s.	13	6			10 ks					light rain	Observatory.
Ekaterinburg	29.31	744.4	30.28	769.1	51.8	11.0	51	nw.	4	2		1 c	0						Meteorological Obs'y.
Kasan	29.95	760.7	30.22	767.6	55.9	13.3	48	s.	9	4		0	0						Observatory.
Kertch	29.66	753.3	29.68	753.8	57.2	14.0	85	calm	0	0		0	8 n			0	0		Lagorio & Sastyrea.
Kieff	29.03	737.4	29.66	753.3	55.6	13.1	65	ese.	7	3		c;cs	10 ks						Observatory.
Lugan	29.65	753.0	29.85	758.2	56.7	13.7	59	ese.	13	6			5						Meteorological Obs'y.
Moscow	29.31	744.4	29.78	756.5	52.9	11.6	73	s.	13	6			10 s						Meteorological Obs'y.
Nikolaiev	29.67	753.7	29.74	755.5	52.3	11.3	93	calm	0	0			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	30.01	762.2	30.10	764.4	35.6	2.0	89	calm			0		10 s			0.031	0.8		Lieut. Iwanow.
Pekin, China	30.01	762.2	30.15	765.8	51.6	10.9	91	calm	0	0			10 n			0	0		Physical Observatory.
St. Petersburg	29.40	746.7	29.41	747.1	45.1	7.3	93	sse.	13	6			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.59	726.2	30.18	766.6	52.2	11.2	76	calm	0	0			1			0	0		Teich, A. M.
Tiflis	28.49	723.6	29.89	759.2	59.0	15.0	63	se.	2	1			10					light rain	Physical Observatory.
Warsaw	29.11	739.3	29.53	750.0	52.3	11.3	73	ssw.	13	6		10 ck	0						Astronomical Obs'y.
Wilna	29.10	739.1	29.52	749.7	50.5	10.3	74	sw.	7	3			9					heavy cld's	Berg, Assistant.
Yeniseisk	29.65	753.0	29.94	760.4	39.2	4.0	87	w.	7	3			9						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.64	752.8	49.8	9.9	57	w.			3	0	4 k			0.85	21.6	light clouds	Andrew Gibb.
Monach Lt. House, Hebrides			29.36	745.7	47	8.3	92	s.			3		10			0.02	5.0	overcast	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.99	761.8	30.10	764.5	65.8	18.8	57	sse.	2.9	1.3		1 c	0			0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.19	766.9	30.25	768.3	66.4	19.1	69	se.	1.1	0.5		2	7	nw.		0	0	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.28	693.0			64.2	17.9	73	nw.	2.0	0.9		0	0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	28.00	711.3	30.19	766.9	68.5	20.3	55	s.	2.0	0.9		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	30.02	762.6	30.17	766.3	79.0	26.1	50	w.	1.6	0.7		0	0			0	0	clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.29	744.0	30.17	766.3	67.1	19.5	73	w.	2.5	1.1			6			0	0	cloudy	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	30.08	763.9	30.14	765.6	77.8	25.4	63	ene.	13.4	6.0		0	1 k		ene.	0.020	0.5	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.81	757.2	29.86	758.5	81.9	27.7	85	sw.	4.4	2.0		6 ck	0	sw.		0.82	20.8	very cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.15	765.9	30.25	768.4	72.3	22.4	68	wsw.	2.4	1.2		0	0			0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.88	759.0	29.97	761.3	77.0	25.0	94	calm	0	0			10 kn			0.945	24.0	overcast	E. Cadea, Chief Engr.
Tuguegarao, Philippine Ids	29.71	754.6	29.84	758.0	79.2	26.0	85	s.	1.7	0.8		0	1 s		sw.	0.03	0.8	fair	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.06	738.0	29.10	739.0	45.3	7.4	86	s.			4		10			0.264	6.7		
Umea	28.93	734.9	28.98	736.2	45.7	7.6	89	sw.			2		10			0.059	1.5		
Hernosand	28.91	734.3	28.96	735.6	44.1	6.7	84	s			4		10			0	0		
Stockholm	28.92	734.6	29.10	739.1	47.1	8.4	67	ssw.			4		10			0.307	7.8		
Wisby	29.11	739.3	29.17	740.8	44.6	7.0	91	sw.			6		7			0.177	4.5		
Sub-Series.																			
Upsala	29.87	735.8	29.06	738.0	46.2	7.9	72	s.	12.5	5.6			10		wsw.	0	0		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.61	726.8	30.03	762.8	56.7	13.7	74	ssw.			4		10			0	0	covered	The Observatory.
Zurich ‡	28.30	718.8	29.94	760.5	52.5	11.4	89	w.			7		10			0.177	4.5	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.83	757.6	60.4	15.8	73	n.	9	4.0			10		n.	0.161	4.1		The Observatory.
Valona			29.98	761.6	66.6	19.2		w.			1		5			0.32	8.	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.85	758.2	82.9	28.3	56	w.			2	7 c;ck	0	w.		0	0		Prof. C. V. A. van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Albany, New York	30.06	763.5	30.14	765.5	59.5	15.3	75	s.	7	3.1			10 s		s.	0.08	2.0	cloudy	
Alpena, Michigan	29.62	752.3	30.31	769.9	42.5	5.8	65	nw.	14	6.3		10 k	0	nw.		0.03	0.8	cloudy	
Atlanta, Georgia	29.23	742.4	30.45	773.4	61.0	16.1	81	e.	2	0.9		0	sk.			0	0	clear	
Atlantic City, New Jersey	30.22	767.6	30.23	767.8	63.2	17.3	90	sw.	5	2.2			10 s		calm	0.08	2.0	cloudy	
Augusta, Georgia	30.23	767.8	30.43	772.9	58.1	14.5	81	s.	1	0.4		0	0			0	0	clear	
Baltimore, Maryland	30.18	766.6	30.23	767.8	62	16.7	78	sw.	1	0.4		2 k	8 s	w.	sw.	0.10	2.5	cloudy	
Barnegat, New Jersey	30.18	766.6	30.20	767.1	60.2	15.7	93	sw.	7	3.1			10 s		sw.	0.08	2.0	cloudy	
Bismarck, Dakota	28.74	730.0	30.66	778.7	21	— 6.1	87	n.	4	1.8			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.25	692.1	30.17	766.3	23	— 5.0	88	calm	0	0		0	0			0	0	clear	
Boston, Massachusetts	29.95	760.7	30.11	764.8	60.0	15.6	75	sw.	8	3.6		0	fg.			0	0	clear	
Brackettville, Texas	29.02	737.1	30.04	763.0	73	22.8	97	e.	10	4.5			10 s		se.	0	0	cloudy	
Brownsville, Texas	30.10	764.5	30.15	765.8	78	25.6	91	se.	2	0.9		1 cs	9 s		se.	inap.	inap.	cloudy	
Buffalo, New York	29.38	746.2	30.12	765.0	64.2	17.9	92	w.	10	4.5			10 s			0.31	7.9	cloudy	
Burlington, Vermont	29.75	755.6	30.05	763.3	56.0	13.3	86	s.	12	5.4			10 s		w.	0.04	1.0	cloudy	
Cairo, Illinois	29.90	759.4	30.32	770.1	71.2	21.8	81	sw.	8	3.6		3 ck	4 s	w.	sw.	0	0	fair	
Campo, California	27.44	697.0	30.01	762.2	31.2	— 0.4	88	se.	3	1.3		2 c	0	sw.		0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.24	768.1	30.26	768.6	63	17.2	56	sw.	11	4.9		0	hz.			0	0	clear	
Cape May, New Jersey	30.20	767.1	30.22	767.6	63	17.2	84	sw.	9	4.0			10 s		sw.	0.02	0.5	cloudy	
Castroville, Texas	29.41	747.0	30.09	764.3	76	24.4	90	se.	4	1.8			10 n		se.	0.09	2.3	light rain	
Cedar Keys, Florida	30.32	770.1	30.34	770.6	69	20.6	57	ne.	4	1.8		0	0			0	0	clear	
Champaign, Illinois	29.42	747.3	30.22	767.6	58.0	14.4	93	nw.	18	8.0			10 n		nw.	0.32	8.1	light rain	
Charleston, S. Carolina	30.32	770.1	30.38	771.6	64	17.8	90	nw.	2	0.9		0	hz.			0	0	clear	
Charlotte, N. Carolina	29.49	749.0	30.40	772.1	59.0	15.0	81	w.	4	1.8		3 ck	fg.	w.		0	0	fair	
Chattanooga, Tennessee	29.59	751.6	30.44	773.2	56.5	13.6	100	calm	0	0			fg.		calm	0	0	dense fog	
Cheyenne, Wyoming	24.19	614.4	30.32	770.1	25.5	— 3.6	94	s.	16	7.2			10 n			inap.	inap	sleeting	
Chicago, Illinois	29.58	751.3	30.32	770.1	51.1	10.6	90	n.	12	5.4			10 s			0.73	18.5	cloudy	
Chincoteague, Virginia	30.23	767.8	30.25	768.3	63	17.2	78	w.	7	3.1			8 s		calm	0	0	cloudy	
Cincinnati, Ohio	29.60	751.8	30.28	769.1	68.5	20.3	90	sw.	4	1.8			10 s		sw.	0.07	1.8	cloudy	
Cleveland, Ohio	29.36	745.7	30.13	765.3	67.8	19.9	91	s.	10	4.5			10 n		sw.	0.58	14.7	light rain	
Coleman City, Texas																			
Columbus, Ohio	29.34	745.2	30.23	767.8	68	20.0	90	sw.	9	4.0			10 ks		w.	0.09	2.3	cloudy	
Concho, Texas	28.26	717.8	30.26	768.6	67	19.4	93	se.	3	1.3		0	3 s		s.	0	0	fair	
Corsicana, Texas	29.78	756.4	30.26	768.6	74	23.3	90	calm	0	0			fg.			0	0	dense fog	
Davenport, Iowa	29.69	754.1	30.37	771.4	46	7.8	77	n.	7	3.1			10 s		calm	0.07	1.8	cloudy	
Dayton, Washington T'y	28.52	724.4	30.38	771.6	25.5	— 3.6	88	calm	0	0		4 k	0	sw.		inap.	inap.	clear	
Deadwood, Dakota	25.64	651.2	30.50	774.7	19	— 7.2	73	e.	4	1.8			10 ks			0	0	cloudy	
Decatur, Texas	28.97	735.8	30.10	764.5	75	23.9	69	se.	8	3.6		0	0			0	0	clear	
Delaware Breakwater, Del.	30.21	767.3	30.23	767.8	63	17.2	78	s.	8	3.6			10 s		w.	0	0	cloudy	
Denison, Texas	29.43	747.5	30.26	768.6	72	22.2	97	s.	4	1.8		0	8 s		s.	0	0	fair	
Denver, Colorado	24.95	633.7	30.32	770.1	35.0	1.7	92	nw.	8	3.6			fg.		calm	0	0	dense fog	
Des Moines, Iowa	29.52	749.8	30.47	773.9	37	2.8	72	n.	8	3.6		0	4 s			0.03	0.8	fair	
Detroit, Michigan	29.44	747.8	30.18	766.6	60	15.6	87	ne.	11	4.9			10 n		calm	0.66	16.8	light rain	
Dodge City, Kansas	27.75	704.8	30.44	773.2	36.3	2.4	87	ne.	11	4.9			10 s			0.17	4.3	cloudy	
Dubuque, Iowa	29.54	750.3	30.28	769.1	42.3	5.7	73	n.	9	4.0		3 cs	fg.	n.	calm	0.01	0.3	fair	
Duluth, Minnesota	29.77	756.1	30.50	774.7	31	— 0.6	68	w.	20	8.9		0	2 s		w.	0.02	0.5	clear	
Eagle Pass, Texas	29.40	746.7	30.25	768.3	73.2	22.9	90	se.	6	2.7		0	0			0	0	clear	
Eagle Rock, Idaho	25.24	641.1	30.22	767.6	14	—10.0	70	calm	0	0		0	0			0	0	clear	
Eastport, Maine	29.99	761.7	30.06	763.5	51.5	10.8	93	sw.	12	5.4			10 s		sw.	0.69	17.5	cloudy	
El Paso, Texas	26.38	670.0	30.22	767.6	67.1	19.5	90	ne.	3	1.3		0	3 s		e.	0.07	1.8	clear	
Erie, Pennsylvania	29.38	746.2	30.14	765.5	67	19.4	93	sw.	2	0.9			10 n			0.34	8.6	light rain	
Escanaba, Michigan	29.69	754.1	30.37	771.4	39	3.9	65	nw.	12	5.4		2 k	2 ks	nw.	nw.	0.02	0.5	fair	
Florence, Arizona	28.42	721.9	30.02	762.5	69.1	20.6	49	sw.	2	0.9			10 s		sw.	0	0	cloudy	
Fort Apache, Arizona	25.08	637.0	30.12	765.0	57	13.9	90	s.	8	3.6			10 n		calm	0.02	0.5	light rain	
Fort Assinnaboine, Montana	27.58	700.5	30.52	775.2	—13	—25.0	50	calm	0	0		0	0			0	0	clear	
Fort Bennett, Dakota	28.95	735.3	30.56	776.2	25	— 3.9	88	n.	2	0.9		10 cs	0	e.		0	0	cloudy	
Fort Benton, Montana	27.63	701.8	30.61	777.5	— 6	—21.1	64	w.	6	2.7		0	0			0	0	clear	
Fort Buford, Dakota	28.52	724.4	30.63	778.0	14	—10.0	83	nw.	6	2.7		0	5 c			0	0	fair	
Fort Custer, Montana	27.16	689.8	30.55	776.0	23	— 5.0	100	ne.	12	5.4			10 s		calm	0.08	2.0	threatening.	
Fort Davis, Texas	25.10	637.5	30.06	763.5	60	15.6	72	se.	8	3.6		0	0			0	0	clear	
Fort Elliott, Texas	27.50	698.5	30.80	782.3	41	5.0	76	n.	16	7.2			10 s		n.	0.27	6.9	cloudy	
Fort Gibson, Indian T'y	29.70	754.4	30.27	768.8	61.5	16.4	84	w.	8	3.6			10 s		w.	0	0	cloudy	
Fort Grant, Arizona					63	17.2	84	se.	7	3.1		0	8 s		w.	0.05	1.3	cloudy	
Fort Griffin, Texas	28.92	734.6	30.16	766.1	71.4	21.9	84	e.	3	1.3		10 ck	0	se.		0	0	cloudy	
Fort Keogh, Montana	27.92	709.2	30.59	777.0	26	— 3.3	88	e.	7	3.1			10 s		e.	0	0	cloudy	
Fort Macon, North Carolina	30.33	770.4	30.34	770.6	67	19.4	78	w.	4	1.8		hz.	hz	calm	calm	0	0	light haze	
Fort McKavett, Texas	27.97	710.4	29.85	758.2	67.4	19.7	95	se.	11	4.9		4 ck	0			inap.	inap.	fair	
Fort Missoula, Montana	26.95	684.5	30.60	777.2	16	— 8.9	100	ne.	2	0.9		0	0			0	0	clear	
Fort St. Michaels	30.38	771.6	30.42	772.7	45	7.2	100	s.	10	4.5			10 n			0.57	14.5	light rain	
Fort Shaw, Montana	26.68	677.7	30.42	772.7	11	—11.7	80	calm	0	0			10 s		calm	0.07	1.8	cloudy	
Fort Sill, Indian Territory	29.03	737.3	30.32	770.1	51.2	10.7	95	n.	23	10.3			10 n		n.	0.14	3.6	light rain	
Fort Stevenson, Dakota	28.70	729.0	30.66	778.7	16	— 8.9	100	nw.	3	1.3			10 ks		nw.	0	0	cloudy	
Fort Verde, Arizona					46	7.8	63	n.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.49	723.6	30.03	762.7	70	21.1	97	se.	3	1.3			10 ks		s.	inap.	inap.	cloudy	
Galveston, Texas	30.16	766.1	30.20	767.1	79	26.1	82	se.	7	3.1		hz.	0			0.01	0.3	clear	
Grand Haven, Michigan	29.60	751.8	30.30	769.6	51.0	10.6	83	nw.	11	4.9			10 s		nw.	0	0	cloudy	
Hatteras, North Carolina	30.30	769.6	30.32	770.1	67	19.4	84	sw.	7	3.1		0	hz.			0	0	clear	
Helena, Montana	26.03	661.2	30.62	777.7	10	—12.2	100	s.	3	1.3		4 k	0	calm		0	0	fair	
Henrietta, Texas	29.26	743.2	30.17	766.3	71	21.7	84	s.	3	1.3		0	3 s			0	0	fair	
Huron, Dakota	29.15	740.4	30.61	777.5	25	— 3.9	80	nw.	6	2.7		0	1 s			0.01	0.3	clear	
Indianapolis, Indiana	29.39	746.5	30.22	767.6	68.5	20.3	92	s.	5	2.2			10 n		s.	0.28	7.1	light rain	
Indianola, Texas	30.18	766.6	30.21	767.3	78.1	25.6	88	se.	10	4.5		10 k	0	se.		0.02	0.5	cloudy	
Jacksboro, Texas	29.05	737.9	30.16	766.1	70	21.1	90	se.	6	2.7		2 k	0	calm		0	0	clear	
Jacksonville, Florida	30.30	769.6	30.34	770.6	68	20.0	90	ne.	6	2.7		0	fg.			0	0	clear	
Keokuk, Iowa	29.66	753.4	30.34	770.6	45.5	7.5	82	nw.	8	3.6			10 s		nw.	0.49	12.4	cloudy	
Key West, Florida	30.17	766.3	30.20	767.1	76.5	24.7	69	ne.	19	8.5		0	3 k;ks		ne.;c	0	0	fair	
Kittyhawk, North Carolina	30.28	769.1	30.30	769.6	64	17.8	84	sw.	9	4.0		hz.	0			0	0	clear	
Knoxville, Tennessee	29.40	746.7	30.47	773.9	53.9	12.2	97	calm	0	0		1 k	fg.	calm	calm	0	0	dense fog	
La Crosse, Wisconsin	29.68	753.9	30.48	774.2	35	1.7	69	n.	17	7.6		0	0			0	0	clear	
La Mesilla, New Mexico	26.21	665.7	30.36	771.1	61.5	16.4	90	s.	2	0.9		3 c	4 s			0.20	5.1	fair	
Laredo, Texas	29.71	754.6	30.04	763.0	74.0	23.3	85	se.	1	0.4		0	2 s		se.	0	0	clear	
Leavenworth, Kansas	29.52	749.8	30.45	773.4	41	5.0	82	n.	9	4.0			10 n		n.	0.05	1.3	light rain	
Lewiston, Idaho	29.46	748.3	30.34	770.6	31	— 0.6	78	calm	0	0			10 s		calm	0.09	2.3	cloudy	
Little Rock, Arkansas	29.86	758.4	30.18	766.6	69	20.6	93	calm	0	0		0	hz.			0	0	clear	
Los Angeles, California	29.63	752.6	30.01	762.2	51.2	10.7	86	se.	3	1.3			10 s		calm	0	0	cloudy	
Louisville, Kentucky	29.68	753.9	30.28	769.1	68.0	20.0	90	s.	8	3.6		0	7 ks			0.17	4.3	cloudy	
Lynchburg, Virginia	29.58	751.3	30.29	769.4	60.3	15.7	74	calm	0	0		0	fg.			inap.	inap.	clear	
Madison, Wisconsin	29.36	745.7	30.43	772.9	40	4.4	82	n.	18	8.0		4 c	2 s	w.	n.	inap.	inap.	fair	
Marquette, Michigan	29.66	753.4	30.42	772.7	36	2.2	53	nw.	11	4.9			10 s		calm	0.02	0.5	cloudy	
Mason, Texas	28.57	725.7	30.29	769.4	71.7	22.1	84	s.	7	3.1		0	5 s		s.	0	0	fair	
Memphis, Tennessee	29.98	761.5	30.33	770.4	74	23.3	82	s.	6	2.7		0	8 s		sw.	0	0	cloudy	

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.58	751.3	30.36	771.1	46	7.8	77	nw.	12	5.4	.....	.....	10 s	.....	ne.	0.05	1.3	cloudy	
Mobile, Alabama	30.28	769.1	30.35	770.9	70.0	21.1	90	e.	3	1.3	.....	0	7 s	.....	e.	0	0	fair	
Montgomery, Alabama	30.17	766.3	30.41	772.4	62.1	16.7	87	e.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Moorhead, Minnesota	29.58	751.3	30.64	778.2	23	— 5.0	88	n.	12	5.4	.....	.....	10 s	.....	n.	0	0	cloudy	
Morgantown, W. Virginia	29.26	743.2	30.24	768.1	62.5	16.9	90	sw.	4	1.8	.....	.....	10 s	.....	sw.	0.32	8.1	cloudy	
Mt. Washington, N. H.	23.84	605.5	30.21	767.3	44.0	6.7	100	nw.	58	25.9	.....	.....	fg	.....	.....	0.66	16.8	dense fog	
Nashville, Tennessee	29.80	756.9	30.36	771.1	67.4	19.7	81	calm	0	0	.....	6 ck	4 ks	nw.	.....	inap.	inap.	cloudy	
New Haven, Connecticut	30.04	763.0	30.16	766.1	57	13.9	80	sw.	4	1.8	.....	0	9 s	.....	sw.	0.16	4.1	cloudy	
New London, Connecticut	30.11	764.8	30.16	766.1	61	16.1	84	nw.	4	1.8	.....	3 k	0	calm	.....	0.12	3.0	fair	
New Orleans, Louisiana	30.24	768.1	30.30	769.6	74.2	23.4	85	se.	4	1.8	.....	hz	hz	.....	.....	0.09	2.3	light haze	
Newport, Rhode Island	30.10	764.5	30.15	765.8	60.9	16.1	87	sw.	9	4.0	.....	1 k	0	.....	.....	0.03	0.8	clear	
New River, N. Carolina	.....	.....	.....	.....	67	19.4	78	w.	.....	.....	1	0	hz	.....	.....	0	0	fair	
New Shoreham, Rhode I'd	30.13	765.3	30.16	766.1	62.0	16.7	87	sw.	8	3.6	.....	0	3 s	.....	sw.	0.33	8.4	fair	
New York, New York	30.01	762.2	30.19	766.8	57	13.9	93	sw.	8	3.6	.....	7 cs	fg	w.	.....	0.12	3.0	fair	
Norfolk, Virginia	30.24	768.1	30.28	769.1	61	16.1	78	sw.	3	1.3	.....	0	0	.....	.....	0	0	clear	
North Platte, Nebraska	27.50	698.5	30.56	776.2	30.6	— 0.8	74	ne.	13	5.8	.....	.....	10 s	.....	.....	0	0	cloudy	
Olympia, Washington T'y	30.34	770.6	30.38	771.6	26.0	— 3.3	88	e.	2	0.9	.....	0	0	.....	.....	0	0	clear	
Omaha, Nebraska	29.31	744.5	30.55	776.0	32.3	0.2	77	n.	14	6.3	.....	2 cs	2 s	w.	w.	0.07	1.8	fair	
Oswego, New York	29.74	755.4	30.08	764.0	61.8	16.6	94	nw.	4	1.8	.....	.....	10 s	.....	w.	0.50	12.7	cloudy	
Pensacola, Florida	30.31	769.9	30.34	770.6	66	18.9	93	ne.	6	2.7	.....	0	0	.....	.....	0	0	clear	
Philadelphia, Pa.	30.16	766.1	30.22	767.6	59	15.0	87	w.	3	1.3	.....	.....	10s;hz	.....	w.	0.26	6.6	cloudy	
Phœnix, Arizona	28.80	731.5	30.59	777.0	60	15.6	30	e.	2	0.9	.....	5 k	3 s	s.	s.	0	0	cloudy	
Pike's Peak, Colorado	17.82	452.6	30.03	762.7	24	— 4.4	92	sw.	20	8.9	.....	.....	fg	.....	sw.	0	0	light fog	
Pioche, Nevada	23.96	608.6	30.15	765.8	46	7.8	29	s.	7	3.1	.....	0	0	.....	.....	0	0	clear	
Pittsburg, Pennsylvania	29.40	746.7	30.25	768.3	65	18.3	90	sw.	9	4.0	.....	.....	10 n	.....	calm	0.25	6.3	light rain	
Port Eads, Louisiana	30.31	769.9	30.32	770.1	75.9	24.4	79	e.	10	4.5	.....	hz	0	calm	.....	0.17	4.3	clear	
Port Huron, Michigan	29.49	749.0	30.20	767.1	52.1	11.2	92	n.	26	11.6	.....	.....	10 s	.....	calm	0.09	2.3	cloudy	
Portland, Maine	30.00	762.0	30.05	763.3	55	12.8	86	sw.	7	3.1	.....	2 ck	2 s	sw.	calm	0.01	0.3	fair	
Portland, Oregon	30.31	769.9	30.38	771.6	34.2	1.2	88	nw.	10	4.5	.....	0	2 s	.....	nw.	0	0	clear	
Portsmouth, N. Carolina	.....	.....	.....	.....	66	18.9	68	s.	7	3.1	.....	0	hz	.....	calm	0	0	clear	
Prescott, Arizona	24.74	628.4	30.05	763.3	48	8.9	61	e.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Punta Rassa, Florida	30.24	768.1	30.25	768.3	72.5	22.5	63	ne.	6	2.7	.....	10 ck	0	ne.	.....	0	0	cloudy	
Red Bluff, California	29.53	750.0	29.88	758.9	46.0	7.8	52	nw.	9	4.0	.....	5 k	0	s.	.....	0	0	fair	
Rio Grande City, Texas	29.87	758.7	30.08	764.0	74	23.3	90	se.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Rochester, New York	29.40	746.7	30.10	764.5	64	17.8	90	n.	11	4.9	.....	.....	10 ks	.....	n.	0.06	1.5	threatening	
Roseburg, Oregon	29.66	753.4	30.25	768.3	28.4	— 2.0	85	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Sacramento, California	29.87	758.7	29.95	760.7	41.5	5.3	73	sw.	12	5.4	.....	0	0	.....	.....	0	0	clear	
St. Louis, Missouri	29.67	753.6	30.30	769.6	56.9	13.8	93	n.	10	4.5	.....	.....	10 n	.....	n.	0.13	3.3	light rain	
St. Paul, Minnesota	29.63	752.6	30.55	776.0	34.2	1.2	71	nw.	6	2.7	.....	2 cs	0	nw.	.....	0.02	0.5	clear	
Salt Lake City, Utah	25.50	647.7	29.95	760.7	41	5.0	40	calm	0	0	.....	0	0	.....	.....	0	0	clear	
San Antonio, Texas	29.54	750.3	30.26	768.6	73.1	22.8	84	se.	4	1.8	.....	3 k	0	calm	.....	0.15	3.8	fair	
San Diego, California	29.90	759.4	29.97	761.2	61.5	16.4	65	w.	3	1.3	.....	.....	10 s	.....	s.	0	0	cloudy	
Sandusky, Ohio	29.41	747.0	30.12	765.0	67.3	19.6	93	sw.	23	10.3	.....	.....	10 s	.....	.....	0.80	20.3	cloudy	
Sandy Hook, New Jersey	30.15	765.8	30.18	766.6	60.0	15.6	62	w.	7	3.1	.....	5 c	0	w.	.....	0.06	1.5	fair	
San Francisco, California	29.97	761.2	30.04	763.0	47	8.3	54	w.	18	8.0	.....	0	0	.....	.....	0	0	clear	
Santa Fé, New Mexico	23.38	593.8	30.37	771.4	43	6.1	86	s.	6	2.7	.....	.....	10 s	.....	calm	0.49	12.4	cloudy	
Savannah, Georgia	30.30	769.6	30.39	771.9	64	17.8	90	n.	5	2.2	.....	0	fg	.....	.....	0	0	clear	
Shreveport, Louisiana	30.08	764.0	30.30	769.6	69.5	20.8	93	calm	0	0	.....	0	0	.....	.....	0	0	clear	
Silver City, New Mexico	24.39	619.5	30.07	763.8	58	14.4	83	calm	0	0	.....	0	9 s	.....	.....	0.10	2.5	cloudy	
Sitka, Alaska	30.40	772.1	30.47	773.9	45.2	7.3	70	sw.	12	5.4	.....	.....	10 ks	.....	nw.	0	0	cloudy	
Smithville, North Carolina	30.31	769.9	30.35	770.9	62	16.7	93	nw.	3	1.3	.....	0	hz	.....	.....	0	0	clear	
Spokane Falls, Wash. Ter.	28.26	717.8	30.33	770.4	19	— 7.2	87	e.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Springfield, Illinois	29.60	751.8	30.30	769.6	55	12.8	93	n.	12	5.4	.....	.....	10 s	.....	n.	0.25	6.3	cloudy	
Springfield, Massachusetts	30.01	762.2	30.14	765.5	56.0	13.3	93	s.	4	1.8	.....	8 k	fg	w.	.....	inap.	inap.	cloudy	
Stockton, Texas	27.14	689.3	30.28	769.1	67.0	19.4	90	calm	0	0	.....	0	0	.....	.....	0	0	clear	
St. Vincent, Minnesota	29.68	753.9	30.60	777.2	18	— 7.8	100	nw.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Thatcher's Island, Mass.	30.05	763.3	30.11	764.8	56.4	13.6	80	sw.	12	5.4	.....	0	3 s	.....	w.	0	0	clear	
Toledo, Ohio	29.42	747.3	30.14	765.5	67	19.4	90	w.	10	4.5	.....	.....	10 s	.....	sw.	0.83	21.1	cloudy	
Tucson, Arizona	27.50	698.5	29.94	760.5	71	21.7	82	se.	3	1.3	.....	0	8 ks	.....	se.	0	0	cloudy	
Umatilla, Oregon	30.04	763.0	30.47	773.9	28.0	— 2.2	67	n.	2	0.9	.....	0	2 s	.....	calm	0	0	clear	
Uvalde, Texas	29.23	742.4	30.03	762.7	74	23.3	94	se.	3	1.3	.....	.....	10 s	.....	.....	0	0	cloudy	
Vicksburg, Mississippi	30.08	764.0	30.34	770.6	71	21.7	90	se.	6	2.7	.....	2 ck	4 s	calm	calm	0	0	fair	
Visalia, California	29.57	751.1	29.94	760.5	44	6.7	72	nw.	5	2.2	.....	0	0	.....	.....	0	0	clear	
Washington, D. C.	30.12	765.0	30.24	768.1	60	15.6	87	calm	0	0	.....	0	7 ks	.....	w.	0.06	1.5	fair	
West Los Animas, Colorado	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Wickenburg, Arizona	.....	.....	.....	.....	44	6.7	67	calm	.....	.....	0	4 cs	0	.....	.....	0	0	fair	
Wilmington, N. Carolina	30.28	769.1	30.34	770.6	65	18.3	84	calm	0	0	.....	0	fg	.....	calm	0	0	clear	
Winnemucca, Nevada	25.57	649.5	29.97	761.2	24	— 4.4	70	ne.	14	6.3	.....	0	0	.....	.....	0	0	clear	
Wood's Holl, Mass.	30.11	764.8	30.15	765.8	62	16.7	90	sw.	16	7.2	.....	8 k	fg	sw.	sw.	inap.	inap.	cloudy	
Yankton, Dakota	29.24	742.7	30.61	777.5	30	— 1.1	78	n.	3	1.3	.....	.....	10 s	.....	.....	0	0	cloudy	
Yuma, Arizona	29.71	754.6	29.85	758.2	61.6	16.4	61	calm	0	0	.....	10 k	0	calm	.....	0	0	cloudy	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	29.86	758.4	29.88	758.9	84	28.9	91	e.	.....	.....	4	2 k	5 k	e.	e.	0	0	.....	J. A. Racker.
Bogota, U. S. Columbia	22.03	559.6	.....	.....	53.8	12.1	79	calm	0	0	.....	8 k	2 ks	.....	w.	0	0	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	30.03	762.7	30.05	763.3	75	23.9	90	sw.	.....	.....	.....	.....	10	.....	.....	0.30	7.6	raining	J. B. Dougherty.
Guadeloupe, W. I. ‡	29.85	758.2	29.85	758.2	80	26.7	90	e.	.....	.....	.....	8 c	0	.....	.....	0.10	2.5	.....	B. Bigar.
Havana, Cuba, W. I.	30.12	765.0	30.16	766.1	79	26.1	65	e.	2.4	1.1	.....	0	2 ks	.....	e.	0.04	1.0	fair	A. Van Caneghem, Ass't
Kingston, Jamaica, W. I.	29.95	760.7	29.96	761.0	75.6	24.2	90	calm	0	0	.....	.....	10 s	.....	.....	0.14	3.6	.....	Robert Johnstone.
Navassa, W. I.	29.85	758.2	29.93	760.2	82	27.8	74	ne.	17	7.6	.....	5 ks	5 k	ne.	e.	0.40	10.2	threatening	F. M. Everett.
Paramaribo, S. A.	29.99	761.7	29.99	761.7	80	26.7	78	e.	.....	.....	2	3 c	5 k	e.	e.	0.090	2.3	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.41	747.0	29.96	761.0	79	26.1	85	calm	.....	.....	.....	.....	4 k	.....	s.	0.11	2.8	fair	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	73.0	22.8	98	ne.	.....	.....	1	.....	10 n	.....	ne.	0.42	10.7	.....	Earl Flint.
Santiago de Cuba, W. I.	30.00	762.0	30.02	762.5	78	25.6	78	ne.	8.4	3.8	.....	5 ck	4 ks	ne.	n.	0	0	cloudy	Robert Mason.
St. Thomas, W. I. ‡	29.82	757.4	29.93	760.2	80	26.7	88	se.	2	0.9	.....	.....	8 ks	.....	se.	0	0	cloudy	G. O. Gyllich.
York Factory, B. A.	30.16	766.1	30.21	767.3	21.0	— 6.1	93	nw.	12	5.4	.....	1 c	0	nw.	.....	0	0	.....	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, S. 11° 10′, E. 139° 09′	29.93	760.2	78.8	26.0	82	sse.			1		2							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Port Mahon, Minorca, Spain	30.17	766.3	68.3	20.2	87	ene.			1		4	ene.						d. clouds	Capt. Lord Walter Kerr
H. M. S. Antelope, N. 40° 25′, E. 29° 09′	29.84	757.9	61	16.1		var.			1		10	calm						misty	Capt. Hon. W. H. Jolliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 44° 12′, W. 56° 23′	30.32	770.1	52	11.1	93	se.			2		6	wsw.				2	nnw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.01	762.2	70	21.1	67	ese.			3-4		5	se.						squally	Capt. F. W. Richards.
H. M. S. Champion, Callao Bay, Peru	29.97	761.2	61	16.1	100	s.			2		10							d. clouds	Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.25	768.3	72	22.2		wsw.			2		4	wsw.				3	wsw.	d. clouds	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 36° 30′, W. 1° 24′	30.24	768.1	71	21.7		sse.			1		2	se.						d. clouds	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.76	755.9	72	22.2		wnw.			2		4	wnw.						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido																			Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.03	762.7	72	22.2	85	nne.			4-5		7	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	30.15	765.8	42.5	5.8	83	ssw.			1		10							drizzling	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.74	755.4	85	29.4		nnw.			2-4		5	nw.				3	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 4° 48′, E. 83° 53′	29.82	757.4	82.5	28.1		sw.			2-3		3	sw.				4	sw.	d. clouds	Capt. E. St. J. Garforth
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 28° 10′, E. 177° 48′	30.02	762.5	66	18.9	?	sse.			1		2	s.				2	sw.	d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.78	756.4	84	28.9	91	ne.			3		5	sw.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. O. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 25° 02′, E. 34° 40′	30.31	769.9	65	18.3	97	se.			3		10					4	se.	overcast	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 9° 00′, W. 157° 40′	29.88	758.9	77	25.0	90	ese.			1		10	se.				1-3	ne; se.	showery	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	30.10	764.5	61	16.1	94	ene.			4		10							misty	Capt. L. F. Jones.
H. M. S. Griffon, N. 17° 36′, W. 79° 26′	29.94	760.5	84	28.9	75	e.			2		2	e.				2	ese.	d. clouds	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 27° 30′, E. 143° 00′	29.97	761.2	82	27.8	91	sw.			1		1	w.				1	nw.	blue sky	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′ E. 129° 50′	30.02	762.5	70	21.1		calm			0									d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.86	758.4	82	27.8		calm			0		2	calm						d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, Simon's Bay, Cape Colony	30.08	764.0	64	17.8		ene.			4		4	ene.						d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 36° 37′, E. 7° 23′	30.37	771.4	69	20.6	70	ne.			1		2					1	n.	d. clouds	Lieut. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, N. 21° 43′, E. 113° 28′	29.69	754.1	81.9	27.7	89	nnw.			1		10					3	ese.	misty	Lieut. A. Balfour.
H. M. S. Malabar, N. 12° 45′, E. 45° 37′	29.84	757.9	85	29.4	91	se.			2		3	e.				3	s.	d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, Vigo, Spain	30.21	767.3	62.5	16.9	83	sw.			1		5	wsw.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.12	765.0	73	22.8	85	nw.			4		4	nnw.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo Chili,	30.07	763.8	59	15.0	84	calm			0		0							blue sky	Comm. F. Edwards.
H. M. S. Nelson,																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.15	765.8	52.5	11.4	86	ssw.			1		10							misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 20° 24′, W. 22° 09′	30.05	763.3	77	25.0	86	ne.			3		3	ese.				2	nne.	d. clouds	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	30.42	772.7	30	— 1.1	89	calm			0									d. clouds	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.82	757.4	81.3	27.4	87	nw.			2–3		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sappho, N. 32° 38′, W. 16° 39′	30.34	770.6	71	21.7	90	ese.			4		3	nne.				4	ene.	d. clouds	
H. M. S. Sea Gull,																			Comm. W. Byles.
H. M. S. Serapis, S. 34° 52′, E. 23° 00′	30.24	768.1	65	18.3	78	ene.			5		0					3	ene.	blue sky	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			
H. M. S. Tamar, S. 20° 00′, W. 1° 40′	30.12	765.0	68	20.0	71	e.			4		10	e.				3	e.	d. clouds	Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 31° 10′, W. 125° 15′	30.18	766.6	61	16.1	88	nne.			5		10					4	n.	overcast	Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 18° 31′, W. 81° 00′	30.09	764.3	62	16.7	71	se.			6		10	se.				6	se.	squally	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne, N. 37° 11′, E. 11° 17′	30.07	763.8	69.5	20.8	98	nw.			4		5	wnw.				3	nnw.	d. clouds	
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.97	761.2	76	24.4		nw.			1		4							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.91	759.7	59	15.0	70	wsw.			1		0							blue sky	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Muscat, Arabia	29.73	755.1	93.5	34.2	52	nw.			1–2		0					3	nw.	blue sky	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
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PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.97	761.1	78.4	25.8	75	w.			4		6					1			Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	29.99	761.8	79.7	26.5	74	ene.			3		2		nw.			2	ne.	blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.72	754.9	84.2	29.0	81	ne.			1		10							overcast	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.39	771.9	71	21.7	90	ne.	4	1.8			0			0	0			clear	
N. Yard, Portsmouth, N. H.	30.07	763.8	55	12.8	87	sw.	4	1.8		8 c	0	sw.		0.2	5.			cloudy	
Naval Hospital, Yokohama, Japan	29.83	757.7	63.5	17.5	78	e.			1		8		wnw.	0.17	4.3			cloudy	
Adams, Callao, Peru	29.79	756.7	61	16.1	88	sse.			0–1		10					sm'h		cloudy	
Alaska, Callao, Peru	29.98	761.5	61	16 1	94	calm			0		0							clear	
Alert, Yokohama, Japan *	29.77	756.1	66	18.9	74	ene.			3		5		calm	0	0	sm'h		fair	
Alliance, Reikiavik, Iceland	29.58	751.3	33	0.6	62	ese.			2		5		e.	0	0	sm'h		fair	
Ashuelot, Kobe, Japan	30.05	763.3	66	18.9	64	n.			1		2		n.					clear	
Colorado, New York, N. Y.	30.17	766.3	60	15.6	76	sw.	2	0.9			2							clear	
Constitution, New London, Conn	30.09	764.3	59	15.0	?	w.			1–2		5		e.					fair	
Franklin, Off Yorktown, Va	30.17	766.3	62	16.7	72	wsw.	4	1.8			0			0	0			clear	
Galena, Smyrna, Turkey in Asia.	29.79	756.7	68	20.0	79														
Independence, N. Yard, Mare I'd, Cal	29.85	758.2	55	12.8	74	wnw.	10.8	4.8			0							clear	
Kearsarge, Stapleton, N. Y.	30.18	766.6	60	15.6	82	sw.			1		8		sw.			sm'h		fair	
Lackawanna, San Francisco, Cal †	30.16	766.1	51	10.6	93	sw.			5		0							clear	
Lancaster, N. 34° 40′ W. 65° 58′	30.16	766.1	71	21.7	75	ene.	21	9.4			10		ne.	0	0	sm'h	ne.	overcast	
Marion, Montevideo, Uruguay	29.88	758.9	68	20.0		ne			5		10		ne.			mod.		cloudy	
Michigan, Erie, Pa	30.04	763.0	67	19.4	95	wsw.			2		10		wsw.					raining	
Minnesota, Newport, R. I.	30.17	766.3	64	17.8	89	wsw.			2		2		w.	0	0	sm'h		clear	
Monocacy, Yokohama, Japan	30.03	762.7	66	18.9	84	e.			2		2		e.					fair	
Nipsic, Genoa, Italy	29.89	759.2	67	19.4	79	ne.			1		0					sm'h		blue sky	
Onward, Callao, Peru †	29.99	761.7	60	15.6	94	sw.			2		10		nw.			long	w.	misty	
Palos, Hong Kong, China	29.71	754.6	87	30.6	65	calm			0		10		calm					overcast	
Passaic, Washington, D. C.	30.21	767.3	61	16.1	94	sw.			1		8							cloudy	
Pensacola, Callao, Peru,	30.01	762.2	60	15.6	88	s.			1		10			0	0			cloudy	
Portsmouth, Yorktown, Va	30.26	768.6	62	16.7	77	sw.			2		0					sm'h		clear	
Powhatan, N. 33° 44′, W. 75° 53′	30.33	770.4	75	23.9	76	nw.			1		2		nw.			long	ne.	fair	
Quinnebaug, Marseilles, France						wnw.			4		5		nnw.			sm'h		fair	
Ranger, Mare Island, Cal *	30.12	765.0	55	12.8	56	wnw.			7		0							clear	
Richmond, Panama, Panama	29.87	758.7	79	26.1	95	n.			1		2		n.	0	0	mod.	n.	clear	
Saratoga, Yorktown, Va	30.24	768.1	61	16.1	100	sw.			1		2			0	0	sm'h		fair	
Shenandoah, Montevideo, Uruguay *	30.09	764.3	68	20.0	79	nne.			4		10		n.			sm'h		cloudy	
St. Louis, League Island, Pa	29.92	760.0	61	16.1	77	calm	0	0			8			0.33	8.4			cloudy	
Swatara, N. 32° 48′, E. 127° 38′ †	30.01	762.2	74	23.3	72	e.			4		5		ne.			mod.	e.	hazy	
Tennessee, Yorktown, Va	30.28	769.1	63	17.2	89	wsw.	7	3.1			0			0	0			clear	
Trenton, Hampton Roads, Va *	30.26	768.6	67	19.4	74	wsw.			2		2			0	0	sm'h		clear	
Vandalia, Yorktown, Va	30.25	768.3	62	16.7	77	w.			2		2		nw.					fair	
Wabash, Boston, Mass	30.11	764.8	58	14.4	94	sw.	2	0.9			2		ssw.	2.40	61.0			hazy	
Wachusetts, Sitka, Alaska	30.45	773.4	41	5.0	100	calm			0									foggy	
Wyoming, Port Royal, S. C.	30.39	771.9	70	21.1	90	nnw.	7	3.1			2		calm	0	0			clear	
Yantic, Yorktown, Va *	30.27	768.8	65	18.3	89	w.			1		2							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumaker & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, Montreal, Canada *†	30.04	763.0	.....	.....	.....	ssw.	2	.....	10	.....	sw.	.....	.....	sm'h	.....	hazy	N. McLean.
S. S. Circassian, Capt. W. H. Smith	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Capon, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, Agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, N. 45° 18′, W. 55° 49′ †	30.27	768.8	54	12.2	93	ssw.	3	.....	2	.....	ssw.	.....	.....	sm'h	w.	clear	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 51° 16′ W. 30° 30′ †	29.66	753.4	49	9.4	77	nw.	5	.....	2	.....	w.	0	0	mod.	w.	fair	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Delaware River, Del *†	30.31	769.9	56	13.3	93	sw.	1	.....	5	.....	nw.	.....	.....	.....	.....	fair	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. British Merchant, E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Caldew, Capt. W. Petersen S. 56° 03′, W. 72° 40′	29.48	748.8	39.5	4.2	.....	sw.	8	.....	10	.....	.....	.....	.....	.....	.....	overcast	
S. S. Cipero, Capt. W. N. Lailey, Port Cortez, Honduras, C. A.	29.93	760.2	79.2	26.2	93	ese.	1	.....	6	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Glaramara, Capt. R. Morton, ‡ N. 42° 25′, W. 125° 42′	30.27	768.8	47	8.3	67	n.	6	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Gordon Castle, Capt. W. Waring. N. 9° 53′, E. 65° 46′	29.84	757.9	82.5	28.1	90	w.	1	.....	8	.....	.....	.....	.....	.....	.....	gloomy	
Bg. Hermine, Capt. S. G. Jones, S. 35° 37′, W. 49° 06′	30.33	770.4	63	17.2	72	nne.	5	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
Bkt. Hope, Capt. J. Campbell.. ‡ N. 39° 10′, W. 19° 44′	30.38	771.6	66.0	18.9	94	e.	3	.....	10	.....	.....	.....	.....	.....	.....	showery	
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, S. 11° 03′, E. 87° 30′	29.88	758.9	80.7	27.1	82	ne.	3	.....	7	.....	.....	.....	.....	.....	.....	gloomy	
Bk. Mertola, Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Moorhill, Capt. J. Brown, S. 56° 40′, W. 76° 00′	29.57	751.1	41.2	5.1	56	s.	7	.....	5	.....	.....	.....	.....	.....	.....	d. clouds	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pleione, Capt. C. H. Renant, S. 44° 58′, E. 108° 17	30.06	763.5	48.5	9.2	77	w.	6	.....	10	.....	.....	.....	.....	.....	.....	d. clouds	
Queen of Cambria, Capt. M. Parry, S. 4° 49′, W. 29° 30′	29.97	761.2	80.5	26.9	70	ese.	4	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Rosetta, Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 43° 29′, W. 26° 24′	30.21	767.3	66.0	18.9	90	sw.	6	.....	10	.....	.....	.....	.....	.....	.....	overcast	
S. S. Strathleven, Capt. C. W. Pearson, N. 35° 26′, E. 139° 41′	29.98	761.5	64.0	17.8	94	ne.	3	.....	7	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Thames, Capt. Luckhurst. N. 51° 59′, W. 12° 08′	29.55	750.6	58.3	14.6	98	sw.	6	.....	10	.....	.....	.....	.....	.....	.....	raining	R. Ladd, 1st Officer.
S. S. Wybertan, Capt. R. J. Blacklin. S. 1° 48′, E. 62° 06′	29.63	752.6	80	26.7	.....	w.	6	.....	5	.....	.....	.....	.....	.....	.....	d. clouds	
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, agent San Francisco.																	
S. S. Newbern, Capt, E. Rogers Mazatlan, Mexico †	29.71	754.6	80	26.7	91	se.	1	.....	0	.....	.....	0	0	gentle	se.	clear	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., Agents, New York.																	
S. S. Galia, Capt. W. H. P. Hains N. 47° 07′, W. 37° 07′	30.04	763.0	60	15.6	.....	nnw.	4	.....	5	.....	n.	0	0	con.	w.	fair	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumaker & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.																	
S. S. Braunschweig, Capt. C. Pohle,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Hermann, Capt. H. Baur, N. 53° 33′, E. 7° 54′	29.39	746.5	51.8	11.0	.....	wnw.	8	.....	8	.....	nw.	0	0	high	wnw.	stormy	E. Schmidt, 3d Offer.
S. S. Koln, Capt. T. Jüngst, N. 47° 07′, W. 44° 22′	30.27	768.8	47.0	8.3	73	nne.	4	.....	10	.....	n,nne.	0	0	mod.	nne.	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer N. 50° 04′, W. 31° 09′	29.79	756.7	52.0	11.1	83	nw.	6	.....	10	.....	nw.	10 h'r	10 h'r	h'vy	w;nw	misty	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Englehart & von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, N. 39° 06′, E. 151° 45′ †	29.91	759.7	62	16.7	61	nw.	5	.....	5	.....	nw.	0	0	mod.	nw.	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 33° 15′ E. 135° 20′ *†..	30.17	766.3	75	23.9	72	var-	1	.....	10?	.....	nw.	.....	.....	sm'h	nw.	clear?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 35° 44′, W. 145° 50′	30.35	770.9	70	21.1	85	sse.	5	.....	3	.....	sse.	0.02	0.5	mod.	s.	fine	.....
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Oterendorp, Agent, San Francisco.																	
S. S. City of Chester, Capt. G. Reichmann..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon. Capt. E. Polemann,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, San Francisco, Cal. †..	29.96	761.0	47	8.3	62	nw.	4	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——, Strait of Fuga †..	30.35	770.9	44	6.7	76	n.	3	.....	6	.....	n.	0	0	.....	.....	clear	.....
S. S. Idaho, Capt. T. Huntington, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 32° 38′, W. 117° 17′ †..	30.02	762.5	65	18.3	73	se.	3	.....	8	.....	sse.	.....	.....	mod.	se.	cloudy.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 35° 38′, W. 121° 14′ †	30.09	764.3	51	10.6	72	nw.	4	.....	1	.....	.....	.....	.....	mod.	ne.	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †..	30.33	770.4	36	2.2	90	nw.	3	.....	0	.....	.....	.....	.....	.....	.....	clear.....	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, San Francisco, Cal. †...	30.06	763.5	46	7.8	100	nw.	3	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Bannermann, 2d Offi.
S. S. City of New York, Capt. W. B. Cobb, S. 24° 30′, W. 174° 10′ †	30.14	765.5	68	20.0	84	ese.	2	.....	1	.....	e.	.....	.....	mod.	e.	clear.....	W. H. Hawes, 2d Offi. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. City of Peking, Capt. G. G. Barry.. Hong Kong, China *†.	29.83	757.7	85	29.4	92	nne.	2	.....	10	.....	ne.	0	0	sm'h	.....	cloudy.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 15° 45′, W. 97° 16′ †...	29.93	760.2	83	28.3	87	w.	2	.....	5?	.....	w.	0	0	mod.	s.	cloudy ?.....	.....
S. S. City of Sidney, Capt. H. C. Dearborn, S. 25° 13′ W. 176° 27′ *†..	29.90	759.4	69	20.6	65	sse.	4	.....	5	.....	se.	0	0	long	se.	fair.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury, N. 39° 32′. W. 141° 33′ †	30.59	777.0	62	16.7	66	e.	4	.....	10	.....	e.	.....	.....	mod.	se.	cloudy	A. L. Richie, 2d Offi.
S. S. Colima, Capt. R. R. Searle, N. 7° 04′, W. 80° 16′ † ..	29.89	759.2	80	26.7	?	wsw.	5	.....	8	.....	wsw.	0	0	r'gh	sw.	cloudy.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 24° 33′, W. 112° 08′ †	29.90	759.4	79	26.1	86	wnw.	3	.....	0	.....	.....	0	0	mod.	wnw.	clear.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	29.79	756.7	58	14.4	70	n.	4	.....	0	.....	.....	0	0	.....	.....	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 51° 09′, W. 24° 38 †..	30.02	762.5	59	15.0	.....	w.	6	.....	10	.....	w.	10 h'r	10 h'r	high	sw.	stormy.....	A. Fedderson, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, N. 45° 14′, W. 43° 53′ †..	30.26	768.6	55	12.8	80	n.	6	.....	8	.....	e.	0	0	mod.	ne.	cloudy.....	C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings, New York, N. Y. †..	30.10	764.5	64	17.8	.....	s.	3	.....	5	.....	w.	0	0	.....	.....	fair	R. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 46° 26′ W. 380 24′ †..	30.19	766.8	65	18.3	84	n.	5	.....	10	.....	ne.	14 h'r	14 h'r	r'gh	n.	fair.....	.....
S. S. Celtic, Capt. B. Gleadell, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, N. 43° 58′, W. 56° 12′ †.	30.43	772.9	54	12.2	93	w.	3	.....	2	.....	w.	0	0	sm'h	wsw.	d. clouds.....	.....
S. S. Republic, Capt. P. J. Irving N. 51° 28′, W. 14° 46′ †..	29.55	750.6	61	16.1	100	sw.	6	.....	10	.....	w.	6 h'r	6 h'r	h'vy	.....	.....	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Washington, D. C. †...	30.34	770.6	66	18.9	94	calm	0	3 c	3 k	.....	.....	0.08	2.0	.....	.....	cloudy.....	.....
Hassler, Lt. Com. Nichols, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pawashick, Capt. E. Fry, N. 39° 20′, E. 2° 38′ *†..	30.05	763.3	69	20.6	85	w.	2	.....	0	.....	.....	.....	.....	sm'h	n.	very fine.....	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 34° 22′, W. 62° 54′ †...	30.39	771.9	74	23.3	.....	ne.	5	.....	2	.....	ene.	.....	.....	r'gh	ne.	fair.....	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam, Capt. Jos. Hand, N. 35° 46′, W. 29° 24′ †.	30.37	771.4	72	22.2	85	ene.	6	.....	8	.....	ene.	light	light	mod.	ne.	cloudy..	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 14, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.11	764.9	75.6	24.2	66	e.			1		0			0	0	clear	Moiroud.
Algiers ‡			30.16	766.0	73.4	23.0	68	wsw.			3		1			0	0	very fair	Nicolas.
La Calle ‡			30.15	765.8	75.2	24.0	74	nw.			4		4			0	0	cloudy	Fonfrède.
Tunis ‡			30.12	765.1															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.15	765.9	74.3	23.5	45	nnw.			1		0			0	0	clear	Dumas.
Tebessa ‡			30.17	766.4	67.3	19.6	34	nw.			1		0			0	0	clear	Derché.
Geriville ‡					68.0	20.0	49	nw.			3		4			0	0	cloudy	Lonchamp.
Laghouat ‡			30.19	766.7	71.2	21.8	33	e.			1		0			0	0	clear	Herbin.
Biskra ‡			30.18	766.5	81.3	27.4	29	nnw.			3		c			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.01	762.2	30.10	764.5	54.2	12.3	79	w.	7	3.1			10			0	0	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.36	745.8	29.91	759.6	56.1	13.4	67	se.			2		10			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.03	737.3	29.79	756.7	52.2	11.2	52	sw.	9.8	4.4			1			0.008	0.2		Dr. Wiersbicki.
Eperies	28.95	735.3	29.83	757.6	51.4	10.8	61	s.			3		10 s			0.122	3.1		Julius Mikolik.
Gratz ‡	28.63	727.2	29.88	758.9	52.2	11.2	71	sso.			1		7			0	0		Andreas Rospini.
Hermannstadt	28.51	724.1	29.93	760.2	56.5	13.6	43	nw.			3		0			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.38	720.9	29.71	754.6	53.1	11.7	89	wsw.			1		8			0.087	2.2	gloomy	The Staff.
Lemberg	28.84	732.6	29.83	757.7	50.0	10.0	60	w.			3		4			0	0		Dr. T. Stanecki.
Pola	29.83	757.7	29.94	760.5	66.2	19.0	80	s.			2		10			0	0		I. R. Hydrographic Office.
Szathmar	29.45	748.1	29.92	759.9	53.1	11.7	46	w.			1		2			0.024	0.6		Jozsef Midlinszky, S. J.
Szegedin	29.61	752.0	29.88	759.0	56.7	13.7	57	s.			1		6			0	0		Karl Stancel.
Trieste	29.82	757.4	29.92	760.0	67.3	19.6	85	calm			0		10			0	0		Rieder.
Vienna	29.10	739.1	29.82	757.3	50.9	10.5	71	s.			1		10			0.020	0.5		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 14, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	28.66	728.0	28.75	730.2	37.3	2.9	98	n.	49	21.9			10			0.750	19.1	raining	W. Boswell.
Armagh, Observatory	28.83	732.3	29.06	738.1	45.0	7.2	80	nnw.	22	9.8			10					squally	S. Call.
Bidston, Liverpool Obs'y			29.68	753.9	47.0	8.3	89	w.	78	34.9			10					overcast	John Hartnup.
Bolton, Sharples	28.16	715.3	28.67	728.2	45.8	7.7	92	wsw.	48	21.5			10					stormy	Thomas Mackereth. [A.S.
Bradford, Yorkshire	28.20	716.3	28.60	726.4	47.1	8.4	93	sw.			5		10			0.36	9.1	raining	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.00	736.6	54.0	12.2	58	w.			9		8					overcast	John McLaren.
Chatham, School M. E.	29.02	737.1	29.15	740.4	57.1	13.9	67	sw.			4		6			blank	blank	d. clouds	H. C. Evans, Q. M. Sg't.
Falmouth, Observatory	29.31	744.5	29.54	750.3	53.0	11.7	63	w.			7		3					squally	The Staff.
Fort Napier, Natal	27.84	707.1	30.06	763.5	70.2	21.2	49	se.			2		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.64	752.8	29.87	758.7	86.0	30.0	75	nw.			1		4					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.45	748.0	46	7.8	85	wnw.			7		10					squally	J. O'Donaghue.
Gibraltar, Mediterranean	30.10	764.5	30.15	765.8	77.6	25.3	84	w.			3		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	28.62	726.9	28.82	732.0	41.0	5.0	87	n.			8		10					squally	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	28.94	735.1	29.11	739.4	55.1	12.8	66	wsw.			7		4					d. clouds	The Staff.
Guernsey	29.31	744.5	29.53	750.0	56.5	13.6	57	wsw.			6		5					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.08	738.6	29.12	739.6	55.0	12.8	53	wsw.	42	18.8			5					d. clouds	The Staff.
Leicester, Museum	28.61	726.7	28.86	733.0	52.2	11.2	58	sw.			8		10					overcast	J. C. Smith.
Malta, Mediterranean	29.98	761.5	30.06	763.5	73.0	22.8	76	nw.			2		6			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.01	762.2	30.06	763.5	77.2	25.1	69	ne.			2		5					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	28.36	720.3	28.86	733.0	52.5	11.4	73	wsw.			8		8					squally	John Mac Email.
Oxford, Radcliffe Obs'y	28.83	732.3	29.06	738.1	53.9	12.2	84	w.			8		7					squally	The Staff.
Plymouth	28.49	723.6	29.57	751.1	56.0	13.3	60	nw.			6		4					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.11	739.4	39.5	4.2	77	n.	37	16.5			10					rain & hail	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.84	757.9	29.91	759.7	66.4	19.1	66	sw.			2		3					d. clouds	Serg't W. H. Lyne.
Sheffield	28.41	721.6	28.68	728.5	48.0	8.9	92	sw.			8		10			0.44	11.2	raining	W. F. Cooper.
Silloth Rectory	28.60	726.4	28.64	727.4	42.5	5.8	80	n.			8		10			0.045	1.2	threatening	Rev. F. Redford, M. A.
Stonyhurst, Observatory			28.73	729.7	48.0	8.9	88	w.	37	16.5			10			blank	blank	squally	Rev. S. J. Perry.
Stratfield Turgiss	28.96	735.6	29.17	740.9	53.8	12.1	60	w.			5		7					squally	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.63	752.6	29.66	753.4	57	13.9	57	nw.			8		6					d. clouds	W. Newcombe.
Valencia, Observatory	29.64	752.8	29.67	753.6	51.9	11.1	70	wnw.	44	19.7			7					squally	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.01	762.2	30.05	763.3	39	3.9	48	w.	15	6.7			10 s			0.385	9.8	cloudy	H. J. Cundall, C. E.
Chatham, N. B. *	30.12	765.0	30.18	766.6	32	0.0	85	w.	3	1.3		0	0			0.02	0.5	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	30.23	767.8	30.25	768.3	31	— 0.6	88	nw.	20	8.9		5 k	2 s	nw.	nw.	0.02	0.5	fair	J. McWilliams.
Fort Garry, Manitoba *	29.28	743.7	30.14	765.5	29	— 1.7	96	sw.	8	3.6		5 k	5 ks	sw.	sw.	0	0	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.96	761.0	30.10	764.5	37	2.8	76	nw.	11	4.9		0	0			0.560	14.2	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	30.11	764.8	30.47	773.9	30	— 1.1	77	n.	4	1.8		0	0			0	0	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	30.21	767.3	30.42	772.7	31	— 0.6	68	nw.	6	2.7		0	0			0.01	0.3	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.75	755.6	30.48	774.2	28	— 2.2	88	calm	0	0		0	0			0	0	clear	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.70	754.4	30.43	772.9	36	2.2	90	ne.	8	3.6		8 k	0	w.		0.08	2.0	fair	H. Morgan.
Port Stanley, Ontario	29.74	755.4	30.41	772.4	37	2.8	82	e.	7	3.1		8 k	0	w.		0.02	0.5	cloudy	M. Payne.
Quebec, Quebec *	30.03	762.7	30.37	771.4	29	— 1.7	77	n.			1	0	2 s		ne.	0.05	1.3	fair	Capt. Ashe, R. N.
Rockliffe, Ontario *	30.01	762.2	30.50	774.7	22	— 5.6	63	calm	0	0		0	0			0	0	clear	W. H. McIntyre.
Saugeen, Ontario *	29.68	753.9	30.43	772.9	33	0.6	85	se.	10	4.5		5 cs	0			0	0	fair	K. Stewart.
St. Andrews, N. B.	30.17	766.3	30.22	767.6	36	2.2	75	n.	6	2.7		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	29.87	758.7	29.93	760.2	39	3.9	54	nw.	22	9.8		0	5 ks		nw.	0.44	11.2	clearing	T. C. Hill, C. E.
Toronto, Ontario *	30.10	764.5	30.50	774.7	34	1.1	66	n.	8	3.6		0	0			0.10	2.5	clear	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	30.12	765.0	30.19	766.8	39	3.9	89	n.	8	3.6		2 cs	2 k	w.	n.	0.04	1.0	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.82	757.4	30.08	764.0	32	0.0	100	s.					10 n			0.70	17.8	raining	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House †	30.12	765.0	30.15	765.8	63.5	17.5	97	ene.	15.3	6.8		0	1 s			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester * †	29.29	744.0			87.8	31.0	31	ese.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.06	763.6	30.09	764.3	64.9	18.3	88	nnw.	6.7	3.0			10			1.039	26.4	covered	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.12	739.7	29.17	740.9	44.2	6.8	88	s.	36	16			10					raining	Oversergent Fischer.
Fanöe	28.67	728.1	28.69	728.6	53.4	11.9	99	sw.			6		10					raining	Overloerer Lauridsen.
Godthaab, Greenland	29.08	738 5	29.12	739.6	35.2	1.8	63	ene.			2		10						S. Kleinschmidt.
Stykkisholm, Iceland	29.87	758.6	29.91	759.7	28.0	—2.2	96	ne.			7		5						A. O. Thorlacius.
Thorshavn	29.32	744.7	29.35	745.6	37.4	3.0	61	n.	18	8			4					snowing	Overloerer Bergh.
Vestervig	28.57	725.6	28.66	727.9	43.1	6.2	97	ese.			7		10					raining	Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.40	746.7	30.03	762.8	65.1	18.4	60	wnw.			3		10 kn					covered	M. Labroue, Director.
Alençon Normal School	29.11	739.4	29.72	754.8	57.6	14.2	84	w.			4		ks			0.12	3.		M. Nicot, Director.
Arras, Engineer School	29.07	738.3	29.32	744.6	57.6	14.2	60	w.					kn						M. Klein, Commandant.
Avignon, Normal School	29.91	759.7	29.99	761.7	72.7	22.6	48	nw.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.12	739.7	29.66	753.4	60.8	16.0	77	sw.			4		10		wsw.			sprinkling	M. Saillard, Director.
Beauvais, Normal School	29.22	742.1	29.47	748.6	58.8	14.9	62	w.			4		8		w.	0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.97	735.8	29.84	758.0	62.6	17	70	sw.			2		10 n		n.	0.071	1.8	raining	M. Gobin, Director.
Bordeaux, Observatory	29.74	755.4	30.00	762.0	61.2	16.2	83	wsw.			2		10		wsw.	0.071	1.8	raining	M. Rayet, Director.
Bourges, Normal School	29.23	742.4	29.77	756.2	59.9	15.5	85	sw.			4		kn			0.059	1.5		M. Postel, Director.
Brest, Naval Observatory	29.56	750.9	29.81	757.1	60.8	16.0	59	wsw.			6		5		wnw.	0.138	3.5		M. de Kermaree, Dir.
Caen, Normal School	29.49	749.1	29.57	751.0	58.3	14.6	78	w.			6		0			0.059	1.5	clear	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.15	740.4	29.50	749.4	58.1	14.5	93	sw.			6		10		sw.	0.236	6.0	covered	M. Jadot, Director.
Charleville, Normal School	29.10	739.1	29.60	751.7	56.1	13.4	84	sw.			4		5			0.08	2.		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.55	725.1	29.87	758.7	64.4	18.0	50	sw.			2		8		w.	0.020	0.5	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.02	737.0	29.81	757.1	66.4	19.1	66	s.			3		5		s.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	28.74	730.0	29.60	751.7	59.5	15.3	71	sw.			6		10 kn	sw.	sw.	0.08	2.	covered	Dr. Coulet, Director.
Gap, Normal School	27.51	698.8	29.98	761.6	68.0	20	58	ne.			1		4 k		nw.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.96	735.6	30.10	764.6	67.6	19.8	53	nw.			3		2		nw.	0	0	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.14	740.1	29.88	759.0	67.3	19.6	60	wsw.			2		10			0.055	1.4	light rain	M. Ablard, Director.
Guéret, Normal School	28.29	718.5	29.88	758.9	56.3	13.5	86	sw.			6		10		sw.	0.12	3.	light rain	M. Rivoire, Director.
Lamballe, Normal School	29.41	747.0	29.68	753.9	59.9	15.5	53	w.			6		5 k		w.	0.102	2.6	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.52	749.8	30.08	763.9	66.9	19.4	67	w.			2					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	29.71	754.6	29.81	757.2	63.5	17.5	61	w.			6		8		w.	0.118	3.0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.86	733.0	29.89	759.2	66.9	19.4	61	s.			2	0	5 n	w.	w.	0.016	0.4	cloudy	M. André, Director.
Mans, Normal School	29.39	746.4	29.69	754.1	59.2	15.1	59	w.			3		5		w.	0.024	0.6	cloudy	M. Piboen, Director.
Marseille, Observatory	29.72	755.0	29.99	761.8	67.5	19.7	63	wsw.			2		1			0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.88	632.0	30.12	765.0	59.4	15.2	39	sw.	11.2	5.0			3		w.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.88	759.0	29.98	761.6	72.1	22.3	74	nw.			4		2		nw.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.20?	741.6?	29.95?	760.8?	60.4	15.8	69	ssw.			3		10 kn			0.075	1.9	covered	M. Hasse.
Nantes, Observatory	29.67	753.6	29.83	757.7	61.3	16.3	62	wnw.			4–5	ck	9 k		wsw.	0.154	3.9		M. Larocque, Director.
Nice	29.86	758.5	29.90	759.4	67.3	19.6	70	s.			3		5	s.	s.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	29.91	759.8	30.02	762.5	68.0	20.0	55	n.	5.6	2.5			2	w.		0	0		Dr. Fines.
Pic-du-Midi, Summit																			Gen'l de Nansouty Dir.
Privas, Normal School					72.0	22.2	42	calm			0		0			0	0	clear	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.98	634.4			45.1	7.3	100	wsw.			8		10			0.579	14.7	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.89	759.3	29.93	760.1	59.9	15.5	100	sw.			3		10			0.035	0.9	raining	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.77	756.2	29.98	761.6	59.7	15.4	98	w.			6		10			0.43	11.	covered	M. Mouillot, Director.
Rodez, Normal School	27.91	708.9	30.05	763.2	57.4	14.1	82	w.			1		10		w.	0	0	covered	M. Richard, Director.
Rouen, Normal School	29.43	747.6	29.48	748.7	52.5	11.4	83	w.			6					0	0		M. Platrier, Director.
Saint Lô, Normal School	29.43	747.6	29.59	751.6	57.4	14.1	67	w.			4		10		w.	0.020	0.5	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.37	746.0	29.54	750.2	59.5	15.3	81	sw.			4		10		sw.	0	0		M. Renou, Director.
Toulouse, Observatory	29.40	746.7	30.12	765.1	63.7	17.6	68	wsw.			2		10		nw.	0	0	covered	M. Bailland, Director.
Tours	29.51	749.5	29.71	754.5	60.8	16.0	91	sw.			3		10	calm	wsw.	0.031	0.8	covered	M. de Tastes.
Versailles, Observatory	29.06	738.1	29.55	750.6	56.1	13.4	75	sw.			4					0.035	0.9		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.26	743.3	29.56	750.7	56.3	13.5	81	w.			4		10		w.	0.035	0.9	raining	M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.63	727.2	29.48	748.8	59.0	15.0	73	sw.			3		7 n	sw.		0.118	3.0		Prof. Dr. Hoh.
Berlin	29.18	741.1	29.35	745.4	52.2	11.2	87	sw.			2		10			0.173	4.4	raining	Prof. Dr. Arndt.
Breslau	29.13	739.9	29.65	753.2	52.0	11.1	62	s.			4		10					raining	Royal University Obs'y.
Carlsruhe	29.13	739.9	29.54	750 3	63.1	17.3	70	sw.			8		10	sw.		0.142	3.6	raining	Albert Senz.
Cassel	28.54	725.0	29.26	743.2	56.8	13.8	87	s.			8		10	s.		0.323	8.2		Dr. H. Möhl.
Frankfort on the Main	29.06	738.1	29.41	747.1	59.4	15.2	83	sw.			4		10			0.098	2.5		Physical Society.
Friedrichshafen	28.31	719.0	29.71	754.6	60.8	16.0	70	ssw.			6		5	w.		0.024	0.6		Wilhelm, Chief Tel.
Hamburg	28.97	735.7	29.06	738.1	51.1	10.6	98	s.			7		10			0.476	12.1	raining	E. Preller.
Kiel	28.95	735.4	28.97	735.8	51.8	11.0	95	ssw.			7		10			0.614	15.6		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.02	737.2	29.44	747.8	52.2	11.2	83	ssw.			2		9	w.		0.024	0.6		H. Leppig, Asst.
Magdeburg	29.11	739.3	29.29	744.0	52.9	11.6	87	s.			6		10 ns			0.106	2.7		Dr. Assmann.
Memel	29.45	747.9	29.49	749.0	48.4	9.1	76	sw.			7–8	0	7 k						Issermann.
Munich	27.89	708.5	29.74	755.3	60.8	16.0	59	nw.			3		6	w.		0.142	3.6		Central Station.
Neufahrwasser	29.48	748.9	29.50	749.3	50.5	10.3	64	sw.			4		10			0.142	3.6		A. Lothes.
Neustadt, Palatinate	28.95	735.3	29.47	748.4	60.8	16.0	73	sw.			5		10	sw.		0.055	1.4		Dicknether.
Stuttgart	28.69	728.6	29.55	750.6	62.2	16.8	64	sw.			7		9	w.		0.075	1.9		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.13	714.4	29.02	752.4	59.5	15.3	66	sw.			4		9	sw.		0	0		Fischer.
Wustrow	29.17	740.8	29.19	741.4	45.9	7.7	98	sse.			5		10			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.61	752.1	30.00	761.9	75.4	24.1		sw.			1.5		2			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.80	756.9	29.85	758.2	84.0	28.9	71	sw.	27.0	12.1			0			0	0	blue sky	
Deesa	29.39	746.5	29.86	758.4	87.5	30.8	50	w.	7.3	3.3			0			0	0	blue sky	
Bombay	29.81	757.1	29.84	758.0	84.9	29.4	80	nw.	12.0	5.4			0			0	0	blue sky	
Poona, Yarrowda	28.00	711.2	29.83	757.6	87.3	30.7	31	ne.	1.0	0.4			6		w.	0	0	d. clouds	
Belgaum	27.31	693.6	29.82	757.4	81.7	27.6	48	ene.	3.0	1.3			4	e.		0.07	1.8	d. clouds	
Lahore	29.02	737.0	29.75	755.6	85.5	29.7	47	calm	0.4	0.2			0			0	0	blue sky	
Roorkee	28.87	733.2	29.75	755.7	85.2	29.6	44	nw.	1.9	0.8			0			0	0		
Agra	29.26	743.2	29.81	757.2	91.2	32.9	40	w.	5.3	2.4			0			0	0		
Nagpur	28.81	731.9	29.85	758.1	85.7	29.8	37	n.	2.9	1.3			0			0	0	blue sky	
Jubbulpore	28.52	724.4	29.89	759.1	76.3	24.6	68	w.	2.4	1.1			0			0	0	blue sky	
Lucknow	29.44	747.7	29.81	757.2	86.1	30.1	40	wnw.	6.6	3.0			0			0	0	blue sky	
Allahabad	29.50	749.2	29.81	757.2	80.3	26.8	62	s.	2.6	1.2			0			0	0	blue sky	
Patna	29.59	751.7	29.78	756.3	83.6	28.7	64	w.	2.5	1.1			0			0	0	blue sky	
Hazaribagh	27.82	706.5	29.82	757.5	78.8	26.0	59	nnw.	8.4	3.8			0			0	0	blue sky	
Cuttack	29.75	755.7	29.83	757.8	84.8	29.3	76	calm	0	0			5			0	0	d. clouds	
Calcutta, Alipore	29.76	755.9	29.78	756.5	83.2	28.4	69	calm	0	0			0			0	0	blue sky	
Dhubri	29.66	753.4	29.78	756.4	81.6	27.6	76	calm	2.0	0.9			0			0	0	blue sky	
Goalpara																			
Chittagong	29.71	754.6	29.80	756.8	80.5	26.9	85	calm	2.3	1.0			6			0	0	d. clouds	
Sibsagar	29.45	748.0	29.78	756.5	81.2	27.3	85	ne.	1.4	0.6			0			0	0	blue sky	
Jeypore	28.42	721.7	29.84	758.0	86.7	30.4	38	nw.	4.3	1.9			0			0	0	blue sky	
Zanzibar, Africa			29.94	760.5	80.7	27.1	73	w.	3	1.3			7			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.54	750.4	29.96	760.9	57.2	14.0	83	e.	0.7	0.3			7			0.039	1.0		Prof. Giovanni Clodig.
Milan	29.43	747.4	29.94	760.5	59.0	15.0	84	ne.	1.3	0.6			10	sw.		0	0		Prof. Schiaparelli.
Padua	29.82	757.4	29.93	760.2	62.6	17.0	72	ne.	2.5	1.1			10	sw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.02	737.2	29.93	760.3	58.1	14.5	87	ene.	0.7	0.3			10			0	0		Prof. P. F. Denza.
Genoa	29.74	755.5	29.94	760.4	65.8	18.8	80	se.	3.8	1.7			10	s.		0.004	0.1		Prof. G. M. Garibaldi.
Mondovi	28.04	712.3	29.98	761.4	55.4	13.0	88	wnw.			4		9			0	0		Prof. D. C. Bruno.
Pesaro	29.87	758.7	29.92	759.9	65.3	18.5	74	sw.			2		7	sw.		0	0		Prof. Luigi Guidi.
Florence	29.71	754.6	29.96	761.0	66.7	19.3	67	w.			2		10	sw.		0	0		Prof. Costantino Pitter.
Leghorn	29.87	758.8	29.96	761.0	65.1	18.4	77	se.	0.7	0.3			10			0	0		Prof. P. Monte.
Rome	29.82	757.5	30.00	761.9	67.1	19.5	81	sw.	6.9	3.1			10			0.024	0.6		Prof. P. S. Ferrari.
Lecce	29.78	756.4	30.03	762.7	70.3	21.3	49	wnw.	8.1	3.6			2			0	0		Prof. C. de Giorgi.
Cosenza	29.15	740.3	30.03	762.8	66.2	19.0	61	sse.	3.1	1.4			2	se.		0	0		Prof. D. Conti.
Cagliari	29.84	758.0	30.04	762.9	74.8	23.8	43	nw.			4		3	w.		0	0		Prof. A. Pacinotti.
Palermo	29.78	756.4	30.02	762.6	69.8	21.0	63	calm	0	0			10			0	0		Prof. G. Ciacciatore.
Syracuse	29.98	761.4	30.02	762.5	69.1	20.6	72	wsw.	3.8	1.7			3	wsw.		0.091	2.3		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.50	749.3	30.02	762.4	64.0	17.8	90	sw.	0.7	0.3			10	sw.		0.008	0.2		Prof. F. Brioschi.
Stelvio	22.11	561.5			36.7	2.6	77	w.			6	8cs	0	w.		0	0	covered	Prof. P. F. Denza.
Valdobbia	22.13	562.0			40.1	4.5	67	n.			6		7 kn	wnw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.86	758.4	29.87	758.7	64.0	17.8	99	ene.	3.3	1.5			10 n			2.274	57.8	raining	K. Sasaki.
Kioto	29.79	756.6	29.96	761.0	67.1	19.5	83	nnw.	1.7	0.8			10 s			0.100	2.5	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.75	755.6	29.95	760.7	73.3	22.9	96	sw.	2.6	1.2			10 n			2.550	64.8	raining	S. Takehayashi.
Nemuro	30.01	762.2	30.07	763.8	54.5	12.5	95	calm	0	0		0	8			0	0		
Niigata	29.88	758.9	29.92	759.9	58.7	14.8	68	ene.	2.1	0.4			10 n			1.820	46.2	raining	
Nobiru	30.00	762.0	30.02	762.5	60.4	15.8	70	s.	27.0	12.1			10n;s			0.820	20.8	raining	
Supporo	29.93	760.2	29.99	761.7	46.0	7.8	87	ese.	6.6	2.9			10			0.800	20.3		
Tokei Obs'y, Yeddo	29.99	761.7	30.06	763.5	61.4	16.3	80	ese.	1.8	0.8			10 s			0.080	2.0	cloudy	The Staff.
Wakayama	29.92	759.9	29.97	761.2	73.9	23.3	68	s.	9.5	4.2		ck	10 ks	s.	s.	0.417	10.6	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.91	759.7	30.10	764.5	75.7	24.3	54	e.	15.0	6.7		2cs;ck	2 k;ks	nne		0.01	0.3	fair	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.77	603.7	29.99	761.7	54.5	12.5	76	ene.	4.5	2.0		0	3 k		ne	0	0	clear	Vicente Fernandez.
Leon	24.49	622.0	30.21	767.2	57.8	14.3	84	w.			1	0	0			0	0	blue sky	Prof. M. Leal.
Mazatlan	29.65	753.0	29.90	759.6	79.5	26.4	98	ne.	0.9	0.4		0	0			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.18	589.0	30.28	769.2	49.8	9.9	78	sw.	1.8	0.8		0	5 k			0	0	½ cloudy	The Staff.
Morelia	24.01	610.0	30.01	762.2	55.8	13.2	20	ne.			2	1	2	s.	s.	0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	24.04	610.7	30.04	763.0	59.9	15.5	77	n.			1	0	5 ks		ne.	0	0	½ cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.43	595.1	30.28	769.0	50.0	10.0	81	n.	0.9	0.4		0	1		ese.	0	0	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.14	740.1	29.14	740.1	57.7	14.3		wsw.			8					0.264	6.7		
Groningen	28.88	733.5	28.93	734.9	55.9	13.3		ssw.			7					0.555	14.1		
Helder	28.86	733.0	28.86	733.0	55.4	13.0		sw.			7					0.268	6.8		
Hellevoetsluis	29.06	738.1	29.06	738.1	55.8	13.2	77	wsw.			7					0.335	8.5		
Utrecht	29.02	737.0	29.06	738.2	58.5	14.7	74	sw.			6		5			0.465	11.8	cloudy	H. van de Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	28.89	733.7	28.95	735.3	41.4	5.2	57	ne.	9.8	4.4			7			0	0		
Christiania	28.93	734.9	29.08	738.6	45.1	7.3	76	ssw.	4	2			10			0.020	0.5		
Gjæsvær	29.03	737.3	29.05	737.9	41.7	5.4		sw.			6		7						
Lodingen	28.97	735.7	29.01	736.9	44.8	7.1	63	sw.			5		8			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.03	762.8	30.19	766.7	66.2	19.0	79	ese.	4.9	2.2			3			0	0		Dr. J. A. Sampaio.
Campo Major	29.22	742.1	30.21	767.2	68.4	20.2	55	w.	4.9	2.2			0			0	0		Dr. A. M. R. dos Santos.
Funchal, Madeira	30.17	766.4	30.26	768.6	75.6	24.2	75	sse.	3.1	1.4			0			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.91	759.8	30.27	768.9	64.6	18.1	62	w.	11.2	5.0			1			0	0		The Staff.
Ponta Delgada, Azores	30.14	765.6	30.21	767.4	73.8	23.2	65	calm	0	0			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.30	744.1	30.39	771.9	50.2	10.1	55	e.	4	2		0	0						Capt. Lasarew.
Archangel	29.67	753.7	29.69	754.2	48.7	9.3	78	sse.	9	4			10						Capt. Sselliwerstow.
Astrakhan	30.00	762.0	29.92	759.9	59.2	15.1	50	se.	7	3		cs	9 s					light clouds	Capt. Wisganow.
Barnaul ‡	29.89	759.3	30.41	772.4	45.5	7.5	66	calm	0	0			0						Meteorological Obs'y.
Dorpat	29.15	740.3	29.39	746.5	43.3	6.3	90	s.	9	4			10 ks						Observatory.
Ekaterinburg	29.37	746.0	30.34	770.6	52.7	11.5	55	se.	4	2		0	1 s						Meteorological Obs'y.
Kasan	29.81	757.1	30.08	764.1	50.4	10.2	59	sse	7	3			10						Observatory.
Kertch	29.80	756.8	29.82	757.3	57.9	14.4	81	calm	0	0		0	7 n			0.181	4.6		Lagorio & Sastyres.
Kieff	29.10	739.1	29.74	755.3	46.8	8.2	66	nw.	7	3		c;cs;ck	4 ks						Observatory.
Lugan	29.55	750.5	29.75	755.7	55.2	12.9	91	sse.	13	6			10			blank	blank		Meteorological Obs'y.
Moscow	29.24	742.6	29.71	754.6	46.4	8.0	69	sse.	13	6		0	8 ks						Meteorological Obs'y.
Nikolaiev	29.74	755.5	29.82	757.3	51.8	11.0	95	s.	4	2			10 n					raining.	Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.74	755.4	29.83	757.6	39.9	4.4	92	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	30.04	763.1	30.19	766.7	50.9	10.5	37	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	29.39	746.5	29.41	746.9	45.9	7.7	94	ssw.	11	5			10 n					light rain.	Central Physical Obs'y.
Tashkend, Laboratory	28.55	725.1	30.12	765.1	55.8	13.2	78	calm	0	0			0			0	0		Teloh, A. M.
Tiflis	28.45	722.5	29.80	756.9	73.2	22.9	39	s.	2	1		0	8 s						Physical Observatory.
Warsaw	29.46	748.2	29.88	759.0	51.4	10.8	54	sw.	18	8		0	6 ks						Astronomical Obs'y.
Wilna	29.21	741.8	29.63	752.5	47.5	8.6	70	sw.	9	4			10						Berg, Assistant.
Yeniseisk	30.05	763.3	30.35	770.9	33.1	0.6	55	w.	7	3			4						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			28.80	731.5	41.0	5.0	91	ne.			8		10 n			0.22	5.6	raining	Andrew Gibb.
Monach Lt. House, Hebrides			29.35	745.5	42	5.6	91	n.			1	10	0	n.		0.4	10.	hvy showers	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.92	760.0	30.02	762.6	71.2	21.8	67	wsw.	2.2	1.0			0			0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.08	763.9	30.13	765.3	69.3	20.7	69	nw.	0.9	0.4		2	3	w.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.18	690.4			63.3	17.4	89	s.	5.1	2.3		0	1			0	0	almost clear	Domingo Martin.
Madrid, Royal Obs'y	27.94	709.7	30.11	764.8	71.8	22.1	54	sw.	7.8	3.5		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	29.97	761.2	30.11	764.9	81.0	27.2	56	sw.	1.8	0.8		0	0			0	0	clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.26	743.3	30.15	765.8	61.2	16.2	76	sw.	10.5	4.7			10			0.035	0.9	covered	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	30.02	762.5	30.09	764.2	74.2	23.4	77	calm	0	0		0	3 k;ks		ne.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.87	758.7	29.92	760.0	83.5	28.6	83	ssw.	13.2	6.0		8 ck	0	sw.		0	0	very cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.14	765.6	30.24	768.1	68.5	20.3	75	wsw.	6.6	3.0		0	7		sw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W.I	29.87	758.7	29.96	761.0	75.2	24.0	100	se.	6.7	3.0			10 kn		se.	1.909	48.5	raining	E. Cadea, Chief Engr.
Tuguegarao, Philippine Ids	29.81	757.1	29.94	760.5	80.1	26.7	87	nnw.	3.0	1.3		0	7 kn		ese.	0.04	0.9	cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.23	742.4	29.27	743.4	44.2	6.8	91	sw.			4		10			0	0		
Umea	29.15	740.4	29.20	741.7	44.6	7.0	94	s.			4		7			0	0		
Hernosand	29.14	740.1	29.19	741.4	45.9	7.7	71	s.			2		10			0	0		
Stockholm	29.04	737.5	29.21	742.0	45.0	7.2	77	s.			2		7			0	0		
Wisby	29.21	741.8	29.26	743.3	47.5	8.6	81	sw.			2		0			0.016	0.4		
Sub-Series.																			
Upsala	29.14	740.1	29.22	742.3	39.4	4.1	96	s.	4.3	1.9			10			0.291	7.4	foggy	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.49	723.7	29.89	759.2	64.9	18.3	57	s.			5		7			0.083	2.1	cloudy	The Observatory.
Zurich ‡	28.13	714.5	29.73	755.2	64.4	18.0	62	w.			7		3			0.043	1.1	clear	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.96	761.0	65.3	18.5	67	sw.	9	4.0			3		sw.	0	0		The Observatory.
Valona			30.10	764.6	65.3	18.5		sw.			1		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.91	759.7	77.9	25.5	77	wsw.			2		10 n		sw	0.94	23.9		Prof. C. V. Van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Albany, New York	30.36	771.1	30.44	773.2	40.5	4.7	57	n.	9	4.0		0	0			0.03	0.8	clear	
Alpena, Michigan	29.73	755.1	30.42	772.7	30	— 1.1	77	nw.	6	2.7		10 cs	0	nw.		0	0	cloudy	
Atlanta, Georgia	29.08	738.6	30.30	769.6	66.0	18.9	78	nw.	6	2.7		0	sk			0	0	clear	
Atlantic City, New Jersey	30.32	770.1	30.33	770.4	52.4	11.3	72	n.	14	6.3		0	2 s		calm	0	0	clear	
Augusta, Georgia	30.06	763.5	30.26	768.6	64.0	17.8	84	w.	1	0.4		0	0			0	0	clear	
Baltimore, Maryland	30.32	770.1	30.38	771.6	54	12.2	55	n.	4	1.8		0	0			0	0	clear	
Barnegat, New Jersey	30.29	769.4	30.31	769.9	55.0	12.8	60	n.	22	9.8		2 k	2 k	ne.	ne.	0	0	fair	
Bismarck, Dakota	28.22	716.8	30.14	765.5	32	0.0	88	se.	4	1.8			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.30	693.4	30.22	767.6	26	— 3.3	96	w.	1	0.4			10 n		calm	0.35	8.9	light snow	
Boston, Massachusetts	30.21	767.3	30.37	771.4	41.0	5.0	52	n.	15	6.7		0	0			0.18	4.6	clear	
Brackettville, Texas	28.96	735.6	29.99	761.7	72	22.2	84	e.	9	4.0		0	5 s		se.	0	0	fair	
Brownsville, Texas	30.12	765.0	30.17	766.3	75	23.9	97	se.	2	0.9		0	0			0	0	clear	
Buffalo, New York	29.69	754.1	30.43	772.9	37.3	2.9	78	ne.	6	2.7		0	sk.			0.12	3.0	clear	
Burlington, Vermont	30.14	765.5	30.44	773.2	33.5	0.8	70	nw.	6	2.7		3 cs	0	n.		0.01	0.3	fair	
Cairo, Illinois	29.86	758.4	30.27	768.8	63.1	17.3	96	s.	4	1.8			fg.			0.25	6.3	dense fog	
Campo, California	27.47	697.7	30.04	763.0	21.6	— 5.8	87	nw.	2	0.9		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.23	767.8	30.25	768.3	66	18.9	54	ne.	21	9.4			10 s		n.	0	0	cloudy	
Cape May, New Jersey	30.28	769.1	30.31	769.9	54	12.2	74	n.	24	10.7		2 k	0	nw.		0	0	clear	
Castroville, Texas	29.36	745.7	30.05	763.3	76	24.4	82	s.	2	0.9			10 s		s.	0.03	0.8	cloudy	
Cedar Keys, Florida	30.20	767.1	30.22	767.6	69	20.6	57	ne.	3	1.3		0	0			0	0	clear	
Champaign, Illinois	29.37	746.0	30.18	766.6	49.2	9.6	93	s.	4	1.8			10 s		s.	0.14	3.6	cloudy	
Charleston, S. Carolina	30.14	765.5	30.20	767.1	68	20.0	78	nw.	6	2.7		0	0			0	0	clear	
Charlotte, N. Carolina	29.36	745.7	30.26	768.6	68.2	20.1	78	n.	3	1.3		0	sk.			0	0	clear	
Chattanooga, Tennessee	29.45	748.0	30.30	769.6	63.5	17.5	92	calm	0	0		0	fg.		calm	0	0	clear	
Cheyenne, Wyoming	23.88	606.5	30.01	762.2	27.5	— 2.5	78	w.	4	1.8		0	0			inap.	inap.	clear	
Chicago, Illinois	29.53	750.0	30.27	768.8	50.1	10.1	90	e.	12	5.4			10 n			0.03	0.8	light rain	
Chincoteague, Virginia	30.25	768.3	30.27	768.8	60	15.6	60	n.	22	9.8		0	7 ks		n.	0	0	cloudy	
Cincinnati, Ohio	29.61	752.1	30.29	769.4	58.5	14.7	81	ne.	6	2.7			10 s		e.	0.07	1.8	cloudy	
Cleveland, Ohio	29.62	752.3	30.39	771.9	45.5	7.5	72	se.	5	2.2		2 k	0	w.		0.09	2.3	clear	
Coleman City, Texas																			
Columbus, Ohio	29.43	747.5	30.32	770.1	50	10.0	71	e.	8	3.6			10 ks		sw.	0.25	6.3	cloudy	
Concho, Texas	28.20	716.3	30.20	767.1	68	20.0	93	se.	3	1.3		0	5 s		s.	0	0	fair	
Corsicana, Texas	29.73	755.1	30.21	767.3	75	23.9	85	s.	4	1.8			10 s			inap.	inap.	cloudy	
Davenport, Iowa	29.52	749.8	30.20	767.1	47	8.3	86	e.	5	2.2			10 s		e.	0.07	1.8	cloudy	
Dayton, Washington T'y	28.40	721.3	30.26	768.6	24.5	— 4.2	90	se.	2	0.9		3 cs	0	calm		0	0	clear	
Deadwood, Dakota	25.20	640.1	30.06	763.5	29	— 1.7	80	calm	0	0			10 s		calm	0	0	cloudy	
Decatur, Texas	28.95	735.3	30.08	764.0	73	22.8	82	se.	6	2.7		4 ck	0	sw.		0	0	fair	
Delaware Breakwater, Del.	30.28	769.1	30.30	769.6	57	13.9	74	n.	35	15.6		0	4 ks		ne.	0	0	fair	
Denison, Texas	29.35	745.5	30.18	766.6	73	22.8	90	s.	6	2.7			10 s		s.	inap.	inap.	cloudy	
Denver, Colorado	24.63	625.6	30.00	762.0	34.5	1.4	90	ne.	2	0.9			fg.		calm	0	0	dense fog	
Des Moines, Iowa	29.22	742.2	30.16	766.1	48	8.9	93	s.	6	2.7			10 s		s.	0.23	5.8	threatening.	
Detroit, Michigan	29.65	753.1	30.39	771.9	47.0	8.3	86	e.	9	4.0			10 s		calm	0.04	1.0	cloudy	
Dodge City, Kansas	27.39	695.7	30.08	764.0	46.7	8.2	100	sw.	11	4.9			10 s			0.81	20.6	cloudy	
Dubuque, Iowa	29.44	747.8	30.18	766.6	47.7	8.7	68	e.	5	2.2			10 s		calm	0.09	2.3	cloudy	
Duluth, Minnesota	25.53	750.0	30.26	768.6	35	1.7	69	w.	4	1.8		0	7 s		w.	0	0	fair	
Eagle Pass, Texas	29.36	745.7	30.21	767.3	71.1	21.7	90	se.	4	1.8		0	0			0	0	clear	
Eagle Rock, Idaho	25.17	639.3	30.16	766.1	24	— 4.4	76	sw.	20	8.9			10 ks		sw.	0	0	cloudy	
Eastport, Maine	30.17	766.3	30.24	768.1	37	2.8	56	n.	19	8.5		0	0			0	0	clear	
El Paso, Texas	26.27	667.2	30.11	764.8	59.1	15.1	78	e.	3	1.3		0	2 s			0	0	clear	
Erie, Pennsylvania	29.65	753.1	30.41	772.4	44	6.7	76	se.	3	1.3		0	2 s			0.43	10.9	clear	
Escanaba, Michigan	29.68	753.9	30.36	771.1	41	5.0	73	e.	5	2.2			10 s		se.	0	0	cloudy	
Florence, Arizona	28.44	722.4	30.04	763.0	57.6	14.2	70	calm	0	0		2 k	0	sw.		0	0	clear	
Fort Apache, Arizona	25.02	635.5	30.06	763.5	56	13.3	83	e.	1	0.4			10 s		calm	0.30	7.6	cloudy	
Fort Assinnaboine, Montana	27.33	694.2	30.27	768.8	7	—13.9	80	sw.	15	6.7			10 s		sw.	0	0	cloudy	
Fort Bennett, Dakota	28.42	721.9	30.03	762.7	36	2.2	92	se.	8	3.6			10 s		se.	0	0	cloudy	
Fort Benton, Montana	27.27	692.6	30.25	768.3	12	—11.1	83	calm	0	0			10 s		calm	0	0	cloudy	
Fort Buford, Dakota	28.06	712.7	30.17	766.3	30	— 1.1	88	ne.	7	3.1			10 s		calm	0	0	cloudy	
Fort Custer, Montana	26.77	680.0	30.16	766.1	31	— 0.6	86	n.	10	5.4			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.00	635.0	29.96	761.0	61	16.1	70	se.	6	2.7		0	0			0	0	clear	
Fort Elliott, Texas	27.34	694.4	30.64	778.2	46	7.8	76	se.	4	1.8			fg.			0.03	0.8	dense fog	
Fort Gibson, Indian T'y	29.56	750.8	30.13	765.3	63.0	17.2	93	w.	2	0.9			10 s		sw.	0	0	cloudy	
Fort Grant, Arizona					57	13.9	67	n.	5	2.2		1 c	1 s			0	0	clear	
Fort Griffin, Texas	28.86	733.0	30.12	765.0	65.2	18.4	84	n.	4	1.8			10 s			0	0	cloudy	
Fort Keogh, Montana	27.46	697.5	30.13	765.3	32	0.0	71	se.	6	2.7			10 s			0	0	cloudy	
Fort Macon, North Carolina	30.15	765.8	30.16	766.1	69	20.6	84	sw.	12	5.4		hz.	hz.	calm	calm	0	0	light haze	
Fort McKavett, Texas	27.96	710.2	29.84	757.9	70.2	21.2	90	se.	6	2.7		0	4 ks		s.	0	0	fair	
Fort Missoula, Montana	26.74	679.2	30.40	772.1	24	— 4.4	88	w.	3	1.3			10 n			0.03	0.8	light snow	
Fort St. Michaels	30.34	770.6	30.38	771.6	47	8.3	100	s.	6	2.7			10 n			0.22	5.6	light rain	
Fort Shaw, Montana	26.40	670.6	30.14	765.5	24	— 4.4	76	w.	3	1.3			10 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.89	733.8	30.18	766.6	57	13.9	96	n.	6	2.7			10 s			0.04	1.0	cloudy	
Fort Stevenson, Dakota	28.19	716.0	30.15	765.8	31	— 0.6	88	se.	1	0.4			10 s		se.	0	0	cloudy	
Fort Verde, Arizona					44	6.7	68	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.43	722.1	29.97	761.2	69	20.6	97	s.	4	1.8		3 k	0			0	0	fair	
Galveston, Texas	30.17	766.3	30.21	767.3	78	25.6	78	s.	6	2.7			0	2 k		0.05	1.3	clear	
Grand Haven, Michigan	29.67	753.6	30.37	771.4	42.0	5.6	74	e.	9	4.0			10 s		sw.	0	0	threatening.	
Hatteras, North Carolina	30.14	765.5	30.16	766.1	70	21.1	90	n.	15	6.7			0			0	0	clear	
Helena, Montana	25.76	654.3	30.34	770.6	18	— 7.8	100	calm	0	0		0	0			0	0	clear	
Henrietta, Texas	29.15	740.4	30.06	763.5	70	21.1	78	s.	5	2.2			10 s			0.04	1.0	cloudy	
Huron, Dakota	28.67	728.2	30.13	765.3	36.2	2.3	89	se.	10	4.5			10 n			0.02	0.5	light rain	
Indianapolis, Indiana	29.42	747.3	30.25	768.3	56	13.3	86	e.	3	1.3			10 s		e.	0.31	7.9	cloudy	
Indianola, Texas	30.16	766.1	30.19	766.8	76.6	24.8	85	se.	7	3.1		0	1 ks		calm	inap.	inap.	clear	
Jacksboro, Texas	28.98	736.1	30.09	764.3	70	21.1	94	s.	6	2.7		0	6 ks		s.	0	0	fair	
Jacksonville, Florida	30.17	766.3	30.21	767.3	65	18.3	84	ne.	4	1.8		0	0			0	0	clear	
Keokuk, Iowa	29.49	749.0	30.17	766.3	47.2	8.4	93	e.	12	5.4		0	10 s		e.	0.13	3.3	cloudy	
Key West, Florida	30.10	764.5	30.13	765.3	75.0	23.9	71	ne.	10	4.5		1 cs	2 s	calm	calm	0	0	clear	
Kittyhawk, North Carolina	30.19	766.8	30.21	767.3	68	20.0	90	nw.	26	11.6		2 ck	7 ks		ne.	0	0	cloudy	
Knoxville, Tennessee	29.26	743.2	30.34	770.6	62	16.7	93	s.	1	0.4		0	9 s		n.	0	0	cloudy	
La Crosse, Wisconsin	29.39	746.5	30.19	766.8	48.3	9.1	71	se.	4	1.8			10 s			0	0	cloudy	
La Mesilla, New Mexico	26.14	663.9	30.29	769.4	57.8	14.3	93	calm	0	0		0	0			0	0	clear	
Laredo, Texas	29.68	753.9	30.01	762.2	75.0	23.9	85	se.	2	0.9			10 s		s.	0	0	cloudy	
Leavenworth, Kansas	29.21	741.9	30.14	765.5	47	8.3	93	n.	1	0.4			10 n			1.13	28.7	light rain	
Lewiston, Idaho	29.33	745.0	30.21	767.3	33	0.6	78	e.	1	0.4			10 s		calm	0	0	cloudy	
Little Rock, Arkansas	29.86	758.4	30.18	766.6	70	21.1	94	calm	0	0		0	0			0	0	clear	
Los Angeles, California	29.68	753.9	30.06	763.5	47.2	8.4	77	e.	4	1.8		0	c			0	0	clear	
Louisville, Kentucky	29.64	752.8	30.22	767.6	64.0	17.8	93	ne.	5	2.2			10 s		calm	0.30	7.6	cloudy	
Lynchburg, Virginia	29.56	750.8	30.27	768.8	67.3	19.6	78	calm	0	0		7 k	0	w.		0	0	fair	
Madison, Wisconsin	29.18	741.2	30.25	768.3	46	7.8	83	e.	10	4.5			10 s		calm	0.01	0.3	cloudy	
Marquette, Michigan	29.62	752.3	30.38	771.6	35	1.7	64	s.	4	1.8			10 ks		w.	0	0	cloudy	
Mason, Texas	28.51	724.1	30.23	767.8	71.7	22.1	84	s.	6	2.7		0	1 s		s.	0	0	clear	
Memphis, Tennessee	29.89	759.2	30.24	768.1	72	22.2	82	calm	0	0		0	2 s		s.	0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.52	749.8	30.30	769.6	49	9.4	77	se.	23	10.3			10 s		se.	0	0	cloudy	
Mobile, Alabama	30.19	766.8	30.26	768.6	67.0	19.4	90	n.	3	1.3		0	0			0	0	clear	
Montgomery, Alabama	30.04	763.0	30.28	769.1	64	17.8	90	n.	1	0.4		0	0			0	0	clear	
Moorhead, Minnesota	29.14	740.1	30.20	767.1	34	1.1	88	se.	6	2.7			10 s			0	0	cloudy	
Morgantown, W. Virginia	29.31	744.5	30.31	769.9	52.1	11.2	86	ne.	6	2.7			10 s		se.	0.28	7.1	cloudy	
Mt. Washington, N. H.	23.80	604.5	30.17	766.3	11.0	—11.7	66	nw.	48	21.5		0	3 s		nw.	0.99	25.1	clear	
Nashville, Tennessee	29.69	754.1	30.25	768.3	71.4	21.9	90	calm	0	0			fg			0.01	0.3	dense fog	
New Haven, Connecticut	30.25	768.3	30.37	771.4	48	8.9	71	n.	10	4.5		3 ck	0	nw.		0	0	clear	
New London, Connecticut	30.32	770.1	30.37	771.4	46	7.8	53	ne.	7	3.1		4 k	0	n.		0	0	fair	
New Orleans, Louisiana	30.18	766.6	30.24	768.1	74.0	23.3	85	calm	0	0		1 cs	sk.			0	0	clear	
Newport, Rhode Island	30.30	769.6	30.36	771.1	44.6	7.0	54	n.	13	5.8		4 c	2 s	nw.	calm	0	0	fair	
New River, N. Carolina					70	21.1	76	ne.			2	0	hz			0	0	fair	
New Shoreham, Rhode I'd.	30.29	769.4	30.32	770.1	46.5	8.1	60	n.	36	16.1		0	0			0.03	0.8	clear	
New York, New York	30.19	766.8	30.37	771.4	49	9.4	56	ne.	14	6.3		0	0			inap.	inap.	clear	
Norfolk, Virginia	30.21	767.3	30.24	768.1	67	19.4	55	ne.	12	5.4			10 ks		n.	0	0	cloudy	
North Platte, Nebraska	27.06	687.3	30.12	765.0	34.4	1.3	89	se.	12	5.4			10 s			0.01	0.3	cloudy	
Olympia, Washington T'y	30.15	765.8	30.19	766.8	32.0	0.0	78	s.	5	2.2		5 cs	0	n.		0	0	fair	
Omaha, Nebraska	28.93	734.8	30.17	766.3	47	8.3	86	s.	6	2.7			10 n		s.	0.38	9.7	light rain	
Oswego, New York	30.12	765.0	30.46	773.7	37.0	2.8	56	e.	5	2.2		1 k	0	ne.		0.01	0.3	clear	
Pensacola, Florida	30.22	767.6	30.25	768.3	63	17.2	90	ne.	5	2.2		0	0			0	0	clear	
Philadelphia, Pa.	30.31	769.9	30.37	771.4	49.9	9.9	64	ne.	14	6.3		0	hz			inap.	inap.	clear	
Phœnix, Arizona	28.86	733.0	30.09	779.5	48	8.9	42	calm	0	0		0	0			0	0	clear	
Pike's Peak, Colorado	17.65	448.3	29.86	758.4	22	— 5.6	80	sw.	28	12.5		0	0			0	0	clear	
Ploche, Nevada	23.98	609.1	30.17	766.3	25	— 3.9	46	n.	3	1.3		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.53	750.0	30.38	771.6	46.3	7.9	83	ne.	6	2.7		0	0			0.01	0.3	clear	
Port Eads, Louisiana	30.22	767.6	30.24	768.1	75.0	23.9	70	e.	14	6.3		hz	3 k	calm	e.	0	0	fair	
Port Huron, Michigan	29.70	754.4	30.41	772.4	40.2	4.6	72	e.	8	3.6		10 cs	0	w.		0	0	cloudy	
Portland, Maine	30.30	769.6	30.36	771.1	40.5	4.7	57	n	13	5.8		0	0			0	0	clear	
Portland, Oregon	30.22	767.6	30.29	769.4	32.2	0.1	88	calm	0	0		9 k	0	nw.		0	0	cloudy	
Portsmouth, N. Carolina					72	22.2	82	ne.	19	8.5		0	0			0	0	clear	
Prescott, Arizona	24.73	628.1	30.04	763.0	38	3.3	51	s.	1	0.4		0	0			0	0	clear	
Punta Rassa, Florida	30.15	765.8	30.16	766.1	68	20.0	78	n.	8	3.6		0	0			0	0	clear	
Red Bluff, California	29.95	760.7	30.30	769.6	35.0	1.7	89	n.	4	1.8		0	0			0.06	1.5	clear	
Rio Grande City, Texas	29.94	760.5	30.16	766.1	73	22.8	90	se.	4	1.8			fg			0	0	light fog	
Rochester, New York	29.76	755.9	30.46	773.7	38	3.3	62	se.	3	1.3		0	4 s		se.	0.21	5.3	fair	
Roseburg, Oregon	29.77	756.1	30.36	771.1	23.5	— 4.7	94	calm	0	0		2 ck	0	ne.		0	0	fair	
Sacramento, California	30.22	767.6	30.30	769.6	38.5	3.6	82	n.	4	1.8		0	0			0	0	clear	
St. Louis, Missouri	29.62	752.3	30.25	768.3	55.0	12.8	100	se.	7	3.1			10 n		se.	0.31	7.9	light rain	
St. Paul, Minnesota	29.29	744.0	30.21	767.3	41.1	5.1	82	e.	6	2.7			10 s			0.02	0.5	threatening	
Salt Lake City, Utah	25.52	648.2	29.97	761.2	40	4.4	35	calm	0	0			10 s		calm	0	0	cloudy	
San Antonio, Texas	29.49	749.0	30.21	767.3	72.4	22.4	97	calm	0	0			10 s		calm	0.13	3.3	cloudy	
San Diego, California	29.98	761.5	30.05	763.3	55.0	12.8	80	n.	3	1.3		2 c	0			0	0	clear	
Sandusky, Ohio	29.64	752.8	30.35	770.9	52	11.1	72	e.	8	3.6			10 s			0.01	0.3	cloudy	
Sandy Hook, New Jersey	30.32	770.1	30.35	770.9	51.0	10.6	59	ne.	24	10.7		0	3 ks		ne.	0	0	fair	
San Francisco, California	30.23	767.8	30.30	769.6	45	7.2	83	s.	3	1.3		0	0			0	0	clear	
Santa Fé, New Mexico	23.28	591.3	30.27	768.8	51	10.6	80	se.	8	3.6			10 s		calm	0.35	8.9	cloudy	
Savannah, Georgia	30.12	765.0	30.21	767.3	67	19.4	73	nw.	4	1.8		0	fg.			0	0	clear	
Shreveport, Louisiana	29.99	761.7	30.22	767.6	76.5	24.7	74	s.	4	1.8		0	0			0	0	clear	
Silver City, New Mexico	24.31	617.5	29.99	761.7	54	12.2	23	calm	0	0		3 k	3 s	calm	calm	0.02	0.5	fair	
Sitka, Alaska	30.30	769.6	30.38	771.6	39.2	4.0	82	nw.	4	1.8		0	0			0	0	clear	
Smithville, North Carolina	30.13	765.3	30.17	766.3	67	19.4	84	n.	6	2.7		0	hz.			0	0	clear	
Spokane Falls, Wash. Ter.	28.08	713.2	30.15	765.8	20	— 6.7	87	s.	1	0.4		7 c	0	calm		0	0	fair	
Springfield, Illinois	29.52	749.8	30.23	767.8	51	10.6	90	se.	6	2.7			10 s		se.	0.23	5.8	cloudy	
Springfield, Massachusetts	30.26	768.6	30.40	772.1	42.0	5.6	57	n.	7	3.1		3 ck	0	w.		0.01	0.3	clear	
Stockton, Texas	27.06	687.3	30.22	767.6	64.7	18.2	90	se.	8	3.6		0	0			0	0	clear	
St. Vincent, Minnesota	29.26	743.2	30.19	766.8	31	— 0.6	78	s.	4	1.8			10 s		calm	0	0	cloudy	
Thatcher's Island, Mass.	30.22	767.6	30.28	769.1	43.0	6.1	83	n.	12	5.4		10 k	0	n.		0.39	9.9	cloudy	
Toledo, Ohio	29.62	752.3	30.34	770.6	48	8.9	86	ne.	17	7.6			10 ks		nw.	0.10	2.5	cloudy	
Tucson, Arizona	27.53	699.2	29.97	761.2	65	18.3	54	e.	3	1.3		5 k	0	se.		0	0	fair	
Umatilla, Oregon	29.89	759.2	30.32	770.1	21.5	— 5.8	75	se.	9	4.0		0	0			0	0	clear	
Uvalde, Texas	29.18	741.2	29.98	761.5	73	22.8	90	se.	2	0.9			10 s		s.	0	0	cloudy	
Vicksburg, Mississippi	29.99	761.7	30.25	768.3	70	21.1	90	se.	6	2.7		hz	0			0	0	clear	
Visalia, California	29.84	757.9	30.21	767.3	35.3	1.8	66	nw.	4	1.8		0	0			0	0	clear	
Washington, D. C.	30.23	767.8	30.35	770.9	55	12.8	86	n.	6	2.7		0	0			0	0	clear	
West Los Animas, Colorado																			
Wickenburg, Arizona					36	2.2	72	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.12	765.0	30.18	766.6	68.0	20.0	84	n.	4	1.8		hz.	0	calm		0	0	clear	
Winnemucca, Nevada	25.67	652.0	30.13	765.3	20	— 6.7	64	sw.	8	3.6		0	0			inap.	inap.	clear	
Wood's Holl, Mass.	30.29	769.4	30.33	770.4	46	7.8	60	ne.	17	7.6		5 k	0	ne.		0	0	fair	
Yankton, Dakota	28.79	731.3	30.16	766.1	40	4.4	89	calm	0	0			10 n			0.04	1.0	light rain	
Yuma, Arizona	29.79	756.7	29.93	760.2	56.7	13.7	60	nw.	1	0.4		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	29.94	760.5	29.96	761.0	86	30.0	83	ne.	8	3.6		5 k	5 ks	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.02	559.3			50.0	10.0	75	calm	0	0		3 cs; k	0			0	0	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	29.98	761.5	30.00	762.0	74	23.3	90	s.					10			0.20	5.1	raining	J. B. Dougherty.
Guadeloupe, W. I.‡	29.82	757.4	29.83	757.7	82	27.8	87	e.				hz	10 ks			0	0	hazy	B. Bigar.
Havana, Cuba, W. I.	30.06	763.5	30.11	764.8	76	24.4	74	se.	1.2	0.5		0	8 ks		e.	inap.	inap.	cloudy	A. Van Caneghem, Ass't
Kingston, Jamaica, W. I.	29.93	760.2	29.94	760.5	73.0	22.8	94	calm	0	0		8 cs	0			0	0	fair	Robert Johnstone.
Navassa, W. I.	29.87	758.7	29.95	760.7	81	27.2	74	ne.	20	8.9		8 cs; k	2 ks	ne.	n.	0.27	6.9	fair	F. M. Everett.
Paramaribo, S. A.	29.96	761.0	29.97	761.2	79	26.1	83	e.			2	4 c	5 k	e.	e.	0.170	4.3	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.41	747.0	29.96	761.0	80	26.7	89	calm					10 ks		s.	0.12	3.0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					71.6	22	94	ne.			1		6 ks		ne.	0.846	21.5		Earl Flint.
Santiago de Cuba, W. I.	29.97	761.2	29.99	761.7	75	23.9	72	n.	4.8	2.1		1 ck	0			0	0	clear	Robert Mason.
St. Thomas, W. I.‡	29.82	757.4	29.93	760.2	80	27.7	88	nw.	2	0.9			8 ks		n.	0.06	1.5	cloudy	G. O. Gyllich.
York Factory, B. A.	30.07	763.8	30.12	765.0	24.0	— 4.4	94	nw.	14	6.3		3 k	2 s	nw.	nw.	0	0	fair	J. Fortescue & W. Wood.

BRITISH NAVAL SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
H. M. S. Alert, S. 9° 30′, E. 138° 25′	29.92	760.0	78.5	25.8	100	ene.			0.1		1							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Port Mahon, Minorca, Spain	30.08	764.0	72	22.2	71	ssw.			1		1	ssw.						blue sky	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 40° 25′, E. 29° 09′	30.02	762.5	65	18.3		var.			1		7	n.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 44° 35′, W. 52° 30′	29.75	755.6	60	15.6	94	s.			6		8					4	ssw.	squally	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.01	762.2	68	20.0	70	ese.			2–4		3	se.						squally	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.96	761.0	61	16.1	100	sse.			2		10					2	w.	d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette Gibralter, Mediterranean	30.22	767.6	68	20.0		ese.			1		2	se.				2	sse.	d. clouds	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 37° 19′, E. 3° 56′	30.16	766.1	71	21.7		ese.			1		3	ese.						d. clouds	Capt. C. S. Cardell.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa																			Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.95	760.7	72	22.2		nw.			2		1							blue sky	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 14° 58′, W. 6° 48′	30.04	763.0	70	21.1		e.			2		6	ene.				1	ese.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	29.99	761.7	73.5	23.1	87	n.			3–4		3	n.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 30′, W. 55° 46′	29.65	753.1	37	2.8	76	nw.			2		2	w.						d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.81	757.2	85	29.4		wnw.			3		5	nw.				3	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 3° 09′, E. 84° 35′	29.83	757.7	83	28.3		sw.			2–3		4	sw.				5	sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 31° 10′, E. 178° 10′	30.03	762.7	65	18.3	100	ene.			1		10	s.				1	w.	d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.81	757.2	84	28.9	83	ne.			2		8	ne.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. O. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 23° 47′, E. 36° 00′	30.19	766.8	68.5	20.3	84	se.			3		4					3	e.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 7° 40′, W. 157° 25′	29.87	758.7	79	26.1	82	e.			4–6		9	s.				2–3	ne; se.	d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Maldonado, Uruguay	29.84	757.9	66	18.9	90	nnw.			3		6							d. clouds	Capt. L. F. Jones.
H. M. S. Griffon, N. 17° 30′, W. 79° 44′	29.89	759.2	83	28.3	83	ne.			4		6	s.				6	ne.	squally	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 28° 00′, E. 142° 00′	29.97	761.2	77	25.0	79	e.			5		3	e.				4	ne.	d. clouds	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	29.94	760.5	75	23.9		calm			0									raining	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.88	758.9	79	26.1		calm			0		1	calm						blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, Simon's Bay, Cape Colony	29.98	761.5	72	22.2		se.			6		2	se.						squally	Comm. F. H. Haygorth.
H. M. S. Lark, S. 35° 21′, E. 8° 23′	30.27	768 8	63	17.2	88	ene.			2–3		1					2	ne.	blue sky	Lt. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, N. 21° 33′, E. 113° 55′			78	25.6	92	w.			8–9		10					8	nnw.	heavy rain	Lieut. A. Balfour.
H. M. S. Malabar, N. 13° 49′, E. 49° 36′	29.87	758.7	88	31.1	88	ne.			1		2	ne.				1	ne.	d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 41° 08′, W. 10° 40′	30.17	766.3	66.5	19.2	78	wsw.			1		10	wsw.				2	nnw.	overcast	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead,
H. M. S Monarch, Sfax, Tunis	30.17	766.3	74	23.3	90	ssw.			2		0							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	29.99	761.7				calm			0		0							blue sky	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S Northampton, Halifax, Nova Scotia	30.05	763.3	40.5	4.7	72	nnw.			2		0							blue sky	Capt. E. B. Drummond.
H. M. S. Orontes, Off St. Vincent, C. Verd Ids	30.04	763.0	80	26.7	95	ne.			2		7					2	ene.	misty	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	30.15	765.8	29	—1.7	?	calm			0		1							blue sky	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.84	757.9	85.3	29.6	72	nnw.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 32° 38′, W. 16° 39′	30.33	770.4	71	21.7	85	ese.			2		3	ene.				3	ene.	d. clouds	
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis, S. 33° 50′, E. 26° 50′	30.18	766.6	64	17.8	78	ene.			6		0					2	ene.	blue sky	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			
H. M. S. Tamar, S. 22° 09′, E. 0° 58′	30.08	764.0	74	23.3	68	e.			1		1	e.				1	e.	blue sky	Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 28° 56′, W. 123° 11′	30.26	768.6	60	15.6	88	nne.			5-6		9					5	n.	squally	Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 19° 28′ W. 82° 30′	30.07	763.8	62	16.7	77	sse.			4		8	sse.				4	sse.	d. clouds	Capt. A. H. Markham.
H. M. S.Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.89	759.2	76	24.4		calm			0		4							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.79	756.7	57	13.9	87	calm			0		1							blue sky	Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Muscat, Arabia	29.86	758.4	87.5	30.8	72	se.			1-2		1	se.				3	nw.	blue sky	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela India	29.90	759.4	77.4	25.2	79	w.			6		6					1		d. clouds	Carlos Candid dos Reis. A. M. da Sitra.
Quanza, St. Antonio, Cape Verd Id's	30.01	762.2	80.6	27.0	73	ne.			4		2		w.			2	ne.	blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.26	743.2	75.0	23.9	92	w.			7		10		w.	10 h'r	10 h'r			threatening.	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

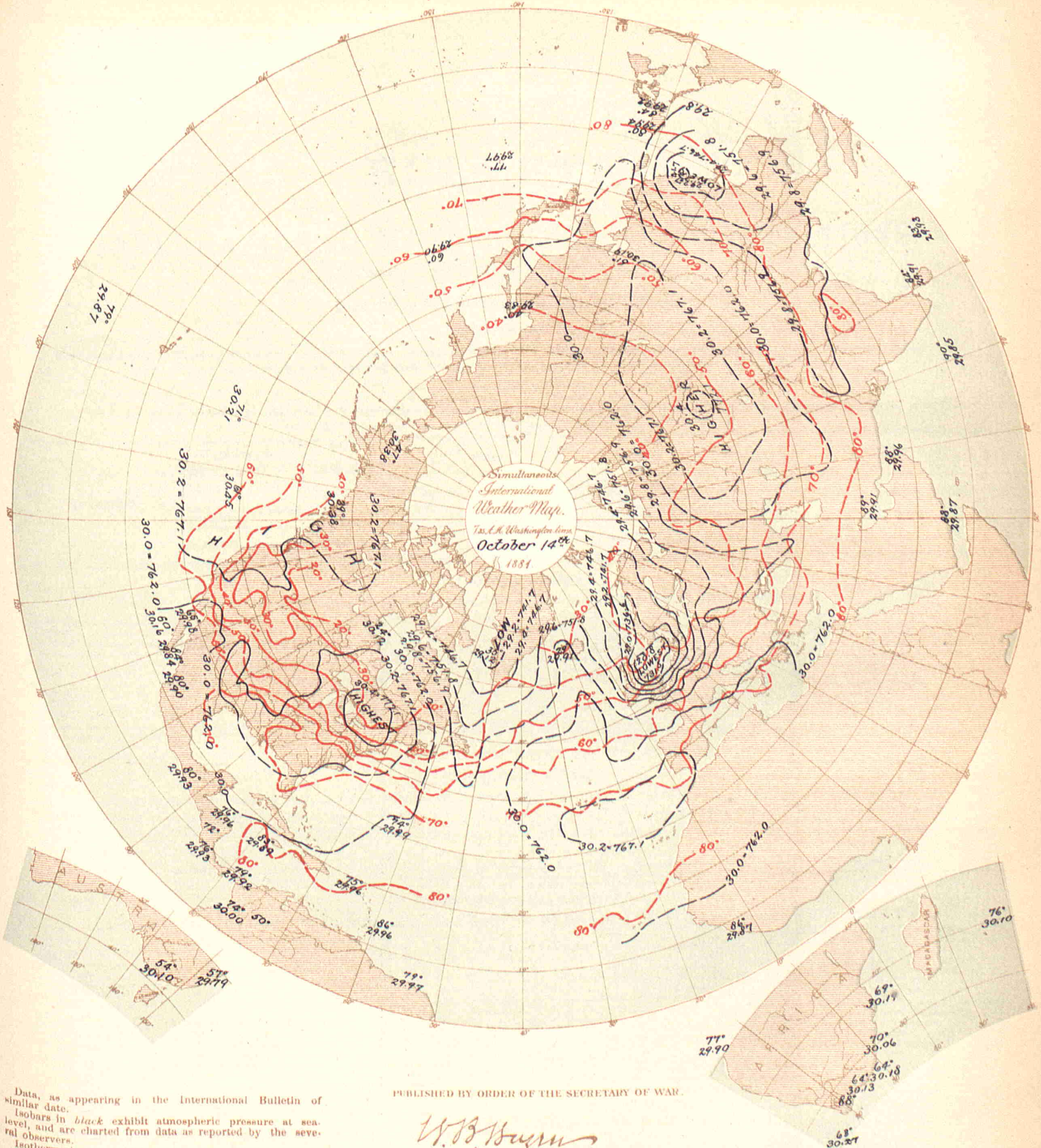
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.34	770.6	69	20.6	90	nw.	2	0.9			0			0	0			clear	
N. Yard, Portsmouth, N. H.	30.38	771.6	39	3.9	91	n.	6	2.7			0			0	0			clear	
Naval Hospital, Yokohama, Japan	29.93	760.2	61.5	16.4	88	calm			0		0			0	0			hazy	
Adams, Callao, Peru	29.82	757.4	63	17.2	94	se.			1-2		10					sm'h		cloudy	
Alaska, Callao, Peru	29.94	760.5	60	15.6	100	se.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.92	760.0	65	18.3	89	calm			0		8		ssw.	0	0	sm'h		cloudy	
Alliance, Reikiavik, Iceland	29.88	758.9	33	0.6	62	e.			2		8		e.	0	0	sm'h		fair	
Ashuelot, Kobe, Japan	29.98	761.5	73	22.8	79	s.			1		10		n.					rainy	
Colorado, New York, N. Y.	30.41	772.4	50	10.0	72	n.	10	4.5			0							clear	
Constitution, New London, Conn.	30.29	769.4	45	7.2	84	n.	4	1.8			5		w.					fair	
Franklin, Yorktown, Va.	30.12	765.0	63	17.2	89	nnw.	8	3.6			8		nnw.	0	0			cloudy	
Galena, N. 39° 33′, E. 24° 20′	29.99	761.7	67	19.4	64	wnw.			1		2		nw.			sm'h		clear	
Independence, N. Yard, Mare I'd, Cal.	30.10	764.5	40	4.4	73	calm	0	0			0							clear	
Kearsarge, N. 37° 37′, W. 75° 18′	30.24	768.1	64	17.8	78	nne.			5		8		ne.			mod'	n.	cloudy	
Lackawanna, San Francisco, Cal. †	30.43	772.9	51	10.6	93	se.			1		0							clear	
Lancaster, N. 35° 10′ W. 66° 43′	30.11	764.8	75	23.9	68	nne.	6	2.7			0			0	0	sm'h		blue sky	
Marion, Montevideo, Uruguay	29.67	753.6	69	20.6		nnw.			3		8		sw.			sm'h		cloudy	
Michigan, Erie, Pa.	30.36	771.1	43	6.1	92	n.			2		5		n.					fair	
Minnesota, Newport, R. I.	30.33	770.4	48	8.9	56	n.			4-6		2					sm'h		squally	
Monocacy, Yokohama, Japan	30.08	764.0	65	18.3	89	w.			1		5		w.					fair	
Nipsic, Genoa, Italy	29.93	760.2	68	20.0	84	ese.			3		8		se.			sm'h		d. clouds	
Onward, Callao, Peru †	29.97	761.2	60	15.6	94	se.			2		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.09	738.9	77	25.0	95	sse.			0-1		10		ne.					rainy	
Passaic, Washington, D. C.	30.26	768.6	62	16.7	94	sw.			1		10							cloudy	
Pensacola, Callao, Peru,	30.01	762.2	60	15.6	94	se.			1		10			0	0			cloudy	
Portsmouth, Yorktown, Va.	30.25	768.3	65	18.3	78	nne.			2		5					sm'h		fair	
Powhatan, N. 36° 50′, W. 74° 21′	30.20	767.1	69	20.6	100	nne.			5		2?		nne.				ne.	cloudy?	
Quinnebaug, Marseilles, France	29.98	761.5	65	18.3	84	wsw.			4		2		calm			sm'h		hazy	
Ranger, San Francisco, Cal. *	30.23	767.8	52	11.1	72	ene.			2		0							clear	
Richmond, Panama, Panama	29.92	760.0	79	26.1	95	s.			1		5		s.	0.25	6.3	sm'h	s.	fair	
Saratoga, Yorktown, Va.	30.24	768.1	64	17.8	100	nne.			2		10			0	0	sm'h		cloudy	
Shenandoah, Montevideo, Uruguay *	29.83	757.7	69	20.6	85	nnw.			3		2		n.			sm'h		fair	
St. Louis, League Island, Pa.	30.08	764.0	52	11.1	72	n.	10	4.5			0			0	0			clear	
Swatara, Nagasaki, Japan †.	29.95	760.7	77	25.0	95	calm			0		10		calm			sm'h		rainy	
Tennessee, Yorktown, Va.	30.29	769.4	67	19.4	95	nne.	20	8.9			10			0	0			cloudy	
Trenton, Hampton Roads, Va. *	30.20	767.1	70	21.1	80	nne.			4-5		8			0	0	sm'h		fair	
Vandalia, Yorktown, Va.	30.12	765.0	74	23.3	76	w.			1		0							clear	
Wabash, Boston, Mass.	30.28	769.1	41	5.0	57	nnw.	9	4.0			2		nw.	0	0			clear	
Wachusetts, Sitka, Alaska	30.53	775.4	45	7.2	92	wnw.			1		10							overcast	
Wyoming, Port Royal, S. C.	30.21	767.3	69	20.6	80	nw.	1	0.4			2		calm	0	0			clear	
Yantic, Yorktown, Va. *	30.21	767.3	66	18.9	74	nne.			3		8							cloudy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Montreal, Canada *†.	30.48	774.2				wnw.	3		2		w.			sm'h		clear	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 42° 46′, W. 62° 11′ †.	29.92	760.0	48	8.9	92	nne.	6		10		nne.			r'gh	ne.	overcast	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 51° 25′, W. 22° 40′ †.	30.12	765.0	52	11.1	59	nne.	3		2		w.	0	0	mod.	nw.	fair	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 40° 30′, W, 69° 33′ *†.	30.34	770.6	57	13.9	93	ne.	4		2		n.			chop	n.	clear	
S. S. Pennsylvania, Capt G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGICAL OFFICE.																	
S. Auckland, Capt. A. McDongall S. 41° 25′, W. 10° 16′	29.73	755.1	51	10.6	100	sse.	3		10							overcast	
S. British Merchant, Capt. E. J. Moloney,																	
Bk. Caldew, Capt. W. Petersen, S. 53° 44′, W. 74° 24	30.10	764.5	40.0	4.4		wsw.	4		8							d. clouds	
S. S. Cipero, Capt. W. N. Lailey, Ulua River, Honduras, C. A.	29.96	761.0	76.1	24.5	95	ne.	5		10					4	ne.	raining	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton, N. 39° 10′. W. 125° 20′ ‡.	30.36	771.1	46	7.8	87	n.	5		4							d. clouds	
S. S. Gordon Castle, Capt. W. Waring, N. 9° 00′, E. 70° 13′	29.85	758.2	89.5	31.9	69	calm	0		3							d. clouds	
Bg. Hermine, Capt. S. G. Jones, S. 37° 27′, W. 52° 10	29.93	760.2	65.7	18.7	84	nnw.	6		10							misty	
Bkt. Hope, Capt. Jas. Campbelle N. 39° 35′, W. 19° 29′ ‡.	30.28	769.1	68.9	20.5	90	ssw.	3		5							d. clouds	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 8° 55′, E. 87° 30′	29.89	759.2	80.5	26.9	86	ene.	5		10							showery	
Bk. Mertola, Capt. E. W. Turner,																	
Naiad, Capt. J. Smith,																	
Bk. Moorhill, Capt. J. Brown. S. 55° 29′, W. 77° 00′	29.99	761.7	40.9	4.9	63	wsw.	6		4							d. clouds	
S. Pielone, Capt. C. H. Renant, S. 44° 39′, E. 113° 47′	29.84	757.9	49	9.4	85	w.	6		10							misty	
Queen of Cambria, Capt. M. Parry S 7° 21′, W. 30° 32′	29.98	761.5	81.4	27.4	74	ese.	5		3							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow																	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 44° 48′, W. 23° 15′	30.02	762.5	62.8	17.1	94	ssw.	6		10							heavy rain	
S. S. Strathleven, Capt. C. W. Pearson, N. 35° 26′, E. 139° 41′	29.98	761.5	63.5	17.5	88	calm	0		4							d. clouds	
S. S. Thames, Capt. Luckhurst N. 52° 18′, W. 13° 32′	29.74	755.4	52.7	11.5	73	wnw.	7		6							d. clouds	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin, S. 0° 42′, E. 60° 43′	29.71	754.6	77	25.0		wnw.	2–4		10							heavy rain	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, N. 23° 37′, W. 108° 04′	29.64	752.8	84	28.9	83	nw.	3		0			0	0	small	nw.	clear	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains, N. 45° 08′, W. 45° 06′	29.98	761.5	75	23.9		s.	3		2		w.	0	0	light	w.	fine	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle,																	
S. S. Hermann, Capt. H. Baur																	
S. S. Köln, Capt. T. Jüngst, N. 47° 55′, W. 38° 28′	30.04	763.0	55.5	13.1	84	sse.	3–4		8		sse.	0	0	mod.	sse.	cloudy	E. Schmidt, 3d Officer
S. S. Leipzig, Capt. F. Pfeiffer, N. 49° 15′, W. 37° 25′	30.06	763.5	55.0	12.8	62	s.	4		5		wsw.	0	0	mod.	n.	fair	T. Jüngst.
S. S. Strassburg, Capt. Heimbrouch, N. 37° 00′, W. 75° 44′	30.24	768.1	66.0	18.9	84	nne.	6		8		ne.	0	0	mod.	ne.	cloudy	Walter & Reichler. Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 40° 33′, E. 157° 35′ †.	30.00	762.0	60	15.6	65	wnw.	5		5		wnw.	0	0	mod.	nw.	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 31° 44′, E. 131° 46′ *†.	30.16	766.1	80	26.7	87	ssw.	4		10		ssw.			light	sw.	overcast	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 35° 44′, W. 151° 20′	30.21	767.3	71	21.7	90	sse.	4		5		sw.	0.32	8.1	sm'h	wsw.	fine	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles, N. 40° 18′, W. 124° 30′ †	30.33	770.4	46	7.8	65	nnw.	4		0					light	nw; n.	clear	
S. S. Oregon, Capt. E. Polemann																	O. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, San Francisco, Cal.....†..	30.21	767.3	42	5.6	83	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——, Victoria, B. C .....†	30.15	765.8	44	6.7	68	s.	2	.....	6?	.....	s.	2 h'r	2 h'r	.....	.....	cloudy?.....	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal.....†..	30.26	768.6	47	8.3	85	sw.	2	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 33° 42′, W. 118° 15′.....†..	30.12	765.0	64	17.8	53	w.	5	.....	0	.....	.....	.....	.....	cross	ssw.	fair.	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 34° 15′, W. 119° 18′.....†..	30.09	764.3	51	10.6	72	nw.	2	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon.....†..	30.23	767.8	35	1.7	80	e.	2	.....	8	.....	.....	.....	.....	.....	.....	cloudy	G. Debney.
S. S. Victoria, H. M. Hayward, N. 38° 28′, W. 123° 07′.....†..	30.22	767.5	45	7.2	100	nw.	4	.....	0	.....	.....	.....	.....	short	nw.	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulkley, Supt. New York.*																	
S. S. Australia, Capt. ——, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. Bannermann, 2d Offi.
S. S. City of New York, Capt. W. B. Cobb. S. 20° —′, W. 172° 28′.....†.	30.09	764.3	70	21.1	100	se.	2	.....	10	.....	se.	.....	.....	mod.	se.	cloudy.....	W. H. Hawes, 2d Offi. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. City of Peking, Capt. G. G. Barry, Hong Kong, China .....*†.	29.33	745.2	78	25.6	95	sse.	9	.....	10	.....	sse.	0	0	sm'h	.....	squally.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 15° 00′, W. 93° 34′.....†..	29.92	760.0	80	26.7	87	e.	3	.....	10	.....	w.	0	0	mod.	s.	overcast.....	.....
S. S. City of Sydney, Capt. H. C. Dearborn, S. 29° 19′, W. 179° 26′ .....*†.	29.99	761.7	64	17.8	58	ene.	2	.....	5	.....	ene.	0	0	long	se.	fair.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 39° 06′, W. 136° 01′.....†..	30.65	778.5	61	16.1	77	ne.	1	.....	10	.....	nne.	.....	.....	mod.	ne.	cloudy.....	A. L. Ritchie, 2d Offi.
S. S. Colima, R. R. Searle N. 8°, 18′ W. 83° 49′.....†..	29.93	760.2	76	24.4	?	w.	4	.....	10	.....	wsw.	0.05	1.3	mod.	wsw.	raining.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, N. 27° 35′, W. 115° 10′.....†....	29.98	761.5	65	18.3	100	nw.	6	.....	0	.....	.....	0	0	h'vy	nw.	hazy.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	30.05	763.3	62	16.7	77	nne.	4	.....	8	.....	ne.	.....	.....	.....	.....	cloudy.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N. 51° 03′, W. 29° 49′.....†....	30.69	779.5	57	13.9	.....	w.	1	.....	0	.....	.....	0	0	mod.	nw.	clear.....	A. Feddersen, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, N. 47° 17′, W. 37° 04′ .....†....	30.15	765.8	56	13.3	81	e.	2	.....	10	.....	sse.	0.05	1.3	long	ese.	cloudy	C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 40° 38′, W. 67° 38′.....†..	30.07	763.8	55	12.8	.....	n.	6	.....	2	.....	nw.	0	0	mod.	nw.	fair.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 48° 22′, W. 30° 46′.....†..	30.22	767.6	60	15.6	66	ene.	3	.....	8	.....	e.	0	0	mod.	ne.	fair.....	.....
S. S. Celtic, Capt. B. Gleadell, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 41° 45′, W. 63° 59′.....†..	30.17	766.3	55	12.8	100	nne.	6	.....	5	.....	n.	0	0	mod.	n.	d. clouds.....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 51° 25′, W. 19° 57′..... .....†..	30.07	763.8	56	13.3	81	nw.	6	.....	5	.....	nnw.	4 hr	light	h'vy	nw; sw.	.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Washington, D. C..... .....†..	30.39	771.9	55	12.8	80	ne.	2	0	2 8	.....	.....	0	0	.....	.....	clear.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pawashick, Capt. E. Fry, N. 39° 40′, E. 2° 17′.....*†....	29.99	761.7	70	21.1	90	ssw.	1	.....	0	.....	.....	.....	.....	sm'h	.....	very fine.....	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz N. 33° 09′, W. 61° 24′.....†...	30.25	768.3	74	23.3	.....	nne.	5	.....	10	.....	e.	.....	.....	long	ne.	sprinkling ...	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, N. 35° 44′, W 31° 21′..... .....†....	30.22	767.6	74	23.3	81	ne.	2	.....	2	.....	ne.	light	light	mod.	ne.	fair.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 15, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.10	764.6	68.9	20.5	93	e.			1		0			0	0	clear	Moiroud.
Algiers ‡			30.15	765.7	72.0	22.2	77	w.			3		1			0	0	very fair	Nicolas.
La Calle ‡			30.14	765.5	77.4	25.2	73	nw.			1		3			0	0	pretty fair	Fonfréde.
Tunis ‡			30.12	765.0															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.15	765.7	76.6	24.8	35	nnw.			1		0			0	0	clear	Dumas.
Tebessa ‡			30.15	765.8	67.3	19.6	49	calm			0		2			0	0	fair	Derché.
Geriville ‡					68.4	20.2	53	n.			4		0			0	0	clear	Lonchamp.
Laghouat ‡			30.16	766.0	73.0	22.8	33	e.			1		0			0	0	clear	Herbin.
Biskra ‡			30.15	765.8	82.4	28.0	34	se.			2		2			0	0	fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.02	762.5	30.11	764.8	51.7	10.9	88	sse.	5	2.2			0			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.32	744.8	29.88	758.9	50.0	10.0	87	ne.			4		10			1.370	34.8	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.03	737.4	29.80	756.8	52.9	11.6	42	w.	9.8	4.4			2			0	0		Dr. Wierzbicki.
Eperies	28.93	734.8	29.81	757.1	52.5	11.4	78	calm			0		10s			0	0		Julius Mikolik.
Gratz ‡	28.65	727.8	29.91	759.7	52.3	11.3	84	s.			2		10			0	0		Andreas Rospini.
Hermannstadt	28.45	722.5	29.85	758.1	60.1	15.6	67	e.			1		9			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.56	725.5	29.91	759.6	50.5	10.3	65	wsw.			2		8			0.075	1.9		The Staff.
Lemberg	28.80	731.5	29.78	756.3	54.0	12.2	59	nw.			3		10			0.094	2.4		Dr. T. Stanecki.
Pola	29 72	754 9	29.79	756.7	65.8	18.8	87	s.			1		10			0	0		I. R. Hydrographic Office.
Szathmar	29.37	745.9	29.83	757.7	52.5	11.4	95	sw.			3		10			0.453	11.5		Jozsef Midlinszky, S. J.
Szegedin	29.54	750.2	29.81	757.2	57.9	14.4	53	nw.			2		10			0.205	5.2		Karl Stancel.
Trieste	29.73	755.2	29.84	757.8	66.2	19.0	88	calm			0		10			0.091	2.3		Rieder.
Vienna	29.17	741.0	29.89	759.1	54.7	12.6	55	w.			4		10			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.66	753.4	29.76	755.9	43.5	6.4	58	nw.	41	18.3			4			0.050	1.3	squally	W. Boswell.
Armagh, Observatory	29.90	759.4	30.13	765.3	43.6	6.4	71	nw.	8	3.6			5					d. clouds	S. Call.
Bidston, Liverpool Obs'y			29.96	761.0	46.0	7.8	69	wnw.	36	16.1			3					blue sky	John Hartnup.
Bolton, Sharples	29.38	746.2	29.92	760.0	43.2	6.2	58	nnw.	30	13.4			1					blue sky	Thomas Mackereth.
Bradford, Yorkshire	29.46	748.3	29.86	758.4	43.6	6.4	51	nw.			4		2			0	0	blue sky	[A.S. J.McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.79	756.7	43.0	6.1	87	w.			3.0		10					overcast	John McLaren.
Chatham, School M. E.	29.78	756.4	29.92	760.0	48.1	8.9	74	n.			1		8					gloomy	R. Craydon, R. E.
Falmouth, Observatory	29.94	760.5	30.17	766.3	49.7	9.8	56	wnw.			6		5					d. clouds	The Staff.
Fort Napier, Natal	27.80	706.1	30.02	762.5	76.3	24.6	99	se.			2		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.69	754.1	29.93	760.2	85.0	29.4	79	ne.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			30.21	767.3	49	9.4	64	nw.			4		4					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	30.06	763.5	30.11	764.8	75.1	23.9	86	w.			2		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.76	755.9	29.97	761.2	44.8	7.1	56	wnw.			3		6			blank	blank	d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.76	755.9	29.94	760.5	47.6	8.7	62	nw.			6		8					raining	The Staff.
Guernsey	29.85	758.2	30.07	763.8	54	12.2	50	wnw.			4		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.91	759.7	29.95	760.7	48.0	8.9	51	w.	20	8.9			10					squally	The Staff.
Leicester, Museum	29.66	753.4	29.93	760.2	45.0	7.2	60	nw.			2		1					blue sky	J. C. Smith.
Malta, Mediterranean	29.98	761.5	30.06	763.5	75.2	24.0	63	nw.			2		4			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.98	761.5	30.03	762.7	79.2	26.2	73	ne.			2		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.44	747.8	29.97	761.2	44.4	6.9	79	w.			3		7					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.75	755.6	29.98	761.5	39.7	4.3	83	nw.			5		10					squally	The Staff.
Plymouth	30.05	763.3	30.12	765.0	53.0	11.7	68	nw.			4		6					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.80	756.9	43.8	6.6	67	nnw.	40	17.9			7					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.95	760.7	30.02	762.5	71.0	21.7	59	sw.			1		0					blue sky	Serg't W. H. Lyne.
Sheffield	29.63	752.6	29.92	760.0	46.3	7.9	69	nw.			2		1			blank	blank	blue sky	W. F. Cooper.
Silloth Rectory	29.91	759.7	29.94	760.5	47.8	8.8	60	n.			6		0			0	0	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.94	760.5	43.2	6.2	89	nw.	29	13.0			5			blank	blank	d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.76	755.9	29.98	761.5	45.7	7.6	74	nw.			3		5					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.16	766.1	30.20	767.1	54	12.2	55	nw.			7		5					d. clouds	W. Newcombe.
Valencia, Observatory	30.27	768.8	30.29	769.4	50.3	10.2	61	n.	18	8.0			8			blank	blank	squally	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.27	768.8	30.31	769.9	38	3.3	63	w.	6	2.7		0	2 s			0	0	fair	H. J. Cundall, C. E.
Chatham, N. B.*	30.26	768.6	30.32	770.1	28	— 2.2	80	s.	1	0.4		10 ck	0	s.		0	0	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.20	767.1	30.22	767.6	35	1.7	79	sw.	12	5.4		2 ck	2 s	calm	calm	0	0		J. McWilliams.
Fort Garry, Manitoba*	29.09	738.9	29.95	760.7	28	— 2.2	96	nw.	7	3.1			10 n			0.270	6.9	light snow	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.28	769.1	30.41	772.4	36	2.2	89	w.	2	0.9		8 ck	0	nw.		0	0	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.62	752.3	29.96	761.0	50	10.0	93	se.	22	9.8			10 n		se.	0.12	3.0	light rain	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.89	759.2	30.10	764.5	42	5.6	82	s.	8	3.6			10 s			0.01	0.3	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.14	740.1	29.84	757.9	42	5.6	100	e.	12	5.4			10 n		e.	0.84	21.3	heavy rain	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.21	741.9	29.89	759.2	61	16.1	100	s.	10	4.5			10 n		sw.	0.99	25.1	light rain	H. Morgan.
Port Stanley, Ontario	29.26	743.2	29.89	759.2	62	16.7	100	sw.	8	3.6			10 n		sw.	1.17	29.7	cloudy	M. Payne.
Quebec*	29.92	760.0	30.25	768.3	36	2.2	85	w.			1		hz.			0	0	hazy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.52	749.8	29.99	761.7	35	1.7	89	se.	8	3.6			10 s		se.	0.13	3.3	heavy rain	W. H. McIntyre.
Saugeen, Ontario*	29.01	736.8	29.70	754.4	56	13.3	100	s.	7	3.1			10 ks			0.35	8.9	heavy rain	K. Stewart.
St. Andrews, N. B.	30.31	769.9	30.37	771.4	38	3.3	81	w.	1	0.4			10 n			0	0	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.23	767.8	30.30	769.6	40	4.4	67	sw.	12	5.4		2 cs	0			0	0	clear	T. C. Hill, C. E.
Toronto, Ontario*	29.50	749.3	29.88	758.9	53	11.7	100	se.	6	2.7			fg.			0.62	15.7	heavy rain	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.33	770.4	30.39	771.9	45	7.2	83	w.	6	2.7		10 k	0	w.		0	0	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.04	763.0	30.30	769.6	37	2.8	81	sw.					10 s			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	30.24	768.1	30.27	768.8	60.0	15.6	94	e.	9.8	4.4		0	0			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.28	743.7			85	29.4	33	e.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.11	764.9	30.14	765.6	62.6	17.0	85	nne.	1.3	0.6			10			0	0	covered	M. Marc Dechevrens, S. J.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	28.94	735.1	28.99	736.3	48.2	9.0	68	w.	34	15			9					raining	Oversergent Fischer.
Fanöe	29.15	740.4	29.17	740.9	45.1	7.3	89	w.			8		9						Overloerer Lauridsen.
Godthaab, Greenland	28.88	733.6	28.93	734.7	32.7	0.4	94	s.			4		10					snowing	S. Kleinschmidt.
Stykkisholm, Iceland	30.09	764.3	30.13	765.4	26.6	—3.0	96	e.			7		8						A. O. Thorlacius.
Thorshavn	29.98	761.5	30.02	762.4	36.3	2.4	63	n.	20	9			7						Overloerer Bergh.
Vestervig	28.88	733.6	28.97	735.9	48.6	9.2	71	sw.			6		9						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.78	756.3	30.43	772.9	57.6	14.2	67	nnw.			1		8 n					very cloudy.	M. Labroue, Director.
Alençon Normal School	29.58	751.3	30.19	766.7	50.0	10	97	nw.			4		k		ne.	0.181	4.6		M. Nicot, Director.
Arras, Engineer School	29.53	750.0	29.91	759.6	48.9	9.4	56	nw.					kn		nw.				M. Klein, Commandant.
Avignon, Normal School	30.01	762.2	30.09	764.2	62.2	16.8	44	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.50	749.4	30.07	763.8	48.2	9.0	81	nnw.			3		8 kn		nw.	0.079	2.0	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.76	756.0	30.04	762.9	48.2	9	69	nw.			2		8		wnw.	0.126	3.2	very cloudy.	M. Frère Eugène Marie.
Besançon, Normal School	29.22	742.2	30.13	765.2	47.1	8.4	77	w.			1		10 n		n.	0.24	6.	raining	M. Gobin, Director.
Bordeaux, Observatory	29.94	760.5	30.21	767.2	57.6	14.2	66	w.			1		10		w.	0.189	4.8	covered	M. Rayet, Director.
Bourges, Normal School	29.54	750.2	30.09	764.2	56.3	13.5	60	sw.			2		ks		sw.	0.08	2.		M. Postel, Director.
Brest, Naval Observatory	29.96	761.0	30.21	767.2	57.2	14.0	58	nnw.			2		4		nnw.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.01	762.2	30.08	764.1	57.2	14	57	wnw.			1		2		nw.	0	0	slightly cl'dy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.63	752.5	29.95	760.7	50.9	10.5	62	sw.			3		5		w.	0.157	4.0	cloudy	M. Jadot, Director.
Charleville, Normal School.	29.44	747.8	29.96	760.9	50.0	10	86	sw.			8		1			0.31	8.		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.76	730.5	30.13	765.2	52.5	11.4	56	wsw.			2		8			0.012	0.3	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.26	743.3	30.11	764.8	55.8	13.2	55	s.			4		4		s.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.12	739.7	30.03	762.7	50.5	10.3	68	sw.			3		5 kn	sw.	sw.	0.374	9.5	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.52	699.1	30.06	763.4	55.4	13	77	ne.			3		3 ck	0	w.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.98	736.0	30.12	765.0	58.1	14.5	57	nw.			4		2		nw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.31	744.4	30.08	764.0	55.4	13.0	84	nw.			4		ck	0		0.043	1.1		M. Ablard, Director.
Guéret, Normal School	28.57	725.6	30.17	766.2	48.6	9.2	64	nw.			2			2 kn	se.	0.031	0.8	slightly cl'dy	M. Rivoire, Director.
Lamballe, Normal School	29.91	759.7	30.19	766.7	51.4	10.8	68	nw.			4			5 kn	nw.	0.016	0.4	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.65	753.1	30.22	767.5	57.6	14.2	84	nnw.			1					0.110	2.8		M. Chauvin, Director.
Lorient, Naval Observatory	30.13	765.2	30.23	767.8	60.8	16	59	nw.			2		2		nw.	0.063	1.6	¼ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.08	738.6	30.14	765.6	54.0	12.2	50	wnw.			1		5 n		w.	0.024	0.6	cloudy	M. André, Director.
Mans, Normal School	29.83	757.7	30.14	765.6	53.1	11.7	47	nw.			4		5		w.	0.098	2.5	cloudy	M. Piboen, Director.
Marseille, Observatory	29.77	756.2	30.04	763.1	61.3	16.3	48	nw.			6		4		nw.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.89	632.2	30.13	765.2	50.5	10.3	81	e.	5.6	2.5			7		se.	0.091	2.3	raining	M. Cave, for Dr. Fines.
Montpellier, Normal School	29.99	761.8	30.10	764.5	64.8	18.2	72	w.			4		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.21	741.9	29.98	761.4	51.8	11	54	s.			2		5 kn			0.217	5.5	cloudy	M. Hasse.
Nantes, Observatory	30.04	763.0	30.20	767.1	60.3	15.7	48	nw.			2-3		5 k		wnw.	0.075	1.9		M. Larocque, Director.
Nice	29.77	756.1	29.80	757.0	67.3	19.6	65	e.			3		5	se.	se.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	30.00	762.1	30.11	764.8	63.0	17.2	58	ne.	13.0	5.8			7	w.	w.	0	0		Dr. Fines.
Pic-du-Midi, Summit	21 33	541.8			31.8	—0.1		sw.			1		10		sw.	0.461	11.7	snowy	Gen'l de Nansouty Dir.
Privas, Normal School					56.1	13.4	20	n.			3		10		n.	0	0	covered.	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.16	639.1			31.6	—0.2	95	w.			4		8			0.276	7.0	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.17	766.4	30.21	767.2	56.8	13.8	78	calm			0		10			0	0	covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.91	759.8	30.13	765.4	56.5	13.6	64	calm			0		2		w.	0	0	slightly cl'dy	M. Mouillot, Director.
Rodez, Normal School	28.00	711.3	30.17	766.4	50.4	10.2	69	nw.			2		10		w.	0	0	covered	M. Richard, Director.
Rouen, Normal School	29.99	761.7	30.03	762.8	52.5	11.4	56	w.			4					0	0		M. Platrier, Director.
Saint Lô, Normal School	29.98	761.6	30.14	765.6	47.8	8.8	86	nw.			3		10		nw.	0.008	0.2	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.88	758.9	30.04	763.1	53.1	11.7	64	wsw.			2		3		wnw; w	0.157	4.0		M. Renou, Director.
Toulouse, Observatory	29.49	749.1	30.22	767.6	62.1	16.7	55	nw.			2		5		nw.	0.067	1.7	cloudy	M Bailland, Director.
Tours	29.93	760.3	30.13	765.3	55.8	13.2	52	wsw.			3		2	calm	wnw.	0.102	2.6	¼ covered	M. de Tastes.
Versailles, Observatory	29.55	750.6	30.04	763.1	52.5	11.4	63	nw.			4					0.118	3.0		Dr. A. Bérigny, Director.
Sub-Series. Paris, Montsouris Obs'y	29.76	755.9	30.05	763.3	48.6	9.2	63	wnw.			1		7		wnw.	0.051	1.3		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.00	736.6	29.86	758.4	48.2	9.0	44	nw.			4	0	3 k	wnw.		0.016	0.4		Prof. Dr. Hoh.
Berlin	29.36	745.8	29.53	750.1	50.5	10.3	68	sw.			6		6			0.102	2.6	raining	Prof. Dr. Arndt.
Breslau	29.21	741.8	29.73	755.1	50.2	10.1	32	wnw.			7		3			0.031	0.8		Royal University Obs'y.
Carlsruhe	29.52	749.9	29.96	760.9	47.1	8.4	94	wnw.			1		9	sw.		0.079	2.0		Albert Senz.
Cassel	29.03	737.3	29.74	755.5	47.8	8.8	40	sw.			9		5	s.		0.181	4.6		Dr. H. Möhl.
Frankfort on the Main	29.50	749.3	29.87	758.6	52.9	11.6	39	w.			3		5			0.142	3.6		Physical Society.
Friedrichshafen	28.56	725.5	30.01	762.3	50.4	10.2	63	sw.			6		9	wsw.		0.398	10.1	raining	Wilhelm, Chief Tel.
Hamburg	29.40	746.8	29.50	749.2	43.3	6.3	76	w.			7		6	w.		0.835	21.2		E. Preller.
Kiel	29.27	743.5	29.29	743.9	46.8	8.2	66	w.			8		9			0.323	8.2		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.32	744.6	29.74	755.3	48.4	9.1	66	wsw.			7		5	w.		0.126	3.2	stormy	H. Leppig, Asst.
Magdeburg	29.45	747.9	29.63	752.7	46.9	8.3	61	w.			8	o	3 k		w.	0.189	4.8		Dr. Assmann.
Memel	29.28	743.8	29.33	744.9	49.1	9.5	72	ssw.			8		9 k					showery	Isermann.
Munich	28.13	714.4	29.98	761.6	48.9	9.4	58	nw.			4		5	nw.		0.039	1.0		Central Station.
Neufahrwasser	29.29	744.0	29.31	744.4	47.5	8.6	70	sw.			9		8			0.067	1.7	stormy	A. Lothes.
Neustadt, Palatinate	29.38	746.3	29.91	759.7	52.2	11.2	57	w.			5		8	nnw.		0.177	4.5		Dicknether.
Stuttgart	29.00	736.7	29.91	759.7	48.2	9.0	48	w.			2		10			0.252	6.4	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.43	722.2	29.97	761.1	42.3	5.7	70	sw.			4		9	w.		0.118	3.0		Fischer.
Wustrow	29.16	740.6	29.18	741.2	46.2	7.9	98	wsw.			9		10 s			0.551	14.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.67	753.5	30.05	763.2	73.8	23.2		s.			2.0		0			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.78	756.4	29.83	757.7	83.2	28.4	73	sw.	27.0	12.1			0			0	0	blue sky	
Deesa	29.42	747.1	29.88	759.1	87.2	30.7	45	w.	6.9	3.1			0			0	0	blue sky	
Bombay	29.83	757.7	29.87	758.7	85.3	29.6	76	nw.	11.0	4.9			3	w.		0	0	d. clouds	
Poona, Yarrowda.	28.02	711.8	29.85	758.1	88.6	31.4	29	ne.	2.0	0.9			3		wnw.	0	0	d. clouds	
Belgaum	27.34	694.4	29.85	758.2	82.0	27.8	49	ene.	6.0	2.7			8	n.		0	0	d. clouds	
Lahore	29.05	737.9	29.77	756.2	87.0	30.6	45	nnw.	1.2	0.5			0			0	0	blue sky	
Roorkee	28.85	732.9	29.74	755.3	86.2	30.1	36	nw.	3.0	1.3			0			0	0		
Agra	29.26	743.1	29.81	757.2	89.7	32.1	44	w.	5.9	2.6			0			0	0		
Nagpur	28.82	732.0	29.85	758.3	85.5	29.7	40	calm	2.7	1.2			0			0	0	blue sky	
Jubbulpore	28.51	724.2	29.87	758.6	81.3	27.4	45	calm	1.5	0.7			0			0	0	blue sky	
Lucknow	29.40	746.8	29.77	756.2	87.8	31.0	37	wsw.	5.7	2.6			0			0	0	blue sky	
Allahabad	29.49	748.9	29.80	756.8	80.7	27.1	57	calm	3.0	1.3			0			0	0	blue sky	
Patna	29.61	752.1	29.79	756.7	82.2	27.9	73	nnw.	3.3	1.5			0			0	0	blue sky	
Hazaribagh	27.82	706.6	29.84	757.8	76.8	24.9	58	wnw.	8.4	3.8			0			0	0	blue sky	
Cuttack	29.73	755.1	29.81	757.2	83.5	28.6	72	calm	0	0			0			0	0	blue sky	
Calcutta, Alipore	29.76	755.9	29.78	756.4	81.6	27.6	80	n.	1.0	0.4			6			0	0	d. clouds	
Dhubri	29.74	755.4	29.76	755.9	81.7	27.6	77	calm	0.4	0.2			0			0	0	blue sky	
Goalpara																			
Chittagong	29.70	754.3	29.79	756.6	81.7	27.6	80	wnw.	1.3	0.6			2			0	0	blue sky	
Sibsagar	29.45	748.0	29.78	756.5	82.2	27.9	82	sw.	2.2	1.0			0			0	0	blue sky	
Jeypore	28.42	722.0	29.85	758.1	88.3	31.3	30	wnw.	3.8	1.7			0			0	0	blue sky	
Zanzibar, Africa			29.89	759.2	86.6	30.3	58	sse.	4	1.8			5			0.25	6.3	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.44	747.7	29.85	758.2	61.5	16.4	82	e.	0.7	0.3			5			0.020	0.5		Prof. Giovanni Clodig.
Milan	29.30	744.1	29.81	757.2	64.4	18.0	65	sw.	5.6	2.5			1	w.		0.016	0.4		Prof. Schiaparelli.
Padua	29.72	754.8	29.83	757.6	64.8	18.2	73	wsw.	1.8	0.8			7	wsw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	28.91	734.2	29.82	757.3	62.2	16.8	73	w.	1.8	0.8			4	se.		0	0		Prof. P. F. Denza.
Genoa	29.64	752.8	29.83	757.7	67.3	19.6	67	se.	8.1	3.6			4	w.		0	0		Prof. G. M. Garibaldi.
Mondovi	27.92	709.1	29.85	758.2	57.9	14.4	86	w.			4		0			0	0		Prof. D. C. Bruno.
Pesaro	29.78	756.4	29.83	757.6	69.8	21.0	47	w.			4		0			0	0		Prof. Luigi Guidi.
Florence	29.65	753.2	29.91	759.6	68.0	20.0	46	sw.			4		2			0.012	0.3		Prof. Costantino Pitter.
Leghorn	29.81	757.2	29.90	759.4	66.9	19.4	52	w.	17.4	7.8			4			0.020	0.5		Prof. P. Monte.
Rome	29.78	756.5	29.96	760.9	69.4	20.8	65	ssw.					10			0.063	1.6		Prof. P. S. Ferrari.
Lecce	29.74	755.5	29.99	761.8	71.4	21.9	55	sw.	11.9	5.3			3			0	0		Prof. C. de Giorgi.
Cosenza	29.16	740.7	30.05	763.2	68.7	20.4	63	se.	3.8	1.7			6	s.		0	0		Prof. D. Conti.
Cagliari	29.80	757.0	30.00	761.9	72.3	22.4	56	nw.			4		1			0	0		Prof. A. Pacinotti.
Palermo	29.79	756.7	30.04	762.9	77.0	25.0	43	wsw.	10.5	4.7			3			0	0		Prof. G. Ciacciatore.
Syracuse	29.98	761.6	30.03	762.7	71.1	21.7	74	sw.	4.3	1.9			2	wsw.		0	0		Prof. Vincenzo Guiliane.
Sub-Series.																			
Naples, S. R	29.47	748.4	29.98	761.6	69.6	20.9	73	sw.	1.8	0.8			4	w.		0.055	1.4		Prof. F. Brioschi.
Stelvio	22.03	559.5			33.8	1.0	50	ssw.			1	0	0			0	0	clear	Prof. P. F. Denza.
Valdobbia	22.05	560.0			36.7	2.6	30	n			6	4 ck	0	wnw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.00	762.0	30.01	762.2	60.8	16.0	76	nne.	5.8	2.6		10 ck	0			0	0	overcast	K. Sasaki.
Kioto	29.82	757.4	30.00	762.0	59.4	15.2	98	nw.	0.6	0.3		ck	7 s			0.190	4.8	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.82	757.4	30.02	762.5	66.6	19.2	73	ene.	4.7	2.1			10 s			0	0	overcast	S. Takehayashi.
Nemuro	29.72	754.9	29.78	756.4	59.0	15.0	92	w.	9.6	4.3			9			0	0		
Niigata	29.95	760.7	29.99	761.7	61.9	16.6	74	n.	2.7	1.2		ck	6 n			0.045	1.1	cloudy	
Nobiru	29.90	759.4	29.91	759.7	60.0	15.6	74	nw.	6.7	3.0			10 s			0	0	cloudy	
Supporo	29.74	755.4	29.81	757.2	48.5	9.2	89	wnw.	5.4	2.4			7			0	0		
Tokei Obs'y, Yeddo	29.88	758.9	29.94	760.5	62.9	17.2	90	n.	3.5	1.6			9 s			0.057	1.4	cloudy	The Staff.
Wakayama	29.93	760.2	29.98	761.5	64.9	18.3	90	ene.	0.8	0.4		1	2 s			inap.	inap.	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.92	760.0	30.11	764.8	76.0	24.4	52	ene.	15.5	6.9		0	2k;ks			0.04	0.1	clear	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.71	602.2	29.93	760.2	55.4	13.0	72	ne.	6.7	3.0			0			0	0	clear	Vicente Fernandez.
Leon	24.45	621.0	30.16	766.2	56.8	13.8	87	n.			1	0	0			0	0	blue sky	Prof. M. Leal.
Mazatlan	29.62	752.2	29.87	758.7	79.0	26.1	98	ese.	1.6	0.8			fg.			0	0	dense fog	F. Quijano, C. E.
Mexico, Central Obs'y	23.13	587.6	30.21	767.3	50.0	10.0	78	calm	0	0			10 k		e.	0	0	overcast	The Staff.
Morelia	24.22	615.2	30.24	768.3	56.3	13.5	27	ene.			3	3	4	s.	se.	0	0	cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.97	608.7	29.94	760.5	57.0	13.9	72	nnw.			1	0	1 s		ese.	0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	594.9	30.21	767.2	53.6	12.0	82	calm	0	0			10		n.	0.004	0.1	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.84	757.8	29.84	757.8	50.9	10.5		w.			6					0.071	1.8		
Groningen	29.55	750.6	29.61	752.0	44.8	7.1		w.			7					0.260	6.6		
Helder	29.67	753.7	29.67	753.7	47.8	8.8		w.			6					0.213	5.4		
Hellevoetsluis	29.79	756.6	29.79	756.6	48.6	9.2	63	w.			5					0.335	8.5		
Utrecht	29.73	755.1	29.78	756.3	49.6	9.8	53	wsw.			4		5			0.217	5.5	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.04	737.7	29.11	739.3	47.5	8.6	46	n.	23.3	10.4			4			0	0		
Christiania	28.73	729.8	28.88	733.5	43.5	6.4	76	nne.	13.	6			10			0.520	13.2		
Gjæsvær	29.29	743.9	29.31	744.5	41.7	5.4		se.			2		3						
Lodingen	29.27	743.5	29.32	744.7	42.1	5.6	71	ne.			2		1			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.90	759.5	30.06	763.4	68.9	20.5	87	s.	6.9	3.1			5			0	0		Dr. J. A. Sampaio.
Campo Major	29.16	740.6	30.14	765.6	70.2	21.2	51	n.	0.7	0.3			2			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.19	766.9	30.28	769.1	75.4	24.1	74	ese.	3.1	1.4			4			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.91	759.6	30.26	768.6	66.4	19.1	65	nnw.	13.0	5.8			6			0	0		The Staff.
Ponta Delgada, Azores	30.02	762.5	30.09	764.3	77.0	25.0	71	calm	0	0			3			0.039	1.0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.29	744.0	30.39	771.8	49.5	9.7	58	ese.	13	6		0	0						Capt. Lasarew.
Archangel	29.65	753.1	29.67	753.6	43.7	6.5	96	s.	4	2			10						Capt. Sseliwerstow.
Astrakhan	30.05	763.3	29.97	761.2	57.9	14.4	61	e.	7	3		c	9 s					light clouds	Capt. Wisganow.
Barnaul ‡	30.01	762.3	30.53	775.4	45.9	7.7	62	calm	0	0			0						Meteorological Obs'y.
Dorpat	29.01	736.8	29.25	742.9	48.2	9.0	84	sse.	11	5		ck	2 s						Observatory.
Ekaterinburg	29.40	746.8	30.36	771.2	56.8	13.8	53	sse.	7	3		3 c;cs	0					light clouds	Meteorological Obs'y.
Kasan	29.87	758.6	30.14	765.6	52.2	11.2	56	se.	2	1			10						Observatory.
Kertch	30.05	763.2	30.07	763.7	57.9	14.4	82	calm	0	0		0	7 n			0	0		Lagorio & Sastyres.
Kieff	29.20	741.7	29.84	757.8	50.0	10.0	64	sse.	11	5		c,cs	10ks;n						Observatory.
Lugan	29.80	756.9	30.00	762.0	59.5	15.3	66	wsw.	2	1			6						Meteorological Obs'y.
Moscow	29.33	745.0	29.81	757.1	51.1	10.6	61	s.	4	2		0	3 ks						Meteorological Obs'y.
Nikolaiev	29.97	761.3	30.04	763.1	57.0	13.9	72	s.	9	4		10 cs	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.45	748.0	29.54	750.2	36.0	2.2	98	calm			0	0	8 n			0.205	5.2		Lieut. Iwanow.
Pekin, China	29.95	760.8	30.10	764.4	54.0	12.2	46	sw.	4	2		0	0			0	0		Physical Observatory.
St. Petersburg	29.40	746.8	29.42	747.2	44.2	6.8	82	sse.	22	10			10 n					light rain	Central Physical Obs'y.
Tashkend, Laboratory	28.47	723.2	30.04	762.9	58.6	14.8	78	calm	0	0			0			0	0		Teich, A. M.
Tiflis	28.59	726.1	30.01	762.2	55.6	13.1	76	nw.	45	20			10					raining	Physical Observatory.
Warsaw	29.18	741.1	29.60	751.8	51.8	11.0	37	wsw.	41	18		0	3 ks						Astronomical Obs'y.
Wilna	29.06	738.0	29.47	748.6	50.5	10.3	59	sw.	18	8			10					heavy cl'ds	Berg, Assistant.
Yeniseisk	30.19	766.7	30.48	774.3	32.0	0.0	92	e.	7	3			10					rain & snow.	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.91	759.7	45.3	7.4	50	nw.			3	0	2 k			0	0	light clouds	Andrew Gibb.
Monach Lt. House, Hebrides			30.06	763.5	44	6.7	92	n.			7	10	0	nw.		0.2	5.	cloudy	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.93	760.1	30.03	762.7	64.4	18.	82	e.	2.0	0.9			10			0	0	misty	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.19	766.8	30.24	768.2	57.9	14.4	96	nw.	1.1	0.5			10			0.327	8.3	raining	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.22	691.4			58.6	14.8	75	w.	2.9	1.3			9			0	0	almost cov'd	Domingo Martin.
Madrid, Royal Obs'y	27.93	709.4	30.11	764.8	68.7	20.4	54	sw.	4.0	1.8		3	0	w.		0	0	light clouds.	The Staff.
Murcia, Met. Obs'y ‡	29.93	760.3	30.10	764.5	80.1	26.7	64	s.	1.6	0.7		0	3			0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.29	743.9	30.18	766.5	59.4	15.2	98	sw.	2.5	1.1			10			0.189	4.8	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.97	761.2	30.03	762.9	71.8	22.1	82	calm	0	0		0	k		ene.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.87	758.7	29.92	760.0	83.5	28.6	91	s.	0	0		0	0			0.42	10.6	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.11	764.8	30.21	767.3	68.0	20.0	75	wsw.	5.4	2.4		0	0			0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.87	758.7	29.96	761.0	76.6	24.8	95	calm	0	0		4 k	6 s			0.165	4.2	cloudy	E. Cadea, Chief Engr.
Tuguegarao, Philippine Ids	29.81	757.1	29.94	760.5	79.7	26.5	86	nw.	1.0	0.5		0	s			0	0	very fair.	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.40	746.8	29.44	747.8	40.6	4.8	97	se.			2		10			0.409	10.4		
Umea	29.18	741.2	29.23	742.5	40.6	4.8	84	e.			6		10			0.508	12.9		
Hernosand	29.01	736.9	29.06	738.2	39.7	4.3	92	ene.			8		10			0.004	0.1		
Stockholm	28.61	726.8	28.79	731.3	48.9	9.4	87	se.			4		10			0.335	8.5		
Wisby	28.64	727.5	28.70	729.0	47.8	8.8	95	sw.			6		10			0.335	8.5		
Sub-Series.																			
Upsala	28.70	728.9	28.78	731.1	49.8	9.9	83	ese.	6.9	3.1			10	ese.	ese.	0.075	1.9		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.67	728.3	30.10	764.6	53.2	11.8	46	sw.			3		5			0.071	1.8	cloudy	The Observatory.
Zurich ‡	28.40	721.3	30.05	763.2	50.0	10.0	65	w.			6		5			0.177	4.5	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.08	764.0	65.8	18.8	63	s.	3	1.5			0			0	0		The Observatory.
Valona			30.07	763.8	69.4	20.8		sw.			1		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.66	778.8	78.8	26.0	60	w.			1	0	1 k		w.	0.26	6.6		Prof. C. V. Van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
UNITED STATES SERIES. By authority of the Secretary of War. Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.																			
Albany, New York	30.13	765.3	30.21	767.3	53	11.7	72	s.	12	5.4			10 s		s.	0.04	1.0	cloudy	
Alpena, Michigan	28.99	736.3	29.68	753.9	50	10.0	100	e.	6	2.7			10 n			2.63	66.8	heavy rain	
Atlanta, Georgia	29.07	738.4	30.29	769.4	67.0	19.4	81	e.	7	3.1		0	0			0	0	clear	
Atlantic City, New Jersey	30.30	769.6	30.31	769.9	60.8	16.0	78	s.	7	3.1		6 ck	0	s.		0	0	fair	
Augusta, Georgia	30.10	764.5	30.30	769.6	72.1	22.3	82	calm	0	0			10 s		e	0	0	cloudy	
Baltimore, Maryland	30.25	768.3	30.30	769.6	61	16.1	78	s.	5	2.2			10 s		s.	0	0	cloudy	
Barnegat, New Jersey	30.28	769.1	30.30	769.6	61.2	16.2	75	s.	17	7.6		4 k	6 k	calm	s.	0	0	cloudy	
Bismarck, Dakota	28.23	717.0	30.15	765.8	22	— 5.6	87	nw.	14	6.3		1 c	0	calm		0.10	2.5	clear	
Boise City, Idaho	27.18	690.4	30.10	764.5	33	0.6	81	ne.	6	2.7			10 s		calm	0.30	7.6	cloudy	
Boston, Massachusetts	30.21	767.3	30.37	771.4	46.0	7.8	76	se.	11	4.9			10 s		s.	0	0	cloudy	
Brackettville, Texas	28.83	732.3	29.87	758.7	67	19.4	90	e.	10	4.5		0	0			0	0	clear	
Brownsville, Texas	29.99	761.7	30.04	763.0	79	26.1	91	se.	8	3.6		0	0			0	0	clear	
Buffalo, New York	29.22	742.2	29.96	761.0	61	16.1	93	s.	11	4.9			10 n			0.69	17.5	light rain	
Burlington, Vermont	29.85	758.2	30.15	765.8	41.5	5.3	75	s.	11	4.9			10 s		s.	inap.	inap.	cloudy	
Cairo, Illinois	29.69	754.1	30.10	764.5	70.2	21.2	89	s.	6	2.7		0	0			0	0	clear	
Campo, California	27.39	695.7	29.96	761.0	20.7	— 6.3	87	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona																			
Cape Henry, Virginia	30.30	769.6	30.32	770.1	66	18.9	78	se.	7	3.1		3 cs	0			0	0	clear	
Cape May, New Jersey	30.26	768.6	30.29	769.4	61	16.1	84	s.	15	6.7		5 k	0	sw.		0	0	fair	
Castroville, Texas	29.23	742.4	29.92	760.0	70	21.1	84	se.	1	0.4		0	0			0	0	clear	
Cedar Keys, Florida	30.16	766.1	30.18	766.6	70	21.1	84	ne.	7	3.1		0	0			0	0	clear	
Champaign, Illinois	29.07	738.4	29.83	757.7	69.2	20.7	78	sw.	19	8.5			10 s		sw.	0	0	cloudy	
Charleston, S. Carolina	30.18	766.6	30.24	768.1	70	21.1	90	n.	10	4.5		0	8 s		nw.	0	0	cloudy	
Charlotte, N. Carolina	29.44	747.8	30.35	770.9	66.0	18.9	84	e.	4	1.8			10s;fg		e.	0	0	cloudy	
Chattanooga, Tennessee	29.40	746.7	30.26	768.6	66.4	19.1	92	calm	0	0		3 ck	fg.	s.	calm	0	0	fair	
Cheyenne, Wyoming	24.04	610.6	30.17	766.3	20.3	— 6.5	72	e.	4	1.8		0	0			0	0	clear	
Chicago, Illinois	29.04	737.6	29.78	756.4	68.9	20.5	90	sw.	18	8.0		0	5 k		sw.	1.29	32.8	fair	
Chincoteague, Virginia	30.30	769.6	30.32	770.1	63	17.2	78	se.	6	2.7		0	4 s		calm	0	0	fair	
Cincinnati, Ohio	29.42	747.3	30.10	764.5	66.7	19.3	93	s.	5	2.2		0	fg.			0	0	clear	
Cleveland, Ohio	29.24	742.7	30.01	762.2	69.9	21.1	79	se.	21	9.4		3 c	4 s	w.	sw.	0.17	4.3	fair	
Coleman City, Texas																			
Columbus, Ohio	29.22	742.2	30.11	764.8	64	17.8	90	s.	6	2.7		3 ck	2 s	sw.	s.	0.02	0.5	clearing	
Concho, Texas	28.07	713.0	30.07	763.8	65	18.3	93	s.	4	1.8		0	0			0	0	clear	
Corsicana, Texas	29.62	752.3	30.10	764.5	70	21.1	84	s.	4	1.8		0	0			0	0	clear	
Davenport, Iowa	29.10	739.1	29.78	756.4	68	20.0	90	sw.	20	8.9		3 k	6 ks	sw.	sw.	0.76	19.3	clearing	
Dayton, Washington T'y	28.22	716.8	30.08	764.0	34	1.1	88	calm	0	0			10 n		calm	0.18	4.6	light rain	
Deadwood, Dakota	25.42	645.7	30.28	769.1	23	— 5.0	67	sw.	6	2.7		0	5 ks		sw.	0.03	0.8	fair	
Decatur, Texas	28.79	731.3	29.92	760.0	70	21.1	71	se.	10	4.5		0	0			0	0	clear	
Delaware Breakwater, Del.	30.28	769.1	30.30	769.6	60	15.6	75	s.	7	3.1		3 c	2 s	w.		0	0	fair	
Denison, Texas	29.23	742.4	30.06	763.5	72	22.2	84	s.	8	3.6			10 s		s.	0	0	cloudy	
Denver, Colorado	24.82	630.4	30.19	766.8	33.5	0.8	53	se.	8	3.6		0	0			0	0	clear	
Des Moines, Iowa	29.00	736.6	29.95	760.7	48	8.9	86	nw.	12	5.4			10 s		nw.	0.37	9.4	cloudy	
Detroit, Michigan	29.16	740.7	29.90	759.4	68.0	20.0	84	s.	20	8.9		2 ck	2 s	sw.	w.	0.46	12.2	fair	
Dodge City, Kansas	27.50	698.5	30.19	766.8	39	3.9	82	n.	22	9.8		2 cs	4 s	w.		0.07	1.8	fair	
Dubuque, Iowa	28.95	735.3	29.69	754.1	52.2	11.2	72	nw.	6	2.7			10 s		calm	0.79	20.1	cloudy	
Duluth, Minnesota	28.98	736.1	29.71	754.6	43	6.1	93	w.	7	3.1			10 n		w.	0.22	5.6	light rain	
Eagle Pass, Texas	29.22	742.2	30.07	763.8	70.1	21.2	84	se.	10	4.5		0	0			0	0	clear	
Eagle Rock, Idaho	25.28	642.1	30.27	768.8	10	—12.2	91	n.	3	1.3		0	6 s		w.	0.02	0.5	fair	
Eastport, Maine	30.28	769.1	30.35	770.9	40	4.4	78	w.	1	0.4			10 s		w.	0	0	cloudy	
El Paso, Texas	26.20	665.5	30.04	763.0	60.4	15.8	62	ne.	2	0.9		0	1 s			0	0	clear	
Erie, Pennsylvania	29.21	741.9	29.97	761.2	68	20.0	84	s.	19	8.5			10 s		sw.	0.73	18.5	cloudy	
Escanaba, Michigan	28.93	734.8	29.61	752.1	44	6.7	100	n.	5	2.2			10 n		calm	1.30	33.0	light rain	
Florence, Arizona	28.44	722.4	30.04	763.0	42.2	5.7	51	w.	3	1.3		1 c	0	sw.		0	0	clear	
Fort Apache, Arizona	25.00	635.0	30.04	763.0	32	0.0	92	e.	2	0.9		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.29	693.2	30.23	767.8	21	— 6.1	73	calm	0	0			10 s		calm	0.15	3.8	cloudy	
Fort Bennett, Dakota	28.49	723.6	30.10	764.5	29	— 1.7	88	w.	14	6.3		0	0			inap.	inap.	clear	
Fort Benton, Montana	27.33	694.2	30.31	769.9	11	—11.7	80	calm	0	0			10 s		calm	0.11	2.8	cloudy	
Fort Buford, Dakota	28.12	714.2	30.23	767.8	22	— 5.6	87	w.	8	3.6			10 s		calm	0.13	3.3	cloudy	
Fort Custer, Montana	26.97	685.0	30.36	771.1	18	— 7.8	60	n.	4	1.8		0	0			0.04	1.0	clear	
Fort Davis, Texas	24.95	633.7	29.91	759.7	63	17.2	75	s.	5	2.2		0	0			0	0	clear	
Fort Elliott, Texas	27.22	691.4	30.52	775.2	61	16.1	78	se.	4	1.8		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.41	747.0	29.98	761.5	72.0	22.2	82	s.	16	7.2		0	0			inap.	inap.	clear	
Fort Grant, Arizona					47	8.3	66	ne.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.69	728.7	29.92	760.0	69.2	20.7	81	se.	6	2.7			10 s			0	0	cloudy	
Fort Keogh, Montana	27.67	702.8	30.34	770.6	19	— 7.2	87	w.	8	3.6		0	0			0.05	1.3	clear	
Fort Macon, North Carolina	30.26	768.6	30.27	768.8	67	19.4	93	n.	11	4.9		hz.	hz.	calm	calm	0	0	light haze	
Fort McKavett, Texas	27.80	706.1	29.68	753.9	64.3	17.9	78	sw.	9	4.0		0	0			0	0	clear	
Fort Missoula, Montana	26.72	678.7	30.37	771.4	21	— 6.1	100	sw.	1	0.4			10 n			0.13	3.3	light snow	
Fort St. Michaels	30.32	770.1	30.35	770.9	40	4.4	100	nw.	3	1.3			fg.			0.09	2.3	dense fog	
Fort Shaw, Montana	26.44	671.6	30.18	766.6	15	— 9.4	100	calm	0	0			10 n		calm	0.11	2.8	light snow	
Fort Sill, Indian Territory	28.73	729.7	30.02	762.5	65.5	18.6	92	s.	17	7.6		0	0			0	0	clear	
Fort Stevenson, Dakota	28.21	716.5	30.17	766.3	19	— 7.2	100	nw.	8	3.6			10 ks		nw.	0.05	1.3	cloudy	
Fort Verde, Arizona					32	0.0	62	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.30	718.8	29.82	757.4	66	18.9	93	sw.	12	5.4		4 k	0	sw.		0	0	fair	
Galveston, Texas	30.06	763.5	30.10	764.5	78	25.6	69	s.	6	2.7		0	2 ks		s.	0	0	clear	
Grand Haven, Michigan	29.01	736.8	29.71	754.6	64.0	17.8	92	s.	34	15.2		9 k	0	s.		1.20	30.5	cloudy	
Hatteras, North Carolina	30.25	768.3	30.27	768.8	71	21.7	84	ne.	10	4.5		0	0			0	0	clear	
Helena, Montana	25.79	655.1	30.38	771.6	20	— 6.7	100	nw.	2	0.9			10 s		calm	0.05	1.3	cloudy	
Henrietta, Texas	29.02	737.1	29.90	759.4	72	22.2	76	s.	13	5.8		0	0			0	0	clear	
Huron, Dakota	28.64	727.4	30.10	764.5	31.2	— 0.4	92	nw.	21	9.4		0	0			0.06	1.5	clear	
Indianapolis, Indiana	29.18	741.2	30.00	762.0	69	20.6	87	s.	8	3.6		0	hz.		calm	inap.	inap.	clear	
Indianola, Texas	30.04	763.0	30.07	763.8	75.2	24.0	76	s.	11	4.9		0	2 k		s.	inap.	inap.	clear	
Jacksboro, Texas	28.83	732.3	29.92	760.0	68	20.0	78	se.	11	4.9		0	1 s		calm	0	0	clear	
Jacksonville, Florida	30.15	765.8	30.19	766.8	69	20.6	90	ne.	6	2.7		0	fg.			0	0	clear	
Keokuk, Iowa	29.16	740.7	29.84	757.9	69.0	20.6	87	sw.	14	6.3		0	8 ks		sw.	0.57	14.5	threatening	
Key West, Florida	30.03	762.7	30.06	763.5	76.0	24.4	82	ne.	12	5.4		0	1 ks		calm	0.24	6.1	clear	
Kittyhawk, North Carolina	30.30	769.6	30.32	770.1	68	20.0	84	e.	8	3.6		4 ck	0	ne.		0	0	fair	
Knoxville, Tennessee	29.22	742.2	30.30	769.6	66.5	19.2	93	nw.	1	0.4		0	8 s		w.	0	0	cloudy	
La Crosse, Wisconsin	28.93	734.8	29.73	755.1	52.2	11.2	86	w.	4	1.8			10 s		w.	1.24	31.5	cloudy	
La Mesilla, New Mexico	26.04	661.4	30.19	766.8	56.3	13.5	86	calm	0	0		2 c	2 s		calm	0	0	fair	
Laredo, Texas	29.56	750.8	29.88	758.9	71.0	21.7	84	calm	0	0		0	0			0	0	clear	
Leavenworth, Kansas	29.10	739.1	30.03	762.7	40	4.4	77	n.	12	5.4			10 s		n.	0.54	13.7	cloudy	
Lewiston, Idaho	29.18	741.2	30.06	763.5	37	2.8	82	e.	6	2.7			10 s		calm	0	0	cloudy	
Little Rock, Arkansas	29.77	756.1	30.09	764.3	70	21.1	84	s.	6	2.7		0	0			0	0	clear	
Los Angeles, California	29.67	753.6	30.05	763.3	46.1	7.8	83	s.	4	1.8		0	0			0	0	clear	
Louisville, Kentucky	29.50	749.3	30.08	764.0	70.0	21.1	84	s.	8	3.6		0	0			0	0	clear	
Lynchburg, Virginia	29.61	752.1	30.32	770.1	62.8	17.1	73	calm	0	0		5 k	fg.	w.		0.01	0.3	fair	
Madison, Wisconsin	28.64	727.4	29.71	754.6	58	14.4	93	n.	5	2.2			10 s		sw.	1.19	30.2	cloudy	
Marquette, Michigan	28.87	733.3	29.63	752.6	41	5.0	92	s.	3	1.3			fg.		s.	0.34	8.6	dense fog	
Mason, Texas	28.38	720.8	30.10	764.5	66.3	19.1	90	s.	6	2.7		0	0			0	0	clear	
Memphis, Tennessee	29.80	756.9	30.15	765.8	73	22.8	76	s.	4	1.8		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	28.89	733.8	29.67	753.6	68	20.0	84	sw.	21	9.4			10 ks		sw.	0.67	17.0	threatening.	
Mobile, Alabama	30.12	765.0	30.19	766.8	67.0	19.4	78	nw.	4	1.8		0	0			0	0	clear	
Montgomery, Alabama	29.99	761.7	30.23	767.8	66	18.9	90	nw.	1	0.4		0	0			0	0	clear	
Moorhead, Minnesota	28.91	734.3	29.97	761.2	32	0.0	88	nw.	14	6.3			10 n		nw.	0.10	2.5	light snow	
Morgantown, W. Virginia	29.13	739.9	30.10	764.5	63.5	17.5	91	sw.	2	0.9		hz	0			0	0	clear	
Mt. Washington, N. H.	23.86	606.0	30.23	767.8	28.0	— 2.2	100	sw.	60	26.8			fg		sw.	0.02	0.5	dense fog	
Nashville, Tennessee	29.62	752.3	30.18	766.6	68.0	20.0	89	calm	0	0		5 ck	0	s.		0	0	fair	
New Haven, Connecticut	30.17	766.3	30.29	769.4	56	13.3	74	s.	11	4.9			10 s		s.	0	0	cloudy	
New London, Connecticut	30.30	769.6	30.34	770.6	56	13.3	74	sw.	16	7.2			10 s		sw.	0	0	cloudy	
New Orleans, Louisiana	30.10	764.5	30.16	766.1	71.8	22.1	84	s.	1	0.4		0	sk			0	0	clear	
Newport, Rhode Island	30.30	769.6	30.35	770.9	53.6	12.0	75	s.	8	3.6			10 s		calm	0	0	cloudy	
New River, N. Carolina					66	18.9	78	calm			0	0	hz.			0	0	fair	
New Shoreham, Rhode I'd	30.30	769.6	30.34	770.6	53.0	11.7	72	se.	18	8.0			10 s		sw.	0	0	cloudy	
New York, New York	30.12	765.0	30.30	769.6	56	13.3	80	s.	13	5.8			10 s			0	0	cloudy	
Norfolk, Virginia	30.28	769.1	30.31	769.9	63	17.2	84	calm	0	0		0	0			0	0	clear	
North Platte, Nebraska	27.18	690.4	30.24	768.1	27.4	— 2.6	88	nw.	8	3.6		0	0			0.03	0.8	clear	
Olympia, Washington T'y	29.95	760.7	29.99	761.7	41.0	5.0	73	ne.	5	2.2		5 ck	0	ne.		0.11	2.8	fair	
Omaha, Nebraska	28.88	733.5	30.12	765.0	41	5.0	73	nw.	20	8.9			10 s		nw.	0.11	2.8	cloudy	
Oswego, New York	29.67	753.6	30.01	762.2	50.0	10.0	93	s.	14	6.3			10 n		s.	0.15	3.8	light rain	
Pensacola, Florida	30.17	766.3	30.20	767.1	63	17.2	90	nw.	5	2.2		0	0			0	0	clear	
Philadelphia, Pa	30.24	768.1	30.30	769.6	56.8	13.8	80	s.	9	4.0			10 s		w.	0	0	cloudy	
Phœnix, Arizona	28.82	732.0	30.66	778.7	46	7.8	47	e.	2	0.9		0	0			0	0	clear	
Pike's Peak, Colorado	17.66	448.6	29.87	758.7	12.	—11.1	40	sw.	28	12.5		0	0			0	0	clear	
Pioche, Nevada	24.01	609.8	30.20	767.1	26	— 3.3	48	nw.	7	3.1		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.30	744.2	30.15	765.8	66.5	19.2	87	sw.	9	4.0		2 ck	0	sw.		inap.	inap.	clear	
Port Eads, Louisiana	30.16	766.1	30.17	766.3	75.0	23.9	82	e.	6	2.7		0	hz		calm	0	0	clear	
Port Huron, Michigan	29.13	739.9	29.84	759.9	63.8	17.7	100	s.	20	8.9			10 s		sw.	0.88	22.4	cloudy	
Portland, Maine	30.29	769.4	30.34	770.6	46.5	8.1	77	sw.	6	2.7			10 s		calm	inap.	inap.	cloudy	
Portland, Oregon	29.89	759.2	29.96	761.0	38.2	3.4	96	nw.	11	4.9			10 n		nw.	0.64	16.3	light rain	
Portsmouth, N. Carolina					71	21.7	71	ne.	16	7.2		0	0			0	0	clear	
Prescott, Arizona	24.70	627.4	30.01	762.2	25	— 3.9	58	s.	3	1.3		0	0			0	0	clear	
Punta Rassa, Florida	30.08	764.0	30.09	764.3	72	22.2	87	ne.	10	4.5		0	0			0	0	clear	
Red Bluff, California	29.70	754.4	30.05	763.3	44.5	6.9	64	calm	0	0			10 s		w.	0	0	cloudy	
Rio Grande City, Texas	29.82	757.4	30.03	772.7	74	23.3	88	se.	4	1.8		4 c	0	calm		0	0	fair	
Rochester, New York	29.29	744.0	29.99	761.7	56	13.3	93	sw.	20	8.9			10 n		sw.	0.33	8.4	heavy rain	
Roseburg, Oregon	29.40	746.7	29.99	761.7	45	7.2	93	w.	9	4.0			10 n			0.29	7.4	light rain	
Sacramento, California	30.03	762.7	30.11	764.8	38.8	3.8	70	se.	8	3.6		0	0			0	0	clear	
St. Louis, Missouri	29.39	746.5	30.02	762.5	71.8	22.1	76	s.	18	8.0		1 c	0			inap.	inap.	clear	
St. Paul, Minnesota	28.87	733.3	29.79	756.7	44.2	6.8	93	nw.	7	3.1			10 s			0.55	14.0	cloudy	
Salt Lake City, Utah	25.66	651.8	30.11	764.8	27	— 2.8	56	calm	0	0		0	0			inap.	inap.	clear	
San Antonio, Texas	29.35	745.5	30.07	763.8	65.0	18.3	100	calm	0	0			fg			0	0	dense fog	
San Diego, California	29.88	758.9	29.95	760.7	50.0	10.0	71	calm	0	0		0	0			0	0	clear	
Sandusky, Ohio	29.24	742.7	29.95	760.7	69.2	20.7	84	s.	25	11.2		6 c	0	calm		0.19	4.8	fair	
Sandy Hook, New Jersey	30.27	768.8	30.30	769.6	58.0	14.4	75	sw.	12	5.4			10 s		sw.	0	0	cloudy	
San Francisco, California	30.07	763.8	30.14	765.5	48	8.9	86	sw.	3	1.3		2 ck	0	sw.		0	0	clear	
Santa Fé, New Mexico	23.24	590.3	30.23	767.8	40	4.4	67	se.	1	0.4		0	0			0.02	0.5	clear	
Savannah, Georgia	30.14	765.5	30.24	768.1	71.5	21.9	89	ne.	6	2.7			10 s			0	0	cloudy	
Shreveport, Louisiana	29.87	758.7	30.10	764.5	69	20.6	84	s.	4	1.8			10 s		sw.	0	0	cloudy	
Silver City, New Mexico	24.24	615.7	29.92	760.0	45	7.2	65	nw.	1	0.4		0	1 s			0	0	clear	
Sitka, Alaska	29.98	761.5	30.05	763.3	43.2	6.2	75	nw.	4	1.8			10 s		calm	0	0	cloudy	
Smithville, North Carolina	30.22	767.6	30.26	768.6	65	18.3	93	n.	8	3.6		0	hz.			0	0	clear	
Spokane Falls, Wash. Ter.	29.97	761.2	30.04	763.0	31	— 0.6	96	ne.	5	2.2			10 n		calm	0.10	2.5	heavy snow	
Springfield, Illinois	29.22	742.2	29.92	760.0	71	21.7	84	sw.	21	9.4		0	5 s		sw.	0	0	fair	
Springfield, Massachusetts	30.17	766.3	30.30	769.6	47.1	8.4	93	calm	0	0			10 s		se.	inap.	inap.	cloudy	
Stockton, Texas	26.94	684.3	30.09	764.3	63.0	17.2	93	calm	0	0		0	4 s		calm	0	0	fair	
St. Vincent, Minnesota	29.07	738.4	30.00	762.0	28	— 2.2	100	n.	16	7.2			10 n		calm	0.03	0.8	light snow	
Thatcher's Island, Mass	30.32	770.1	30.38	771.6	50.0	10.0	100	sw.	17	7.6			10 s		e.	0	0	cloudy	
Toledo, Ohio	29.21	741.9	29.93	760.2	68	20.0	90	s.	20	8.9		6 c	0	sw.		0.66	16.8	fair	
Tucson, Arizona	27.54	699.5	29.98	761.5	45	7.2	49	se.	5	2.2		4 c	0			0	0	clear	
Umatilla, Oregon	29.65	753.1	30.08	764.0	40.0	4.4	82	ne.	19	8.5			10 n		calm	0.18	4.6	light rain	
Uvalde, Texas	29.06	738.1	29.86	758.4	67	19.4	93	calm	0	0		0	0			0.01	0.3	clear	
Vicksburg, Mississippi	29.92	760.0	30.18	766.6	67	19.4	84	se.	5	2.2		hz	2 s	calm	calm	0	0	fair	
Visalia, California	29.73	755.1	30.10	764.5	31.5	— 0.3	75	se.	3	1.3		0	0			0	0	clear	
Washington, D. C.	30.17	766.3	30.29	769.4	60	15.6	81	s.	8	3.6		0	7 s		w.	0	0	fair	
West Los Animas, Colorado	26.10	662.9	30.18	766.6	36.5	2.5	47	ne.	2	0.9		0	0			0	0	clear	
Wickenburg, Arizona					36	2.2	58	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.24	768.1	30.30	769.6	66	18.9	84	ne.	4	1.8		0	hz		calm	0	0	dense haze	
Winnemucca, Nevada	25.57	649.5	30.03	762.7	14	—10.0	55	ne.	7	3.1		0	0			0	0	clear	
Wood's Holl, Mass	30.33	770.4	30.37	771.4	53	11.7	72	se.	11	4.9			10 s		sw.	0	0	cloudy	
Yankton, Dakota	28.77	730.7	30.14	765.5	36	2.2	79	w.	10	4.5		0	0			0.53	13.5	clear	
Yuma, Arizona	29.78	756.4	29.92	760.0	56.7	13.7	55	n.	3	1.3		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I. ‡	29.95	760.7	29.98	761.5	83	28.3	96	ne.	10	4.5		5 k	10 ks			0	0		J. A. Racker.
Bogota, U. S. Columbia	22.03	559.6			52.8	11.6	76	calm	0	0		8cs,ck	0			0	0	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	29.93	760.2	29.95	760.7	75	23.9	90	e.					0			0.10	2.5	clear	J. B. Dougherty.
Guadeloupe, W. I. ‡	29.85	758.2	29.85	758.2	83	28.3	83	e.				2 k	5 ks		e.	0	0		B. Bigar.
Havana, Cuba, W. I.	30.01	762.2	30.06	763.5	75	23.9	76	calm	0	0			2 ks		calm	0	0	fair	A. Van Caneghem, Ass't
Kingston, Jamaica, W. I.	29.91	759.7	29.92	760.0	74.3	23.5	82	calm	0	0		0	0			0.23	5.8	fine	Robert Johnstone.
Navassa, W. I.	29.82	757.4	29.90	759.4	79	26.1	78	ne.	13	5.8		hz	5 k; hz	ne.	e.	0	0	hazy	F. M. Everett.
Paramaribo, S. A.	29.96	761.0	29.96	761.0	80	26.7	82	e.			2	5 k	6 k	e.	e.	0	0		Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.41	747.0	29.96	761.0	79	26.1	89	s.					10 ks		s.	0.50	12.7	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					72.7	22.6	98	calm			0		9 ks		ne.	0	0		Earl Flint.
Santiago de Cuba, W. I.	29.91	759.7	29.94	760.5	76	24.4	76	n.	3.6	1.6		0	0			0	0	clear	Robert Mason.
St. Thomas, W. I. ‡	29.87	758.7	29.98	761.5	80	26.7	79	e.	5	2.2		6 c	2 ks	sw.	se.	0	0	cloudy	G. O. Gyllich.
York Factory, B. A.	30.01	762.2	30.06	763.5	23.5	— 4.7	93	w.	13	5.8		4 k	2 s	sw.	w.	0	0	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross																			
H. M. S. Alert, S. 10° 33′, E. 137° 24′	29.93	760.2	78	25.6	86	se.			3		1							blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, Port Mahon, Minorca Spain	30.14	765.5	68	20.0	77	ene.			1		10	e.						squally	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 40° 25′, E. 29° 09′	30.11	764.8	78	25.6		ese.			1		1							blue sky	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche, N. 44° 58′, W. 49° 06′	30.19	766.8	41	5.0	91	nnw.			4		10					4	nw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.01	762.2	70	21.1	66	var.			1		2	sse.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.97	761.2	62	16.7	100	sse.			2		10							d. clouds	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 40° 06′, E. 4° 17′	30.06	763.5	65	18.3	73	nne.			4		6					3-5	nne.	d. clouds	Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.17	766.3	72	22.2		sw.			2		0					2	ssw.	blue sky	Lt. Comm. J. L. Burr.
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 37° 45′, E. 9° 02′	30.10	764.5	73	22.8		var.			1		2							d. clouds	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 35° 01′, E. 139° 35′	29.75	755.6	71	21.7	?	ne.			1-2		8	ne.						d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	30.01	762.2	70	21.1		ese.			1		1	sse.						blue sky	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido, S. 13° 40′, W. 80° 05′	30.05	763.3	71	21.7		se.			3		10	ese.				1	ese.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.14	765.5	74.5	23.6	85	nne.			3-4		5	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 51° 18′, W. 55° 08′	29.95	760.7	35	1.7	90	w.			3-4		2							squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.86	758.4	85	29.4		w.			1		3	w.				1	w.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, N. 1° 34′, E. 84° 46′	29.86	758.4	83	28.3		sw.			3		4	sw.				3	sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 34° 20′, E. 178° 20′	29.97	761.2	64	17.8	94	nnw.			1-2		9	n.				2	sse.	d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.83	757 7	84	28.9	79	ne.			2		9	ne.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 49° 30′, W. 55° 48′	29.98	761.5	33	0.6		sw.			1		2	sw.				sm'h		d. clouds	Capt. W. C. Karslake.
H. M. S. Fawn, S. 23° 47′, E. 36° 00′	30.21	767.3	73	22.8	57	se.			2-3		2					3	se.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo																			Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 5° 25′, W. 157° 15′	29.83	757.7	79.5	26.4	84	se.			1		4	s.				1-2	nnw; ne.	d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	29.89	759.2	66	18.9	94	ese.			5		10	n.						overcast	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 38′, W. 80° 20′	29.87	758 7	82	27.8	87	ene.			5		7					7	ne.	raining	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 28° 15′, E. 141° 30′	29.98	761.5	79	26.1	78	w.			1		0					1	ne.	blue sky	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	29.99	761.7	70	21.1		ssw.			1		4	sw.						d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W N. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.86	758.4	79	26.1		s.			1		3	s.				1	se.	d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, Simon's Bay, Cape Colony	29.96	761.0	82	27.8		se.			3		2	se.						d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 35° 17′, E. 9° 18′	30.06	763.5	63	17.2	78	ene.			4		8					2	e.	misty	Lieut. Comm. C. Oldham.
H. M. S. Magpie, Hong Kong, China	29.86	758.4	77.5	25.3	80	e.			1		0							misty	Lieut. A. Balfour.
H. M. S. Malabar, N. 14° 50′, E. 54° 42′	29.91	759.7	85	29.4	87	e.			1		4	ne.				1	ne.	d. clouds	Capt. I. G. F. Grant.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 39° 14′, W. 10° 22′	30.18	766.6	67	19.4	81	nw.			2		3	nnw.				2	nnw.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.11	764.8	75	23.9	100	e.			2		2	ene.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.10	764.5				calm			0		3							d. clouds	Comm. F. Edwards.
H. M. S. Nelson,																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.33	770.4	38	3.3	85	calm			0		8							d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes, N. 16° 48′, W. 25° 49′	30.02	762.5	81	27.2	95	nne.			3-4		3	ese.				2	nne.	d. clouds	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	30.06	763.5	37	2.8	100	calm			0									blue sky	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.85	758.2	85.3	29.6	72	nnw.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sappho, N. 32° 38′, W. 16° 39′	30.34	770.6	71	21.7	90	ene.			2		4	ene.				1	ene.	d. clouds	Comm. W. Byles.
H. M. S. Sea Gull, S. 15° 01′, E. 40° 47′	29.61	752.1	79	26.1	82	s.			5-6		4	sse.						squally	Capt. G. O. Twiss.
H. M. S. Serapis, S. 32° 46′, E. 30° 10′	30.32	770.1	70	21.1	79	ene.			5		4	e.				4	ene.	d. clouds	Capt. J. D'Arcy.
H. M. S. Shannon																			
H. M. S. Superb																			Capt. T. H. Ro yse.
H. M. S. Tamar, S. 24° 20′, E. 3° 56′	29.99	761.7	66.5	19.2	78	sse.			1		8	sse.				1	se.	d. clouds	Capt. C. G. Fane.
H. M. S. Tenedos																			Capt. P. W. Stephens.
H. M. S. Thetis, N. 26° 02′, W. 120° 45′	30.06	763.5	61	16.1	100	nne.			5		4					4	n.	d. clouds	Capt. C. F. Hotham.
H. M. S Thunderer																			Capt. A. H. Markham.
H. M. S. Triumph, S. 19° 55′, W. 82° 35′	30.06	763.5	61	16.1	88	se.			2		4	se.				3	se.	d. clouds	Capt. M. B. Medlycott.
H. M. S. Turquoise																			Capt. J. E. Stokes.
H. M. S. Tweed																			
H. M. S. Tyne																			
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.90	759.4	76	24.4		n.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.84	757.9	60	15.6	88	calm			0		0							blue sky	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Muscat, Arabia	29.94	760.5	85.5	29.7	75	se.			2-3		1	se.						blue sky	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.93	760.3	75.6	24.2	82	w.			4		10					1		overcast	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, Sal, Cape Verd Ids	29.97	761.2	78.4	25.8	70	ne.			4		0					3	ne.	blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.92	760.0	75.2	24.0	79	ese.			2		2							blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

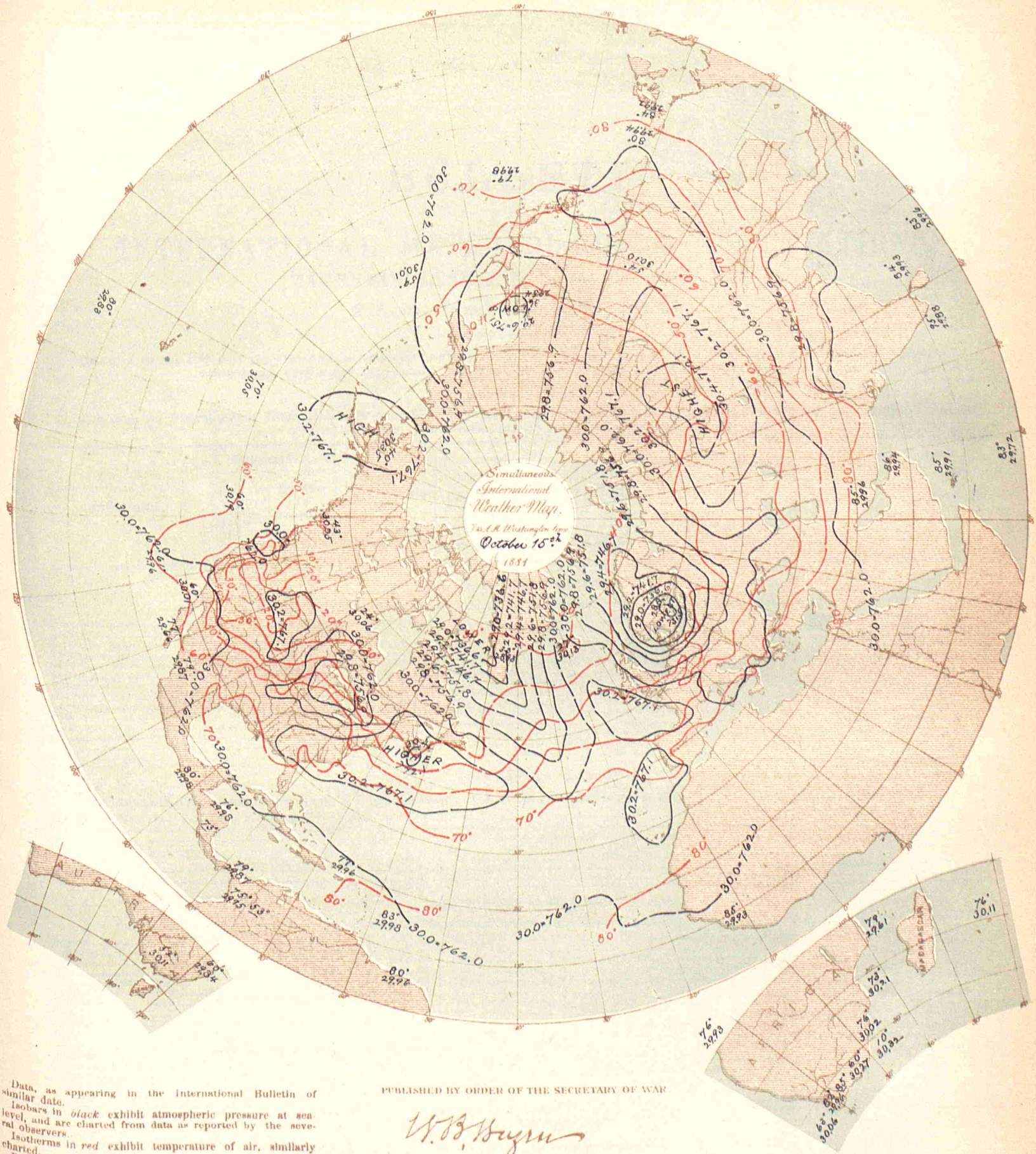
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.24	768.1	68	20.0	84	n.	2	0.9			0			0	0			clear	
N. Yard, Portsmouth, N. H.	30.33	779.4	50	10.0	72	s.	11	4.9		10 0	0	s.		0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.72	754.9	66	18.9	84	n.			2		8		n.	1.05	26.7			clearing	
Adams. Callao, Peru	29.81	757.2	61	16.1	94	sse.			1-2		10					sm'h		cloudy	
Alaska, Callao, Peru	29.95	760.7	60	15.6	100	sse.			1		10					sm'h		cloudy	
Alert, Yokohama, Japan *	29.74	755.4	68	20.0	79	nne.			2		8		calm	0	0			cloudy	
Alliance. Reikiavik, Iceland	30.11	764.8	29	— 1.7	89	e.			3		10			0	0	sm'h		cloudy	
Ashuelot, Kobe, Japan	29.97	761.2	67	19.4	79	calm			0		8		wsw.					overcast	
Colorado, New York, N. Y.	30.35	770.9	57	13.9	81	se.	3	1.3			10							hazy	
Constitution. New London, Conn	30.25	768.3	52	11.1	?	s.	3	1.3			2		nw.					clear	
Franklin, Yorktown, Va	30.21	767.3	65	18.3	89	sw.	6	2.7			10			0	0			cloudy	
Galena, Salonika, Turkey	30.02	762.5	70	21.1	80	wsw.			1		2		calm			sm'h		clear	
Independence, N. Yard, Mare I'd, Cal	30.06	763.5	51	10.6	79	sw.	4.8	2.1			2		sw.					fair	
Kearsarge, Yorktown, Va	30.31	769.9	63	17.2	94	wsw.			1		10					sm'h		cloudy	
Lackawanna. San Francisco, Cal †	30.31	769.9	54	12.2	93	se.			1		0							clear	
Lancaster, N. 35° 12′ W. 65° 31′	30.25	768.3	72	22.2	71	ene.	28	12.5			5		ne.	0	0	mod.	ne.	d. clouds	
Marion, Montevideo, Uruguay	29.77	756.1	67	19.4		e.			4		10		calm	light	light			cloudy	
Michigan, Erie, Pa	29.90	759.4	66	18.9	84	ssw.			3		8		ssw.					cloudy	
Minnesota, Newport, R. I	30.33	770.4	56	13.3	94	s.			3		10		s.			sm'h		cloudy	
Monocacy, Yokohama, Japan	29.94	760.5	67	19.4	84	nne.			2		10		nne.					cloudy	
Nipsic, Genoa, Italy	29.80	756.9	67	19.4	79	se.			3		8		se.			sm'h		d. clouds	
Onward, Callao, Peru †	29.99	761.7	60	15.6	94	sse.			2		8		nw.			long	w.	cloudy	
Palos, Hong Kong, China	29.88	758.9	75	23.9	90	nnw.			1		8		s;e					fair	
Passaic, Washington, D. C.	30.25	768.3	62	16.7	94	ne.			1		2							fair	
Pensacola, Callao, Peru	30.03	762.7	61	16.1	88	sse.			1		10			0	0			cloudy	
Portsmouth, Yorktown, Va	30.31	769.9	63	17.2	94	calm			0		2					sm'h		clear	
Powhatan. N. 39° 08′, W. 73° 34′	30.33	770.4	62	16.7	83	se.			3		2		e.			long	se.	clear	
Quinnebaug, Marseilles, France	30.04	763.0	61	16.1	40	anw.			6		2		calm			sm'h		fair	
Ranger, San Francisco, Cal *	30.13	765.3	53	11.7	?	e.			3		0							clear	
Richmond, Panama, Panama	29.87	758.7	79	26.1	95	ssw.			3		8		s.	0.20	5.1	sm'h	s.	fair	
Saratoga, Yorktown, Va	30.28	769.1	62	16.7	100	calm			0		10			0	0	sm'h		cloudy	
Shenandoah, Montevideo, Uruguay *	29.93	760.2	66	18.9	94	e.			4		10		e.			sm'h		cloudy	
St. Louis, League Island, Pa	30.02	762.5	57	13.9	87	sse.	5	2.2			8			0	0			cloudy	
Swatara, Nagasaki, Japan †	30.00	762.0	71	21.7	75	ne.			2		10		calm			sm'h		cloudy	
Tennessee, Yorktown, Va	30.34	770.6	66	18.9	100	w.	1.5	0.7			10		n.	0	0			cloudy	
Trenton, Hampton Roads, Va *	30.30	769.6	67	19.4	79	se.			2		2			0	0	sm'h		clear	
Vandalia. Yorktown, Va	30.29	769.4	65	18.3	84	calm			0		10		calm					cloudy	
Wabash, Boston, Mass	30.37	771.4	50	10.0	72	sse.	4	1.8			10		sse.	0	0			hazy	
Wachusetts. Sitka, Alaska	30.37	771.4	38	3.3	90	ene.			1		0							clear	
Wyoming, Port Royal, S. C.	30.23	767.8	71	21.7	90	nne.	12	5.4			8		e.	0	0			fair	
Yantic. Yorktown, Va *	30.28	769.1	65	18.3	84	w.			1		10							cloudy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Montreal, Canada *†	30.72	780.3				sse.	3		8		s.			sm'h		cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, N. 40° 41′, W. 68° 41′ †	30.34	770.6	51	10.6	93	e.	2		2		e.			sm'h	ne.	fine	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 51° 22′ W. 14° 52′ †	30.28	769.1	55	12.8	43	e.	2		2		ne.	0	0	mod.	nw.	fair	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, N. 42° 20′, W. 63° 50′ *†	30.52	775.2	52	11.1	93	wnw.	1		5		n.			sm'h	ne.	fine	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,																	
BRITISH METEOROLOGICAL OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, E. J. Moloney,																	
Bk. Caldew, Capt. W. Petersen S. 54° 54′, W. 75° 57′	29.52	749.8	44	6.7		w.	7		10							showery	
S. S. Cipero, Capt. W. N. Lailey, Port Cortez, Honduras, C. A.	29.98	761.5	76	24.4	95	wsw.	2		10							overcast	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton, ‡ N. 36° 45′, W. 124° 43′	30.18	766.6	54	12.2	100	nw.	5		8							showery	
S. S. Gordon Castle, Capt. W. Waring. N. 7° 52′, E. 74° 24′	29.88	758.9	94.7	34.8	58	calm	0		2							d. clouds	
Bg. Hermine, Capt. S. G. Jones, S. 38° 26′, W. 52° 21′	30.05	763.3	50.2	10.1	100	se.	3									dense fog	
Bkt. Hope, Capt. J. Campbell.. ‡ N. 40° 38′, W. 18° 36′	30.24	768.1	70.5	21.4	95	s.	4		5							d. clouds	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 5° 42′, E. 87° 37′	30.17	766.3	79	26.1	90	ne.	4		7							showery	
Bk. Mertola, Capt. E. W. Turner,																	
Bk. Moorhill, Capt. J. Brown, S. 56° 05′, W. 77° 41′	29.29	744.0	42.5	5.8	91	wsw.	9		10							raining	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Rennant, S. 44° 52′, E. 119° 57	29.92	760.0	46	7.8	76	sw.	6		5							d. clouds	
Queen of Cambria, Capt. M. Parry, S. 10° 16′, W. 32° 30′	30.02	762.5	81	27.2	70	ese.	5		1							blue sky	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estrella, Capt. P. Murdock,																	
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 46° 05′, W. 20° 00′	30.04	763.0	60.0	15.6	94	ssw.	4–6		10							raining	
S. S. Strathleven, Capt. C. W. Pearson, N. 35° 26′, E. 139° 41′	29.83	757.7	67.5	19.7	90	ne.	3		10							overcast	
S. S. Thames, Capt. Luckhurst. N. 53° 14′, W. 16° 50′	30.28	769.1	55.3	12.9	50	e.	5		2							d. clouds	R. Ladd, 1st Officer.
S. S. Wybertan, Capt. R. J. Blacklin. N. 2° 52′, E. 58° 25′	29.72	754.9	82.5	28.1		wsw.	3		4							d. clouds	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers La. Paz, Lower California †	29.66	753.4	77	25.0	77	calm	0		0			0	0			clear	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Galla, Capt. W. H. P. Hains N. 43° 11′, W. 49° 15′	30.30	769 6	56	13.3		wnw.	4		5		nw.	0	0	light	nw.	fine	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle,																	
S. S. Hermann, Capt. H. Baur,																	E. Schmidt, 3d Offier.
S. S. Koln, Capt. T. Jüngst, N. 49° 03′, W. 32° 15′	29.67	753.6	58.5	14.7	94	sse.	5–6		8		sse.	light	light	r'gh	sse.	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer N. 48° 06′, W. 42° 55′	29.87	758.7	44.0	6.7	60	nw.	6		10		nw.	3 h'r	3 h'r	r'gh	nw.	cloudy	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 38° 45′, W. 71° 52′	30.31	769.9	64.0	17.8	78	ese.	3		5		se.	0	0	sm'h	ne.	fair	Englehart & von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 42° 50′, E. 162° 59′ †	30.11	764.8	59	15.0	70	var-	2		8		w.	0	0	mod.	nw.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 29° 53′ E. 128° 27′ *†	30.17	766.3	77	25.0	91	nnw.	5		6?		nnw.			mod.	wnw.	clear?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 35° 44′, W. 156° 44′	30.25	768.3	70	21.1	90	ssw.	3		3		wsw.	0	0	sm'h	w.	fine	
OREGON IMPROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes, N. 47° 48′, W. 124° 45′ †	30.19	766.8	45	7.2	100	n.	4		0					mod.	nnw.	clear	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otorendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann.																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles, N. 45° 23′, W. 124° 10′	29.95	760.7	49.5	9.7	89	n.	3		5?		n.			light	nnw.	clear?	
S. S. Oregon, Capt. E. Polemann.																	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, San Francisco, Cal.....†..	30.05	763.3	47	8.3	92	wnw.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——— Puget Sound.....†..	30.03	762.7	45	7.2	84	s.	2	.....	7	.....	se.	10 h'r	10 h'r	sm'h	.....	cloudy.....	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal.....†...	30.13	765.3	52	11.1	86	w.	3	.....	7	.....	w.	.....	.....	.....	.....	fair.....	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 34° 24′, W. 120° 26′.....†..	29.99	761.7	46	7.8	100	nw.	5	.....	0	.....	.....	.....	.....	mod.	var.	fair.....	G. H. Harrison.
S. S. Senator. Capt. Wallace, N. 34° 25′, W. 120° 16′.....†	30.00	762.0	50	10.0	36	n.	6	.....	0	.....	.....	.....	.....	.....	.....	clear	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon.....†...	29.89	759.2	39	3.9	91	nw.	3	.....	10	.....	w.	.....	.....	.....	.....	rainy...	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 40° 55′, W. 124° 32′.....†.	30.01	762.2	53	11.7	86	sw.	2	.....	10	.....	.....	.....	.....	light	nw.	drizzling	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	A. Bannermann, 2d Off.
S. S. Australia, Capt. ———																	
S. S. City of New York, Capt. W. B. Cobb, S. 15° 30′, W. 171° —′.....†	29.97	761.2	75	23.9	95	se.	4	.....	1	.....	se.	.....	.....	mod.	se.	clear.....	W. H. Hawes, 2d Off. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,																	
S. S. City of Peking, Capt. G. G. Barry, Hong Kong, China.....*†	30.00	762.0	79	26.1	86	w.	1	.....	10	.....	sw.	0	0	sm'h	.....	cloudy.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt.——— San Jose, Guatemala.....†.	29.98	761.5	80	26.7	87	n.	2	.....	8	.....	w.	0	0	mod.	s.	cloudy	.....
S. S. City of Sidney, Capt. H. C. Dearborn, S. 33° 38′ E. 177° 17′.....*†...	29.91	759.7	62	16.7	77	se.	2	.....	5	.....	sw.	0	0	mod.	sw.	fair.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury, N. 38° 20′. W. 130° 24′.....†	30.39	771.9	60	15.6	88	nw.	4	.....	10	.....	nw.	.....	.....	mod.	nw.	cloudy.....	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, N. 10° 59′, W. 86° 44′.....†.	29.89	759.2	79	26.1	100	wnw.	4	.....	7	.....	wnw.	0.02	0.5	mod.	w.	cloudy.....	R. R. Searle.
S. S. Grenada. Capt. M. Connolly, N. 30° 00′, W. 116° 42′.....†	30.01	762.2	60	15.6	94	wnw'	6	.....	c	.....	.....	0	0	h'vy	wnw.	clear.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	30.18	766.6	63	17.2	83	nne.	2	.....	5?	.....	ne.	.....	.....	.....	.....	cloudy ?.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 50° 22′, W. 37° 12.....†..	30.24	768.1	48	8.9	.....	nw.	2	.....	8	.....	nw.	6 h'r	6 h'r	r'gh	nw.	fine.....	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 49° 01′, W. 29° 50′.....†..	29.82	757.4	56	13.3	81	se.	6	.....	10	.....	sse.	0.15	3.8	high	sse.	cloudy.....	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings, N. 41° 06′, W. 60° 36′.....†..	30.33	770.4	50	10.0	.....	ne.	1	.....	3	.....	e.	0	0	sm'h	.....	fair.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 49° 44′ W. 23° 06′.....†..	30.06	763.5	54	12.2	?	se.	6	.....	10	.....	se.	4 h'r	4 h'r	r'gh	se.	gloomy	.....
S. S. Celtic, Capt. B. Gleadell, ...																	B. Gleadell.
S. S. Germanic. Capt. C. W. Kennedy, N. 40° 40′, W. 72° 20′.....†.	30.42	772.7	55	12.8	93	s.	3	.....	8	.....	sw.	0	0	sm'h	s.	d. clouds.....	.....
S. S. Republic. Capt. P. J. Irving N. 50° 48′, W. 28° 49′.....†..	29.76	755.9	61	16.1	88	sse.	5	.....	8	.....	s.	0	0	mod.	sw.	.....	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Washington, D. C.....†...	30.39	771.9	64	17.8	94	ssw.	2	2 c	2 k	.....	.....	0	0	.....	.....	fair	.....
Hassler, Lt. Com. Nichols, ...																	.....
S. Iron Cross, Capt. Randall,.....																	.....
S. Pawashick, Capt. E. Fry, N. 40° 42′, E. 1° 43′.....*†..	29.99	761.7	67	19.4	95	nnw.	1	.....	1	.....	nnw.	.....	.....	sm'h	.....	very fine.....	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 31° 50′, W. 59° 38′.....†...	30.38	771.6	71	21.7	.....	nne.	5	.....	8	.....	ne.	.....	.....	long	ne.	sprinkling...	E. Fry.
S. S. Proteus, Capt. Pike.....																	.....
Bk. Sunbeam, Capt. Jos. Hand, N. 36° 24′, W. 32° 59′.....†.	30.07	763.8	74	23.3	90	sw.	6	.....	10	.....	w.	0	0	r'gh	sw.	cloudy..	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer U. S. A.

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BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 16, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.12	765.0	74.1	23.4	83	e.			1		0			0	0	clear	Moiroud.
Algiers ‡			30.19	766.8	71.2	21.8	80	ene.			3		9			0	0	covered	Nicolas.
La Calle ‡			30.15	765.8	67.6	19.8	76	nne.			2		6			0	0	very cloudy	Fonfréde.
Tunis ‡			30.14	765.5															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.16	766.0	73.8	23.2	34	n.			2		1			0	0	very fair	Dumas.
Tebessa ‡			30.13	765.2	68.0	20.0	40	s.			2		2			0	0	fair	Derché.
Geriville ‡					74.5	23.6	15	nw.			5		0			0	0	clear	Lonchamp.
Laghouat ‡			30.14	765.5	72.7	22.6	29	nw.			2		4			0	0	cloudy	Herbin.
Biskra ‡			30.13	765.3	74.8	23.8	50	nnw.			1		c			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.89	759.2	29.98	761.5	52.8	11.6	94	w.	3	1.3			8			0.17	4.3	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.46	748.3	30.02	762.6	44.6	7.0	90	n.			1		10			0.496	12.6		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.17	740.9	29.94	760.5	50.4	10.2	44	w.	16.1	7.2			1			0	0		Dr. Wiersbicki.
Eperies	28.98	736.1	29.86	758.5	49.6	9.8	68	calm			0		10 ns			0	0		Julius Mikolik.
Gratz ‡	28.78	731.0	30.06	763.4	45.3	7.4	80	ssw.			2		10			1.276	32.4		Andreas Rospini.
Hermannstadt	28.40	721.4	29.80	756.9	60.1	15.6	71	nw.			1		8			0.630	16.0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.76	730.6	30.15	765.8	39.9	4.4	82	w.			4		10			0	0	gloomy	The Staff.
Lemberg	28.89	733.7	29.89	759.1	44.4	6.9	90	ne.			1		10			0.142	3.6		Dr. T. Stanecki.
Pola	29.65	753.2	29.77	756.1	48.6	9.2	82	ene.			7		10			0	0		I. R. Hydrographic Office.
Szathmar	29.39	746.5	29.86	758.4	48.2	9.0	89	nw.			1		10			0.512	13.0		Jozsef Midlinszky, S. J.
Szegedin	29.56	750.8	29.84	758.0	44.8	7.1	99	nw.			1		10			0.740	18.8		Karl Stancel.
Trieste	29.82	757.5	29.93	760.1	46.4	8.0	67	ene.			5		10			0.161	4.1		Rieder.
Vienna	29.32	744.7	30.05	763.2	44.4	6.9	63	w.			5		10			0.008	0.2		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 17, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.23	767.8	30.33	770.4	44.0	6.7	63	wnw.	16	7.2			5			blank	blank	blue sky	W. Boswell.
Armagh, Observatory	30.13	765.3	30.36	771.1	47.0	8.3	62	s.	9	4.0									S. Call.
Bidston, Liverpool Obs'y			30.38	771.6	46.8	8.2	60	nw.	3	1.3			1					blue sky	John Hartnup.
Bolton, Sharples	29.81	757.2	30.36	771.1	43.9	6.6	60	nne.					0					blue sky	Thomas Mackereth, A.S.
Bradford, Yorkshire																0.02	0.5		J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.36	771.1	47.0	8.3	64	n.			0.6		1					blue sky	John McLaren.
Chatham, School M. E.	30.22	767.6	30.35	770.9	48.4	9.1	74	n.			1		3					d. clouds	R. Craydon, R. E.
Falmouth, Observatory	30.16	766.1	30.39	771.9	50.4	10.2	59	se.			1		3					d. clouds	The Staff.
Fort Napier, Natal	27.82	706.6	30.04	763.0	79.2	26.2	26	calm			0		0					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.65	753.1	29.89	759.2	80.0	26.7	82	se.			1		4					drizzling	Sergt. John Robinson.
Galway, Queen's College			30.20	767.1	48	8.9	62	s.			3		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	30.03	762.7	30.08	764.0	71.6	22.0	92	e.			5		6					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	30.08	764.0	30.28	769.1	54.0	12.2	41	w.			2		1					blue sky	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.20	767.1	30.38	771.6	45.5	7.5	66	nw.			1		6					foggy	The Staff.
Guernsey	30.14	765.5	30.36	771.1	52	11.1	53	ne.			1		0					blue sky	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.36	771.1	30.39	771.9	46.0	7.8	54	nw.	6	2.7			1					misty	The Staff.
Leicester, Museum	30.11	764.8	30.37	771.4	46.4	8.0	51	nw.			1		0					blue sky	J. C. Smith.
Malta, Mediterranean	29.98	761.5	30.05	763.3	73.0	22.8	73	nw.			2		6			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.90	759.4	29.94	760.5	75.0	23.9	88	n.			1		10					overcast	C. S. Duncombe.
Oscott, St. Mary's College	29.85	758.2	30.38	771.6	49.8	9.9	64	n.			1		2					blue sky	John Mac Email.
Oxford, Radcliffe Obs'y	30.15	765.8	30.38	771.6	47.3	8.5	52	calm			0		2					blue sky	The Staff.
Plymouth	30.32	770.1	30.39	771.9	50.5	10.3	61	se.			2		3					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.30	769.6	42	5.6	74	n.	7	3.1			7					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.91	759.7	29.97	761.2	73.6	23.1	40	s.			1		1					blue sky	Serg't W. H. Lyne.
Sheffield	30.08	764.0	30.37	771.4	48.0	8.9	71	nw.			1		1			0	0	blue sky	W. F. Cooper.
Siloth Rectory	30.33	770.4	30.36	771.1	47.4	8.6	55	calm			0		0			0	0	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.96	761.0	45.0	7.2	57	wsw.	7	3.1						0	0	blue sky	Rev. S. J. Perry.
Stratfield Turgiss	30.17	766.3	30.39	771.9	49.6	9.8	53	nw.			1		0					blue sky	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	30.33	770.4	30.37	771.4	58	14.4	64	ne.			4		4					d. clouds	W. Newcombe.
Valencia, Observatory	30.20	767.1	30.22	767.6	52.1	11.2	72	se.	37	16.5			7					gloomy	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.68	753.9	29.72	754.9	56	13.3	90	w.	10	4.5		5 cs	2 s			0.934	23.7	fair	H. J. Cundall, C. E.
Chatham, N. B. *	29.73	755.1	29.79	756.7	52	11.1	71	w.	11	4.9		2 ck	2 ks	w.	w.	0.41	10.4	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	29.92	760.0	29.94	760.5	48	8.9	30	nw.	35	15.6		5 k	2 s	nw.	nw.	0.18	4.6	cloudy	J. McWilliams.
Fort Garry, Manitoba *	29.43	747.5	30.30	769.6	26	— 3.3	96	sw.	3	1.3		5 k	5 n	sw.	sw.	inap.	inap.	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.75	755.6	29.88	758.9	60	15.6	90	w.	9	4.0		5 k	0	nw.		0.298	7.6		A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.91	759.7	30.25	768.3	46	7.8	80	n.	3	1.3		8 ck	0	calm		0.17	4.3	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.96	761.0	30.16	766.1	48	8.9	74	w.	15	6.7		5 c	2 ks			0.90	22.9	fair	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.60	751.8	30.32	770.1	38	3.3	89	n.	2	0.9		5 cs	0	w.		1.15	29.2	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.59	751.6	30.29	769.4	49	9.4	100	nw.	3	1.3		10 k	0	sw.		0.12	3.0	fair	H. Morgan.
Port Stanley, Ontario	29.64	752.8	30.29	769.4	49	9.4	86	n.	2	0.9		8 k	0	w.		0.23	5.8	cloudy.	M. Payne.
Quebec, Quebec *	29.77	756.1	30.10	764.5	44	6.7	68	nw.			5	2 k	2 s	w.	w.	1.26	32.0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.83	757.7	30.31	769.9	36	2.2	89	se.	2	0.9		8 cs	0	sw.		1.15	29.2	fair	W. H. McIntyre.
Saugeen, Ontario *	29.56	750.8	30.29	769.4	47	8.3	77	nw.	10	4.5		2 cs	0			0.44	11.2	clear	K. Stewart.
St. Andrews, N. B.	29.88	758.9	29.93	760.2	59	15.0	87	nw.	6	2.7		0	0			0.15	3.8	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	29.60	751.8	29.66	753.4	58	14.4	96	sw.	24	10.7			10 n			0.37	9.4	cloudy	T. C. Hill, C. E.
Toronto, Ontario *	29.93	760.2	30.32	770.1	47	8.3	80	nw.	4	1.8		5 cs	5 s	w.		0.30	7.6	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	29.92	760.0	29.98	761.5	54	12.2	96	w.	12	5.4		10 k	hz.	w.		0.05	1.3	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.88	758.0	30.14	765.5	42	5.6	100	sw.	3	1.3			10 n			inap.	inap.	raining	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	30.05	763.3	30.08	764.0	65.0	18.3	94	ene.	17.0	7.6		0	0			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester *†	29.24	742.7			95.8	35.4	22	e.			1	0	0			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	29.94	760.4	29.96	761.0	66.0	18.9	90	sw.	3.1	1.4			10 n			1.756	44.6	raining	M. Marc Dechevrens, S.J

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.70	754.4	29.75	755.6	46.6	8.1	74	nnw.	20	9			7					raining	Oversergent Fischer.
Fanöe	29.89	759.2	29.91	759.7	48.7	9.3	74	nnw.			6		1						Overloerer Lauridsen.
Godthaab, Greenland	29.15	740.3	29.19	741.4	30.0	—1.1	100	sw.			6		10					snowing	S. Kleinschmidt.
Stykkisholm, Iceland	29.58	751.2	29.62	752.3	45.5	7.5	85	s.			8		10					raining	A. O. Thorlacius.
Thorshavn	30.27	768.8	30.30	769.7	38.1	3.4	62	e.	7	3			0						Overloerer Bergh.
Vestervig	29.74	755.5	29.84	757.8	48.6	9.2	63	nnw.			4		0						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.72	754.8	30.37	771.4	56.1	13.4	59	nne.			1		2 k					clear	M. Labroue, Director.
Alençon Normal School	29.84	757.9	30.45	773.3	48.9	9.4	84	nw.			2		k		ne.	0.047	1.2		M. Nicot, Director.
Arras, Engineer School	30.06	763.6	30.32	770.2	47.5	8.6	65	nw.					kn		nw.				M. Klein, Commandant.
Avignon, Normal School	30.14	765.6	30.22	767.6	53.6	12	43	n.			6		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.80	756.9	30.37	771.5	45.9	7.7	72	ne.			1		2 k		n.	0.236	6.0	slightly cl'dy	M. Saillard, Director.
Beauvais, Normal School	30.12	765.1	30.40	772.1	46.9	8.3	56	nw.			2		5		nw.	0.071	1.8	cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.44	747.7	30.36	771.1	44.2	6.8	94	n.			1		2		s.	0.606	15.4	raining	M. Gobin, Director.
Bordeaux, Observatory	30.12	765.0	30.38	771.7	54.0	12.2	53	ne.			1		2			0	0	slightly cl'dy	M. Rayet, Director.
Bourges, Normal School	29.80	757.0	30.37	771.3	49.5	9.7	84	ne.			1		1		ne.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	30.15	765.8	30.39	772.0	57.2	14.0	58	sse.			1		8		sse.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.33	770.3	30.40	772.1	53.1	11.8	61	w.			1		1		w.	0	0	clear	M. Bistrix, Director.
Châlons-sur-Marne, N.Sch'l	29.95	760.8	30.28	769.1	49.1	9.5	63	w.			2		5		nw.	0	0	cloudy	M. Jadot, Director.
Charleville, Normal School	29.82	757.4	30.35	770.9	45.7	7.6	66	wsw.			1		4			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.97	735.8	30.37	771.3	46.2	7.9	54	n.			2		5		n.	0	0	½ covered	M. Alluard, Director.
Cluny, Normal School	29.62	752.3	30.48	774.1	49.8	9.9	75	nw.			1		3		nw.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.45	748.0	30.33	770.3	45.7	7.6	72	nw.			1		2 km	nw.	nw.	0.138	3.5	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.61	701.2	30.18	766.6	53.2	11.8	37	sw.			2		k			0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	29.02	737.2	30.17	766.2	52.0	11.1	32	nw.			6		0			0	0	clear	M. Kina, Director.
Grenoble, Normal School	29.47	748.5	30.24	768.0	57.1	14.0	23	nw.			4		ck			0	0		M. Ablard, Director.
Guéret, Normal School	28.77	730.8	30.38	771.7	44.6	7	69	ne.			1		2 k	nne.	ne.	0	0	slightly cl'dy	M. Rivoire, Director.
Lamballe, Normal School	30.13	765.2	30.40	772.2	51.1	10.6	60	ne.			1		5 k		sw.	0.059	1.5	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.77	756.2	30.34	770.7	57.6	14.2	67	nw.			1				ne.	0	0		M. Chauvin, Director.
Lorient, Naval Observatory	30.34	770.5	30.44	773.1	59.0	15	63	s.			1		8		calm	0	0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.28	743.6	30.37	771.3	45.7	7.6	53	n.			2		kn		n.	0	0		M. André, Director.
Mans, Normal School	30.06	763.6	30.38	771.7	48.0	8.9	49	n.			1		2		n.	0	0	slightly cl'dy	M. Piboen, Director.
Marseille, Observatory	29.82	757.4	30.09	764.3	55.2	12.9	26	nw.			6		0			0	0		M. Stephan, Director.
Montlouis l'instituteur	24.97	634.3	30.21	767.3	49.1	9.5	35	n.	5.6	2.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.12	765.0	30.22	767.7	56.8	13.8	69	n.			3		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.49	749.0	30.28	769.0	44.2	6.8	66	wnw.			1		5 kn			0.059	1.5	cloudy	M. Hasse.
Nantes, Observatory	30.28	769.1	30.44	773.2	55.2	12.9	43	ese.			0–2		4 k	nne.	n.	0	0		M. Larocque, Director.
Nice	29.93	760.3	29.97	761.1	65.5	18.6	52	s.			4		5	s.	s.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	30.13	765.4	30.24	768.1	58.6	14.8	47	n.	22.4	10.0			2		w.	0	0		Dr. Fines.
Pic-du-Midi, Summit	21.38	543.0			34.5	1.4		ne.			1		0			0.035	0.9	clear	Gen'l de Nansouty Dir.
Privas, Normal School					50.0	10	62	n.			3		0			0	0	clear	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.33	643.4			27.0	—2.8	98	nne.			2		8 k			0.118	3.0	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.40	772.2	30.43	773.0	54.5	12.5	72	e.			1		0			0	0	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	30.13	765.4	30.35	771.0	51.8	11	59	ne.			1		2		ne.	0	0	slightly cl'dy	M. Mouillot, Director.
Rodez, Normal School	28.16	715.3	30.36	771.2	46.4	8.0	75	e.			2		0			0.079	2.0	clear	M. Richard, Director.
Rouen, Normal School	30.31	769.9	30.35	771.0	46.4	8	72	n.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School	30.17	766.4	30.37	771.4	48.6	9.2	67	nw.			1		2		nw.	0	0	slightly cl'dy.	M. Delaplanche, Dir.
Saint Maur, Observatory	30.22	767.6	30.39	771.8	49.1	9.5	49	nnw.			1		2	n.	nw.	0.024	0.6		M. Renou, Director.
Toulouse, Observatory	29.66	753.3	30.39	771.9	55.0	12.8	17	nw.			3		2	nw.		0	0	slightly cl'dy	M Bailland, Director.
Tours	30.20	767.1	30.40	772.1	50.7	10.4	54	n.			1		5	calm	wnw.	0.008	0.2	½ covered	M. de Tastes.
Versailles, Observatory	29.89	759.1	30.38	771.6	48.9	9.4	48	nw.			1					0	0		Dr. A. Bérigny, Director.
Sub-Series. Paris, Montsouris Obs'y	30.10	764.6	30.39	772.0	48.7	9.3	48	nnw.			1		7	nw.	wnw.	0.008	0.2		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.26	743.2	30.13	765.2	48.7	9.3	35	wnw.			3		4 k	w.		0.012	0.3	raining	Prof. Dr. Hoh.
Berlin	29.68	753.8	29.85	758.2	51.4	10.8	68	w.			4		6			0.063	1.6		Prof. Dr. Arndt.
Breslau	29.39	746.4	29.91	759.8	45.7	7.6	70	w.			5		10			0	0		Royal University Obs'y.
Carlsruhe	29.80	757.0	30.24	768.1	47.3	8.5	70	w.			4		3	sw.				hail & rain	Albert Senz.
Cassel	29.35	745.6	30.08	763.9	44.2	6.8	80	nw.			6		3	nw.		0.031	0.8		Dr. H. Möhl.
Frankfort on the Main	29.78	756.4	30.15	765.8	50.7	10.4	53	wnw.			2		5			0.012	0.3		Physical Society.
Friedrichshafen	28.81	731.8	30.30	769.5	42.8	6.0	77	sw.			5		10	w.		0	0		Wilhelm, Chief Tel.
Hamburg	29.84	757.8	29.93	760.2	50.4	10.2	73	nw.			5		5	nw.		0.118	3.0		E. Preller.
Kiel	29.84	757.9	29.85	758.3	49.5	9.7	64	nw.			1		5			0.177	4.5		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.57	751.1	30.00	761.9	46.4	8.0	81	wsw.			2		9	w.		0.043	1.1	rainy	H. Leppig, Asst.
Magdeburg	29.74	755.4	29.93	760.3	45.7	7.0	67	wnw.			8	0	6 ks		wsw.	0.118	3.0		Dr. Assmann.
Memel	29.71	754.6	29.76	755.8	45.3	7.4	73	sw.			7		10 ks						Issermann.
Munich	28.35	720.0	30.22	767.6	40.3	4.6	74	sw.			5		10	nw.		0.028	0.7		Central Station.
Neufahrwasser	29.71	754.5	29.72	754.9	45.3	7.4	75	ssw.			4		10	sw.		0	0		A. Lothes.
Neustadt, Palatinate	29.67	753.5	30.19	766.9	47.7	8.7	72	w.			4		7	nw.		0.083	2.1		Dicknether.
Stuttgart	29.25	742.9	30.17	766.2	45.9	7.7	73	nw.			1		10			0.016	0.4	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.65	727.8	30.21	767.2	43.0	6.1	77	w.			4		7	w.		0.020	0.5		Fischer.
Wustrow	29.76	755.8	29.78	756.4	49.5	9.7	95	wnw.			3	0	3 k			0.256	6.5		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.65	753.0	30.03	762.7	74.3	23.5		sw.			2.0		2			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.85	758.1	29.90	759.4	83.0	28.3	77	wsw.	38.0	17.0			0			0	0	blue sky	
Deesa	29.35	745.6	29.82	757.5	85.8	29.9	52	s.	6.4	2.9			0			0	0	blue sky	
Bombay	29.81	757.2	29.85	758.2	84.5	29.2	73	nnw.	16.0	7.2			0			0	0	blue sky	
Poona, Yarrowda	27.99	711.0	29.82	757.5	85.3	29.6	39	wnw.	16.0	7.2			4		sw.	0	0	d. clouds	
Belgaum	27.30	693.4	29.81	757.2	81.5	27.5	52	nw.	4.0	1.8			3	n.		0	0	d. clouds	
Lahore	28.99	736.3	29.72	755.0	84.3	29.1	52	calm	0.9	0.4			0			0	0	blue sky	
Roorkee	28.83	732.3	29.72	754.8	84.6	29.2	44	nw.	2.0	0.9			0			0	0		
Agra	29.22	742.2	29.78	756.3	89.2	31.8	44	w.	6.1	2.7			0			0	0		
Nagpur	28.79	731.2	29.82	757.5	85.2	29.6	38	calm	1.9	0.8			0			0	0	blue sky	
Jubbulpore	28.50	723.8	29.85	758.2	79.8	26.6	49	calm	2.1	0.9			0			0	0	blue sky	
Lucknow	29.41	747.0	29.79	756.6	80.2	26.8	64	wsw.	5.4	2.4			0			0	0	blue sky	
Allahabad	29.46	748.3	29.77	756.2	80.7	27.1	57	s.	2.9	1.3			0			0	0	blue sky	
Patna	29.60	751.8	29.78	756.3	82.2	27.9	74	nw.	2.4	1.1			0			0	0	blue sky	
Hazaribagh	27.81	706.4	29.82	757.3	80.3	26.8	44	n.	8.3	3.8			0			0	0	blue sky	
Cuttack	29.74	755.3	29.82	757.3	81.5	27.5	68	calm	0	0			0			0	0	blue sky	
Calcutta, Alipore	29.76	756.0	29.79	756.6	79.5	26.4	78	calm	0	0			2			0	0	d. clouds	
Dhubri	29.65	753.0	29.77	756.1	81.8	27.7	74	calm	0.3	0.1			0			0	0	blue sky	
Goalpara																			
Chittagong	29.71	754.6	29.80	756.9	80.7	27.1	84	s.	1.1	0.5			6			0	0	d. clouds	
Sibsagar	29.45	748.1	29.79	756.6	81.7	27.6	86	se.	2.4	1.1			2			0	0	blue sky	
Jeypore	28.37	720.6	29.79	756.7	88.7	31.5	31	wsw.	4.8	2.2			0			0	0	blue sky	
Zanzibar, Africa			29.96	761.0	81.9	27.7	67	s.	5	2.2			7		sse.	0.27	6.9	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.54	750.3	29.95	760.8	48.7	9.3	60	se.	0.7	0.3			10			0.594	15.1		Prof. Giovanni Clodig.
Milan	29.46	748.3	29.98	761.4	59.5	15.3	14	nnw.	17.4	7.8			1			0	0		Prof. Schiaparelli.
Padua	29.85	758.3	29.97	761.1	51.3	10.7	63	ene.	8.1	3.6			10			0.193	4.9		Prof. Dott. Lorenzoni.
Moncalieri	29.08	738.5	29.98	761.6	60.8	16.0	21	nnw.	4.3	1.9			0			0	0		Prof. P. F. Denza.
Genoa	29.76	755.8	29.95	760.7	60.8	16.0	15	ne.	9.4	4.2			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.08	713.2	30.01	762.3	52.9	11.6	32	w.			4		0			0	0		Prof. D. C. Bruno.
Pesaro	29.80	756.9	29.85	758.1	50.7	10.4	84	ne.			8		10	ne.		0	0		Prof. Luigi Guidi.
Florence	29.61	752.2	29.87	758.6	55.4	13.0	46	ne.			6		3			0.043	1.1		Prof. Costantino Pitter.
Leghorn	29.75	755.6	29.91	759.8	63.0	17.2	22	ne.	19.2	8.6			2			0.028	0.7		Prof. P. Monte.
Rome	29.63	752.5	29.80	756.9	66.9	19.4	60	wsw.					5			0.004	0.1		Prof. P. S. Ferrari.
Lecce	29.63	752.7	29.88	759.0	71.2	21.8	70	wsw.	21.7	9.7			7			0	0		Prof. C. de Giorgi.
Cosenza	29.97	738.4	29.96	760.9	66.6	19.2	61	sse.	2.5	1.1			10	se.		0.315	8.0		Prof. D. Conti.
Cagliari	29.82	757.5	30.02	762.4	65.8	18.8	41	nw.			6		1			0	0		Prof. A. Pacinotti.
Palermo	29.74	755.5	29.99	761.7	72.0	22.2	55	wsw.	12.5	5.6			10			0	0		Prof. G. Ciacciatore.
Syracuse	29.93	760.1	29.97	761.2	74.5	23.6	59	sw.	3.8	1.7			5	sw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.35	745.4	29.86	758.4	66.2	19.0	75	sw.	7.4	3.3			7	ene.		0.031	0.8		Prof. F. Brioschi.
Stelvio	22.09	561.1			18.1	— 7.7	63	ne.			4	cs	10 k	n.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.12	561.8			25.5	— 3.6	50	n.			6	2 ck	0	wnw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.97	761.2	29.99	761.7	62.8	17.1	90	n.	1.9	0.8			10 n			0.943	24.0	light rain	K. Sasaki.
Kioto	29.85	758.2	30.03	762.7	61.3	16.3	89	nnw.	1.1	0.5			10 n			0.450	11.4	raining	M. Tojima.
Nagasaki, I. M. Obs'y	29.79	756.6	29.99	761.7	63.0	17.2	81	ne.	2.7	1.2			10 s			1.450	36.8	overcast	S. Takehayashi.
Nemuro																			
Niigata	30.05	763.3	30.08	764.0	54.9	12.7	83	ese.	1.6	0.7		cs	8 s			0.090	2.3	cloudy	
Nobiru	30.08	764.0	30.09	764.3	52.2	11.2	78	nnw.	12.3	5.5			9 s			0.075	1.9	cloudy	
Sapporo	29.90	759.4	29.97	761.2	41.0	5.0	96	s.	2.4	1.1			1			0.030	0.8		
Tokei Obs'y, Yeddo	29.99	761.7	30.06	763.5	65.4	18.6	85	ese.	3.0	1.3			10 s;n			0.785	19.9	light rain	The Staff.
Wakayama	29.98	761.5	30.03	762.7	65.8	18.8	82	calm	0	0		10 ck	0			0.451	11.5	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.90	759.4	30.09	764.3	74.2	23.4	61	ene.	13.0	5.8		0	8 k;ks		ene.	0	0	cloudy	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.68	601.4	29.90	759.4	57.9	14.4	52	calm	0	0		0	8 k		e.	0	0	cloudy	Vicente Fernandez.
Leon	24.45	620.1	30.18	766.5	56.2	13.4	83	n.			1	7 c	0	ne.		0	0	foggy	Prof. M. Leal.
Mazatlan	29.64	752.9	29.90	759.4	79.0	26.1	95	ene.	0.9	0.4		0	1 k			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.12	586.6	30.11	764.9	55.4	13.0	81	calm	0	0			10 k			inap.	inap.	covered	The Staff.
Morelia	24.17	614.0	30.23	767.9	61.5	16.4	38	sse.			3	5	4	se.	sse.	0.182	4.6	very cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.93	607.8	29.96	760.9	50.8	10.5	76	calm			0	0	1 s			0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.43	595.1	30.19	766.8	55.4	13.0	73	calm	0	0		0	8		w.	0	0	cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.28	769.2	30.28	769.2	48.9	9.4		nw.			4					0.378	9.6		
Groningen	30.04	763.0	30.10	764.4	48.4	9.1		nnw.			5					0.142	3.6		
Helder	30.17	766.2	30.17	766.2	47.5	8.6		nw.			6					0	0		
Hellevoetsluis	30.22	767.7	30.22	767.7	50.5	10.3	69	nw.			3					0.307	7.8		
Utrecht	30.18	766.6	30.23	767.8	50.5	10.3	68	wnw.			3		5			0.051	1.3	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES.																			
Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.92	760.0	29.98	761.6	43.2	6.2	59	n.	32.0	14.3			6			0	0		
Christiania	29.58	751.4	29.73	755.1	49.1	9.5	35	nnw.	18	8			2			0	0		
Gjæsvær	29.56	750.8	29.58	751.4	40.3	4.6		ne.			2		10						
Lodingen	29.56	750.9	29.61	752.1	42.4	5.8	66	n.			2		5			0	0		
PORTUGUESE SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.76	756.0	29.92	759.9	66.9	19.4	92	nw.	14.3	6.4			8			0.236	6.0		Dr. J. A. Sampaio.
Campo Major	29.10	739.1	30.07	763.7	75.6	24.2	38	ese.	10.5	4.7			2			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.10	764.5	30.19	766.8	71.8	22.1	74	calm	0	0			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.81	757.1	30.17	766.2	67.1	19.5	60	nne.	11.9	5.3			2			0	0		The Staff.
Ponta Delgada, Azores	29.77	756.2	29.84	758.0	70.5	21.4	86	ssw.	22.4	10.0			10			0.059	1.5		
RUSSIAN SERIES.																			
Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.25	743.0	30.35	770.8	49.6	9.8	58	e.	18	8		0	0						Capt. Lasarew.
Archangel	29.88	758.9	29.90	759.4	44.8	7.1	87	s.	9	4		0	8 ks						Capt. Sseliwerstow.
Astrakhan	30.26	768.6	30.18	766.5	66.6	19.2	35	calm	0	0		0	0						Capt. Wisganow.
Barnaul ‡	29.97	761.2	30.48	774.3	45.9	7.7	64	calm	0	0			0						Meteorological Obs'y.
Dorpat	29.52	749.7	29.76	755.9	47.3	8.5	49	ssw.	13	6		4 c	0						Observatory.
Ekaterinburg	29.45	748.1	30.43	772.8	54.0	12.2	57	sse.	9	4		1 cs	0						Meteorological Obs'y.
Kasan	30.02	762.4	30.28	769.2	56.8	13.8	60	s.	2	1			8						Observatory.
Kertch	30.17	766.3	30.19	766.8	60.1	15.6	88	se.	4	2		0	1 k			0	0		Lagorio & Sastyrez.
Kieff	29.29	743.9	29.93	760.1	52.9	11.6	96	se.	7	3			10n;ks						Observatory.
Lugan	30.02	762.5	30.22	767.6	64.2	17.9	55	s.	4	2			1						Meteorological Obs'y.
Moscow	29.61	752.1	30.09	764.3	49.3	9.6	79	s.	4	2		0	8 ks						Meteorological Obs'y.
Nikolaiev	30.04	762.9	30.11	764.7	63.9	17.7	61	s.	22	10		0	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.57	751.1	29.66	753.3	33.8	1.0	98	w.			1		10 n			0.197	5.0		Lieut. Iwanow.
Pekin, China	29.94	760.4	30.08	764.0	60.3	15.7	25	nw.	11	5		0	6 ks			0	0		Physical Observatory.
St. Petersburg	29.77	756.2	29.79	756.6	47.5	8.6	52	ssw.	20	9		0	2 ks						Central Physical Obs'y.
Tashkend, Laboratory	28.42	721.8	29.97	761.1	63.0	17.2	81	calm	0	0			10			0	0		Teich, A. M.
Tiflis	28.79	731.2	30.19	766.8	65.8	18.8	44	nw.	18	8		0	0						Physical Observatory.
Warsaw	29.44	747.8	29.87	758.7	49.6	9.8	45	ssw.	16	7		0	4 k						Astronomical Obs'y.
Wilna	29.48	748.9	29.91	759.8	46.2	7.9	52	s.	11	5			9						Berg, Assistant.
Yeniseisk	30.32	770.0	30.62	777.7	34.7	1.5	87	w.	2	1			10						M. O. Marks.
SCOTTISH SERIES.																			
Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.40	772.1	44.0	6.7	92	nw.			2	0	0			0	0	fine	Andrew Gibb.
Monach Lt. House, Hebrides			30.25	768.3	48	8.9	92	s.			4	5	5	s.		0.2	5.		J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES.																			
Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	30.09	764.2	30.19	766.9	61.7	16.5	81	e.	3.6	1.6			9			0	0	covered	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.27	768.8	30.32	770.2	63.3	17.4	59	se.	0.7	0.3		3	2	sw.		0.146	3.7	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.32	693.8			54.7	12.6	86	ne.	3.6	1.6		0	0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.97	710.5	30.17	766.3	66.6	19.2	55	e.	4.7	2.1		2	0	nw.		0	0	light clouds	The Staff.
Murcia, Met. Obs'y ‡	30.04	762.9	30.18	766.6	75.2	24.0	65	ene.	2.9	1.3		2	4	ene.		0	0	cloudy	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.26	743.1	30.13	765.4	67.6	19.8	73	se.	0	0			3			0.055	1.4		R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.95	760.7	30.02	762.4	75.8	24.3	88	ese.	1.1	0.5		0	4 k;n		ne.	0.031	0.8	raining	Benito Vines, S. J.
Manilla, Philippine Islands	29.83	757.6	29.88	758.9	82.8	28.2	83	se.	3.3	1.5		2 cs	6 kn	e.	ne.	0	0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.04	763.0	30.14	765.4	71.4	21.9	74	s.	2.8	1.2		0	3		w.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.91	759.8	30.00	762.1	79.2	26.2	94	ne.	5.1	2.3		3 k	2 kn	ne.	ne.	0.205	5.2	cloudy	E. Cadea, Chief Enga'r.
Tuguegarao, Philippine Ids	29.78	756.3	29.91	759.7	78.9	26.1	82	nnw.	5.8	2.6		4 cs	1 k	ese.	nnw.	0	0		José L. Fastovra.
SWEDISH SERIES.																			
Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.37	745.9	29.56	750.9	44.2	6.8	91	se.			2		10			0	0		
Umea	29.34	745.3	29.39	746.6	40.3	4.6	84	n.			6		10			0.280	7.1		
Hernosand	29.37	746.1	29.43	747.4	42.6	5.9	72	n.			6		8			0.866	22.0		
Stockholm	29.39	746.4	29.56	750.9	41.4	5.2	90	nw.			2		10			0.031	0.8	raining	
Wisby	29.43	747.5	29.49	749.0	44.6	7.0	88	n.			4		10			0.394	10.0		
Sub-Series.																			
Upsala	29.40	746.8	29.49	749.0	41.2	5.1	94	nw.	11.6	5.2			10		n.	0.142	3.6	raining	S. G. Fineman.
SWISS SERIES.																			
Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.87	733.4	30.33	770.4	44.8	7.1	56	nne.			2		5			0.016	0.4	cloudy	The Observatory.
Zurich ‡	28.65	727.8	30.35	770.9	37.8	3.2	90	w.			1		10			0.020	0.5	raining	The Observatory.
TURKISH SERIES.																			
Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.04	763.0	79.0	26.1	46	se.	6	2.5			0			0	0		The Observatory.
Valona			30.00	762.1	70.3	21.3		s.			2		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.08	763.9	76.5	24.7	63	nne.			2	0	0			0	0		Prof. C. V. Van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Albany, New York	30.13	765.3	30.21	767.3	60.4	15.8	61	w.	4	1.8		2 c	8 s	w.	w.	0.03	0.8	cloudy	
Alpena, Michigan	29.69	754.1	30.38	771.6	38	3.3	82	w.	6	2.7		6 cs	0	w.		0.42	10.7	fair	
Atlanta, Georgia	29.12	739.6	30.34	770.6	64.0	17.8	93	e.	7	3.1		0	0			0	0	clear	
Atlantic City, New Jersey	30.21	767.3	30.22	767.6	65	18.3	93	sw.	9	4.0		0	0			0	0	clear	
Augusta, Georgia	30.12	765.0	30.32	770.1	67.3	19.6	84	ne.	3	1.3		0	3 s;hz			0	0	fair	
Baltimore, Maryland	30.19	766.8	30.24	768.1	65	18.3	90	s.	1	0.4		0	0			0	0	clear	
Barnegat, New Jersey	30.18	766.6	30.20	767.1	64.0	17.8	93	sw.	9	4.0		0	fg.		calm	0	0	clear	
Bismarck, Dakota	28.24	717.3	30.16	766.1	27	— 2.8	88	e.	6	2.7		0	0			0	0	clear	
Boise City, Idaho	27.27	692.6	30.19	766.8	32	0.0	88	e.	2	0.9			10 s		calm	0	0	cloudy	
Boston, Massachusetts	29.94	760.5	30.10	764.5	67.0	19.4	78	w.	16	7.2		4 cs	2 s	w.	w.	0.01	0.3	fair	
Brackettville, Texas	28.85	732.8	29.87	758.7	71	21.7	94	e.	12	5.4			10 s		se.	0	0	cloudy	
Brownsville, Texas	29.96	761.0	30.01	762.2	77	25.0	90	se.	4	1.8		10 cs	0			0	0	cloudy	
Buffalo, New York	29.58	751.3	30.32	770.1	52	11.1	69	nw.	2	0.9			10 s		w.	0.12	3.0	cloudy	
Burlington, Vermont	29.91	759.7	30.21	767.3	53.0	11.7	59	w.	11	4.9		6 ck	0	nw.		0.12	3.0	fair	
Cairo, Illinois	29.84	757.9	30.26	768.6	65.1	18.4	89	e.	4	1.8			10 s		calm	0	0	cloudy	
Campo, California	27.41	696.2	29.98	761.5	33.5	0.8	81	s.	1	0.4			8 s		n.	0	0	cloudy	
Camp Thomas, Arizona	27.24	691.9			32	0.0	81	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.28	769.1	30.30	769.6	68	20.0	90	s.	10	4.5		0	0			0	0	clear	
Cape May, New Jersey	30.19	766.8	30.22	767.6	66	18.9	93	s.	9	4.0		0	fg.			0	0	clear	
Castroville, Texas	29.14	740.1	29.82	757.4	75	23.9	82	se.	4	1.8			10 s		se.	0	0	cloudy	
Cedar Keys, Florida	30.16	766.1	30.18	766.6	72	22.2	90	n.	13	5.8		0	0			inap.	inap.	clear	
Champaign, Illinois	29.45	748.0	30.26	768.6	49.4	9.7	84	ne.	9	4.0			10 s		ne.	1.36	34.5	cloudy	
Charleston, S. Carolina	30.22	767.6	30.28	769.1	72	22.2	76	ne.	9	4.0		0	0			0	0	clear	
Charlotte, N. Carolina	29.44	747.8	30.35	770.9	67.8	19.9	78	sw.	1	0.4		0	fg.			0	0	clear	
Chattanooga, Tennessee	29.48	748.8	30.33	770.4	66.0	18.9	93	calm	0	0		1 cs	fg.	calm	calm	0	0	clear	
Cheyenne, Wyoming	23.94	608.1	30.07	763.8	20.2	— 6.6	67	w.	5	2.2		0	0			0	0	clear	
Chicago, Illinois	29.58	751.3	30.32	770.1	47.8	8.8	84	ne.	5	2.2			10 n			0.09	2.3	light rain	
Chincoteague, Virginia	30.25	768.3	30.27	768.8	66	18.9	93	sw.	12	5.4		0	sk.		calm	0	0	clear	
Cincinnati, Ohio	29.60	751.8	30.28	769.1	64.5	18.1	84	e.	3	1.3			10 s			0	0	cloudy	
Cleveland, Ohio	29.57	751.1	30.34	770.6	56	13.3	74	e.	2	0.9		5 k	5 k	w.	w.	0.32	8.1	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.38	746.2	30.27	768.8	60	15.6	81	e.	2	0.9		6 ck	fg.	sw.		0.11	2.8	fair	
Concho, Texas	28.12	714.2	30.12	765.0	63	17.2	93	e.	6	2.7		8 k	0	s.		0	0	cloudy	
Corsicana, Texas	29.67	753.6	30.15	765.8	71	21.7	84	s.	2	0.9		5 cs	3 ks			0	0	cloudy	
Davenport, Iowa	29.62	752.3	30.30	769.6	44	6.7	68	ne.	6	2.7			10 n		calm	inap.	inap	light rain	
Dayton, Washington T'y	28.33	719.6	30.19	766.8	34	1.1	88	calm	0	0			10 s		sw.	0.18	4.6	cloudy	
Deadwood, Dakota	25.27	641.8	30.13	765.3	30	— 1.1	71	e.	4	1.8		0	0			0	0	clear	
Decatur, Texas	28.91	734.3	30.05	763.3	70	21.1	71	se.	12	5.4		8 ck	0	se.		0	0	fair	
Delaware Breakwater, Del.	30.20	767.1	30.22	767.6	67	19.4	90	sw.	23	10.3		0	fg.			0	0	clear	
Denison, Texas	29.30	744.2	30.13	765.3	72	22.2	84	s.	4	1.8			10 s		s.	0	0	cloudy	
Denver, Colorado	24.70	627.4	30.06	763.5	30.0	— 1.1	61	s.	3	1.3		0	0			0	0	clear	
Des Moines, Iowa	29.35	745.5	30.30	769.6	39	3.9	73	e.	6	2.7			10 s		e.	0	0	cloudy	
Detroit, Michigan	29.60	751.8	30.34	770.6	52.0	11.1	86	nw.	2	0.9		4 ck	0	w.		0.11	2.8	fair	
Dodge City, Kansas	27.47	697.7	30.16	766.1	45	7.2	96	se.	9	4.0			10 s			0.11	2.8	cloudy	
Dubuque, Iowa	29.60	751.8	30.34	770.6	39.8	4.3	73	n.	4	1.8			10 s		w.	0	0	cloudy	
Duluth, Minnesota	29.66	753.4	30.39	771.9	30	— 1.1	77	w.	12	5.4		0	0			0.02	0.5	clear	
Eagle Pass, Texas	29.25	742.9	30.10	764.5	70.0	21.1	90	se.	4	1.8		0	3 s		se.	0	0	fair	
Eagle Rock, Idaho	25.27	641.8	30.26	768.6	12	—11.1	83	calm	0	0		0	0			0	0	clear	
Eastport, Maine	29.88	758.9	29.94	760.5	59	15.0	70	nw.	16	7.2		3 c	0	w.		0.29	7.4	clear	
El Paso, Texas	26.20	665.5	30.04	763.0	59.1	15.1	84	ne.	1	0.4		0	5 s			0.10	2.5	fair	
Erie, Pennsylvania	29.56	750.8	30.32	770.1	56	13.3	74	ne.	5	2.2			8 s			0.86	21.8	cloudy	
Escanaba, Michigan	29.68	753.9	30.36	771.1	35	1.7	79	nw.	3	1.3			10 s		calm	inap.	inap.	cloudy	
Florence, Arizona	28.42	721.9	30.02	762.5	39.9	4.4	62	w.	1	0.4		0	0			0	0	clear	
Fort Apache, Arizona	24.98	634.5	30.02	762.5	28	— 2.2	80	e.	4	1.8		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.17	690.1	30.11	764.8	17	— 8.3	70	calm	0	0			10 s		calm	0	0	cloudy	
Fort Bennett, Dakota	28.51	724.1	30.12	765.0	26	— 3.3	88	se.	12	5.4		0	0			0	0	clear	
Fort Benton, Montana	27.21	691.1	30.19	766.8	12	—11.1	64	sw.	5	2.2			10 s		calm	0	0	cloudy	
Fort Buford, Dakota	28.10	713.7	30.21	767.3	22	— 5.6	87	ne.	7	3.1		0	0			0	0	clear	
Fort Custer, Montana	26.81	681.0	30.20	767.1	25	— 3.9	85	nw.	2	0.9		5 cs	0	calm		0	0	fair	
Fort Davis, Texas	24.98	634.5	29.94	760.5	55	12.8	77	e.	8	3.6		0	0			0	0	clear	
Fort Elliott, Texas	27.28	692.9	30.58	776.7	45	7.2	76	se.	8	3.6			fg.			0	0	dense fog	
Fort Gibson, Indian T'y	29.54	750.3	30.11	764.8	59.0	15.0	93	nw.	2	0.9		6 cs	0	s.		0	0	fair	
Fort Grant, Arizona					46	7.8	29	ne.	5	2.2		0	0			0	0	clear	
Fort Griffin, Texas	28.80	731.5	30.06	763.5	60.5	15.8	84	n.	3	1.3			10 s			0	0	cloudy	
Fort Keogh, Montana	27.50	698.5	30.17	766.3	24	— 4.4	88	ne.	4	1.8		3 c	0	sw.		0	0	clear	
Fort Macon, North Carolina	30.31	769.9	30.32	770.1	68	20.0	87	n.	6	2.7		hz.	hz.	calm	calm	0	0	light haze	
Fort McKavett, Texas	27.86	707.6	29.73	755.1	67.2	19.6	79	s.	4	1.8		0	3 s			0	0	fair	
Fort Missoula, Montana	26.69	677.9	30.34	770.6	27	— 2.8	88	se.	1	0.4			10 ks		se.	0.06	1.5	cloudy	
Fort St. Michaels	30.08	764.0	30.11	764.8	39	3.9	91	ne.	8	3.6		0	fg.			0	0	clear	
Fort Shaw, Montana	26.33	668.8	30.07	763.8	1	—17.2	100	w.	3	1.3		0	0			inap.	inap.	clear	
Fort Sill, Indian Territory	28.85	732.8	30.14	765.5	53.5	11.9	98	n.	4	1.8		0	5 s		n.	0.01	0.3	fair	
Fort Stevenson, Dakota	28.33	719.6	30.29	769.4	27	— 2.8	88	se.	2	0.9			10 s		se.	0	0	cloudy	
Fort Verde, Arizona					34.9	1.6	40	w.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.32	719.3	29.84	757.9	69	20.6	97	sw.	5	2.2			10 ks		sw.	0	0	cloudy	
Galveston, Texas	30.06	763.5	30.10	764.5	79	26.1	78	s.	12	5.4		5 cs	3 ks	se.		0	0	cloudy	
Grand Haven, Michigan	29.65	753.1	30.35	770.9	45.0	7.2	83	ne.	4	1.8		8 k	0	calm		0.04	1.0	fair	
Hatteras, North Carolina	30.28	769.1	30.30	769.6	70	21.1	90	n.	3	1.3		4 cs	3 s			0	0	fair	
Helena, Montana	25.73	653.5	30.32	770.1	25	— 3.9	100	nw.	4	1.8		0	8 s		calm	0	0	cloudy	
Henrietta, Texas	29.11	739.4	30.03	762.7	64	17.8	78	n.	3	1.3		0	3 s			0	0	fair	
Huron, Dakota	28.83	732.3	30.29	769.4	24	— 4.4	73	e.	9	4.0		0	0			0	0	clear	
Indianapolis, Indiana	29.44	747.8	30.27	768.8	58	14.4	80	ne.	4	1.8			10 s		ne.	0.16	4.1	cloudy	
Indianola, Texas	30.05	763.3	30.08	764.0	77.2	25.1	82	se.	8	3.6		2 c	4 k	nw.	se.	0.15	3.8	fair	
Jacksboro, Texas	28.92	734.6	30.02	762.5	69	20.6	90	sw.	4	1.8			10 ks		s.	0	0	cloudy	
Jacksonville, Florida	30.15	765.8	30.19	766.8	74	23.3	90	ne.	4	1.8		2 k	0	ne.		0.08	2.0	clear	
Keokuk, Iowa	29.57	751.1	30.25	768.3	43.0	6.1	93	ne.	9	4.0			10 n		ne.	0.78	19.8	heavy rain	
Key West, Florida	30.02	762.5	30.05	763.3	76.5	24.7	79	ne.	16	7.2		0	1 ks		calm	0	0	clear	
Kittyhawk, North Carolina	30.31	769.9	30.33	770.4	67	19.4	93	se.	2	0.9		4 cs	hz			0	0	dense haze	
Knoxville, Tennessee	29.30	744.2	30.38	771.6	63	17.2	92	calm	0	0		3 k	0	calm		0	0	fair	
La Crosse, Wisconsin	29.52	749.8	30.32	770.1	39	3.9	65	calm	0	0			10 s			0	0	cloudy	
La Mesilla, New Mexico	26.04	661.4	30.19	766.8	54.3	12.4	86	calm	0	0		3 ck	5 s	sw.		0	0	cloudy	
Laredo, Texas	29.57	751.1	29.90	759.4	72.0	22.2	87	se.	2	0.9		8 ck	0	se.		0	0	fair	
Leavenworth, Kansas	29.30	744.2	30.23	767.8	45	7.2	93	n.	8	3.6			10 n		ne.	0.65	16.5	light rain	
Lewiston, Idaho	29.28	743.7	30.16	766.1	41	5.0	48	n.	1	0.4			10 s		calm	0.08	2.0	cloudy	
Little Rock, Arkansas	29.83	757.7	30.15	765.8	68	20.0	93	calm	0	0			10 ks			0	0	cloudy	
Los Angeles, California	29.64	752.8	30.02	762.5	47.3	8.5	86	sw.	10	4.5		0	0			0	0	clear	
Louisville, Kentucky	29.65	753.1	30.23	767.8	65.5	18.6	93	n.	2	0.9			10 s		calm	0	0	cloudy	
Lynchburg, Virginia	29.57	751.1	30.28	769.1	63	17.2	90	calm	0	0		0	fg.			0	0	clear	
Madison, Wisconsin	29.28	743.7	30.35	770.9	36	2.2	89	n.	3	1.3			10 s		w.	0	0	cloudy	
Marquette, Michigan	29.61	752.1	30.37	771.4	36	2.2	89	nw.	4	1.8			10 s		w.	0.08	2.0	cloudy	
Mason, Texas	28.40	721.3	30.11	764.8	70	21.1	90	s.	6	2.7			10 s		s.	0	0	cloudy	
Memphis, Tennessee	29.87	758.7	30.22	767.6	67	19.4	84	calm	0	0		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.54	750.3	30.32	770.1	40	4.4	82	n.	8	3.6		0	8 s			0	0	fair	
Mobile, Alabama	30.14	765.5	30.21	767.3	69.0	20.6	90	n.	3	1.3		7 k	0	nw.		0	0	fair	
Montgomery, Alabama	30.02	762.5	30.26	768.6	68.2	20.1	90	se.	1	0.4		0	0			0	0	clear	
Moorhead, Minnesota	29.28	743.7	30.34	770.6	32	0.0	88	s.	8	3.6			10 s		sw.	0.02	0.5	cloudy	
Morgantown, W. Virginia	29.27	743.4	30.25	768.3	65.0	18.3	90	calm	0	0		1 cs	fg	w.		0	0	clear	
Mt. Washington, N. H.	23.77	603.7	30.14	765.5	32.0	0.0	100	nw.	74	33.1			fg		nw.	3.15	80.0	dense fog	
Nashville, Tennessee	29.70	754.4	30.26	768.6	64.1	17.8	86	s.	1	0.4		4 ck	0	sw.		0	0	fair	
New Haven, Connecticut	30.06	763.5	30.17	766.3	64	17.8	84	sw.	2	0.9		0	sk			inap.	inap.	clear	
New London, Connecticut	30.14	765.5	30.18	766.6	67	19.4	84	nw.	6	2.7			fg			0	0	dense fog	
New Orleans, Louisiana	30.11	764.8	30.17	766.3	73.0	22.8	90	ne.	6	2.7		0	hz			0	0	clear	
Newport, Rhode Island	30.11	764.8	30.16	766.1	63.0	17.2	93	sw.	12	5.4		3 k	1 s	sw.	sw.	0	0	fair	
New River, N. Carolina					72	22.2	82	ne.			1	7 cs	0	ne.		0	0	cloudy	
New Shoreham, Rhode I'd.	30.11	764.8	30.14	765.5	63.5	17.5	93	sw.	21	9.4		0	fg		calm	0	0	clear	
New York, New York	30.00	762.0	30.18	766.6	63	17.2	93	sw.	11	4.9		2 cs	fg	w.		inap.	inap.	clear	
Norfolk, Virginia	30.27	768.8	30.30	769.6	65	18.3	100	sw.	6	2.7		0	hz			0	0	clear	
North Platte, Nebraska	27.15	689.6	30.20	767.1	31.4	— 0.3	88	e.	8	3.6		10 c	0	w.		0	0	cloudy	
Olympia, Washington T'y	30.01	762.2	30.05	763.3	40.0	4.4	89	s.	8	3.6			10 n		calm	0.12	3.0	light rain	
Omaha, Nebraska	29.09	738.9	30.33	770.4	39	3.9	73	e.	7	3.1			10 s			0	0	cloudy	
Oswego, New York	29.94	760.5	30.28	769.1	53.5	11.9	65	n.	9	4.0		0	7 s		w.	0.68	17.3	fair	
Pensacola, Florida	30.17	766.3	30.20	767.1	69	20.6	90	ne.	5	2.2		0	0			0	0	clear	
Philadelphia, Pa.	30.17	766.3	30.23	767.8	64	17.8	93	w.	5	2.2		0	fg			0	0	clear	
Phœnix, Arizona	28.83	732.3	30.68	779.3	44	6.7	45	nw.	1	0.4		0	0			0	0	clear	
Pike's Peak, Colorado	17.55	445.8	29.76	755.9	16	— 8.9	35	sw.	52	23.3		0	0			0	0	clear	
Pioche, Nevada	23.97	608.8	30.16	766.1	30	— 1.1	61	nw.	6	2.7		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.46	748.3	30.31	769.9	61	16.1	87	sw.	2	0.9			10 n		calm	0.14	3.6	light rain	
Port Eads, Louisiana	30.16	766.1	30.17	766.3	77.1	25.7	84	e.	15	6.7		0	hz		calm	0	0	clear	
Port Huron, Michigan	29.63	752.6	30.34	770.6	47.0	8.3	87	nw.	5	2.2		5 c;cs	1 ks	nw.	nw.	0	0	fair	
Portland, Maine	29.98	761.5	30.03	762.7	63	17.2	90	nw.	8	3.6		3 k	0	w.		0.06	1.5	clear	
Portland, Oregon	30.06	763.5	30.14	765.5	43.0	6.1	80	sw.	8	3.6			10 s		sw.	0.04	1.0	cloudy	
Portsmouth, N. Carolina					73	22.8	84	n.	6	2.7		3 k	0	s.		0	0	clear	
Prescott, Arizona	24.67	626.6	29.98	761.5	42	5.6	27	s.	6	2.7		0	0			0	0	clear	
Punta Rassa, Florida	30.05	763.3	30.06	763.5	72	22.2	90	ne.	8	3.6		0	0			0	0	clear	
Red Bluff, California	29.77	756.1	30.12	765.0	40.0	4.4	89	n.	4	1.8		0	0			inap.	inap.	clear	
Rio Grande City, Texas	29.84	757.9	30.05	763.3	74	23.3	97	se.	4	1.8		4 c	0	calm		0	0	fair	
Rochester, New York	29.59	751.6	30.29	769.4	52	11.1	66	nw.	7	3.1		2 cs	4 s	calm	nw.	0.31	7.9	fair	
Roseburg, Oregon	29.62	752.3	30.21	767.3	38	3.3	96	sw.	3	1.3			10 s		calm	0.07	1.8	cloudy	
Sacramento, California	30.06	763.5	30.14	765.5	43.0	6.1	83	n.	4	1.8		0	0			inap.	inap.	clear	
St. Louis, Missouri	29.65	753.1	30.28	769.1	52.8	11.6	86	ne.	6	2.7			10 s		ne.	inap.	inap.	cloudy	
St. Paul, Minnesota	29.44	747.8	30.36	771.1	32.2	0.1	78	nw.	1	0.4		7 cs	0	nw.		0	0	fair	
Salt Lake City, Utah	25.58	649.7	30.02	762.5	34	1.1	38	ne.	4	1.8		0	0			0	0	clear	
San Antonio, Texas	29.36	745.7	30.08	764.0	71.8	22.1	97	e.	2	0.9			10 s		se.	0.18	4.6	cloudy	
San Diego, California	29.92	760.0	29.99	761.7	52.0	11.1	66	e.	4	1.8		0	0			0	0	clear	
Sandusky, Ohio	29.61	752.1	30.32	770.1	57	13.9	80	ne.	8	3.6			10 s		n.	0.41	10.4	cloudy	
Sandy Hook, New Jersey	30.14	765.5	30.17	766.3	67.0	19.4	78	w.	13	5.8		0	0			0	0	clear	
San Francisco, California	30.07	763.8	30.14	765.5	49	9.4	77	sw.	4	1.8		0	0			inap.	inap.	clear	
Santa Fé, New Mexico	23.23	590.0	30.22	767.6	41	5.0	76	se.	1	0.4		0	4 s		calm	0	0	fair	
Savannah, Georgia	30.16	766.1	30.26	768.6	72.5	22.5	96	e.	8	3.6			10 ks		e.	0	0	cloudy	
Shreveport, Louisiana	29.93	760.2	30.16	766.1	67.5	19.7	84	s.	3	1.3		3 k	0	calm		0	0	fair	
Silver City, New Mexico	24.23	615.4	29.91	759.7	44	6.7	58	calm	0	0		0	3 s		calm	0	0	clear	
Sitka, Alaska	29.84	757.9	29.92	760.0	36	2.2	90	sw.	2	0.9			fg		calm	0.07	1.8	light fog	
Smithville, North Carolina	30.26	768.6	30.30	769.6	68	20.0	93	ne.	5	2.2		0	hz			0	0	clear	
Spokane Falls, Wash. Ter.	28.00	711.2	30.07	763.8	30	— 1.1	88	nw.	1	0.4			10 s		calm	0.06	1.5	cloudy	
Springfield, Illinois	29.58	751.3	30.30	769.6	49.1	9.5	93	ne.	7	3.1			10 s		e.	0.48	12.2	cloudy	
Springfield, Massachusetts	30.04	763.0	30.17	766.3	65.4	18.6	63	nw.	6	2.7		0	8 s		nw.	0.02	0.5	cloudy	
Stockton, Texas	26.97	685.0	30.12	765.0	65.0	18.3	90	se.	16	7.2		0	1 s		se.	0	0	clear	
St. Vincent, Minnesota	29.40	746.7	30.32	770.1	23	— 5.0	92	s.	8	3.6			10 s		calm	inap.	inap.	cloudy	
Thatcher's Island, Mass.	30.05	763.3	30.10	764.5	64.2	17.9	84	sw.	11	4.9		4 ck	hz	w.		0	0	fair	
Toledo, Ohio	29.58	751.3	30.30	769.6	54	12.2	74	n.	3	1.3		4 ck;c	0			0.45	11.4	fair	
Tucson, Arizona	27.49	698.2	29.93	760.2	43	6.1	53	se.	3	1.3		0	0			0	0	clear	
Umatilla, Oregon	29.77	756.1	30.20	767.1	40.0	4.4	89	se.	4	1.8			10 s		calm	0.04	1.0	cloudy	
Uvalde, Texas	29.07	738.4	29.86	758.4	72	22.2	84	se.	4	1.8			10 s		s.	0	0	cloudy	
Vicksburg, Mississippi	29.95	760.7	30.21	767.3	68	20.0	84	se.	5	2.2		hz	0	calm		0	0	clear	
Visalia, California	29.68	753.9	30.05	763.3	40	4.4	86	nw.	2	0.9		0	0			0	0	clear	
Washington, D. C.	30.12	765.0	30.24	768.1	66	18.9	93	calm	0	0		0	fg			0	0	clear	
West Las Animas, Colorado	25.98	659.9	30.06	763.5	37.5	3.1	55	nw.	6	2.7		0	3 s		sw.	0	0	clear	
Wickenburg, Arizona					34	1.1	50	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.25	768.3	30.31	769.9	66	18.9	68	calm	0	0		0	fg		calm	0	0	clear	
Winnemucca, Nevada	25.65	651.5	30.11	764.8	21	— 6.1	80	ne.	4	1.8			10 ks		sw.	0	0	cloudy	
Wood's Holl, Mass.	30.09	764.3	30.13	765.3	64.5	18.1	92	sw.	24	10.7		4 ck	2 s	sw.	sw.	0	0	fair	
Yankton, Dakota	28.96	735.6	30.32	770.1	32	0.0	88	e.	5	2.2		10 cs	0			0	0	cloudy	
Yuma, Arizona	29.76	755.9	29.90	759.4	49.0	9.4	50	se.	5	2.2		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡	29.96	761.0	29.98	761.5	84	28.9	91	e.	10	4.5		5 k	10 ks			0.20	5.1		J. A. Racker.
Bogota, U. S. Columbia	22.00	558.8			51.5	10.8	76	calm	0	0		0	2 s			0	0	clear	Joaquin Gomez.
Buenaventura, U. S. C.	30.02	762.5	30.04	763.0	76	24.4	90	sw.					0			0.40	10.2	clear	J. B. Dougherty.
Guadeloupe, W. I.‡	29.88	758.9	29.88	758.9	83	28.3	87	e.				5 c	0			0.40	10.2		B. Bigar.
Havana, Cuba, W. I.	29.99	761.7	30.04	763.0	78	25.6	88	calm	0	0		0	8 ks		e.	0.05	1.3	cloudy	A. Van Caneghem, Ass't
Kingston, Jamaica, W. I.	29.96	761.0	29.97	761.2	77.3	25.2	84	e.	6	2.7			10 s			1.30	33.0	squally	Robert Johnstone.
Navassa, W. I.	29.87	758.7	29.95	760.7	76	24.4	90	e.	13	5.8			10			0.04	1.0	stormy	F. M. Everett.
Paramaribo, S. A.	29.97	761.2	29.98	761.5	81	27.2	78	e.			1	4 c	4 k	e.		0.610	15.5	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.42	747.3	29.98	761.5	76	24.4	94	calm					10 ks		calm	2.97	75.4	raining	Francesco J. Cisneros.
Rivas, Nicaragua					71.6	22	98	calm			0	3 ck	0			1.437	36.5		Earl Flint.
Santiago de Cuba, W. I.	29.96	761.0	29.99	761.7	77	25.0	76	calm	0	0			0			0	0	clear	Robert Mason.
St. Thomas, W. I.‡	29.89	759.2	30.00	762.0	81	27.2	82	e.	2	0.9		1 c	4 ks	nw.	e.	0.03	0.8	fair	G. O. Gyllich.
York Factory, B. A.	30.07	763.8	30.12	765.0	4.0	—15.6	87	nw.	13	5.8		0	0			0	0	clear	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, S. 10° 25′, E. 136° 27′	29.91	759.7	78.2	25.7	73	se.			3		4							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Port Mahon, Minorca, Spain	30.24	768.1	64	17.8	73	nnw.			3		6	nnw.						d. clouds	Capt. Lord Walter Kerr
H. M. S. Antelope, N. 40° 23′, E. 28° 53′	30.05	763.3	78	25.6		e.			1		2							d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 45° 24′, W. 46° 19′	30.16	766.1	49	9.4	93	w.			4		9					4	wnw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.04	763.0	72	22.2	69	ese.			1–2		2	ese.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao Bay, Peru	29.98	761.5	61	16.1	100	calm			0		10							drizzling	Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.15	765.8	71	21.7		wnw.			4		4	wnw.				3	wnw.	squally	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile																			Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 01′, E. 137° 32′	29.92	760.0	72	22.2	95	sse.			2		8	sse.				1	sse.	squally	Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.96	761.0	71	21.7		sse.			1		1	sse.						blue sky	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 11° 59′, W. 9° 45′	30.02	762.5	71	21.7		se.			3		10	ese.				3	sse.	d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.25	768.3	75	23.9	92	ese.			1–2		3	ese.						d. clouds	Capt. T. Bernardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 51° 36′, W. 55° 27′	29.54	750.3	36.5	2.5	95	sse.			2–4		10							snow & fog.	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.87	758.7	84	28.9		sw			1		5	sw.				1	w.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 0° 40′, E. 84° 58′	29.86	758.4	83	28.3		sw.			3		8	sw.				2	sw.	d. clouds	Capt. E. St. J. Garforth
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 37° 05′, E. 178° 45′	29.97	761.2	59	15.0	?	sse.			6–7		10	n.				6	s.	raining	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.82	757.4	83	28.3	83	w.			1		8	ne.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 49° 30′, W. 55° 48′	29.31	744.5	34	1.1		w.			8–9		10	w.				4	w.	raining	Capt. W. C. Karslake.
H. M. S. Fawn, S. 23° 38′, E. 35° 32′	30.23	767.8	70.5	21.4	62	ese.			3		4					3	sse.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 17° 55′, W. 81° 21′	29.88	758.9	85	29.4	79	ene.			3		1	ne.				2		blue sky	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 4° 15′, W. 158° 20′	29.79	756.7	80	26.7	78	se.			4		6	s.						showery	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	29.82	757.4	68	20.0	94	n.			2		10							overcast	Capt. L. F. Jones.
H. M. S. Griffon, N. 17° 37′, W. 79° 44′	29.89	759.2	83	28.3	79	e.			3		6					7	ne.	d. clouds	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 28° 40′, E. 141° 20′	29.99	761.7	79	26.1	91	sse.			1		8	sse.						gloomy	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′ E. 129° 50′	29.90	759.4	64	17.8		calm			0		2							d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.86	758.4	81	27.2		s.			2		1	calm				1	se.	blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, Simon's Bay, Cape Colony	29.89	759.2	85	29.4		nnw.			2		0							blue sky	Comm. F. H. Haygorth.
H. M. S. Lark, S. 35° 32′, E. 10° 32′	29.89	759.2	65	18.3	89	wsw.			2		10					1	e.	misty	Lieut. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, Hong Kong, China	29.92	760.0	79.5	26.4	83	calm			0		8							misty	Lieut. A. Balfour.
H. M. S. Malabar, N. 15° 59′, E. 58° 47′	29.88	758.9	84	28.9	87	e.			1		3	e.				1	ne.	d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 37° 25′, W. 9° 38′	30.07	763.8	67	19.4	84	ne.			3		2	nnw.				2	nnw.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead,
H. M. S Monarch, Sfax, Tunis	30.08	764.0	74	23.3	95	calm			0		2	ene.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.19	766.8				calm			0		0							blue sky	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S. Northampton																			Capt. E. B. Drummond.
H. M. S. Orontes, N. 15° 59′, W. 30° 07′	30.02	762.5	81	27.2	87	nne.			3–5		4	nne.				2	ene.	misty	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 31° 04′, W. 65° 37′	30.28	769.1	76	24.4	90	e.			3		5	e.				4	e.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	29.97	761.2	42	5.6	83	ssw.			3		10							raining	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.87	758.7	85.3	29.6	72	nw.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 31° 18′, W. 17° 17′	30.23	767.8	74	23.3	90	ese.			2		3	ene.				1	ene.	d. clouds	
H. M. S. Sea Gull, S. 13° 40′, E. 42° 20′	29.59	751.6	79	26.1	95	s.			4		2	sse.				3	sse.	d. clouds	Comm. W. Byles.
H. M. S. Serapis, S. 30° 50′, E. 34° 40′	30.35	770.9	69	20.6	65	nne.			2		3	nne.				1	ne.	d. clouds	Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			
H. M. S. Tamar, S. 26° 32′, E. 7° 00′	30.00	762.0	66	18.9	73	se.			1		6	se.				1	se.	d. clouds	Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 25° 17′, W. 118° 24′	30.02	762.5	64	17.8	100	nne.			5		4					4	n.	d. clouds	Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 20° 48′ W. 83° 30′	30.21	767.3	63	17.2	67	ese.			5		10	se.				5	ese.	overcast	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.92	760.0	79	26.1		e.			2		5							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.87	758.7	64	17.8	89	ne.			2		3	ne.						d. clouds	Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, N. 24° 35′, E. 58° 17′	29.79	756.7	87.5	30.8	69	nw.			2		0					3	w.	misty	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo																			Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, N. 15° 20′, W. 23° 50′	30.16	766.0	83.3	28.5	88	ne.			3		2	ne.				1	ne.	d. clouds	
Rio Lima																			Carlos M. de Silva Costa.
Sado																			C. da Silva Costa.
Tamega, Macao, China	29.95	760.8	76.1	24.5	80	nne.			2									blue sky	G. A. de Brito Capello.
																			P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulmer.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	OBSERVERS.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.25	768.3	76	24.4	82	ne.	4	1.8			0			0	0			clear	
N. Yard, Portsmouth, N. H.	30.00	762.0	65	18.3	89	w.	19	8.5		2 0	0	w.		0	0			fair	
Naval Hospital, Yokohama, Japan	29.88	758.9	66.5	19.2	81	calm			0		10		w.	0.01	0.3			light rain	
Adams, Callao, Peru	29.81	757.2	61	16 1	94				2		10					sm'h		cloudy	
Alaska, Callao, Peru	29.97	761.2	60	15.6	94	calm			0		0			0	0	sm'h		clear	
Alert, N. 34° 32′, E. 138° 56′...*.	29.88	758.9	73	22.8	72	sw.			3		10					sm'h	sw.	rainy	
Alliance. N. 63° 00′, W. 25° 55′	29.56	750.8	43	6.1	83	wsw.			4		10			light	light	long	sw.	raining	
Ashuelot, Kobe, Japan	30.03	762.7	67	19.4	79	ne.			1		10		calm					drizzling	
Colorado, New York, N. Y.	30.17	766.3	67	19.4	89	ssw.	4	1.8			2							fair	
Constitution. Off New London, Conn.	30.17	766.3	64	17.8	100	w.	4	1.8			2		w.					hazy	
Franklin, Yorktown, Va	30.17	766.3	68	20.0	?	sw.	13.2	5.9			0			0	0			clear	
Galena, Salonika, Turkey	29.98	761.5	70	21.1	85	wsw.			1		8		wsw.			sm'h		fair	
Independence, N. Yard, Mare I'd, Cal.	30.10	764.5	55	12.8	74	calm	0	0			0							clear	
Kearsarge, Yorktown, Va	30.26	768.6	69	20.6	90	sw.			2		0					sm'h		hazy	
Lackawanna. San Francisco, Cal.....†	30.26	768.6	53	11.7	100	sw.			1		0							clear	
Lancaster, N. 35° 56′ W. 64° 43′	30.33	770.4	73	22.8	81	sse.			1		8		se.	0	0	sm'h		d. clouds	
Marion, Montevideo, Uruguay	29.69	754.1	64	17.8		e.			3		10		calm			sm'h		misty	
Michigan, Erie, Pa	30.04	763.0	55	12.8	80	ne			2		10		ne.					cloudy	
Monocacy, Yokohama, Japan	30.08	764.0	69	20.6	85	wnw.			1		10		nw.					rainy	
Nipsic, Genoa, Italy	29.94	760.5	63	17.2	29	nne.			4		2					sm'h		squally	
Onward, Callao, Peru.....†	30.01	762.2	60	15.6	100	sse.			1		10		nnw.			long	w.	misty	
Palos, Hong Kong, China	29.93	760.2	78	25.6	78	calm			0		8		calm					fair	
Passaic, Washington, D. C.	30.19	766.8	68	20.0	84	sw.			1		0			0	0			clear	
Pensacola, Callao, Peru,	30.03	762.7	58	14.4	94	se.			0-1		10			0	0			cloudy	
Portsmouth, Yorktown, Va	30.27	768.8	67	19.4	100	sw.			3							sm'h		misty	
Powhatan. Newport, R. I.	30.09	764.3	65	18.3	89	sw.			3		2		w.					fair	
Quinnebaug, Marseilles, France	30.10	764.5	54	12.2	49	nnw.			6		0							clear	
Ranger, San Francisco, Cal.....*..	30.07	763.8	54	12.2	74	nne.			1		0			0	0	sm'h		clear	
Saratoga. Yorktown, Va	30.25	768.3	68	20.0	?	sw.			2		0			0	0	sm'h		hazy	
St. Louis, League Island, Pa	29.91	759.7	64	17.8	94	s.	8	3.6			0			0	0			clear	
Swatara. Nagasaki, Japan.....†.	29.96	761.0	67	19.4	74	nne.			2		10		calm			sm'h		cloudy	
Tennessee, Yorktown, Va	30.28	769.1	69	20.6	?	sw.	15	6.7			0			0	0			hazy	
Vandalia. Yorktown, Va	30.26	768.6	69	20.6	90	sw.			3		0							clear	
Wabash, Boston, Mass	30.08	764.0	68	20.0	79	wsw.	11	4.9			8		w.	0	0			cloudy	
Wachusetts, Sitka, Alaska	29.95	760.7	38	3.3	100	ne.			1							sm'h		foggy	
Wyoming, Port Royal, S. C.	30.22	767.6	72	22.2	95	ne.	8	3.6			8		ne.	0	0			cloudy	
Yantic, Norfolk, Va.....*..	30.25	768.3	69	20.6	95	s.			1		0							hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind. Up'er	Amount and kind. Lo'er	Direction. Upper.	Direction. Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, Montreal, Canada.....*†	30.31	769.9	.....	.....	.....	nw.	2	.....	2	.....	w.	.....	.....	.....	.....	clear.....	N. McLean.
S. S. Circassian, Capt. W. H. Smith.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, Agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, Off Cape Henlopen, Del.....†	30.22	767.6	67	19.4	94	s.	3	.....	2	.....	s.	.....	.....	sm'h	sw.	very fine....	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, St. George's Channel Eng.....†	30.28	769.1	51	10.6	26	ese.	5	.....	2	.....	ese.	0	0	sm'h	se.	fair.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 44° 38′, W. 54° 07′.....*†	29.92	760.0	57	13.9	93	s.	2	.....	5	.....	s.	.....	.....	r'gh	s.	rainy.....	.....
S. S. Pennsylvania, Capt. G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, S. 41° 13′, W. 2° 58′.....	29.46	748.3	51	10.6	100	nw.	6	.....	10	.....	.....	.....	.....	.....	.....	drizzling.....	.....
S. British Merchant, Capt. E. J. Moloney...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bq. Caldew, Capt. N. W. Petersen.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Cipero, Capt. W. N. Lailey, Ulua River, Honduras, C. A.....	29.96	761.0	74.2	23.4	95	s.	3	.....	6	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bk. Commeywyne, Capt. W. Scott, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Glaramara, Capt. R. Morton, N. 33° 56′, W. 124° 01′..... .....‡	30.20	767.1	55	12.8	74	nnw.	5	.....	4	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Gordon Castle, Capt. W. Waring, N. 6° 30′, E. 78° 45′.....	29.85	758.2	87.5	30.8	83	wsw.	3	.....	5	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bg. Hermine, Capt. S. G. Jones, S. 39° 06′, W. 55° 35′.....	30.07	763.8	49.2	9.6	96	ese.	6	.....	10	.....	.....	.....	.....	.....	.....	overcast.....	.....
Bkt. Hope, Capt. Jas. Campbelle, N. 42° 16′, W. 17° 00′ .....‡	30.02	762.5	66.9	19.4	97	sse.	5	.....	10	.....	.....	.....	.....	.....	.....	overcast.....	.....
Island Belle, Capt. A. McBride,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, S. 5° 20′, E. 87° 23′.....	29.98	761.5	83.8	28.8	82	var.	1	.....	8	.....	.....	.....	.....	.....	.....	showery.....	.....
Bk. Mertola, Capt. E. W. Turner.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Moorhill, Capt. J. Brown, S. 56° 08′, W. 78° 39′	29.74	755.4	41.5	5.3	75	wnw.	5	.....	8	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Naiad, Capt. J. Smith, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pleione, Capt. C. H. Renant, S. 45° 01′, E. 124° 22′.....	30.09	764.3	44	6.7	67	w.	4	.....	10	.....	.....	.....	.....	.....	.....	overcast	.....
Queen of Cambria, Capt. M. Parry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Rosetta, Capt. A. E. Barlow, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sierra Estralla, Capt. P. Murdoch,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 47° 15′, W. 16° 10′.....	29.94	760.5	61.0	16.1	94	sse.	6	.....	10	.....	.....	.....	.....	.....	.....	misty.....	.....
S. S. Strathleven, Capt. C. W. Pearson N. 34° 30′, E. 138° 30′.....	29.96	761.0	72.0	22.2	95	sw.	3	.....	10	.....	.....	.....	.....	.....	.....	showery.....	.....
S. S. Thames, Capt. Luckhurst N. 54° 28′, W. 22° 40′.....	29.40	746.7	54.5	12.5	100	se.	2	.....	10	.....	.....	.....	.....	.....	.....	raining.....	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin N. 4° 37′, E. 55° 42′	29.75	755.6	81	27.2	.....	wsw.	1–2	.....	2	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
CALIFORNIA, AND MEXICAN S. S. CO.																	
J. Birmingham, Agent San Francisco.																	
S. S. Newbern, Capt. E. Rogers N. 26° 36′, W. 110° 39′.....	29.66	753.4	81	27.2	91	nnw.	3	.....	2	.....	.....	0	0	small	nw.	clear.....	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., Agents, New York.																	
S. S. Gallia, Capt. W. H. P. Hains, N. 41° 55′, W. 60° 04	30.16	766.1	45	7.2	.....	sw.	5	.....	8	.....	se.	0	0	light	sw.	misty.....	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD.																	
A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.																	
Braunschweig, Capt. C. Pohle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Hermann, Capt. H. Baur	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N. 49° 23′, W. 25° 53′.....	29.35	745.5	54.5	12.5	100	n.	5	.....	10	.....	n.	17h'rs	rain	r'gh long	n; ese.	raining.....	T. Jüngst.
S. S. Leipsic, Cept. F. Pfeiffer. N. 46° 46′, W. 48° 40′.....	30.17	766.3	54.0	12.2	61	sw.	3	.....	2	.....	.....	2 h'r	2 h'r	fg. mod.	n.	clear.....	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 40° 46′, W. 67° 01′.....	30.21	767.3	65.5	18.6	94	sw.	6	.....	2	.....	w.	0	0	mod.	sw.	hazy.....	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, N. 43° 48′, E. 167° 56′.....†..	29.72	754.9	54	12.2	93	ese.	6	.....	10	.....	ese.	rain	rain	mod.	cf'd	overcast.....	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 27° ′,46 E. 124° 30′.....*†..	30.13	765.3	81	27.2	87	ssw.	4	.....	2	.....	w.	.....	.....	mod.	se.	clear.....	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 35° 29′, W. 161° 54′.....	30.17	766.3	69	20.6	85	wsw.	3	.....	8	.....	wsw.	0	0	sm'h	.....	cloudy.....	.....
OREGON IMPROVEMENT CO.																	
John L. Howard, Agent, San Francisco.																	
S. S. Mississippi, Capt. E. W. Holmes, Seattle, Wash. Ter .....†..	30.12	765.0	43	6.1	?	s.	2	.....	8	.....	s.	.....	.....	.....	.....	light rain.....	.....
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Otterendorp, Agent, San Francisco.																	
S. S. City of Chester, Capt. G. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon, Capt. E. Polemann, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Pohl, 2d Officer
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 32° 28′, W. 121° 07′ †	30.05	763.3	51	10.6	86	n.	3		0					mod.	nw.	clear	J. W. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound †	30.00	762.0	44	6.7	76	s.	2		7		se.	16 h'r	16 h'r			cloudy	
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal. †	30.13	765.3	50	10.0	93	nw.	3		0							clear	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 36° 23′, W. 121° 55′ †	30.14	765.5	45	7.2	92	nw.	2		0					mod.	nw.	fair	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 36° 18′, W. 121° 54′ †	30.16	766.1	50	10.0	65	n.	2		0					mod.	nw.	clear	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †	30.09	764.3	43	6.1	100	calm	0		8							cloudy	G. Debney.
S. S. Victoria, H. M. Hayward, N. 44° 19′, W. 124° 21′ †	30.13	765.2	46	7.8	84	se.	3		2					light	nw.	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——,																	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, S. 11° —′, W. 168° 50′ †	29.91	759.7	82	27.8	91	n.	4		10		n.	h'vy	h'vy	mod.	n.	heavy rain	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 22° 46′, E. 116° 38′ *†	30.00	762.0	86	30.0	84	ene.	2		2		ene.	0	0	sm'h		clear	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— La Libertad, San Salvador †	29.91	759.7	79	26.1	91	sw.	2		5		w.	0	0	mod.	sw.	fair	
S. S. City of Sydney, Capt. H. C. Dearborn, Auckland, New Zealand *†	29.89	759.2	62	16.7	77	s.	3		5		sw.	0	0	sm'h		fair	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 37° 50′, W. 125° 13′ †	30.25	768.3	58	14.4	70	nnw.	5		0					long	n.	clear	A. L. Ritchie, 2d Offl.
S. S. Colima, R. R. Searle N. 13° 30′, W. 89° 18′ †	29.9e	759.4	75	23.9	95	nw.	2		6		calm	0.15	3.8	mod.	sw.	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly																	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.10	764.5	62	16.7	77	e.	2		5		e.					fine	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N 48° 57′, W. 42° 24′ †	30.49	774.4	46	7.8		nnw.	6		2		nw.	4 h'r	4 h'r	r'gh	nw.	squally	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, N. 49° 22′, W. 22° 37′ †	29.48	748.8	59	15.0	88	sse.	6		10		sse.	0.1	3.	high	se.	stormy	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 41° 41′, W. 53° 14′ †	30.33	770.4	58	14.4		ssw.	4		10		s.	0	0	sm'h		cloudy	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 50° 52′, W. 15° 41′ †	29.91	759.7	59	15.0	94	ssw.	7		10		sw.	driz.	driz.	h'vy	s.	misty	
S. S. Celtic, Capt. B. Gleadell,																	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, New York, N. Y. †	30.23	767.8	62	16.7	94	sw.	2		2		sw.	0	0			d. clouds	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 49° 33′, W. 36° 30′ †	29.56	750.8	56	13.3	87	nnw.	4		5		nw.	2 hr	light	mod.	nw.		
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Washington, D. C. †	30.34	770.6	71	21.7	95	sw.	1	0	0			0	0			clear	
Golden Fleece																	
Hassler Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	
S. Pawashick, Capt. E. Fry																	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz N. 32° 58′, W. 59° 36′ †	30.56	776.2	71	21.7		ene.	4		5		e.			long	nne.	fair	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, N. 36° 51′, W 34° 30′ †	30.02	762.5	68	20.0	70	nnw.	8		5		nw.	light	light	h'vy	wnw.	fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 17, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			30.08	764.0	73.4	23.0	83	w.			6		2			0	0	fair	Moiroud.
Algiers ‡			30.11	764.7	69.1	20.6	68	ne.			4		0			0	0	clear	Nicolas.
La Calle ‡			30.11	764.8	72.7	22.6	66	n.			1		7			0	0	very cloudy	Fonfréde.
Tunis ‡			30.11	764.7															Jacques.
Sfax ‡																			Gan.
Saida ‡			30.10	764.6	79.9	26.6	21	sw.			2		1			0	0	very fair	Dumas.
Tebessa ‡			30.13	765.2	63.0	17.2	59	nnw.			1		2			0	0	fair	Derché.
Geriville ‡					74.8	23.8	17	nw.			5		1			0	0	clear	Lonchamp.
Laghouat ‡			30.14	765.5	70.9	21.6	27	se.			2		0			0	0	clear	Herbin.
Biskra ‡			30.13	765.3	79.2	26.2	38	nnw.			1		2			0	0	fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.89	759.2	29.98	761.5	52.0	11.1	80	s.	12	5.4			3			0.01	0.3	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.55	750.6	30.11	764.7	50.4	10.2	42	w.			3		7			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.32	744.8	30.11	764.8	42.3	5.7	77	nnw.	8.1	3.6			10			0.094	2.4		Dr. Wiersbicki.
Eperies	29.06	738.1	29.96	761.0	41.0	5.0	84	n.			3		10 ns		s.	0	0		Julius Mikolik.
Gratz ‡	28.83	732.3	30.10	764.4	48.2	9.0	42	nw.			5		7			0	0		Andreas Rospini.
Hermannstadt	28.41	721.5	29.84	758.0	49.8	9.9	100	nw.			1		10			0.413	10.5	raining	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.89	733.7	30.27	768.8	42.6	5.9	72	nw.			3		8			0.217	5.5	gloomy	The Staff.
Lemberg	28.97	735.9	29.98	761.6	40.5	4.7	92	ne.			1		10			0.189	4.8		Dr. T. Stanecki.
Pola	30.02	762.6	30.14	765.5	57.2	14.0	46	n.			2		3			0.413	10.5		I. R. Hydrographic Office.
Szathmar	29.34	745.2	29.81	757.2	48.6	9.2	91	n.			1		10			0.480	12.2		Jozsef Midlinszky, S. J.
Szegedin	29.65	753.2	29.94	760.5	42.4	5.8	91	nw.			3		10			0.331	8.4		Karl Stancel.
Trieste	30.05	763.3	30.15	765.9	55.8	13.2	68	calm			0		2			0	0		Rieder.
Vienna	29.45	748.1	30.19	766.7	45.7	7.6	60	nw.			5		9			0.008	0.2		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 18, 1881.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.06	763.5	30.16	766.1	45.3	7.4	73	s.	19	8.5			6			0	0	misty	W. Boswell.
Armagh, Observatory	29.94	760.5	30.17	766.3	53.0	11.7	73	s.	15	6.7			8					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.31	769.9	49.1	9.5	71	se.	14	6.3			1					blue sky	John Hartnup.
Bolton, Sharples	29.76	755.9	30.31	769.9	48.1	8.9	62	ssw.	12	5.4			0					blue sky	Thomas Mackereth.
Bradford, Yorkshire	29.90	759.4	30.30	769.6	47.5	8.6	59	sw.			1		3			0	0	d. clouds	J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.36	771.1	49.0	9.4	71	ne.			0.2		2					blue sky	John McLaren.
Chatham, School M. E.	30.26	768.6	30.39	771.9	53.7	12.1	64	s.			1		3					d. clouds	R. Craydon, R. E.
Falmouth, Observatory	30.06	763.5	30.29	769.4	52.1	11.2	54	e.			5		6					squally	The Staff.
Fort Napier, Natal	27.79	705.9	30.01	762.2	82.0	27.8	40	se.			1		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.61	752.1	29.84	757.9	88.0	31.1	72	w.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.99	761.7	57	13.9	74	s.			4		8					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	30.01	762.2	30.06	763.5	70.0	21.1	90	e.			3		10					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	30.01	762.2	30.21	767.3	51.5	10.8	75	s.			2		10 k					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.23	767.8	30.41	772.4	53.5	11.9	60	ssw.			1		3					blue sky	The Staff.
Guernsey	30.10	764.5	30.32	770.1	52.5	11.4	56	ese.			3		0					blue sky	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.37	771.4	30.40	772.1	49.5	9.7	64	s.	9	4.0			2					misty	The Staff.
Leicester, Museum	30.10	764.5	30.36	771.1	50.2	10.1	59	sw.			1		2					blue sky	J. C. Smith.
Malta, Mediterranean	30.00	762.0	30.08	764.0	69.0	20.6	67	nw.			2		5			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.04	763.0	30.08	764.0	81.0	27.2	87	e.			1		7			blank	blank	d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.83	757.7	30.36	771.1	50.9	10.5	69	s.			2		2					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	30.14	765.5	30.37	771.4	49.5	9.7	56	sse.			3		5					d. clouds	The Staff.
Plymouth	30.24	768.1	30.32	770.1	52.0	11.1	66	se.			2		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.03	762.7	46.1	7.8	92	s.	23	10.3			10					raining	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.84	757.9	29.90	759.4	76.3	24.6	50	s.			1		7					d. clouds	Serg't W. H. Lyne.
Sheffield	30.05	763.3	30.34	770.6	50.7	10.4	71	sw.			1		1			0	0	blue sky	W. F. Cooper.
Silloth Rectory	30.22	767.6	30.25	768.3	52.7	11.5	65	sw.			2		10			0	0	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.91	759.7				ssw.	17	7.6			0					blue sky	Rev. S. J. Perry.
Stratfield Turgiss	30.17	766.3	30.39	771.9	52.3	11.3	59	sw.			2		2					blue sky	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.22	767.6	30.26	768.6	57	13.9	57	e.			6		2					blue sky	W. Newcombe.
Valencia, Observatory	30.01	762.2	30.03	762.7	56.3	13.5	77	se.	48	21.5			10			blank	blank	misty	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.37	771.4	30.42	772.7	39	3.9	80	wnw.	4	1.8		0	8 ks			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.45	773.4	30.52	775.2	33	0.6	63	nw.	12	5.4		8 ck	2 ks	nw.	nw.	0	0	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.55	776.0	30.57	776.5	30	— 1.1	88	n.	15	6.7		0	2 s		n.	0	0	clear	J. McWilliams.
Fort Garry, Manitoba*	29.48	748.8	30.35	770.9	28	— 2.2	92	e.	7	3.1		5 k	5 n	e.	e.	0.012	0.3	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.30	769.6	30.43	772.9	41	5.0	65	nw.	7	3.1		8 k	0	nw.		0	0	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.94	760.5	30.28	769.1	43	6.1	79	n.	15	6.7			10 ks		n.	0	0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	30.23	767.8	30.44	773.2	37	2.8	76	ne.	9	4.0			10 n			inap.	inap.	light snow	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.58	751.3	30.29	769.4	40	4.4	96	se.	3	1.3			10 n		se.	0.13	3.3	light rain	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.49	749.0	30.19	766.8	50	10.0	93	ne.	8	3.6		5 k	5 n	sw.	sw.	0	0	cloudy	H. Morgan.
Port Stanley, Ontario	29.50	749.3	30.15	765.8	52	11.1	89	e.	4	1.8			10 n		sw.	inap.	inap.	cloudy	M. Payne.
Quebec, Quebec*	30.15	765.8	30.49	774.4	35	1.7	69	ne.			6		8ks		nw.	0	0	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.92	760.0	30.40	772.1	34	1.1	82	se.	3	1.3			10 n			0.05	1.3	light snow	W. H. McIntyre.
Saugeen, Ontario*	29.47	748.5	30.19	766.8	43	6.1	100	ne.	8	3.6			10 s			0.61	15.5	heavy rain	K. Stewart.
St. Andrews, N. B.	30.42	772.7	30.48	774.2	40	4.4	64	ne.	2	0.9			10 n			0	0	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.31	769.9	30.37	771.4	39	3.9	62	nw.	16	7.2		2k	2 ks			0	0	clear	T. C. Hill, C. E.
Toronto, Ontario*	29.84	757.9	30.23	767.8	48	8.9	80	e.	18	8.0			10 n		e.	inap.	inap.	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.39	771.9	30.46	773.7	44	6.7	86	ne.	2	0.9		10 k	0	w.		0	0	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.88	758.9	30.14	765.5	36	2.2	90	w.	5	2.2		0	0			0.16	4.1		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	29.99	761.7	30.02	762.5	68.0	20.0	90	ne.	7.7	3.4		0	1 s			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.20	741.7			97.9	36.6	17	nw.			1	0	1			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai.	30.19	766.8	30.22	767.5	58.8	14.9	82	nnw.	8.9	4.0		0	5			0.150	3.8	cloudy	M. Marc Dechevrens, S. J.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper.	Lower.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.21	767.4	30.26	768.6	45.9	7.7	62	nnw.	13	6			0						Oversergent Fischer.
Fanöe	30.28	769.0	30.30	769.5	47.3	8.5	62	nw.			4		5						Overloerer Lauridsen.
Godthaab, Greenland	29.35	745.5	29.39	746.6	25.7	—3.5	89	n.			2		10						S. Kleinschmidt.
Stykkisholm, Iceland	29.16	740.7	29.21	741.8	39.9	4.4	77	sw.			6		10					raining	A. O. Thorlacius.
Thorshavn	29.67	753.6	29.71	754.5	51.8	11.0	92	se.	29	13			10					raining	Overloerer Bergh.
Vestervig	30.18	766.6	29.27	768.9	46.2	7.9	71	calm			0		1						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.56	750.8	30.21	767.3	58.6	14.8	22	ne.			1		0					clear	M. Labroue, Director.
Alençon Normal School	29.89	759.2	30.49	774.5	45.0	7.2	85	n.			2		k			0	0		M. Nicot, Director.
Arras, Engineer School	30.15	765.8	30.41	772.5	50.7	10.4	70	s.					k		s.				M. Klein, Commandant.
Avignon, Normal School	30.15	765.7	30.22	767.7	56.3	13.5	37	n.			4		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.84	757.9	30.41	772.5	47.8	8.8	63	ese.			1		5kn		e.	0	0	cloudy	M. Saillard, Director.
Beauvais, Normal School	30.18	766.6	30.46	773.6	46.0	7.8	72	e.			1		2		e.	0	0	slightly cl'dy	M. Frère Eugène Marie.
Besançon, Normal School	29.49	749.0	30.35	772.0	46.4	8	59	ene.			2	5 c	0			0	0	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.95	760.7	30.21	767.4	54.3	12.4	43	e.			1		0			0	0	clear	M. Rayet, Director.
Bourges, Normal School	29.79	756.6	30.35	770.9	52.5	11.4	43	e.			1		1		e.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	30.02	762.6	30.27	768.8	55.4	13.0	35	s.			2		1		s.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.33	770.3	30.40	772.1	51.8	11	68	s.			3		0			0	0	clear	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	30.05	763.3	30.38	771.7	48.2	9.0	83	e.			1		5			0	0	cloudy	M. Jadot, Director.
Charleville, Normal School	29.90	759.5	30.43	772.8	48.6	9.2	69	s.			1		3			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.93	734.7	30.29	769.4	54.3	12.4	35	e.			1		0			0	0	clear	M. Alluard, Director.
Cluny, Normal School	29.69	754.1	30.21	767.2	51.6	10.9	74	n.			1		1		n.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.56	750.7	30.45	773.4	43.7	6.5	74	nw.			1		5kn	nw.	nw.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.59	700.9	30.19	766.9	42.3	5.7	81	n.			3					0	0		M. Jeangirard, Director.
Gréasque, du Rhone	29.06	738.0	30.20	767.0	59.0	15.0	33	nw.			2		5		sw.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.53	750.0	30.31	769.8	52.5	11.4	44	nne.			2		k		nne.	0	0		M. Ablard, Director.
Guéret, Normal School	28.70	728.9	30.31	769.8	46.4	8	40	se.			3		0			0	0	clear	M. Rivoire, Director.
Lamballe, Normal School	30.06	763.4	30.33	770.4	50.9	10.5	48	se.			4	2 c	0	se.		0	0	clear	M. Ollitrault, Director.
Lescar, Normal School	29.56	750.9	30.12	765.1	62.2	16.8	56	e.			2					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	30.22	767.7	30.31	769.8	53.6	12	54	ene.			4		0			0	0	clear	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.46	722.9	30.33	770.3	51.6	10.9	35	nnw.			2		0			0	0	clear	M. André, Director.
Mans, Normal School	30.06	763.6	30.38	771.7	49.5	9.7	42	ne.			4		0			0	0	clear	M. Piboen, Director.
Marseille, Observatory	29.88	759.0	30.15	765.9	62.1	16.7	40	wnw.			1		4		se.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.95	633.7	30.19	766.7	51.8	11.0	41	e.	5.6	2.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	30.08	764.1	30.19	766.9	59.7	15.4	61	ne			4		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.60	751.9	30.38	771.6	44.6	7	46	n.			1		5kn			0.059	1.5	cloudy	M. Hasse.
Nantes, Observatory	30.19	766.8	30.35	771.0	53.2	11.8	43	se.			2-4	2 c; ck	0	n.		0	0		M. Larocque, Director.
Nice	30.11	764.8	30.15	765.7	62.2	16.8	47	se.			2		5	se.	se.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	30.11	764.7	30.21	767.4	59.4	15.2	31	se.	7.4	3.3			0			0	0		Dr. Fines.
Pic-du-Midi, Summit	21.39	543.2			42.3	5.7		sw.			1		0			0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					52.5	11.4	28	n.			3		10	n.		0	0	covered	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.28	642.1			28.6	—1.9	85	e.			4		0			0	0	clear	M. Alluard, Director.
Rochefort, Naval Obs'y	30.26	768.5	30.29	769.3	55.0	12.8	86	ene.			2		2		n.	0	0	¼ covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	30.08	763.9	30.29	769.4	52.9	11.6	50	e.			4		2		ne.	0	0	slightly cl'dy	M. Mouillot, Director.
Rodez, Normal School	28.12	714.3	30.32	770.0	48.6	9.2	34	w.			2		0			0	0	clear	M. Richard, Director.
Rouen, Normal School	30.37	771.3	30.41	772.4	47.8	8.8	63	s.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School	30.22	767.5	30.37	771.5	52.0	11.1	57	se.			2		2		se.	0	0	slightly cl'dy	M. Delaplanche, Dir.
Saint Maur, Observatory	30.26	768.5	30.42	772.7	49.5	9.7	63	ne.			1		5		ese.	0	0		M. Renou, Director.
Toulouse, Observatory	29.52	749.7	30.24	768.2	60.4	15.8	35	ese.			1		1	w.		0	0	clear	M Bailland, Director.
Tours	30.13	765.2	30.32	770.2	51.1	10.6	48	ene.			2		0			0	0	clear	M. de Tastes.
Versailles, Observatory	29.92	759.9	30.41	772.4	47.1	8.4	59	se.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	30.14	765.5	30.43	772.9	49.8	9.9	63	ese.			1		4		e.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.46	748.2	30.33	770.3	46.4	8.0	60	w.			1		6 n	w.		0.039	1.0		Prof. Dr. Hoh.
Berlin	30.06	763.5	30.24	768.0	51.8	11.0	58	n.			4		3					raining	Prof. Dr. Arndt.
Breslau	29.65	753.1	30.19	766.7	44.4	6.9	74	nw.			4		10			0	0		Royal University Obs'y.
Carlsruhe	29.97	761.2	30.41	772.5	46.9	8.3	54	nw.			1		9	nw.		0	0		Albert Senz.
Cassel	29.60	751.7	30.32	770.0	47.1	8.4	52	nw.			4		5	nw.		0.012	0.3		Dr. H. Möhl.
Frankfort on the Main	30.00	762.0	30.38	771.6	47.7	8.7	49	nnw.			1		8			0	0		Physical Society.
Friedrichshafen	28.91	734.3	30.39	771.9	45.3	7.4	70	ssw.			2		9	e.		0	0		Wilhelm, Chief Tel.
Hamburg	30.22	767.0	30.32	770.0	49.3	9.6	65	nw.			3		9			0	0		E. Preller.
Kiel	30.25	768.4	30.27	768.8	46.8	8.2	63	nw.			4		8			0.008	0.2		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.80	758.5	30.30	769.5	47.1	8.4	67	nw.			4		7	wnw.		0.024	0.6		H. Leppig, Asst.
Magdeburg	30.08	764.1	30.28	769.0	50.5	10.3	65	nw.			3	0	3 k		nw.	0	0		Dr. Assmann.
Memel	30.01	762.2	30.06	763.4	48.0	8.9	78	nnw.			4-5	0	9 k						Issermann.
Munich	28.48	723.4	30.36	771.2	37.2	2.9	70	nw.			4		9	w.		0.055	1.4		Central Station.
Neufahrwasser	30.11	764.7	30.12	765.1	45.1	7.3	79	n.			3		9	nw.		0.008	0.2	sprinkling	A. Lothes.
Neustadt, Palatinate	29.85	758.2	30.39	771.8	46.0	7.8	59	w.			3		8			0	0		Dicknether.
Stuttgart	29.41	747.1	30.34	770.6	43.2	6.2	69	nw.			1		9	n.		0	0	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.82	732.1	30.39	771.9	39.9	4.4	77	nw.			2		10	nw.		0.024	0.6		Fischer.
Wustrow	30.20	767.0	30.22	767.6	49.3	9.6	70	nw.			2		0			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.56	750.9	29.94	760.5	76.6	24.8		sw.			3.5		7			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.74	755.4	29.79	756.7	84.0	28.9	79	sw.	17.0	7.6			0			0	0	blue sky	
Deesa	29.34	745.4	29.82	757.3	84.8	29.3	56	s.	9.0	4.0			0			0	0	blue sky	
Bombay	29.81	757.2	29.85	758.2	82.4	28.0	84	nnw.	15.0	6.7			0			0	0	blue sky	
Poona, Yarrowda.	27.98	710.8	29.80	757.0	88.3	31.3	33	sse.	1.0	0.4			4		w.	0	0	d. clouds	
Belgaum	27.30	693.3	29.80	756.8	83.5	28.6	39	nw.	4.0	1.8			1	n.		0	0	d. clouds	
Lahore	29.00	736.6	29.73	755.2	88.1	31.2	39	calm	1.8	0.8			0			0	0	blue sky	
Roorkee	28.88	733.5	29.77	756.2	82.8	28.2	56	se.	1.1	0.5			0			0	0		
Agra	29.24	742.7	29.80	756.8	90.2	32.3	42	nw.	3.6	1.6			0			0	0		
Nagpur	28.80	731.4	29.83	757.6	85.7	29.8	34	calm	2.8	1.2			4			0	0	d. clouds	
Jubbulpore	28.51	724.0	29.86	758.4	81.8	27.7	53	calm	1.1	0.5			0			0	0	blue sky	
Lucknow	29.41	747.1	29.78	756.5	89.1	31.7	34	wnw.	2.7	1.2			0			0	0	blue sky	
Allahabad	29.48	748.8	29.79	756.7	79.8	26.6	66	calm	2.7	1.2			0			0	0	blue sky	
Patna	29.62	752.4	29.80	757.0	81.6	27.6	66	sse.	1.3	0.6			0			0	0	blue sky	
Hazaribagh	27.82	706.5	29.82	757.4	79.3	26.3	29	nnw.	5.6	2.5			0			0	0	blue sky	
Cuttack	29.72	754.8	29.80	756.9	81.5	27.5	70	calm	0.3	0.1			0			0	0	blue sky	
Calcutta, Alipore	29.76	755.9	29.78	756.5	81.1	27.3	69	calm	0	0			8			0	0	d. clouds	
Dhubri	29.66	753.4	29.78	756.3	86.2	30.1	57	calm	3.2	1.4			0			0	0	blue sky	
Goalpara																			
Chittagong	29.74	755.4	29.83	757.7	76.7	24.8	94	sse.	1.4	0.6			10			0	0	overcast	
Sibsagar	29.45	748.1	29.79	756.6	80.9	27.2	86	se.	2.6	1.2			0			0	0	blue sky	
Jeypore	28.38	720.8	29.80	756.9	87.7	30.9	38	wsw.	6.7	3.0			0			0	0	blue sky	
Zanzibar, Africa			29.96	761.0	84.5	29.2	49	se.	6	2.7			2			0.25	6.3	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.72	755.0	30.14	765.5	56.7	13.7	17	calm	0	0			3			0	0		Prof. Giovanni Clodig.
Milan	29.62	752.4	30.14	765.5	56.7	13.7	20	w.	3.8	1.7			0			0	0		Prof. Schiaparelli.
Padua	30.04	763.0	30.15	765.8	56.3	13.5	30	s.	1.8	0.8			0			0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.25	743.0	30.16	766.1	55.4	13.0	25	sse.	4.9	2.2			0			0	0		Prof. P. F. Denza.
Genoa	29.99	761.8	30.19	766.7	57.2	14.0	24	n.	5.6	2.5			0			0	0		Prof. G. M. Garibaldi.
Mondovi	28.27	718.1	30.21	767.2	48.2	9.0	19	wnw.			4		0			0	0		Prof. D. C. Bruno.
Pesaro	30.11	764.9	30.16	766.1	53.2	11.8	67	sw.			4		1			0.386	9.8		Prof. Luigi Guidi.
Florence	29.90	759.4	30.15	765.8	57.6	14.2	29	ne.			2		0			0	0		Prof. Costantino Pitter.
Leghorn	30.07	763.8	30.16	766.0	58.8	14.9	36	ne.	2.5	1.1			3			0	0		Prof. P. Monte.
Rome	29.93	760.2	30.10	764.6	58.5	14.7	36	n.					1			0	0		Prof. P. S. Ferrari.
Lecce	29.78	756.4	30.03	762.7	60.6	15.9	40	nnw.	15.4	6.9			3	n.		0	0		Prof. C. de Giorgi.
Cosenza	29.15	740.3	30.03	762.8	61.2	16.2	58	wnw.	6.9	3.1			7	nw.		0	0		Prof. D. Conti.
Cagliari	29.89	759.2	30.08	764.1	66.2	19.0	37	nw.			4		7	nw.		0	0		Prof. A. Pacinotti.
Palermo	29.89	759.1	30.13	765.3	63.3	17.4	39	wnw.	11.9	5.3			5	wnw.		0	0		Prof. G. Ciacciatore.
Syracuse	29.98	761.6	30.03	762.7	68.5	20.3	48	wnw.	8.7	3.9			3	s.		0	0		Prof. Vincenzo Gulliano.
Sub-Series.																			
Naples, S. R	29.54	750.4	30.07	763.7	58.1	14.5	53	ne.	0.7	0.3			6	w.		0	0		Prof. F. Brioschi.
Stelvio	22.17	563.2			17.4	— 8.1	54	n.			2	6 cs	0	nw.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.19	563.6			25.7	— 3.5	35	n.			2	0	0			0	0	clear	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.78	756.4	29.80	756.9	61.9	16.6	95	ene.	1.6	0.7		2 ck	0			0.003	0.1	fair	K. Sasaki.
Kioto	29.61	752.1	29.79	756.6	62.6	17.0	97	w.	0.5	0.2			10 s			0.845	21.5	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.75	755.6	29.95	760.7	61.2	16.2	81	wnw.	2.3	1.0		0	0			0.035	0.9	clear	S. Takehayashi
Nemuro																			
Niigata	29.62	752.3	29.66	753.3	59.8	15.4	95	se.	4.4	2.0			10 n			0.220	5.6	raining	
Nobiru	29.61	752.1	29.62	752.3	48.9	9.9	98	n.	3.3	1.5		0	2 s			0.275	7.0	fair	
Supporo	29.55	750.6	29.62	752.3	48.5	9.2	96	se.	6.0	2.7			10			0.270	6.9		
Tokei Obs'y, Yeddo	29.59	751.6	29.66	753.3	61.2	16.2	97	nne.	2.0	0.9			10 s			0.210	5.3	covered	The Staff.
Wakayama	29.74	755.4	29.79	756.6	65.5	18.6	92	nne.	1.4	0.6		1 ck	0	n.		0.795	20.2	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.86	758.4	30.05	763.3	75.0	23.9	57	wsw.	10.5	4.7		0	8k;ks		sse.	0	0	cloudy	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.70	602.1	29.92	760.1	59.4	15.2	80	calm	0	0			10 kn		ne.	inap.	inap.	covered	Vicente Fernandez.
Leon	24.43	620.6	30.07	763.7	63.0	17.2	90	s			1		10 k		e.	0.079	2.0	covered	Prof. M. Leal.
Mazatlan	29.65	753.2	29.91	759.7	79.0	26.1	91	ne.	0.9	0.4		0	1 k			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.12	587.3	30.14	765.6	56.5	13.6	89	calm	0	0			10 kn			0	0	overcast	The Staff.
Morelia	24.23	615.6	30.26	768.7	59.0	15.0	68	s.			2	2	1	s.	s.	0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.93	607.8	29.90	759.4	61.5	16.4	78	nne.			1	0	9 ks		ese.	0	0	very cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	594.9	30.21	767.2	53.6	12.0	81	calm	0	0		0	1		ne.	0	0	fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.44	773.2	30.44	773.2	51.4	10.8		wsw.			4					0.244	6.2		
Groningen	30.33	770.4	30.39	771.8	47.1	8.4		nw.			1					0.024	0.6		
Helder	30.40	772.1	30.40	772.1	46.6	8.1		wnw.			2					0.031	0.8		
Hellevoetsluis	30.42	772.7	30.42	772.7	50.4	10.2	82	wsw.			2					0.059	1.5		
Utrecht	30.38	771.5	30.43	772.8	50.7	10.4	66	wnw.			2		8			0	0	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.20	767.1	30.26	768.7	41.7	5.4	63	s.	1.1	0.5			3			0	0		
Christiania	30.08	764.1	30.23	767.9	45.3	7.4	43	nne.	4	2			0			0	0		
Gjesvær	30.07	763.8	30.10	764.4	34.0	1.1		nw.			6		10						
Lodingen	30.11	764.8	30.16	766.0	41.2	5.1	69	nne.			4		3			0.079	2.0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.75	755.7	29.91	759.6	63.7	17.6	61	wnw.	7.4	3.3			3			0.315	8.0		Dr. J. A. Sampaio.
Campo Major	29.04	737.5	30.00	761.9	77.4	25.2	39	ese.	8.7	3.9			4			0	0		Dr. A. M. R. dos Santos.
Funchal, Madeira	29.89	759.3	29.98	761.4	72.5	22.5	65	sw.	6.3	2.8			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.68	753.9	30.04	762.9	69.4	20.8	60	ene.	4.9	2.2			4	s.		0	0		The Staff.
Ponta Delgada, Azores	29.87	758.8	29.95	760.6	66.9	19.4	49	nnw.	5.6	2.5			4			0.370	9.4		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.19	741.4	30.28	769.2	49.1	9.5	56	ene.	13	6		0	0						Capt. Lasarew.
Archangel	30.09	764.2	30.11	764.7	42.6	5.9	84	se.	9	4			9 k						Capt. Sseliwerstow.
Astrakhan	30.37	771.3	30.28	769.2	66.4	19.1	32	ese.	7	3		0	0						Capt. Wisganow.
Barnaul ‡	29.86	758.4	30.37	771.4	47.5	8.6	55	calm	0	0			0						Meteorological Obs'y.
Dorpat	29.76	755.8	30.00	762.0	45.3	7.4	82	sw.	4	2			10 ks						Observatory.
Ekaterinburg	29.51	749.5	30.48	774.1	54.5	12.5	49	se.	4	2		0	0						Meteorological Obs'y.
Kasan	30.10	764.5	30.37	771.3	59.7	15.4	54	s.	2	1		3 c	0						Observatory.
Kertch	30.04	763.1	30.06	763.6	62.6	17.0	83	calm	0	0		0	1 k			0	0		Lagorio & Sastyrea.
Kieff	29.30	744.2	29.94	760.4	50.2	10.1	99	ese.	7	3			10 n					raining	Observatory.
Lugan	29.96	761.0	30.16	766.1	67.8	19.9	32	ese.	18	8			1						Meteorological Obs'y.
Moscow	29.58	751.3	30.05	763.3	55.8	13.2	66	ssw.	7.8	3.5		0	8 ks						Meteorological Obs'y.
Nikolaiev	29.92	760.0	29.99	761.8	67.5	19.7	62	s.	22	10		cs	1 k						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.67	753.7	29.76	755.9	31.6	— 0.2	76	calm			0		10 n			0	0		Lieut. Iwanow.
Pekin, China	30.13	765.4	30.28	769.0	49.3	9.6	17	nw.	11	5		0	0			0	0		Physical Observatory.
St. Petersburg	29.98	761.6	30.00	762.0	43.2	6.2	78	se.	9	4			10n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.43	722.1	29.97	761.3	64.8	18.2	68	calm	0	0			2			0.008	0.2		Teich, A. M.
Tiflis	28.80	731.5	30.19	766.8	68.9	20.5	52	se.	2	1		0	0						Physical Observatory.
Warsaw	29.64	752.8	30.07	763.8	42.1	5.6	85	wnw.	7	3			10 ks						Astronomical Obs'y.
Wilna	29.65	753.2	30.08	764.1	45.0	7.2	76	ssw.	2	1			10					heavy cld's	Berg, Assistant.
Yeniseisk	30.09	764.3	30.39	771.9	37.4	3.0	89	w.	4	2			10						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.23	767.8	51.0	10.6	72	sw.			2		10 k			0	0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			29.93	760.2	52	11.1	93	s.			7		10			0.2	5.	overcast	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	30.09	764.2	30.19	766.9	61.5	16.4	62	se.	3.4	1.5			1			0	0	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.05	763.3	30.11	764.7	71.6	22.0	55	se.	2.2	1.0		0	0			0	0	clear	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.18	690.4			66.2	19.0	80	n.	2.2	1.0		0	0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.91	709.0	30.06	763.4	76.6	24.8	32	ne.	3.8	1.7		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	29.99	761.8	30.14	765.6	71.6	22.0	75	ese.	2.7	1.2		4	4	wnw.		0.039	1.0	raining	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.09	738.8	29.95	760.7	72.9	22.7	54	se.	0	0			1			0	0	almost clear	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.98	761.4	30.04	763.1	74.9	23.8	87	calm	0	0		3 ck	1 k;s	sse.	sse.	0.201	5.1	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.76	756.0	29.82	757.3	82.4	28.0	79	nne.	7.7	3.5		4 c	6 km	e.	ne.	0	0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.91	759.8	30.01	762.2	75.4	24.1	52	ese.	22.9	10.3		2	7	se.	se.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.91	759.8	30.00	762.1	81.0	27.2	79	s.	11.2	5.0		4 k	3 s		s.	1.358	34.5		E. Cadea, Chief Enga'r.
Tuguegarao, Philippine Ids	29.72	754.9	29.85	758.3	77.8	25.4	91	nw.	3.1	1.4		2 cs	8 km		ne.	0.14	3.4	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	29.95	760.8	29.99	761.8	40.3	4.6	87	n.			2		10			0	0		
Umea	29.97	761.2	30.02	762.5	43.5	6.4	79	n.			2		10			0	0		
Hernosand	30.03	762.8	30.08	764.1	46.2	7.9	56	n.			2		4			0.004	0.1		
Stockholm	29.90	759.5	30.08	764.0	45.3	7.4	66	nnw.			2		9			0.047	1.2		
Wisby	30.00	761.9	29.06	763.4	44.6	7.0	77	nnw.			6		5			0.185	4.7		
Sub-Series.																			
Upsala	29.96	761.0	30.07	763.8	40.5	4.7	70	nnw.	11.6	5.2			1		nnw.	1.587	40.3		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.87	733.4	30.33	770.4	45.0	7.2	56	n.			6		1			0	0	clear	The Observatory.
Zurich ‡	28.72	729.4	30.39	772.0	43.0	6.1	65	e.			3		5			0	0	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.97	761.2	74.7	23.7	53	sw.	8	3.5			5		sw.	0	0		The Observatory.
Valona			30.07	763.8	59.4	15.2		w.			2		5			0.51	13.	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.96	760.9	85.1	29.5	58	w.			1	7 ck	0	se;nw		0	0		Prof. C. V. Van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.30	769.6	30.38	771.6	54	12.2	67	nw.	2	0.9			10 s		sw.	inap.	inap.	cloudy	
Alpena, Michigan	29.54	750.3	30.23	767.8	44.8	7.1	100	e.	22	9.8			10 n			0.86	21.8	light rain	
Atlanta, Georgia	29.05	737.9	30.27	768.8	64.5	18.1	89	e.	9	4.0		0	0			0	0	clear	
Atlantic City, New Jersey	30.28	769.1	30.29	769.4	64.7	18.2	93	calm	0	0		hz.	fg.	calm	calm	0	0	dense haze.	
Augusta, Georgia	30.05	763.3	30.25	768.3	69.0	20.6	84	e.	4	1.8		5 ck	0	e.		0	0	fair	
Baltimore, Maryland	30.24	768.1	30.29	769.4	64	17.8	78	ne.	5	2.2			10 s		e.	0	0	threatening.	
Barnegat, New Jersey	30.27	768.8	30.29	769.4	64.0	17.8	97	e.	10	4.5			10 s		calm	0	0	cloudy	
Bismarck, Dakota	28.34	719.8	30.26	768.6	29	— 1.7	88	e.	6	2.7		0	0			0	0	clear	
Boise City, Idaho	27.38	695.4	30.30	769.6	34	1.1	91	calm	0	0			10 s		calm	0.05	1.3	cloudy	
Boston, Massachusetts	30.27	768.8	30.43	772.9	52.0	11.1	72	e.	14	6.3		3 c	2 s	w.		0	0	fair	
Brackettville, Texas	28.88	733.5	29.91	759.7	68	20.0	93	e.	7	3.1			9 s		se.	inap.	inap.	cloudy	
Brownsville, Texas	29.94	760.5	29.99	761.7	77	25.0	85	se.	4	1.8		hz.	0			0	0	dense haze.	
Buffalo, New York	29.47	748.5	30.21	767.3	50.2	10.1	82	ne.	8	3.6			10 s			0	0	cloudy	
Burlington, Vermont	30.08	764.0	30.38	771.6	45.0	7.2	76	e.	3	1.3			10 s		w.	inap.	inap.	cloudy	
Cairo, Illinois	29.72	754.9	30.13	765.3	67.6	19.8	86	s.	6	2.7		2 c	2 s	sw.	calm	0	0	fair	
Campo, California	27.46	697.5	30.03	762.7	23.4	— 4.8	88	e.	1	0.4		0	0			0	0	clear	
Camp Thomas, Arizona	27.36	694.9			31.5	— 0.3	79	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.28	769.1	30.30	769.6	69	20.6	93	s.	4	1.8			fg.			0	0	dense fog	
Cape May, New Jersey	30.25	768.3	30.28	769.1	66	18.9	90	s.	9	4.0			fg.			0	0	dense fog	
Castroville, Texas	29.25	742.9	29.93	760.2	74	23.3	84	s.	3	1.3			10 s		s.	0.03	0.8	cloudy	
Cedar Keys, Florida	30.04	763.0	30.05	763.5	72	22.2	90	n.	11	4.9		0	0			inap.	inap.	clear	
Champaign, Illinois	29.17	740.9	29.94	760.5	63.8	17.7	93	s.	12	5.4			10 ks		sw.	0	0	cloudy	
Charleston, S. Carolina	30.15	765.8	30.21	767.3	76	24.4	90	e.	4	1.8		0	3 s		e.	0.05	1.3	clear	
Charlotte, N. Carolina	29.40	746.7	30.31	769.9	65.0	18.3	90	se.	1	0.4		6 cs	sk	ne.		0	0	fair	
Chattanooga, Tennessee	29.41	747.0	30.26	768.6	65.0	18.3	90	calm	0	0			fg.		calm	0	0	dense fog	
Cheyenne, Wyoming	24.10	612.1	30.23	767.8	28.1	— 2.2	61	w.	8	3.6		0	0			0	0	clear	
Chicago, Illinois	29.25	742.9	29.93	761.7	58.5	14.7	89	sw.	1	0.4		5 k	fg.	sw.		0.37	9.4	fair	
Chincoteague, Virginia	30.27	768.8	30.29	769.4	67	19.4	100	sw.	4	1.8		4 k	sk.	calm	calm	0	0	dense smoke	
Cincinnati, Ohio	29.49	749.0	30.17	766.3	66.2	19.0	90	se.	2	0.9			10 ks		s.	0	0	cloudy	
Cleveland, Ohio	29.39	746.5	30.16	766.1	60.6	15.9	88	se.	11	4.9		4 ck	3 k	w.	sw.	0	0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.29	744.0	30.18	766.6	60	15.6	93	e.	1	0.4		3 ck	fg.	s.		0	0	fair	
Concho, Texas	28.07	713.0	30.07	763.8	68	20.0	76	s.	16	7.2		0	8 ks		sw.	0	0	cloudy	
Corsicana, Texas	29.63	752.6	30.11	764.8	72	22.2	84	calm	0	0			10 s			0	0	cloudy	
Davenport, Iowa	29.28	743.7	29.96	761.0	54	12.2	100	n.	4	1.8			10 n		calm	1.97	50.0	heavy rain	
Dayton, Washington T'y	28.22	716.8	30.08	764.0	44	6.7	80	sw.	8	3.6			10 s		calm	0.14	3.6	cloudy	
Deadwood, Dakota	25.46	646.7	30.32	770.1	33	0.6	57	calm	0	0		0	0			0	0	clear	
Decatur, Texas	28.85	732.8	29.97	761.2	73	22.8	82	sw.	8	3.6		0	3 s		sw.	inap.	inap.	fair	
Delaware Breakwater, Del.	30.26	768.6	30.28	769.1	66	18.9	100	s.	10	4.5		0	fg.			0	0	clear	
Denison, Texas	29.25	742.9	30.08	764.0	72	22.2	84	s.	8	3.6			10 s		s.	0	0	cloudy	
Denver, Colorado	24.88	631.9	30.25	768.3	33.0	0.6	74	s.	8	3.6		0	0			0	0	clear	
Des Moines, Iowa	29.10	739.1	30.05	763.3	44	6.7	100	n.	8	3.6			10 n		n.	1.97	50.0	light rain	
Detroit, Michigan	29.38	746.2	30.12	765.0	62.0	16.7	86	se.	4	1.8			10 s		calm	0.01	0.3	cloudy	
Dodge City, Kansas	27.44	697.0	30.13	765.3	42.3	5.7	95	ne.	27	12.1		0	1 s			0	0	clear	
Dubuque, Iowa	29.18	741.2	29.92	760.0	48.6	9.2	98	nw.	4	1.8			10 n		calm	2.16	54.9	light rain	
Duluth, Minnesota	29.49	749.0	30.22	767.6	45	7.2	76	ne.	18	8.0			10 n		ne.	0.02	0.5	light rain	
Eagle Pass, Texas	29.25	742.9	30.10	764.5	69.1	20.6	93	se.	4	1.8		0	0			0	0	clear	
Eagle Rock, Idaho	25.37	644.4	30.36	771.1	32	0.0	74	sw.	14	6.3			10 s		sw.	0	0	threatening.	
Eastport, Maine	30.42	772.7	30.49	774.4	41	5.0	57	n.	9	4.0			10 s		w.	0	0	cloudy	
El Paso, Texas	26.20	665.5	30.04	763.0	58.3	14.6	40	w.	1	0.4		0	2 s		w.	0.04	1.0	clear	
Erie, Pennsylvania	29.43	747.5	30.19	766.8	58	14.4	87	calm	0	0			10 ks		sw.	0	0	cloudy	
Escanaba, Michigan	29.52	749.8	30.20	767.1	38	3.3	100	ne.	25	11.2			10 n		ne.	0.06	1.5	light rain	
Florence, Arizona	28.53	724.6	30.13	765.3	39.2	4.0	52	calm	0	0		0	0			0	0	clear	
Fort Apache, Arizona	25.11	637.8	30.15	765.8	27	— 2.8	80	e.	2	0.9		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.31	693.7	30.25	768.3	20	— 6.7	87	ne.	3	1.3			10 s		s.	0	0	cloudy	
Fort Bennett, Dakota	28.56	725.4	30.16	766.1	36	2.2	82	w.	2	0.9			10 s			0	0	cloudy	
Fort Benton, Montana	27.35	694.7	30.33	770.4	10	—12.2	80	calm	0	0			10 s		calm	0	0	cloudy	
Fort Buford, Dakota	28.19	716.0	30.30	769.6	24	— 4.4	88	se.	2	0.9			10s;fg		calm	0	0	cloudy	
Fort Custer, Montana	26.93	684.0	30.32	770.1	30	— 1.1	80	s.	5	2.2			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.13	638.3	30.09	764.3	52	11.1	100	ne.	3	1.3			10 s			0.69	17.5	threatening.	
Fort Elliott, Texas	27.27	692.6	30.57	776.5	58	14.4	60	calm	0	0			10 s			0.13	3.3	threatening.	
Fort Gibson, Indian T'y	29.44	747.8	30.01	762.2	70.0	21.1	84	s.	8	3.6		10 cs	0	s.		0	0	cloudy	
Fort Grant, Arizona					47	8.3	24	ne.	6	2.7		0	0			0	0	clear	
Fort Griffin, Texas	28.71	729.2	29.93	760.2	70.8	21.6	82	e.	8	3.6			10 s			0	0	cloudy	
Fort Keogh, Montana	27.61	701.3	30.28	769.1	25	— 3.9	76	e.	4	1.8		0	0			0	0	clear	
Fort Macon, North Carolina	30.27	768.8	30.28	769.1	73	22.8	97	se.	13	5.8		4 c	2 s	se.	calm	0	0	fair	
Fort McKavett, Texas	27.85	707.4	29.72	754.9	66.1	18.9	89	nw.	2	0.9			8 ks		w.	0	0	cloudy	
Fort Missoula, Montana	26.78	680.2	30.43	772.9	31	— 0.6	88	nw.	2	0.9			10 s			0.08	2.0	cloudy	
Fort St. Michaels	29.97	761.2	30.00	762.0	39	3.9	91	e.	11	4.9		0	5 s			0	0	fair	
Fort Shaw, Montana	26.44	671.6	30.18	766.6	21	— 6.1	87	ne.	1	0.4			10 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.76	730.5	30.05	763.3	67.2	19.6	93	s.	16	7.2			10 s		sw.	0	0	cloudy	
Fort Stevenson, Dakota	28.31	719.1	30.27	768.8	26	— 3.3	88	e.	2	0.9			10 s		e.	0	0	cloudy	
Fort Verde, Arizona					31.6	— 0.2	62	nw.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.34	719.8	29.87	758.7	68	20.0	93	sw.	1	0.4		0	4 ks		sw.	0	0	fair	
Galveston, Texas	30.03	762.7	30.07	763.8	78	25.6	82	se.	5	2.2		3 c	2 ks	w.		0.25	6.3	fair	
Grand Haven, Michigan	29.34	745.2	30.04	763.0	50.0	10.0	100	e.	7	3.1			10 n		e.	1.65	41.9	heavy rain	
Hatteras, North Carolina	30.28	769.1	30.30	769.6	74	23.3	90	s.	8	3.6			9 s			0	0	cloudy	
Helena, Montana	25.84	656.3	30.43	772.9	29	— 1.7	88	s.	6	2.7		0	0			inap.	inap.	clear	
Henrietta, Texas	29.04	737.6	29.94	760.5	72	22.2	82	s.	11	4.9		0	6 s			0	0	fair	
Huron, Dakota	28.79	731.3	30.25	768.3	32	0.0	85	nw.	4	1.8		0	5 s			0	0	fair	
Indianapolis, Indiana	29.26	743.2	30.09	764.3	65	18.3	90	se.	4	1.8		5c;ck;cs	3 s;fg	calm	s;calm	0.01	0.3	fair	
Indianola, Texas	30.03	762.7	30.06	763.5	76.3	24.6	85	se.	6	2.7		0	2 k;ks		calm	0	0	clear	
Jacksboro, Texas	28.86	733.0	29.96	761.0	67	19.4	90	se.	12	5.4		0	5 ks		s.	0	0	fair	
Jacksonville, Florida	30.08	764.0	30.11	764.8	73	22.8	90	e.	6	2.7		2 cs	3 s		ne.	0.60	15.2	fair	
Keokuk, Iowa	29.25	743.2	29.94	760.5	64.0	17.8	93	w.	16	7.2			10 s		sw.	0.07	1.8	cloudy	
Key West, Florida	30.02	762.5	30.05	763.3	78.2	25.7	82	se.	4	1.8		0	5 ks		se.	0.01	0.3	fair	
Kittyhawk, North Carolina	30.29	769.4	30.31	769.9	70	21.1	94	s.	3	1.3		5 ck	fg.	s.		0	0	fair	
Knoxville, Tennessee	29.22	742.2	30.29	769.4	61.2	16.2	98	ne.	1	0.4			fg.		calm	0	0	dense fog	
La Crosse, Wisconsin	29.20	741.7	30.00	762.0	44	6.7	83	n.	8	3.6			10 s		n.	1.01	25.7	cloudy	
La Mesilla, New Mexico	26.14	663.9	30.29	769.4	41.8	5.4	52	calm	0	0		0	0			0	0	clear	
Laredo, Texas	29.56	750.8	29.89	759.2	70	21.1	84	calm	0	0		0	0			0	0	clear	
Leavenworth, Kansas	29.08	738.6	30.01	762.2	50	10.0	93	nw.	20	8.9			10 n		nw.	1.68	42.7	light rain	
Lewiston, Idaho	29.25	742.9	30.13	765.3	45	7.2	60	w.	4	1.8			10 s		calm	0	0	cloudy	
Little Rock, Arkansas	29.76	755.9	30.07	763.8	70	21.1	90	s.	1	0.4			10 ks			0	0	cloudy	
Los Angeles, California	29.69	754.1	30.07	763.8	45.4	7.4	83	s.	10	4.5		0	0			0	0	clear	
Louisville, Kentucky	29.54	750.3	30.12	765.0	67.0	19.4	93	s.	1	0.4		8 cs	c	calm		0	0	cloudy	
Lynchburg, Virginia	29.57	751.1	30.28	769.1	66.9	19.4	81	calm	0	0		2 ck	0	sw.		0	0	clear	
Madison, Wisconsin	28.94	735.1	30.02	762.5	48	8.9	93	ne.	12	5.4			10 n		calm	1.92	48.8	heavy rain	
Marquette, Michigan	29.51	749.5	30.27	768.8	42	5.6	65	e.	26	11.6			10 s		e.	0	0	cloudy	
Mason, Texas	28.42	721.9	30.12	765.0	69.8	21.0	84	s.	5	2.2		0	1 s		calm	0	0	clear	
Memphis, Tennessee	29.79	756.7	30.14	765.5	71	21.7	76	se.	1	0.4		0	9 s		se.	0	0	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.22	742.2	30.00	762.0	49	9.4	100	ne.	18	8.0			10 n		ne.	1.64	41.7	light rain	
Mobile, Alabama	30.06	763.5	30.13	765.3	73.2	22.9	82	e.	4	1.8		0	0			0	0	clear	
Montgomery, Alabama	29.95	760.7	30.19	766.8	69.0	20.6	84	e.	1	0.4		0	0			0	0	clear	
Moorhead, Minnesota	29.21	741.9	30.27	768.8	32	0.0	88	ne.	2	0.9			10 s		ne.	0	0	cloudy	
Morgantown, W. Virginia	29.19	741.4	30.17	766.3	60.8	16.0	87	calm	0	0		4 k	fg	w.		0	0	fair	
Mt. Washington, N. H	24.05	610.9	30.42	772.7	32.0	0.0	92	w.	25	11.2			fg		w.	0	0	light fog	
Nashville, Tennessee	29.63	752.6	30.19	766.8	69.8	21.0	82	calm	0	0		3 ck	5 ks	se.	se.	0	0	fair	
New Haven, Connecticut	30.26	768.6	30.38	771.6	52	11.1	66	ne.	11	4.9		6 cs	4 s	sw.		0	0	cloudy	
New London, Connecticut	30.36	771.1	30.41	772.4	54	12.2	74	n.	6	2.7			10 s		n.	0	0	cloudy	
New Orleans, Louisiana	30.05	763.3	30.11	764.8	74.2	23.5	87	ne.	2	0.9		0	sk			0	0	clear	
Newport, Rhode Island	30.35	770.9	30.40	772.1	54.3	12.4	79	ne.	5	2.2		4 k	2 s	w.	calm	0	0	fair	
New River, N. Carolina					75	23.9	90	se.			1	0	7 s		nw.	0.04	1.0	cloudy	
New Shoreham, Rhode I'd	30.34	770.6	30.37	771.4	58.0	14.4	74	ne.	16	7.2		0	7 s		nw.	0	0	fair	
New York, New York	30.16	766.1	30.34	770.6	60	15.6	81	ne.	16	7.2		0	9 s		ne.	0	0	cloudy	
Norfolk, Virginia	30.26	768.6	30.29	769.4	67	19.4	93	calm	0	0			fg.			0	0	dense fog	
North Platte, Nebraska	27.20	690.6	30.26	768.6	33.4	0.8	92	nw.	7	3.1		0	0			0.06	1.5	clear	
Olympia, Washington T'y	29.93	760.2	29.97	761.2	47.5	8.6	94	s.	5	2.2			10 n			0.67	17.0	light rain	
Omaha, Nebraska	28.90	734.0	30.14	765.5	41	5.0	92	n.	10	4.5			10 s		n.	1.02	25.9	cloudy	
Oswego, New York	29.92	760.0	30.26	768.6	52.5	11.4	67	se.	6	2.7			10 s			0	0	cloudy	
Pensacola, Florida	30.09	764.3	30.12	765.0	68	20.0	84	ne.	4	1.8		0	0			0	0	clear	
Philadelphia, Pa	30.24	768.1	30.30	769.6	59.4	15.2	75	e.	11	4.9			10 ks/hr			0	0	cloudy	
Phœnix, Arizona	28.95	735 3	30.78	781.8	38.2	3.4	33	calm	0	0		0	0			0	0	clear	
Pike's Peak, Colorado	17.73	450.3	29.94	760.5	9	—12.8	58	sw.	32	14.3		0	0			0	0	clear	
Pioche, Nevada	24.18	614.2	30.37	771.4	30	— 1.1	70	sw.	2	0.9		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.39	746.5	30.24	768.1	60.2	15.7	87	ne.	1	0.4		9 k	fg	nw.	calm	inap.	inap.	cloudy	
Port Eads, Louisiana	30.09	764.3	30.10	764.5	75.9	24.4	88	ne.	12	5.4		0	7 s		ne.	inap.	inap.	fair	
Port Huron, Michigan	29.40	746.7	30.11	764.8	53.0	11.7	91	se.	4	1.8			10 s		calm	0.09	2.3	cloudy	
Portland, Maine	30.42	772.7	30.47	773.9	50	10.0	64	ne.	7	3.1			10 s		nw.	0	0	cloudy	
Portland, Oregon	30.02	762.5	30.09	764.3	49.0	9.4	86	s.	12	5.4		4 c	5 s	sw.	s.	0.29	7.4	cloudy	
Portsmouth, N. Carolina					74	23.3	82	s.	4	1.8		1 k	4 ks	calm	s.	0	0	fair	
Prescott, Arizona	24.81	630.2	30.12	765.0	25	— 3.9	67	sw.	3	1.3		0	0			0	0	clear	
Punta Rassa, Florida	30.02	762.5	30.03	762.7	76	24.4	85	s.	4	1.8			10 ks		s.	0.08	2.0	threatening	
Red Bluff, California	29.84	757.9	30.19	766.8	42.0	5.6	80	nw.	5	2.2		0	0			0	0	clear	
Rio Grande City, Texas	29.81	757.2	30.02	762.5	73	22.8	90	se.	2	0.9		0	0			0	0	clear	
Rochester, New York	29.54	750.3	30.24	768.1	51	10.6	80	se.	6	2.7			10 s		se.	inap.	inap.	cloudy	
Roseburg, Oregon	29.60	751.8	30.19	766.8	48.5	9.2	81	calm	0	0			10 s			c	0	cloudy	
Sacramento, California	30.12	765.0	30.20	767.1	44.6	7.0	83	calm	0	0		0	0			0	0	clear	
St. Louis, Missouri	29.42	747.3	30.05	763.3	67.9	19.9	84	s.	10	4.5		8 c	0			0	0	fair	
St. Paul, Minnesota	29.22	742 2	30.14	765.5	41.2	5.1	92	n.	8	3.6			10 n		n.	0.02	0.5	light rain	
Salt Lake City, Utah	25.74	653.8	30.19	766.8	40	4.4	33	calm	0	0			10 s			0	0	cloudy	
San Antonio, Texas	29.37	746.0	30.09	764.3	71.8	22.1	97	e.	2	0.9			10 s		se.	0.14	3.6	cloudy	
San Diego, California	30.01	762.2	30.08	764.0	49.0	9.4	77	calm	0	0		0	0			0	0	clear	
Sandusky, Ohio	29.40	746.7	30.11	764.8	64.3	17.9	90	se.	9	4.0			10 ks		s.	0	0	cloudy	
Sandy Hook, New Jersey	30.28	769.1	30.31	769.9	64.5	18.1	78	e.	20	8.9		5 k	0	e.		0	0	fair	
San Francisco, California	30.12	765.0	30.19	766.8	48	8.9	86	calm	0	0		0	0			0	0	clear	
Santa Fé, New Mexico	23.34	592.8	30.33	770.4	33	0.6	78	ne.	3	1.3		0	0			0	0	clear	
Savannah, Georgia	30.09	764.3	30.18	766.6	73	22.8	97	ne.	4	1.8		0	fg			0.06	1.5	clear	
Shreveport, Louisiana	29.86	758.4	30.09	764.3	70	21.1	90	s.	4	1.8		2 ck	3 s	calm	s.	0	0	fair	
Silver City, New Mexico	24.33	618.0	30.01	762.2	34	1.1	50	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.98	761.5	30.05	763.3	37.1	2.8	81	ne.	19	8.5		0	0			0	0	clear	
Smithville, North Carolina	30.21	767.3	30.25	768.3	75	23.9	90	e.	5	2.2		2 c	3 k	calm	calm	0	0	fair	
Spokane Falls, Wash. Ter.	27.99	710.9	30.06	763.5	38	3.3	92	s.	6	2.7			10 n		calm	0.33	8.4	light rain	
Springfield, Illinois	29.29	744.0	30.00	762.0	65	18.3	90	s.	9	4.0		3 c	3 s	sw.	sw.	0	0	fair	
Springfield, Massachusetts	30.28	769.1	30.41	772.4	52.4	11.3	66	n.	4	1.8		10 k	0	w.		0	0	cloudy	
Stockton, Texas	27.00	685.8	30.15	765.8	63.2	17.3	100	s.	8	3.6		0	4 s		s.	0.31	7.9	fair	
St. Vincent, Minnesota	29.40	746.7	30.33	770.4	30	— 1.1	88	e.	4	1.8			10 s		calm	0.03	0.8	cloudy	
Thatcher's Island, Mass	30.38	771.6	30.44	773.2	51.8	11.0	86	e.	15	6.7			10 s		e.	0	0	cloudy	
Toledo, Ohio	29.37	746.0	30.09	764.3	60	15.6	87	se.	2	0.9		0	7 s			0	0	fair	
Tucson, Arizona	27.60	701.0	30.04	763.0	43	6.1	60	se.	4	1.8		0	0			0	0	clear	
Umatilla, Oregon	29.74	755.4	30.17	766.3	42.0	5.6	89	se.	3	1.3			10 s		nw.	0.13	3.3	cloudy	
Uvalde, Texas	29.09	738.9	29.89	759.2	71	21.7	57	se.	2	0.9			10 s		se.	0	0	cloudy	
Vicksburg, Mississippi	29.88	758.9	30.14	765.5	69	20.6	84	s.	2	0.9		4 k	3 s	s.	calm	0	0	fair	
Visalia, California	29.78	756.4	30.15	765.8	37	2.8	85	se.	4	1.8		0	0			0	0	clear	
Washington, D. C	30.15	765.8	30.27	768.8	64	17.8	93	ne.	2	0.9		4 k	fg	s.		0	0	fair	
West Los Animas, Colorado	26.16	664.5	30.24	768.1	42.5	5.8	66	nw.	2	0.9		4 k	5 ks	nw.	nw.	0	0	cloudy	
Wickenburg, Arizona					33	0.6	62	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.19	766.8	30.25	768.3	72.0	22.2	100	e.	4	1.8		5 k	sk.	calm	calm	0	0	fair	
Winnemucca, Nevada	25.78	654.8	30.24	768.1	28	— 2.2	74	s.	4	1.8		0	0			0	0	clear	
Wood's Holl, Mass	30.37	771.4	30.41	772.4	53	11.7	86	e.	12	5.4		5 ck	0	w.		0	0	fair	
Yankton, Dakota	28.85	732.8	30.22	767.6	40	4.4	89	calm	0	0			10 s			0.04	1.0	cloudy	
Yuma, Arizona	29.86	758.4	30.00	762.0	48.5	9.2	62	nw.	3	1.3		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I‡	29.96	761.0	29.98	761.5	83	28.3	87	se.	11	4.9		5 k	10 ks	e.	e.	0.60	15.2		J. A. Racker.
Bogota, U. S. Columbia	22.04	559.8			55.8	13.2	75	calm	0	0		5 cs	0	w.		0	0	fair	Joaquin Gomez.
Buenaventura, U. S. C	30.04	763.0	30.06	763.5	76	24.4	90	w.					0			1.40	35.6	clear	J. B. Dougherty.
Guadeloupe, W. I‡	29.89	759.2	29.89	759.2	81	27.2	87	e.				8 k	2 ks		e.	0.40	10.2		B. Bigar.
Havana, Cuba, W. I	30.01	762.2	30.06	763.5	77	25.0	85	calm	0	0		0	8 ks		se.	0.15	3.8	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I	29.94	760 5	29.95	760.7	76.0	24.4	87	calm	0	0		2 cs	0			0.66	16.8	fair	Robert Johnstone.
Navassa, W. I	29.87	758.7	29.95	760.7	79	26.1	82	ne.	10	4.5		5 cs	5 ks	ne.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A	29.98	761.5	29.98	761.5	81	27.2	78	e.			1	4 c	5 k	e.		0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.45	748.0	30.01	762.2	75	23.9	94	calm					10 ks		ne.	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					73.4	23	95	calm			0	0	4 ks		ne.	0.098	2.5		Earl Flint.
Santiago de Cuba, W I	29.96	761.0	29.98	761.5	79	26.1	78	n.	9.6	4.3		7 c	0			0	0	cloudy	Robert Mason.
St. Thomas, W. I‡	29.92	760.0	30.03	762.7	81	27.2	79	e.	6	2.7		2 c	3 ks	nw.	e.	0.30	7.6		G. O. Gyllich.
York Factory, B. A	30.29	769.4	30.34	770.6	2.0	—16.7	86	n.	9	4.0		1 c	0	nw.		0	0		J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross																			
H. M. S. Alert, S. 10° 29′, E. 135° 00′	29.90	759.4	79.2	25.7	84	ene.			1		2							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 39° 51′, E. 4° 26′	30.25	768.3	62	16.7	73	nne.			2		5	nne.				3	nne.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.97	761.2	72	22.2		sse.			1		1							blue sky	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche, N. 45° 40′, W. 41° 40′	29.30	744.2	51	10.6	93	wnw.			9		7					8	wnw.	squally	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.02	762.5	70	21.1	79	ese.			1–3		4	ese.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.98	761.5	61	16.1	100	calm			0		10							misty	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, Barcelona, Spain	30.16	766.1	63	17.2	88	se.			1–2		6							d. clouds	Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.06	763.5	73	22.8		n.			4		3	n.				3	nw.	squally	Lt. Comm. J. L. Burr.
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 35° 50′, E. 15° 00′	30.06	763.5	67	19.4		nnw.			3		2	ese.				1	ene.	d. clouds	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 33° 02′, E. 135° 58′	29.61	752.1	74	23.3	95	w.			2–5		6	w.				3	se.	d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.86	758.4	75	23.9		wnw.			1		4	nnw.						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido, S. 10° 26′, W. 11° 21′	30.03	762.7	72	22.2		ese.			2–3		10	ese.				2	sse.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.32	770.1	74.5	23.6	88	ese.			1–2		8	ese.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 51° 36′, W. 55° 27′	29.92	760.0	30	—1.1	78	nw.			6–8		2	nw.				1	nw.	squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.81	757.2	83	28.3		wnw.			2–4		3	nw.				3	w.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 2° 56′, E. 84° 53′	29.81	757.2	81	27.2		s.			1–2		6	s.				3	sw.	squally	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 37° 00′, E. 179° 10′	30.03	762.7	58	14.4	?	se.			6		9	s.				5	sse.	raining	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.81	757.2	84	28.9	79	ne.			3		8	ne.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 49° 41′, W. 54° 46′	29.86	758.4	35	1.7		wnw.			7–8		8	w.				3	wnw.	d. clouds	Capt. W. C. Karslake.
H. M. S. Fawn, S. 21° 20′, E. 36° 50′	30.13	765.3	74	23.3	71	se.			4–5		7	se.				4	sse.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 17° 33′, W. 82° 48′	29.93	760 2	79	26.1	90	e.			4–5		10					2	ene.	overcast	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 3° 51′, W. 159° 22′	29.80	756.9	78	25.6	82	se.			3		2	s.						d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	29.79	756.7	67	19.4	94	sw.			2		6							misty	Capt. L. F. Jones.
H. M. S. Griffon, N. 18° 31′, W. 79° 27′	29.91	759.7	80	26.7	91	ene.			3		8					2	e.	drizzling	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 29° 00′, E. 140° 40′	29.91	759.7	79	26.1	86	sw.			4		0					3	sw.	blue sky	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	29.94	760.5	63	17.2		calm			0		4							d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W N. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.91	759.7	81	27.2		sse.			1		1	calm				1	s.	blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, Simon's Bay, Cape Colony	29.96	761.0	78	25.6		calm			0		0							blue sky	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 41′, E. 11° 54′	30.04	763.0	71	21.7	62	nw.			1		1							blue sky	Lieut. Comm. C. Oldham.
H. M. S. Magpie, Hong Kong, China	29.97	761.2	79.5	26.4	72	ne.			1		6							d. clouds	Lieut. A. Balfour.
H. M. S. Malabar, N. 17° 00′, E. 63° 10′	29.94	760.5	84	28.9	87	ene.			1		2	e.				1	ene.	d. clouds	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 36° 59′, W. 8° 26′	29.94	760.5	68	20.0	84	ese.			4		9	ese.				2	ese.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	30.20	767.1	70	21.1	95	nne.			2		1							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili,	30.18	766.6	57	13.9	87	calm			0		0							blue sky	Comm. F. Edwards.
H. M. S. Nelson,																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.35	770.9	43	6.1	70	nnw.			2		5	wnw.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes, N. 15° 19′, W. 34° 26′	30.06	763.5	82	27.8	87	nne.			3		4	nne.				2	nne.	misty	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 29° 18′, W. 66° 55′	30.28	769.1	77	25.0	90	e.			3		5	e.				4	e.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler,																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	29.91	759.7	44	6.7	92	calm			0		9	sse.						heavy rain	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.87	758.7	82.3	27.9	79	nw.			2		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sappho, N. 31° 10′, W. 18° 04′	30.04	763.0	73	22.8	85	sse.			2		3	ssw.				2	sse.	d. clouds	Comm. W. Byles.
H. M. S. Sea Gull, S. 12° 23′, E. 43° 52′	29.58	751.3	85	29.4	71	sse.			3		2	ssw.				2	ssw.	d. clouds	Capt. G. O. Twiss.
H. M. S. Serapis, S. 29° 00′, E. 39° 00′	30.33	770.4	70	21.1	71	nne.			2		2	nne.				2	ne.	d. clouds	Capt. J. D'Arcy.
H. M. S. Shannon																			
H. M. S. Superb																			Capt. T. H. Roy se.
H. M. S. Tamar, S. 28° 50′, E. 10° 04′	30.04	763.0	70	21.1	66	ese.			2		6	se.				1	se.	d. clouds	Capt. C. G. Fane.
H. M. S. Tenedos																			Capt. P. W. Stephens.
H. M. S. Thetis, N. 23° 35′, W. 115° 52′	30.01	762.2	66	18.9	90	nne.			4–5		4					4	n.	d. clouds	Capt. C. F. Hotham.
H. M. S. Thunderer																			Capt. A. H. Markham.
H. M. S. Triumph, S. 22° 25′, W. 84° 47′	30.26	768.6	62	16.7	66	ese.			5		10	ese.				6	ese.	squally	Capt. M. B. Medlycott.
H. M. S. Turquoise																			Capt. J. E. Stokes.
H. M. S. Tweed																			
H. M. S. Tyne																			
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.96	761.0	79	26.1		nnw.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.85	758.2	63	17.2	94	calm			0		9							d. clouds	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, N. 25° 30′, E. 57° 48′	29.78	756.4	86.5	30.3	75	nw.			2–3		0					4	w.	misty	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, St. Paul de Loando, Benguela	29.93	760.3	78.8	26.0	78	w.			5		1					1		blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, Porto Praya, Cape Verd Ids	30.15	765.7	83.3	28.5	92	sw.			2		3		sw.			2	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	30.00	762.0	77.0	25.0	76	nnw.			3		2							d. clouds	P. I. de R io Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

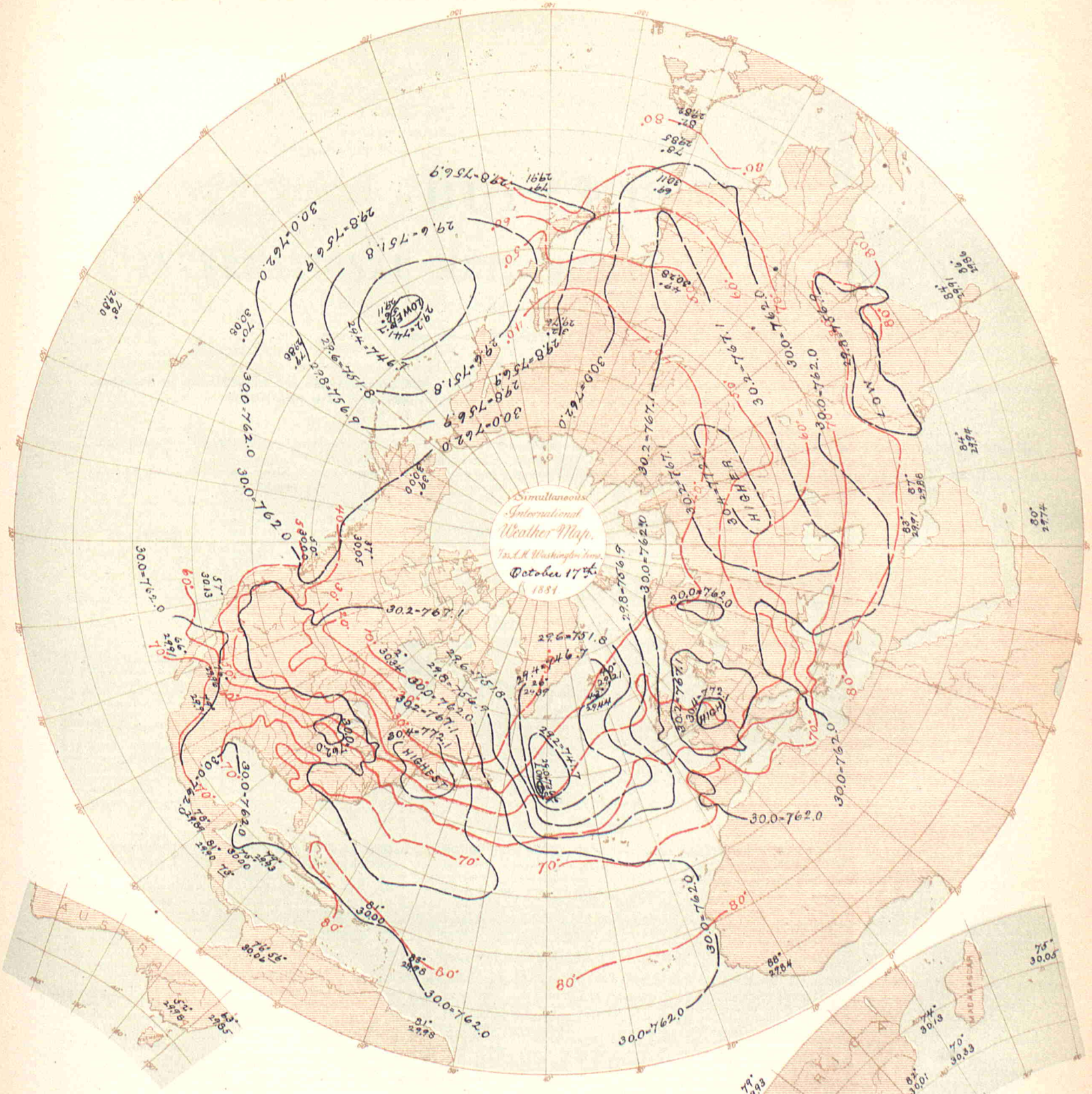
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.						
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.	Character.	Dir'n from.		
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.23	767.8	75	23.9	81	ne.	4	1.8			5		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.45	773.4	51	10.6	93	ne.	10	4.5		8 c	0	ne.		0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.52	749.8	62	16.7	97	calm			0		10		se.	0.91	23.1			foggy	
Adams. Callao, Peru	29.82	757.4	62	16.7	88	sw.			1		10					sm'h		cloudy	
Alaska, Callao, Peru	29.95	760.7	60	15.6	94	calm			0		10			0	0	sm'h		cloudy	
Alert, N. 33° 33′, E. 136° 00′...*	29.63	752.6	73	22.8	90	nnw.			2		5?		calm			long	se.	cloudy?	
Alliance, N. 61° 10′, W. 26° 54′	29.44	747.8	43	6.1	75	wsw.			3		2		nw.	light	light	sm'h	w.	fair	
Ashuelot, Kobe, Japan	29.75	755.6	66	18.9	94	calm			0		10		calm					cloudy	
Colorado, New York, N. Y.	30.36	771.1	63	17.2	72	ne.	2	0.9			5		sw.					fair	
Constitution, Newport, R. I.	30.35	770.9	51	10.6	?	ene.	2	0.9			2		ne.					fair	
Franklin, Yorktown, Va.	30.19	766.8	69	20.6	?	calm	0	0						0	0			dense fog	
Galena, Salonika, Turkey	29.82	757.4	72	22.2	67	sse.			1		5		sse.			sm'h		fair	
Independence, N. Yard, Mare I'd, Cal.	29.96	761.0	49	9.4	78	calm	0	0			0							clear	
Kearsarge, Yorktown, Va.	30.28	769.1	69	20.6	95	sw.			1		fg					sm'h		foggy	
Lackawanna. San Francisco, Cal.†	30.37	771.4	53	11.7	100	ne.			0–1		0							clear	
Lancaster, N. 36° 10′ W. 64° 02′	30.31	769.9	75	23.9	95	nw.			3		10		n.	0	0	sm'h		d. clouds	
Marion, Montevideo, Uruguay	29.67	753.6	66	18.9		wnw.			3		5		wnw.			mod.	wsw.	foggy	
Michigan, Erie, Pa.	30.07	763.8	56	13.3	94	ne.			1		8							fair	
Monocacy, Yokohama, Japan	29.68	753.9	64	17.8	94	nw.			1		10		nw.					cloudy	
Nipsic. Genoa, Italy	30.17	766.3	59	15.0	26	nne.			4		0					sm'h		blue sky	
Onward, Callao, Peru.†	29.99	761.7	58	14.4	100	calm			0		10		nnw.			long	w.	misty	
Palos, Hong Kong, China	29.98	761.5	79	26.1	70	ne.			3		5		n;e.					fair	
Passaic, Washington, D. C.	30.24	768.1	65	18.3	78	se.			1		0							clear	
Pensacola, Callao, Peru,	30.04	763.0	59	15.0	88	ssw.			0–1		10							cloudy	
Portsmouth, Yorktown, Va.	30.28	769.1	68	20.0	100	sw.			1							sm'h		dense fog	
Powhatan. Newport, R. I.	30.39	771.9	55	12.8	87	e.			2		8		w.			sm'h		fair	
Quinnebaug, Marseilles, France	30.16	766.1	59	15.0	49	nnw.			1		2		calm			sm'h		fair	
Ranger, San Francisco, Cal.*.	30.13	765.3	54	12.2	67	calm			0		0					sm'h		clear	
Saratoga, Yorktown, Va.	30.27	768.8	69	20.6	95	calm			0		10			0	0	sm'h		foggy	
St. Louis, League Island, Pa.	30.02	762.5	59	15.0	70	ne.	6	2.7			8			0	0			fair	
Swatara. Nagasaki, Japan.†.	29.91	759.7	67	19.4	84	ne.			1		2		w.			sm'h		fair	
Tennessee, Yorktown, Va.	30.34	770.6	70	21.1	100	ssw.	2	0.9			0			0.01	0.3			foggy	
Vandalia. Yorktown, Va.	30.28	769.1	69	20.6	95	calm			0		0							foggy	
Wabash, Boston, Mass.	30.45	773.4	54	12.2	74	e.	9	4.0			2?		w.	0	0			cloudy?	
Wachusetts, Sitka, Alaska	30.05	763.3	42	5.6	50	ne.			3		0							clear	
Wyoming, Port Royal, S. C.	30.18	766.6	73	22.8	90	nne.	6	2.7			2		ne.	0.01	0.3			fair	
Yantic, Yorktown, Va.*.	30.19	766.8	69	20.6	100	ese.			0–1		10							foggy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Montreal, Canada *†	30.50	774.7	.....	.....	.....	ne.	4	.....	10	.....	ne.	.....	.....	.....	.....	showery	N. McLean.
S. S. Circassian, Capt. W. H. Smith	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn †	30.25	768.3	61	16.1	94	ne.	3	.....	8	.....	ne.	.....	.....	.....	.....	fair	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng †..	30.28	769.1	41	5.0	76	sse.	5	.....	8	.....	se.	0	0	.....	.....	cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, N. 46° 58′, W. 44° 25′ *†..	29.81	757.2	50	10.0	93	nw.	3	.....	2	.....	nw.	.....	.....	h'vy	wnw.	fine	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, S. 41° 38′, W. 3° 20′	29.60	751.8	51	10.6	100	nw.	6	.....	8	.....	.....	.....	.....	.....	.....	overcast	
S. British Merchant, E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Caldew, Capt. W. Petersen S. 54° 28′, W. 77° 41′	29.44	747.8	43.5	6.4	.....	w.	9	.....	8	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Cipero, Capt. W. N. Lailey, Ulna River, Honduras, C. A.	30.00	762.0	75	23.9	100	wsw.	3	.....	10	.....	.....	.....	.....	.....	.....	raining	
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Coppename, Capt. A. Buchan,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Glaramara, Capt. R. Morton, ‡ N. 31° 07′, W. 123° 10′	30.23	767.8	57	13.9	87	nnw.	5	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Gordon Castle, Capt. W. Waring. N. 5° 49′, E. 83° 20′	29.86	758.4	85.5	29.7	83	w.	2	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	
Bg. Hermine, Capt. S. G. Jones, S. 41° 13′, W. 58° 46′	29.92	760.0	49	9.4	96	e.	5	.....	10	.....	.....	.....	.....	.....	.....	drizzling	
Bkt. Hope, Capt. J. Campbell.. ‡ N. 44° 29′. W. 15° 18′	29.81	757.2	64.3	17.9	97	sse.	6	.....	8	.....	.....	.....	.....	.....	.....	d. clouds	
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Lochee, Capt. J. Raeburn, S. 4° 22′, E. 87° 30′	29.88	758.9	80	26.7	91	ese.	3	.....	9	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Mertola, Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Moorhill, Capt. J. Brown, S. 56° 25′, W. 79° 55′	29.12	739.6	41.2	5.1	75	wsw.	6	.....	10	.....	.....	.....	.....	.....	.....	raining	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Pleione, Capt. C. H. Renant, S. 45° 10′. E. 128° 42	30.18	766.6	47	8.3	77	s.	4	.....	10	.....	.....	.....	.....	.....	.....	overcast	
Queen of Cambria, Capt. M. Parry, S. 16° 10′, W. 34° 54′	30.08	764.0	78	25.6	65	se.	5	.....	2	.....	.....	.....	.....	.....	.....	blue sky	
S. S. Rosetta, Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Shun Lee, Capt. J. M. Gray, ‡ N. 49° 44′, W. 11° 00′	29.94	760.5	56.2	13.4	93	sse.	7	.....	9	.....	.....	.....	.....	.....	.....	overcast	
S. S. Strathleven, Capt. C. W. Pearson, N. 34° 40′, E. 135° 12′	29.74	755.4	67.5	19.7	94	nnw.	2	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Thames, Capt. Luckhurst. N. 55° 18′, W. 27° 18′	29.44	747.8	50.6	10.3	53	ne.	3	.....	6	.....	.....	.....	.....	.....	.....	d. clouds	R. Ladd, 1st Officer.
S. S. Wybertan, Capt. R. J. Blacklin. N. 6° 45′, E. 53° 25′	29.74	755.4	80	26.7	.....	wsw.	3	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent San Francisco.*																	
S. S. Newbern, Capt, E. Rogers Guaymas, Mexico †..	29.76	755.9	76	24.4	52	nnw.	3	.....	0	.....	.....	0	0	.....	.....	clear	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Galia, Capt. W. H. P. Haine N. 40° 52′, W. 67° 49′	30.39	771.9	68	20.0	.....	ne.	2	.....	0	.....	.....	.....	.....	sm'h	.....	clear	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Schmidt, 3d Officer.
S. S. Hermann, Capt. H. Baur,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Koln, Capt. T. Jüngst, N. 50° 07′, W. 20° 05′	29.35	745.5	60.0	15.6	97	ssw.	6–7	.....	10	.....	s.;w.	20 h'r	20 h'r	he'vy	se; s. ssw.	drizzling	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer N. 48° 30′, W. 51° 23′	29.94	760.4	43.3	6.4	55	wnw.	8	.....	5	.....	nw.	8 h'rs	8 h'rs	he'vy	wnw.	stormy	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 42° 31′, W. 61° 54′	30.33	770.4	51.0	10.6	75	ne.	3	.....	2	.....	ne.	0	0	mod.	ne.	fair	Englehart & von Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 43° 34′, E. 174° 10′ †	29.21	741.9	56	13.3	81	wnw.	8	.....	10	.....	wnw.	rain	rain	high	wnw.	overcast	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 25° 30′ E. 120° 46′ *†..	30.21	767.3	79	26.1	70	ene.	6	.....	10	.....	ese.	.....	.....	high	ene.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 35° 22′, W. 167° 02′	30.08	764.0	70	21.1	85	sw.	4	.....	5	.....	ssw.	0	0	sm'h	ssw.	fair	
OREGON IMPROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes, Seattle, Wash. Ter. †..	30.07	763.8	56	13.3	87	s.	1	.....	10	.....	s.	.....	.....	.....	.....	heavy rain	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Oregon, Capt. E. Polemann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Pohl, 2d Office

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 34° 07′, W. 119° 12′ †....	30.04	763.0	54	12.2	93	e.	3	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——— Puget Sound †..	30.01	762.2	44	6.7	84	s.	2	.....	10	.....	s.	24h'r	24h'r	.....	.....	cloudy.....	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal †...	30.22	767.6	48	8.9	92	nw.	1	.....	0	.....	.....	.....	.....	.....	.....	clear	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal †..	30.23	767.8	47	8.3	92	sw.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †...	30.04	763.0	50	10.0	86	ese.	2	.....	8	.....	se.	.....	.....	.....	.....	cloudy.....	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 47° 12′, W. 124° 53′ †.	30.00	762.0	50	10.0	93	se.	2	.....	10	.....	se.	.....	.....	light	nw.	drizzling	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ———	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Bannermann, 2d Offi.
S. S. City of New York, Capt. W. B. Cobb, S. 6° 30′, W. 167° —′ †..	29.94	760.5	84	28.9	91	ne.	3	.....	10	.....	ne.	.....	.....	mod.	n.	cloudy	W. H. Hawes, 2d Offi. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. City of Peking, Capt. G. G. Barry, N. 25° 19′, E. 120° 08′ *†....	30.12	765.0	76	24.4	86	ne.	6	.....	10	.....	ne.	0	0	mod.	ne.	cloudy.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——— N. 12° 25′, W. 88° 24′ †..	29.90	759.4	81	27.2	91	sw.	1	.....	2	.....	e.	0	0	mod.	s.	fair	.....
S. S. City of Sidney, Capt. H. C. Dearborn, S. 34° 19′ E. 172° 32′ ..... *†...	29.83	757.7	61	16.1	82	ese.	4	.....	10	.....	se.	0.25	6.3	h'vy	se.	rainy...	E. L. Saik. A. L. Richie, 2d Offi.
S. S. City of Tokio, Com. J. Maury, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Colima, Capt. R. R. Searle, N. 14° 17′, W. 92° 46′ †.	29.89	759.2	78	25.6	100	calm	0	.....	3	.....	w.	0	0	sm'h	.....	clear.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	29.90	759.4	63	17.2	83	se.	3	.....	10	.....	se.	.....	.....	.....	.....	overcast.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 48° 01′, W. 45° 20 †..	30.05	763.3	47	8.3	.....	nw.	6	.....	5	.....	nw.	12 h'r	12 h'r	very high	nw.	squally.....	A. Fedderson, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, N. 49° 23′, W. 15° 15′ †..	29.72	754.9	60	15.6	88	sse.	6	.....	10	.....	se.	0	0	high	se.	dull.....	C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings, N. 43° 48′, W. 45° 58′	.....	.....	52	11.1	.....	wnw.	6	.....	8	.....	nw.	sh's	sh's	mod.	nw.	squally.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, New York, N. Y. †...	30.45	773.4	68	20.0	90	ne.	2	.....	2	.....	se.	0	0	.....	.....	d. clouds.....	.....
S. S. Republic, Capt. P. J. Irving N. 48° 07′, W. 42° 44′ †..	28.97	735.8	48	8.9	92	wnw'	9	.....	10	.....	w.	4 hrs	h'vy	long hv'y	wnw.	.....	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Washington, D. C. †...	30.34	770.6	66	18.9	100	ene.	1	6 ck	0	.....	.....	0	0	.....	.....	fair.....	.....
Hassler, Lt. Com. Nichols,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pawashick, Capt. E. Fry,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
S. S. Lovaine, Capt. H. McCauley N. 38° 57′, W. 71° 04′ *†..	30.60	777.2	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 33° 22′, W. 59° 00′ †...	30.57	776.5	71	21.7	.....	nne.	2	.....	0	.....	.....	.....	.....	.....	nne.	clear.....	E. Fry.
S. S. Proteus, Capt. Pike	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam, Capt. Jos. Hand, N. 35° 26′, W. 36° 39′ †.	30.07	763.8	70	21.1	80	w.	6	.....	8	.....	w.	0	0	mod.	wnw.	cloudy..	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. Hazen

Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 18, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.98	761.5	72.3	22.4	91	w.			2		3			0	0	pretty fair	Moiroud.
Algiers ‡			30.00	762.0	68.4	20.2	91	ne.			3		1			0	0	very fair	Nicolas.
La Calle ‡			30.02	762.4	71.2	21.8	51	nnw.			1		3			0	0	pretty fair	Fonfrède.
Tunis ‡			30.00	762.0															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.02	762.5	79.7	26.5	25	nnw.			1		1			0	0	very fair	Dumas.
Tebessa ‡			30.06	763.5	67.6	19.8	43	nnw.			2		0			0	0	clear	Derché.
Geriville ‡					76.3	24.6	13	wsw.			3		2			0	0	fair	Lonchamp.
Laghouat ‡			30.08	764.0	75.6	24.2	23	w.			4		2			0	0	fair	Herbin.
Biskra ‡			30.07	763.7	79.5	26.4	42	nnw.			1		3			0	0	pretty fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.98	761.5	30.07	763.8	52.0	11.1	92	s.	12	5.4			5			0.05	1.3		R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.52	749.7	30.07	763.8	49.6	9.8	48	w.			1		7			0.039	1.0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.28	743.6	30.06	763.6	42.4	5.8	91	nw.	0	0			10			0.264	6.7	raining	Dr. Wiersbicki.
Eperies	29.10	739.2	30.00	762.1	42.8	6.0	35	calm			0		10 n			0.567	14.4		Julius Mikolik.
Gratz ‡	28.82	732.0	30.09	764.3	47.1	8.4	53	ne.			2		3			0	0		Andreas Rospini.
Hermannstadt	28.53	724.6	29.98	761.4	48.0	8.9	70	nw.			2		10			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.81	731.8	30.21	767.3	37.4	3.0	93	wnw.			1		10			0.150	3.8	gloomy	The Staff.
Lemberg	29.00	736.6	30.00	762.0	45.9	7.7	83	w.			1		10			0.020	0.5		Dr. T. Stanecki.
Pola	29.98	761.4	30.09	764.3	53.4	11.9	48	sw.			1		3			0	0		I. R. Hydrographic Office.
Szathmar	29.52	749.8	29.99	761.8	46.4	8.0	85	n.			2		10			0	0		Jozsef Midlinszky, S. J.
Szegedin	29.72	755.0	30.01	762.3	45.0	7.2	89	calm			0		10			0.343	8.7		Karl Stancel.
Trieste	30.01	762.2	30.11	764.8	53.6	12.0	56	calm			0		4			0	0		Rieder.
Vienna	29.39	746.6	30.13	765.3	40.3	4.6	84	nw.			3		10			0.161	4.1		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 18, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Aberdeen	30.11	764.8	30.21	767.3	50.3	10.2	78	sse.	15	6.7			5			0	0	misty	W. Boswell.
Armagh, Observatory	29.82	757.4	30.05	763.3	53.2	11.8	68	se.	17	7.6			4					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.18	766.6	50.2	10.1	67	se.	24	10.7			1					blue sky	John Hartnup.
Bolton, Sharples	29.66	753.4	30.21	767.3	49.8	9.9	62	sse.	12	5.4			0					blue sky	Thomas Mackereth. [A.S.
Bradford, Yorkshire	29.82	757.4	30.22	767.6	49.7	9.8	63	sw.			1		0			0	0	blue sky	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.26	768.6	51.2	10.7	64	se.			1.0		0					blue sky	John McLaren.
Chatham, School M. E.	30.18	766.6	30.31	769.9	53.1	11.7	60	e.			1		2					d. clouds	R. Craydon, R. E.
Falmouth, Observatory	29.84	757.9	30.07	763.8	51.0	10.6	69	e.			6		6					squally	The Staff.
Fort Napier, Natal	27.73	704.3	29.94	760.5	91.1	32.8	66	se.			2		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.66	753.4	29.89	759.2	87.0	30.6	72	sw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.85	758.2	55	12.8	59	s.					8					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.98	761.5	30.04	763.0	70.5	21.4	87	e.			1		7					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	29.96	761.0	30.17	766.3	50.6	10.3	57	sse.			3							blue sky	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.11	764.8	30.29	769.1	52.2	11.2	59	se.			3		0					blue sky	The Staff.
Guernsey	29.87	758.7	30.09	764.3	50	10.0	62	ese.			4		0					blue sky	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.24	768.1	30.28	769.1	51.0	10.6	59	se.	19	8.5			0					blue sky	The Staff.
Leicester, Museum	29.99	761.7	30.25	768.3	52.5	11.4	50	sw.			1		0					blue sky	J. C. Smith.
Malta, Mediterranean	29.86	758.4	29.94	760.5	70.0	21.1	75	nw.			2		8			0	0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.00	762.0	30.05	763.3	80.0	26.7	89	e.			1		8					overcast	C. S. Duncombe.
Oscott, St. Mary's College	29.72	754.9	30.25	768.3	51.0	10.6	65	se.			2		1					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	30.02	762.5	30.25	768.3	51.2	10.7	51	ese.			3		0					squally	The Staff.
Plymouth	30.04	763.0	30.12	765.0	51.2	10.7	59	ese.			4		0					blue sky	John Merrifield.
Sandwick Manse, Orkneys			30.14	765.5	50.6	10.3	90	s.	17	7.6			3					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.82	757.4	29.88	758.9	68.4	20.2	73	nne.			2		8			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	29.98	761.5	30.27	768.8	50.9	10.5	75	sw.			2		1			0	0	blue sky	W. F. Cooper.
Silloth Rectory	30.14	765.5	30.17	766.3	53.5	11.9	62	calm			0		0			0	0	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.83	757.7				se.	16	7.2			0					blue sky	Rev. S. J. Perry.
Stratfield Turgiss	30.03	762.7	30.25	768.3	52.3	11.3	53	se.			3		0					blue sky	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.00	762.0	30.04	763.0	55	12.8	62	e.			7		0					blue sky	W. Newcombe.
Valencia, Observatory	29.75	755.6	29.78	756.4	54.6	12.6	76	se.	48	21.5			7					d. clouds	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.14	765.5	30.19	766.8	34	1.1	99	e.	8	3.6			10 n			0.560	14.2	light snow	H. J. Cundall, C. E.
Chatham, N. B.*	30.13	765.3	30.19	766.8	34	1.1	89	s.	1	0.4			10 n		s.	0.52	13.2	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.14	765.5	30.17	766.3	29	— 1.7	92	e.	25	11.2			10 n		e.	0.20	5.1	threatening	J. McWilliams.
Fort Garry, Manitoba*	29.36	745.7	30.23	767.8	27	— 2.8	96	nw.	4	1.8		5 k	5 ks	nw.	nw.	0.080	2.0	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.95	760.7	30.08	764.0	39	3.9	100	ne.	18	8.0			10 n			0.580	14.7	heavy rain	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.55	750.6	29.89	759.2	38	3.3	92	e.	15	6.7			10 s		e.	0.70	17.8	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.70	754.4	29.91	759.7	34	1.1	96	n.	1	0.4			fg.			1.38	35.1	foggy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.28	743.7	29.99	761.7	35	1.7	89	n.	12	5.4			10 n		ne.	1.29	32.8	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.18	741.2	29.86	758.4	57	13.9	100	n.	10	4.5			10 n			0.43	10.9	light rain	H. Morgan.
Port Stanley, Ontario	29.25	742.9	29.89	759.2	52	11.1	93	w.	12	5.4			10 n		nw.	0.35	8.9	cloudy	M. Payne.
Quebec, Quebec*	29.64	752.8	29.97	761.2	32	0.0	?	e.			7		10 n		ne.	0.75	19.0	light snow	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.53	750.0	30.00	762.0	34	1.1	72	n.	2	0.9			10 s		n.	0.99	25.1	cloudy	W. H. McIntyre.
Saugeen, Ontario*	29.25	742.9	29.98	761.5	40	4.4	96	n.	16	7.2			10 ks			1.18	30.0	cloudy	K. Stewart.
St. Andrews, N. B.	29.89	759.2	29.94	760.5	40	4.4	92	s.	14	6.3			10 n			1.13	28.7	light rain	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.24	768.1	30.31	769.9	33	0.6	96	calm	0	0			10 n			0.23	5.8	light snow	T. C. Hill, C. E.
Toronto, Ontario*	29.53	750.0	29.91	759.7	45	7.2	93	n.	7	3.1			10 n		n.	0.21	5.3	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.82	757.4	29.89	759.2	53	11.7	96	calm	0	0			fg.			0.45	11.4	foggy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.10	764.5	30.36	771.1	32	0.0	90	w.	3	1.3			10			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.	Weather.	Observers.
Cape St. Francis Lt. House‡	29.96	761.0	29.99	761.7	68.0	20.0	94	ene.	4.8	2.1		0	1 k			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.16	740.7			95.9	35.5	19	wnw.			1	0	0			0	0		C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.30	769.6	30.33	770.3	52.2	11.2	72	n.	4.5	2.0		2 ck	0			9	0	fair	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.38	771.6	30.43	772.8	44.8	7.1	68	n.	11	5			0						Oversergent Fischer.
Fanöe	30.41	772.4	30.43	772.9	47.3	8.5	69	e.			4		2						Overloerer Lauridsen.
Godthaab, Greenland	29.60	751.7	29.64	752.8	22.6	—5.2	88	se.			2		9						S. Kleinschmidt.
Stykkisholm, Iceland	29.52	749.7	29.56	750.8	40.3	4.6	81	calm			0		8						A. O. Thorlacius.
Thorshavn	29.98	761.4	30.01	762.3	52.9	11.6	89	sw.	18	8			10						Overloerer Bergh.
Vestervig	30.37	771.3	30.46	773.6	45.7	7.6	68	ene.			2		0						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.38	746.3	30.03	762.7	60.8	16	42	se.			1		0					clear	M. Labroue, Director.
Alençon Normal School	29.70	754.3	30.30	769.7	46.8	8.2	86	ne.			2		mist			0	0	misty	M. Nicot, Director.
Arras, Engineer School	30.00	762.0	30.26	768.6	46.8	8.2	67	se.					k		sse.				M. Klein, Commandant.
Avignon, Normal School	30.02	762.5	30.10	764.5	57.2	14	47	n.			1		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.64	752.8	30.21	767.2	48.6	9.2	46	se.			2		2 c			0	0	slightly cl'dy	M. Saillard, Director.
Beauvais, Normal School	30.00	762.0	30.27	768.9	46.0	7.8	53	e.			2		0			0	0	clear	M. Frère Eugène Marie.
Besançon, Normal School	29.27	743.5	30.19	766.7	46.6	8.1	59	ne.			2		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.73	755.1	29.99	761.7	59.5	15.3	39	ese.			1		1			0.039	1.0	almost clear	M. Rayet, Director.
Bourges, Normal School	29.56	750.7	30.11	764.9	43.5	6.4	65	ne.			1		1		ne.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	29.76	755.8	30.00	761.9	59.4	15.2	41	ese.			1		1		ese.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.12	765.0	30.19	766.9	49.6	9.8	56	se.			2		0			0	0	clear	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.83	757.6	30.15	765.9	50.0	10.0	71	se.			1		2		e.	0	0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.74	755.5	30.27	768.8	49.3	9.6	69	nne.			3		0			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.73	729.7	30.09	764.3	52.5	11.4	44	n.			1	2 c	0			0	0	slightly cl'dy	M. Alluard, Director.
Cluny, Normal School	29.26	743.2	30.11	764.8	48.0	8.9	66	n.			1		0			0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.36	745.7	30.24	768.2	45.5	7.5	57	e			3		2 kn	e.	e.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.56	699.9	30.11	764.9	50.4	10.2	84	n.			1		1 k		n.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.98	736.2	30.13	765.2	58.5	14.7	44	se.			3		8		se.	0	0	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.33	745.0	30.11	764.7	50.7	10.4	53	nw.			1		k			0	0		M. Ablard, Director.
Guéret, Normal School	28.47	723.1	30.07	763.7	56.3	13.5	32	se.			1		0			0	0	clear	M. Rivoire, Director.
Lamballe, Normal School	29.82	757.3	30.09	764.3	54.0	12.2	52	se.			4		1		se.	0	0	clear	M. Ollitrault, Director.
Lescar, Normal School	29.39	746.6	29.94	760.4	71.6	22	36	e.			1					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	29.97	761.1	30.07	763.7	57.2	14	57	e.			3		0			0	0	clear	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	29.09	738.9	30.17	766.4	44.4	6.9	43	ene.			1	5 c	0	n.		0	0	fair	M. André, Director.
Mans, Normal School	29.86	758.5	30.18	766.5	48.7	9.3	42	se.			4		0			0	0	clear	M. Piboen, Director.
Marseille, Observatory	29.80	756.9	30.07	763.8	64.6	18.1	79	sse.			1.2		8		ssw.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.82	630.5	29.94	760.5	54.0	12.2	26	e.	5.6	2.5			0			0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.95	760.7	30.06	763.5	57.9	14.4	70	n.			2		0			0	0	clear	M. Pourie, Director.
Nancy, Normal School	29.44	747.7	30.22	767.6	45.3	7.4	54	ne.			2		5 kn			0	0	cloudy	M. Hasse.
Nantes, Observatory	29.96	761.0	30.12	765.1	55.0	12.8	34	e.			2-4		0			0	0		M. Larocque, Director.
Nice	29.98	761.4	30.01	762.3	61.9	16.6	40	se.			3		5	sw.	sw.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	29.96	760.9	30.06	763.6	54.0	12.2	50	ne.	1.8	0.8			2			0	0		Dr. Fines.
Pic-du-Midi, Summit	21.30	541.0			42.4	5.8		calm			0		0			0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					53.2	11.8	27	n.			1	1	1	n.	s.	0	0	clear	M. Tallieu.
Puy de Dôme Obs'y, Summit	25.18	639.5			42.8	6.0	18	ese.			2		2			0	0	¼ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	30.06	763.6	30.10	764.4	55.0	12.8	79	e.			2		0			0	0	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.82	757.5	30.04	763.1	52.3	11.3	54	ene.			2		0			0	0	clear	M. Moullot, Director.
Rodez, Normal School	27.93	709.5	30.07	763.8	57.6	14.2	17						0			0	0	clear	M. Richard, Director.
Rouen, Normal School	30.20	767.0	30.24	768.1	47.8	8.8	52	e.			3					0	0		M. Platrier, Director.
Saint Lô, Normal School	30.01	762.3	30.17	766.3	50.4	10.2	53	ne.			2		0			0	0	clear	M. Delaplanche, Dir.
Saint Maur, Observatory	30.06	763.6	30.23	767.8	50.5	10.3	47	ene.			2		1	n.		0	0		M. Renou, Director.
Toulouse, Observatory	29.35	745.4	30.07	763.8	61.3	16.3	24	sse.			3		1	w.		0	0	clear	M Bailland, Director.
Tours	29.92	760.0	29.12	765.0	50.4	10.2	48	e.			2		0			0	0		M. de Tastes.
Versailles, Observatory	29.72	754.9	30.21	767.4	48.6	9.2	42	se.			4					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.95	760.8	30.24	768.2	48.0	8.9	49	ene.			2		0			0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.39	746.6	30.26	768.6	42.1	5.6	60	e.			3		5 k	e.		0.024	0.6	light rain	Prof. Dr. Hoh.
Berlin	30.10	764.4	30.27	768.9	47.1	8.4	66	n.			2		8			0.031	0.8		Prof. Dr. Arndt.
Breslau	29.60	751.8	30.13	765.3	40.6	4.8	100	n.			2		10					raining	Royal University Obs'y.
Carlsruhe	29.84	757.9	30.28	769.1	45.7	7.6	63	ese.			2		2	ne.		0	0		Albert Senz.
Cassel	29.56	750.9	30.28	769.2	44.6	7.0	54	n.			4		5	n.		0.012	0.3		Dr. H. Möhl.
Frankfort on the Main	29.90	759.5	30.28	769.1	45.3	7.4	59	ne.			1		6			0	0		Physical Society.
Friedrichshafen	28.76	730.6	30.24	768.2	41.9	5.5	56	ene.			3		2	e.		0	0		Wilhelm, Chief Tel.
Hamburg	30.28	769.1	30.37	771.3	45.9	7.7	70	n.			3		5			0	0	hazy	E. Preller.
Kiel	30.36	771.2	30.38	771.6	44.4	6.9	64	ne.			2		5			0.012	0.3		Prof. Dr. G. Karsten.
Leipsic, Astron'l Obs'y	29.86	758.5	30.30	769.6	41.7	5.4	82	n.			2		9	l.		0.024	0.6		H. Leppig, Asst.
Magdeburg	30.11	764.7	30.30	769.6	46.4	8.0	68	nnw.			1	0	8k; ks		nw.	0	0		Dr. Assmann.
Memel	30.15	765.9	30.20	767.1	49.1	9.5	61	ne.			4	0	9 s						Issermann.
Munich	28.38	720.8	30.26	768.5	38.5	3.6	67	calm			0		6			0.067	1.7		Central Station.
Neufahrwasser	30.19	766.7	30.20	767.1	46.4	8.0	81	nne.			4		10	ne.		0.291	7.4	sprinkling	A. Lothes.
Neustadt, Palatinate	29.74	755.3	30.27	768.8	45.0	7.2	73	ne.			2		7			0	0		Dicknether.
Stuttgart	29.30	744.3	30.23	767.8	41.9	5.5	80	n.			2		4	n.		0.016	0.4		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.72	729.4	30.28	769.2	39.7	4.3	79	n.			2		7	n.		0.051	1.3		Fischer.
Wustrow	30.34	770.5	30.36	771.2	46.6	8.1	70	ne.			4		5 k			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.57	751.0	29.95	760.8	71.6	22.0		sw.			1.0		8			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.79	756.6	29.84	757.9	83.3	28.5	73	sw.	27.0	12.1			0			0	0	blue sky	
Deesa	29.39	746.5	29.86	758.4	87.4	30.8	39	ssw.	10.5	4.7			0			0	0	blue sky	
Bombay	29.84	757.9	29.88	758.8	82.1	27.8	84	nnw.	14.0	6.3			0			0	0	blue sky	
Poona, Yarrowda	28.02	711.7	29.85	758.2	85.5	29.7	30	nne.	4.0	1.8			4	sw.		0	0	d. clouds	
Belgaum	27.33	694.1	29.83	757.7	83.4	28.6	36	wnw.	4.0	1.8			0			0	0	blue sky	
Lahore	29.04	737.5	29.77	756.2	85.0	29.4	51	calm	1.6	0.7			0			0	0	blue sky	
Roorkee	28.90	734.2	29.80	756.8	83.8	28.8	62	calm	1.0	0.4			3			0	0		
Agra	29.27	743.5	29.82	757.5	90.2	32.3	48	w.	3.8	1.7			0			0	0		
Nagpur	28.83	732.2	29.86	758.4	87.0	30.6	28	e.	2.7	1.2			2			0	0	d. clouds	
Jubbulpore	28.52	724.4	29.88	758.8	79.8	26.6	49	nw.	2.0	0.9			0			0	0	blue sky	
Lucknow	29.44	747.8	29.81	757.2	90.6	32.6	31	wnw.	2.2	1.0			0			0	0	blue sky	
Allahabad	29.50	749.4	29.82	757.3	81.4	27.4	62	calm	0.9	0.4			0			0	0	blue sky	
Patna	29.65	753.2	29.83	757.8	81.2	27.3	65	s.	1.9	0.8			0			0	0	blue sky	
Hazaribagh	27.83	705.4	29.84	758.0	77.8	25.4	55	nw.	6.1	2.7			0			0	0	blue sky	
Cuttack	29.76	755.9	29.84	758.0	81.2	27.3	69	ese.	0.2	0.1			0			0	0	blue sky	
Calcutta, Alipore	29.78	756.5	29.81	757.1	82.1	27.8	64	calm	0	0			0			0	0	blue sky	
Dhubri	29.69	754.0	29.81	757.1	81.0	27.2	72	calm	1.0	0.4			0			0	0	blue sky	
Goalpara																			
Chittagong	29.74	755.5	29.83	757.8	80.2	26.8	81	w.	1.8	0.8			5			0	0	d. clouds	
Sibsagar	29.46	748.2	29.79	756.8	81.7	27.6	85	calm	2.6	1.2			0			0	0	blue sky	
Jeypore	28.43	722.0	29.85	758.2	87.7	30.9	38	wnw.	3.1	1.4			2		w.	0	0	d. clouds	
Zanzibar, Africa			29.98	761.5	79.7	26.5	75	ne.	5	2.2			5			0.06	1.5	threatening.	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.69	754.0	30.10	764.5	52.7	11.5	25	calm	0	0			2			0	0		Prof. Giovanni Clodig.
Milan	29.59	751.5	30.10	764.6	53.4	11.9	33	e.	3.8	1.7			1			0	0		Prof. Schiaparelli.
Padua	30.00	761.9	30.11	764.7	53.6	12.0	35	s.	3.1	1.4			1			0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.15	740.3	30.06	763.4	51.3	10.7	41	ese.	1.3	0.6			0			0	0		Prof. P. F. Denza.
Genoa	29.89	759.2	30.08	764.1	59.0	15.0	18	sw.	4.3	1.9			2	s.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.13	714.5	30.06	763.6	46.4	8.0	40	ne.			2		0			0	0		Prof. D. C. Bruno.
Pesaro	30.05	763.2	30.10	764.4	51.1	10.6	54	n.			2		10			0.181	4.6		Prof. Luigi Guidi.
Florence	29.82	757.4	30.07	763.8	56.3	13.5	51	nw.			2		4			0	0		Prof. Costantino Pitter.
Leghorn	30.00	762.1	30.09	764.3	59.2	15.1	22	e.	3.1	1.4			1			0	0		Prof. P. Monte.
Rome	29.84	758.0	30.02	762.4	57.9	14.4	23	nnw.					1			0	0		Prof. P. S. Ferrari.
Lecce	29.74	755.4	29.99	761.7	56.8	13.8	49	nne.	12.5	5.6			5			0	0		Prof. C. de Giorgi.
Cosenza	29.13	740.0	30.02	762.5	51.1	10.6	61	ssw.	3.1	1.4			9	sw.		0.276	7.0		Prof. D. Conti.
Cagliari	29.80	757.0	30.00	762.0	64.8	18.2	46						3			0	0		Prof. A. Pacinotti.
Palermo	29.75	755.7	30.00	761.9	57.0	13.9	69	w.	3.1	1.4			10	nw.		0.102	2.6		Prof. G. Ciacciatore.
Syracuse	29.89	759.2	29.93	760.3	65.8	18.8	63	ne.	13.0	5.8			10	e.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.47	748.5	29.99	761.8	55.8	13.2	50	ne.	1.8	0.8			2	n.		0.004	0.1		Prof. F. Brioschi.
Stelvio	22.06	560.3			17.8	— 7.9	34	ne.			2	0	0			0	0	clear	Prof. P. F. Denza.
Valdobbia	22.08	560.7			26.6	— 3.0	50	n.			2	0	0			0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.12	765.0	30.13	765.3	50.1	10.1	78	nne.	3.5	1.6		0	3 ks;s			0	0	clear	K. Sasaki.
Kioto	29.94	760.5	30.12	765.0	46.7	8.2	95	nw.	1.6	0.7		ck	2 s			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	30.02	762.5	30.22	767.6	53.4	11.9	69	calm	0	0		cs	7 s			0	0	cloudy	S. Takehayashi.
Nemuro																			
Niigata	30.00	762.0	30.03	762.7	51.2	10.7	68	n.	9.9	4.4		ck	10 s		w.	0.130	3.3	cloudy	
Nobiru	29.91	759.7	29.92	759.9	50.0	10.0	59	nw.	19.9	8.9		0	4 s			0	0	fair	
Supporo	29.52	749.8	29.58	751.3	42.2	5.7	92	wnw.	7.8	3.5			3			0.035	0.9		
Tokei Obs'y, Yeddo	29.87	758.7	29.94	760.5	59.5	15.3	55	nne.	9.7	4.3			9 ks;s		sw.	0	0	cloudy	The Staff.
Wakayama	30.07	763.8	30.13	765.3	57.4	14.1	52	nw.	6.5	2.9		1 ck	0			0	0	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.89	759.2	30.08	764.0	75.5	24.2	53	se.	21.5	9.6		0	3 k		sw.	0.01	0.3	fair	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.8	29.91	759.8	58.1	14.5	81	e.	4.5	2.0		0	1 k		e.	0.535	13.6	clear	Vicente Fernandez.
Leon	24.45	621.0	30.12	765.1	60.2	15.7	91	sw.			2	0	4 k			0.197	5.0	clear	Prof. M. Leal.
Mazatlan	29.67	753.7	29.93	760.2	79.0	26.1	74	nnw.	0.9	0.4		1 cs	1 k			0	0	clear	F. Quijano, U. E.
Mexico, Central Obs'y	23.12	587.3	30.14	765.6	56.3	13.5	87	calm	0	0		5 k	5 ks	n.		0	0	covered	The Staff.
Morelia	24.25	616.0	30.32	770.1	58.3	14.6	70	ese.			3	3	0	s.		0	0	blue sky	M. Tena, M. D.
Pabellon, Aguascalientes	23.96	608.6	29.95	760.4	58.6	14.8	92	calm			0	2 c	5 ks		se.	0.271	6.9	cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.8	30.22	767.5	52.7	11.5	58	calm	0	0		0	1		n.	0.004	0.1	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.34	770.7	30.34	770.7	49.1	9.5		e.			3					0	0		
Groningen	30.33	770.4	30.39	771.8	47.5	8.6		e.			1					0	0		
Helder	30.37	771.4	30.37	771.4	46.8	8.2		e.			1					0	0		
Hellevoetsluis	30.35	770.8	30.35	770.8	48.7	9.3	70	e.			2					0.020	0.5		
Utrecht	30.32	770.0	30.36	771.2	48.0	8.9	65	ene.			2		8			0	0	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.36	771.2	30.43	772.8	48.6	9.2	61	s.	1.1	0.5			3			0	0		
Christiania	30.37	771.5	30.53	775.4	43.3	6.3	60	ese.	0	0			0			0	0		
Gjæsvær	30.29	769.3	30.31	769.9	35.6	2.0		se.			4		8						
Lodingen	30.31	769.8	30.35	771.0	43.9	6.5	54	se.			6		10			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.37	746.0	29.53	750.0	60.8	16.0	83	nw.	25.5	11.4			6			0.276	7.0		Dr. J. A. Sampaio.
Campo Major	29.00	736.5	29.97	761.2	70.5	21.4	59	ssw.	9.8	4.4			9			0	0		Dr. A. M. R. dos Santos.
Funchal, Madeira	29.95	760.6	30.03	762.8	73.2	22.9	60	sw.	8.1	3.6			1			0.091	2.3		Capt. D. A. de Cunha.
Lisbon, Observatory	29.65	753.0	30.00	762.0	68.4	20.2	63	s.	13.6	6.1			7			0	0		The Staff.
Ponta Delgada, Azores	29.54	750.3	29.61	752.1	69.4	20.8	63	w.	25.5	11.4			4			0.205	5.3		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.14	740.1	30.22	767.7	51.4	10.8	46	ene.	18	8		3 cs	0						Capt. Lasarew.
Archangel	30.36	771.1	30.38	771.6	39.0	3.9	92	sw.	4	2			10						Capt. Sseliwerstow.
Astrakhan	30.36	771.1	30.28	769.0	61.5	16.4	28	e.	2	1		0	0						Capt. Wisganow.
Barnaul ‡	29.88	759.0	30.40	772.2	40.1	4.5	73	ne.	7	3			0						Meteorological Obs'y.
Dorpat	30.10	764.5	30.35	770.8	47.3	8.5	69	ene.	13	6		6 ck	0						Observatory.
Ekaterinburg	29.53	750.1	30.51	775.0	51.8	11.0	55	calm	0	0		0	0						Meteorological Obs'y.
Kasan	30.21	767.2	30.48	774.1	57.6	14.2	44	se.	2	1		8 c	0						Observatory.
Kertch	30.00	761.9	30.02	762.4	66.0	18.9	71	calm	0	0		0	0			0	0		Lagorio & Sastyrex.
Kieff	29.35	745.6	29.99	761.8	51.8	11.0	97	e.	4	2			10 n					raining	Observatory.
Lugan	29.97	761.1	30.17	766.2	66.4	19.1	35	ese.	34	15			2						Meteorological Obs'y.
Moscow	29.74	755.5	30.22	767.5	62.1	16.7	44	s.	4	2		2 c	0						Meteorological Obs'y.
Nikolaiev	29.94	760.4	30.01	762.2	69.3	20.7	56	s.	4	2		cs	9 k						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.63	752.6	29.72	754.8	32.9	0.5	94	calm			0		10 n			0.189	4.8	snowing	Lieut. Iwanow.
Pekin, China	30.01	762.3	30.15	765.9	49.6	9.8	41	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.39	771.8	30.40	772.2	44.8	7.1	90	ene.	7	3			10						Central Physical Obs'y.
Tashkend, Laboratory	28.49	723.6	30.04	763.1	61.2	16.2	70	nw.	22	10			10			0	0		Teich, A. M.
Tiflis	28.75	730.2	30.13	765.4	69.6	20.9	45	se.	4	2		0	1 k						Physical Observatory.
Warsaw	29.63	752.7	30.06	763.6	44.8	7.1	80	n.	7	3			10 n					raining	Astronomical Obs'y.
Wilna	29.65	753.2	30.09	764.2	43.9	6.6	96	calm	0	0			10					raining	Berg, Assistant.
Yeniseisk	30.26	768.5	30.56	776.1	36.0	2.2	82	nw.	2	1			7						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.21	767.3	51.0	10.6	79	ne.			1	0	0			0	0	fine	Andrew Gibb.
Monach Lt. House, Hebrides			29.98	761.5	53	11.7	93	s.			7	5	0	s.		0	0	hazy	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.92	760.0	30.02	762.6	61.9	16.6	72	se.	2.9	1.3			10			0	0	hazy	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.89	759.1	29.94	760.5	76.8	24.9	55	se.	3.6	1.6		0	0			0	0	clear	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.07	687.5			68.0	20.0	82	sw.	3.6	1.6		0	0			0	0	clear	Domingo Martin.
Madrid, Royal Obs'y	27.83	706.9	30.00	762.0	69.8	21.0	59	se.	4.9	2.2		3	0			0	0	light clouds.	The Staff.
Murcia, Met. Obs'y ‡	29.91	759.6	30.06	763.4	70.7	21.5	71	s.	1.3	0.6		5	5			0	0	covered	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.97	735.7	29.84	757.9	66.9	19.4	78	sw.	11.2	5.0			7			0	0	cloudy	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.95	760.7	30.02	762.4	76.0	24.4	90	e.	4.5	2.0		6 c;cs	2 k;s	wsw.	e.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.66	753.5	29.72	754.8	75.4	24.1	95	nne.	0.7	0.3		2 cs	8		ne.	0.217	5.5	raining	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.95	760.6	30.04	763.0	75.6	24.2	60	se.	10.3	4.6			10		s.	c	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.89	759.2	29.98	761.5	78.4	25.8	92	s.	6.9	3.1		5 k	2 kn	s.	s.	0.020	0.5	cloudy	E. Cudea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.58	751.4	29.72	754.1	84.2	23.4	98	nnw.	9.6	4.3			10 kn		ne.	1.28	32.5	stormy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.49	774.4	30.53	775.4	36.0	2.2	75	n.			2		0			0	0		
Umea	30.50	774.6	30.55	775.9	38.5	3.6	80	ne.			2		0			0	0		
Hernosand	30.55	775.9	30.60	777.2	39.7	4.3	73	calm			0		5			0	0		
Stockholm	30.25	768.4	30.43	772.9	44.6	7.0	79	nne.			4		10			0.004	0.1		
Wisby	30.28	769.0	30.34	770.5	47.8	8.8	71	ne.			4		7			0	0		
Sub-Series.																			
Upsala	30.37	771.5	30.46	773.7	43.2	6.2	85	nne.	13.2	5.9			6		nne.	0.008	0.2		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.71	729.2	30.17	766.3	43.2	6.2	54	n.			4		1			0	0	clear	The Observatory.
Zurich ‡	28.55	725.1	30.22	767.6	43.5	6.4	53	e.			4		4			0	0	lightly cld'y	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.95	760.8	66.4	19.1	77	n.	9	4.0			9		sw.	0	0		The Observatory.
Valona			30.00	762.1	58.1	14.5		w.			2		5			0.04	1.	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.99	761.8	79.0	26.1	68	sw.			1		9 s		sw.	0	0		Prof. C. V. Van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
UNITED STATES SERIES. By authority of the Secretary of War. Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.																			
Albany, New York	29.77	756.1	29.85	758.2	63.5	17.5	64	s.	3	1.3			10 n			0.01	0.3	light rain	
Alpena, Michigan	29.44	747.8	30.13	765.3	36.5	2.5	100	nw.	8	3.6			10 s		nw.	1.14	29.0	cloudy	
Atlanta, Georgia	28.92	734.6	30.14	765.5	67.8	19.9	90	e.	3	1.3			10 s		calm	0	0	cloudy	
Atlantic City, New Jersey	29.95	760.7	29.96	761.0	66.4	19.1	100	sw.	8	3.6		2 c	fg.	calm	calm	0	0	clear	
Augusta, Georgia	29.90	759.4	30.10	764.5	72.3	22.4	97	s.	2	0.9			10s;fg		se.	0.52	13.2	cloudy	
Baltimore, Maryland	29.92	760.0	29.97	761.2	68	20.0	93	se.	6	2.7		0	0			0	0	clear	
Barnegat, New Jersey	29.90	759.4	29.92	760.0	68.0	20.0	93	sw.	13	5.8		1 c	3 k	sw.	sw.	0	0	clear	
Bismarck, Dakota	28.38	720.8	30.30	769.6	29	— 1.7	88	calm	0	0			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.32	693.9	30.24	768.1	36.3	2.4	82	nw.	2	0.9			10 s		calm	0	0	cloudy	
Boston, Massachusetts	29.74	755.4	29.90	759.4	51.6	10.9	100	e.	6	2.7			fg.			0.02	0.5	dense fog	
Brackettville, Texas	28.90	734.0	29.93	760.2	70	21.1	94	e.	4	1.8		0	5 s		se.	0	0	fair	
Brownsville, Texas	29.98	761.5	30.02	762.5	71	21.7	100	calm	0	0		hz.	fg.			inap.	inap.	dense haze.	
Buffalo, New York	29.14	740.1	29.88	758.9	52	11.1	96	ne.	3	1.3			fg.			1.01	25.7	dense fog	
Burlington, Vermont	29.59	751.6	29.89	759.2	38.4	3.6	95	n.	7	3.1			10 n		n.	0.15	3.8	light rain	
Cairo, Illinois	29.82	757.4	30.23	767.8	55.1	12.8	85	n.	11	4.9			10 s		n.	0.70	17.8	threatening.	
Campo, California	27.44	697.0	30.01	762.2	23.8	— 4.6	88	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.35	694.7			32	0.0	71	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.04	763.0	30.06	763.5	72	22.2	90	sw.	12	5.4			10 s		sw.	0	0	cloudy	
Cape May, New Jersey	29.93	760.2	29.96	761.0	69	20.6	90	sw.	20	8.9		0	0			0	0	clear	
Castroville, Texas	29.28	743.7	29.96	761.0	74	23.3	82	calm	0	0		0	5 ks			0	0	fair	
Cedar Keys, Florida	30.06	763.5	30.08	764.0	76	24.4	90	se.	13	5.8		2 ck	8 s		n.	0.61	15.5	cloudy	
Champaign, Illinois	29.38	746.2	30.20	767.1	42.3	5.7	92	n.	16	7.2			10 s		n.	0.20	5.1	cloudy	
Charleston, S. Carolina	30.04	763.0	30.10	764.5	77	25.0	90	s.	4	1.8		0	4 s		e.	0.67	17.0	fair	
Charlotte, N. Carolina	29.22	742.2	30.13	765.3	69.8	21.0	94	s.	4	1.8			10 n		s.	0.15	3.8	light rain	
Chattanooga, Tennessee	29.28	743.7	30.13	765.3	64.5	18.1	92	calm	0	0		1 cs	1ks;fg	calm	w;calm	0	0	dense fog	
Cheyenne, Wyoming	24.24	615.7	30.37	771.4	20.5	— 6.4	68	nw.	6	2.7		0	0			0	0	clear	
Chicago, Illinois	29.49	749.0	30.23	767.8	41.8	5.4	93	nw.	9	4.0			10 s			0.57	14.5	cloudy	
Chincoteague, Virginia	30.01	762.2	30.03	762.7	69	20.6	100	sw.	20	8.9		2 c	5 s	calm	sw.	0	0	fair	
Cincinnati, Ohio	29.39	746.5	30.07	763.8	66	18.9	84	w.	6	2.7			10 s		w.	0.70	17.8	cloudy	
Cleveland, Ohio	29.20	741.7	29.97	761.2	59.1	15.1	92	nw.	17	7.6			10 n		nw.	0.26	6.6	light rain	
Coleman City, Texas																			
Columbus, Ohio	29.13	739.9	30.02	762.5	64	17.8	90	w.	8	3.6			10 s		w.	0.78	19.8	cloudy	
Concho, Texas	28.23	717.0	30.23	767.8	62	16.7	90	ne.	12	5.4			10 s			0	0	cloudy	
Corsicana, Texas	29.67	753.6	30.15	765.8	66	18.9	78	n.	12	5.4			10 s			0	0	cloudy	
Davenport, Iowa	29.62	752.3	30.30	769.6	45	7.2	83	n.	7	3.1			10 s		n.	0.85	21.6	cloudy	
Dayton, Washington T'y	28.25	717.5	30.11	764.8	53.7	12.1	69	se.	6	2.7			10 s		calm	0.10	2.5	cloudy	
Deadwood, Dakota	25.51	647.9	30.37	771.4	30	— 1.1	62	sw.	4	1.8		5 k	0	calm		0	0	fair	
Decatur, Texas	28.93	734.8	30.12	765.0	52	11.1	80	n.	13	5.8			10 n			0.18	4.6	light rain	
Delaware Breakwater, Del.	29.95	760.7	29.97	761.2	71	21.7	90	sw.	24	10.7		4cs;ck	1 s	sw.	sw.	0	0	fair	
Denison, Texas	29.38	746.2	30.21	767.3	53	11.7	93	n.	8	3.6			10 n		n.	0.37	9.4	light rain	
Denver, Colorado	24.99	634.7	30.36	771.1	34.0	1.1	50	s.	8	3.6		0	0			0	0	clear	
Des Moines, Iowa	29.44	747.8	30.39	771.9	38	3.3	89	n.	2	0.9		0	fg.			0.02	0.5	clear	
Detroit, Michigan	29.31	744.5	30.05	763.3	50.8	10.4	86	nw.	11	4.9			10 n		calm	0.23	5.8	light rain	
Dodge City, Kansas	27.72	704.1	30.41	772.4	32	0.0	88	nw.	4	1.8		0	1 s			0	0	clear	
Dubuque, Iowa	29.57	751.1	30.31	769.9	42	5.6	74	n.	6	2.7			10 s		calm	0.09	2.3	cloudy	
Duluth, Minnesota	29.57	751.1	30.30	769.6	37	2.7	82	sw.	3	1.3			10 s		calm	0.32	8.1	cloudy	
Eagle Pass, Texas	29.25	742.9	30.10	764.5	68.6	20.3	93	e.	5	2.2		0	6 s		e	0	0	fair	
Eagle Rock, Idaho	25.46	646.7	30.45	773.4	22	— 5.0	36	n.	5	2.2		0	0			0.04	1.0	clear	
Eastport, Maine	29.86	758.4	29.93	760.2	44	6.7	93	e.	30	13.4			10 n		e.	1.62	41.1	light rain	
El Paso, Texas	26.36	669.5	30.20	767.1	55.2	12.9	42	ne.	5	2.2		0	3 s		e.	0	0	clear	
Erie, Pennsylvania	29.14	740.1	29.90	759.4	63	17.2	94	sw.	6	2.7			10 s		sw.	0.18	4.6	cloudy	
Escanaba, Michigan	29.53	750.0	30.21	767.3	34	1.1	88	nw.	8	3.6		4 c	3 s	calm	nw.	0.65	16.5	fair	
Florence, Arizona	28.52	724.4	30.12	765.0	40.6	4.8	58	nw.	1	0.4		0	0			0	0	clear	
Fort Apache, Arizona	25.13	638.3	30.17	766.3	30	— 1.1	71	e.	4	1.8		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.30	693.4	30.24	768.1	26	— 3.3	77	w.	1	0.4			10 s		calm	0	0	cloudy	
Fort Bennett, Dakota	28.64	727.4	30.25	768.3	27	— 2.8	88	calm	0	0		0	fg.			0	0	clear	
Fort Benton, Montana	27.34	694.4	30.32	770.1	23	— 5.0	64	calm	0	0			10 s		calm	0	0	cloudy	
Fort Buford, Dakota	28.21	716.5	30.32	770.1	23	— 5.0	88	ne.	3	1.3		0	0			0	0	clear	
Fort Custer, Montana	26.93	684.0	30.32	770.1	28	— 2.2	100	sw.	2	0.9		0	0			0	0	clear	
Fort Davis, Texas	25.13	638.3	30.09	764.3	52	11.1	100	ne.	2	0.9		0	5 s			0.78	19.8	fair	
Fort Elliott, Texas	27.49	698.2	30.79	782.1	38	3.3	64	nw.	6	2.7		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.69	754.1	30.26	768.6	51.0	10.6	93	n.	8	3.6			10 s		n.	0.29	7.4	cloudy	
Fort Grant, Arizona					50	10.0	68	n.	6	2.7		0	0			0	0	clear	
Fort Griffin, Texas	28.95	735.3	30.23	767.8	55.2	12.9	93	n.	18	8.0			10 n			0.16	4.1	light rain	
Fort Keogh, Montana	27.52	699.0	30.19	766.8	25	— 3.9	76	calm	0	0		0	0			0	0	clear	
Fort Macon, North Carolina	30.11	764.8	30.12	765.0	75	23.9	97	s.	8	3.6		0	9 ks		sw.	0.03	0.8	cloudy	
Fort McKavett, Texas	27.90	708.6	29.81	757.2	60.8	16.0	78	ne.	7	3.1			10 s			0	0	cloudy	
Fort Missoula, Montana	26.78	680.2	30.43	772.9	35	1.7	89	calm	0	0			10 s			0	0	cloudy	
Fort St. Michaels	30.10	764.5	30.13	765.3	41	5.0	91	s.	6	2.7			10 s			0.15	3.8	cloudy	
Fort Shaw, Montana	26.46	672.1	30.20	767.1	18	— 7.8	87	ne.	4	1.8		10 cs	0	calm		0	0	cloudy	
Fort Sill, Indian Territory	29.02	737.1	30.31	769.9	47	8.3	93	n.	20	8.9			10 s			0	0	cloudy	
Fort Stevenson, Dakota	28.33	719.6	30.29	769.4	25	— 3.9	88	calm	0	0			fg.		se.	0	0	dense fog	
Fort Verde, Arizona					34.1	1.2	55	n.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.36	720.3	29.89	759.2	67	19.4	93	sw.	3	1.3		0	9 ks		sw.	0	0	cloudy	
Galveston, Texas	30.04	763.0	30.08	764.0	77	25.0	82	calm	0	0		0	3 ks			0	0	clear	
Grand Haven, Michigan	29.48	748.8	30.18	766.6	42.0	5.6	92	n.	9	4.0		0	3 s		n.	1.67	42.4	clear	
Hatteras, North Carolina	30.10	764.5	30.12	765.0	74	23.3	97	sw.	11	4.9		2 ck	2 s	w.		0	0	fair	
Helena, Montana	25.83	656.1	30.42	772.7	36	2.2	82	s.	3	1.3		0	0			0	0	clear	
Henrietta, Texas	29.23	742.4	30.18	766.6	53	11.7	80	n.	12	5.4			10 s			0	0	cloudy	
Huron, Dakota	28.88	733.5	30.34	770.6	28	— 2.2	84	se.	5	2.2		0	0			0	0	clear	
Indianapolis, Indiana	29.32	744.7	30.15	765.8	51	10.6	83	nw.	8	3.6			10 s		nw.	0.32	8.1	cloudy	
Indianola, Texas	30.03	762.7	30.06	763.5	77.1	25.1	88	calm	0	0		7 ck	1 ks	sw.	calm	0	0	cloudy	
Jacksboro, Texas	29.01	736.8	30.15	765.8	54	12.2	93	n.	8	3.6			10 s		n.	0	0	cloudy	
Jacksonville, Florida	30.05	763.3	30.09	764.3	73	22.8	90	s.	4	1.8		6 cs;k	0	s.		0.15	3.8	fair	
Keokuk, Iowa	29.62	752.3	30.30	769.6	44.5	6.9	83	nw.	10	4.5			10 s		nw.	0.51	13.0	cloudy	
Key West, Florida	30.02	762.5	30.05	763.3	79.0	26.1	82	e.	5	2.2		1 cs	1 k	calm	e.	0	0	clear	
Kittyhawk, North Carolina	30.10	764.5	30.12	765.0	72	22.2	100	sw.	11	4.9		5 ck	2 s	nw.	sw.	0	0	fair	
Knoxville, Tennessee	29.09	738.9	30.16	766.1	62.3	16.8	88	calm	0	0			10 s		w.	0	0	cloudy	
La Crosse, Wisconsin	29.50	749.3	30.30	769.6	41	5.0	82	calm	0	0		0	5 s		n.	0.10	2.5	fair	
La Mesilla, New Mexico	26.22	666.0	30.37	771.4	48.8	9.3	52	calm	0	0		0	0			0	0	clear	
Laredo, Texas	29.58	751.3	29.92	760.0	75.0	23.9	82	calm	0	0			10 s		se.	0	0	cloudy	
Leavenworth, Kansas	29.45	748.0	30.38	771.6	43	6.1	74	n.	9	4.0			10 s			0.04	1.0	cloudy	
Lewiston, Idaho	29.24	742.7	30.12	765.0	46	7.8	83	ne.	6	2.7			10 s		calm	0.01	0.3	cloudy	
Little Rock, Arkansas	29.81	757.2	30.14	765.5	66	18.9	93	n.	15	6.7			10 n			0.02	0.5	light rain	
Los Angeles, California	29.62	752.3	30.00	762.0	47.2	8.4	86	s.	5	2.2		0	3 s		calm	0	0	clear	
Louisville, Kentucky	29.48	748.8	30.06	763.5	65.0	18.3	90	w.	4	1.8			10 s		calm	0.09	2.3	cloudy	
Lynchburg, Virginia	29.34	745.2	30.05	763.3	70	21.1	82	calm	0	0			10 s		sw.	0	0	cloudy	
Madison, Wisconsin	29.23	742.4	30.30	769.6	38	3.3	93	nw.	13	5.8			10 s		nw.	0.36	9.1	cloudy	
Marquette, Michigan	28.48	748.8	30.24	768.1	37	2.8	72	nw.	12	5.4			10 s		nw.	0.40	10.2	cloudy	
Mason, Texas	28.47	723.1	30.20	767.1	67	19.4	93	w.	5	2.2			10 s		w.	0	0	cloudy	
Memphis, Tennessee	29.80	756.9	30.15	765.8	67	19.4	90	calm	0	0			10 s		calm	0.04	1.0	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.47	748.5	30.25	768.3	38	3.3	89	nw.	14	6.3			10 s		n.	0.62	15.7	cloudy	
Mobile, Alabama	30.00	762.0	30.07	763.8	71.0	21.7	90	nw.	5	2.2		0	hz.			0	0	clear	
Montgomery, Alabama	29.84	757.9	30.08	764.0	69.0	20.6	90	e.	2	0.9		0	0			0	0	clear	
Moorhead, Minnesota	29.23	742.4	30.29	769.4	35	1.7	100	nw.	10	4.5			10 s			0.08	2.0	cloudy	
Morgantown, W. Virginia	28.98	736.1	29.92	760.0	66.5	19.2	86	sw.	6	2.7			10 n		sw.	0.01	0.3	light rain	
Mt. Washington, N. H	23.70	602.0	30.07	763.8	44.8	7.1	100	nw.	42	18.8			10n;fg		nw.	2.05	52.1	light rain	
Nashville, Tennessee	29.56	750.8	30.12	765.0	66.8	19.3	91	w.	3	1.3			10 ks		w.	0.62	15.7	cloudy	
New Haven, Connecticut	29.77	756.1	29.88	758.9	67	19.4	93	sw.	8	3.6			10 s			0.06	1.5	cloudy	
New London, Connecticut	29.87	758.7	29.92	760.0	66	18.9	100	w.	5	2.2			fg			0.03	0.8	dense fog	
New Orleans, Louisiana	30.02	762.5	30.08	764.0	74.2	23.4	87	n.	2	0.9		0	sk			0	0	clear	
Newport, Rhode Island	29.86	758.4	29.91	759.7	64.3	17.9	96	sw.	11	4.9			fg			0.11	2.8	dense fog	
New River, N. Carolina					76	24.4	90	s.			1	2 cs	0			0	0	clear	
New Shoreham, Rhode I'd	29.90	759.4	29.93	760.2	64.0	17.8	100	sw.	13	5.8			fg		calm	0.06	1.5	dense fog	
New York, New York	29.75	755.6	29.93	760.2	67.5	19.7	91	sw.	10	4.5			10 s		sw.	inap.	inap.	cloudy	
Norfolk, Virginia	30.04	763.0	30.07	763.8	71	21.7	94	sw.	6	2.7			10 ks		sw.	0	0	cloudy	
North Platte, Nebraska	27.34	694.4	30.40	772.1	31.4	— 0.3	85	s.	8	3.6		0	0			0	0	clear	
Olympia, Washington T'y	29.81	757.2	29.85	758.2	53.0	11.7	93	s.	8	3.6			10 n		calm	1.63	41.4	light rain	
Omaha, Nebraska	29.20	741.7	30.44	773.2	34	1.1	78	calm	0	0		0	0			0	0	clear	
Oswego, New York	29.54	750.3	29.88	758.9	48.0	8.9	96	ne.	9	4.0			10 s		ne.	1.32	33.5	cloudy	
Pensacola, Florida	30.04	763.0	30.07	763.8	68	20.0	90	ne.	5	2.2		0	0			0	0	clear	
Philadelphia, Pa	29.89	759.2	29.95	760.7	68	20.0	93	w.	6	2.7		4 k	fg	w.		0	0	fair	
Phœnix, Arizona	28.91	734.3	30.78	781.8	42	5.6	26	calm	0	0		0	0			0	0	clear	
Pike's Peak, Colorado	17.88	454.1	30.09	764.3	15	— 9.4	33	sw.	12	5.4		0	0			0	0	clear	
Pioche, Nevada	24.24	615.7	30.42	772.7	37	2.8	82	nw.	5	2.2		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.14	740.1	29.99	761.7	66.2	19.0	90	sw.	7	3.1			10 ks		sw.	0.56	14.2	threatening.	
Port Eads, Louisiana	30.08	764.0	30.09	764.3	74.5	23.6	90	n.	4	1.8		hz	hz	calm	calm	0.10	2.5	dense haze.	
Port Huron, Michigan	29.32	744.7	30.04	763.0	44.3	6.8	95	nw.	15	6.7			10 s		calm	0.47	11.9	cloudy	
Portland, Maine	29.86	758.4	29.91	759.7	44.5	6.9	93	n.	9	4.0			10 n		calm	0.59	15.0	light rain	
Portland, Oregon	29.95	760.7	30.02	762.5	55.1	12.8	80	s.	7	3.1			10 s		s.	0.09	2.3	cloudy	
Portsmouth, N. Carolina					76	24.4	90	sw.	6	2.7		3 c	3 k	calm	s.	0	0	fair	
Prescott, Arizona	24.85	631.2	30.16	766.1	29	— 1.7	61	s.	3	1.3		0	0			0	0	clear	
Punta Rassa, Florida	30.04	763.0	30.05	763.3	72.5	22.5	97	e.	6	2.7			fg		calm	0.17	4.3	dense fog	
Red Bluff, California	29.77	756.1	30.12	765.0	44.0	6.7	83	calm	0	0		0	0			0	0	clear	
Rio Grande City, Texas	29.81	757.2	30.02	762.5	73	22.8	90	e.	5	2.2		6 c	0	calm		0	0	fair	
Rochester, New York	29.20	741.7	29.90	759.4	49	9.4	100	nw.	4	1.8			10n;fg		calm	0.56	14.2	light rain	
Roseburg, Oregon	29.50	749.3	30.09	764.3	48	8.9	93	calm	0	0			10 s			0.05	1.3	cloudy	
Sacramento, California	30.06	763.5	30.14	765.5	48.2	9.0	71	se.	6	2.7		0	0			0	0	clear	
St. Louis, Missouri	29.68	753.9	30.31	769.9	47.8	8.8	93	nw.	10	4.5			10 n		nw.	1.03	26.2	light rain	
St. Paul, Minnesota	29.41	747.0	30.33	770.4	36.8	2.7	89	nw.	3	1.3		0	0			0.03	0.8	clear	
Salt Lake City, Utah	25.84	656.3	30.29	769.4	35	1.7	40	se.	1	0.4		0	0			0	0	clear	
San Antonio, Texas	29.48	748.8	30.20	767.1	70.5	21.4	93	calm	0	0		0	4 s		calm	0	0	fair	
San Diego, California	29.91	759.7	29.98	761.5	49.5	9.7	63	ne.	4	1.8		0	0			0	0	clear	
Sandusky, Ohio	29.30	744.2	30.00	762.0	56.5	13.6	93	nw.	25	11.2			10 n			0.58	14.7	light rain	
Sandy Hook, New Jersey	29.87	758.7	29.90	759.4	71.0	21.7	82	sw.	7	3.1		3 k	0	w.		0	0	clear	
San Francisco, California	30.07	763.8	30.14	765.5	51	10.6	86	sw.	3	1.3		0	0			0	0	clear	
Santa Fé, New Mexico	23.44	595.4	30.43	772.9	35	1.7	72	calm	0	0		0	0			0	0	clear	
Savannah, Georgia	29.99	761.7	30.08	764.0	74.5	23.6	89	s.	6	2.7			10 ks		s.	0.85	21.6	threatening.	
Shreveport, Louisiana	29.87	758.7	30.10	764.5	69	20.6	93	calm	0	0		2 cs	2 s	calm	calm	0	0	fair	
Silver City, New Mexico	24.38	619.2	30.06	763.5	39	3.9	69	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.97	761.2	30.04	763.0	36	2.2	53	ne.	4	1.8		0	0			0	0	clear	
Smithville, North Carolina	30.07	763.8	30.11	764.8	76	24.4	90	sw.	4	1.8		0	2 k		calm	0.15	3.8	clear	
Spokane Falls, Wash. Ter.	27.95	709.9	30.02	762.5	46	7.8	86	s.	7	3.1			10 n		calm	0.38	9.7	light rain	
Springfield, Illinois	29.57	751.1	30.28	769.1	47.5	8.6	89	n.	6	2.7			10 n		n.	0.27	6.9	light rain	
Springfield, Massachusetts	29.73	755.1	29.86	758.4	56.6	13.7	93	calm	0	0			fg			0.02	0.5	dense fog	
Stockton, Texas	27.10	688.3	30.25	768.3	64.5	18.1	90	se.	12	5.4			10 s		se.	0.02	0.5	cloudy	
St. Vincent, Minnesota	29.36	745.7	30.28	769.1	25	— 3.9	100	nw.	4	1.8		0	1 s		calm	0	0	clear	
Thatcher's Island, Mass	29.91	759.7	29.96	761.0	50.2	10.1	100	n.	10	4.5			10 n		n.	0.19	4.8	light rain	
Toledo, Ohio	29.30	744.2	30.02	762.5	54	12.2	86	nw.	10	4.5			10 ks		w.	0.21	5.3	cloudy	
Tucson, Arizona	27.59	700.8	30.03	762.7	47	8.3	52	se.	5	2.2		0	0			0	0	clear	
Umatilla, Oregon	29.67	753.6	30.10	764.5	48.0	8.9	93	se.	3	1.3			10 s		calm	0.14	3.6	cloudy	
Uvalde, Texas	29.11	739.4	29.90	759.4	73	22.8	90	e.	3	1.3			10 s		s.	0	0	cloudy	
Vicksburg, Mississippi	29.82	757.4	30.08	764.0	74	23.3	82	s.	3	1.3		4 ck	3 s	calm	calm	0	0	fair	
Visalia, California	29.73	755.1	30.10	764.5	40.7	4.8	82	nw.	3	1.3		0	0			0	0	clear	
Washington, D. C	29.85	758.2	29.97	761.2	69	20.6	93	s.	2	0.9		0	5 k		sw.	0	0	fair	
West Los Animas, Colorado	26.27	667.2	30.35	770.9	33	0.6	60	calm	0	0		0	0			0	0	clear	
Wickenburg, Arizona					36	2.2	58	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.04	763.0	30.10	764.5	74.0	23.3	97	calm	0	0		3 c	5 k	calm	calm	0.17	4.3	fair	
Winnemucca, Nevada	25.74	653.8	30.20	767.1	34	1.1	71	ne.	7	3.1		5 c	0	sw.		0	0	fair	
Wood's Holl, Mass	29.88	758.9	29.91	759.7	62	16.7	100	sw.	15	6.7			fg		sw.	0.10	2.5	dense fog	
Yankton, Dakota	29.03	737.3	30.40	772.1	32	0.0	88	calm	0	0		0	hz.			0	0	clear	
Yuma, Arizona	29.84	757.9	29.98	761.5	49.0	9.4	71	sw.	1	0.4		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I‡	29.90	759.4	29.92	760.0	84	28.9	83	e.	4	1.8		2 k	5 ks	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.02	559.3			54.0	12.2	85	calm	0	0		2 k	5 s	sw.		1.53	38.9	cloudy	Joaquin Gomez.
Buenaventura, U. S. C	29.94	760.5	29.96	761.0	75	23.9	90	se.					5			0.30	7.6	cloudy	J. B. Dougherty.
Guadeloupe, W. I.‡	29.83	757.7	29.83	757.7	80	26.7	90	e.				8 k	0			0.10	2.5		B. Bigar.
Havana, Cuba, W. I	30.00	762.0	30.06	763.5	79	26.1	82	calm	0	0			10 ks		e.	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I	29.95	760.7	29.96	761.0	76.8	24.9	86	calm	0	0		2 ck	7 s	e.	e.	0	0	cloudy	Robert Johnstone.
Navassa, W. I	29.81	757.2	29.89	759.2	80	26.7	86	e.	7	3.1			8 k; ks		e.	0	0	threatening.	F. M. Everett.
Paramaribo, S. A	29.96	761.0	29.96	761.0	80	26.7	78	e.			2	3 c	5 k	e.		0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.45	748.0	30.01	762.2	76	24.4	89	calm					10 ks		calm	0.65	16.5	raining	Francesco J. Cisneros.
Rivas, Nicaragua					73.4	23	98	w.			1		1 ks		w.	0	0		Earl Flint.
Santiago de Cuba, W I	29.94	760.5	29.96	761.0	78	25.6	82	calm	0	0		8 cs	0	ne.		0.50	12.7	cloudy	Robert Mason.
St. Thomas, W. I.‡	29.86	758.4	29.97	761.2	80	26.7	79	e.	5	2.2		0	1 ks		e.	0.10	2.5	clear	G. O. Gyllich.
York Factory, B. A	30.04	763.0	30.09	764.3	12.0	—11.1	90	w.	10	4.5		2 c	2 s	sw.	w.	0	0	fair	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Alert, S. 10° 42′, E. 132° 52′	29.79	756.7	80.8	27.1	78	n.			1		1							blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 39° 04′, E. 6° 52′	30.04	763.0	64.3	17.9	59	ne.			3		4	e.				1		d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.98	761.5	65	18.3		n.			2		10							d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 46° 00′, W. 41° 04′	29.32	744.7	47	8.3	100	wnw.			10		7					8	wnw.	squally	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.05	763.3	72	22.2	71	se.			1–3		6	ese.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.97	761.2	60	15.6	100	calm			0		10							d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, Barcelona, Spain	30.06	763.5	61	16.1	94	ese.			1–2		5							d. clouds	Comm. F. W. Egerton.
H. M. S. Coquette Gibraltar, Mediterranean	30.04	763.0	73	22.8		sse.			1–3		2	wsw.				1	wsw.	squally	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 34° 40′, E. 20° 00′	30.04	763.0	70	21.1		w.			3		3	wnw.				2	w.	d. clouds	Capt. C. S. Cardell.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 33° 21′, E. 136° 40′	30.00	762.0	66	18.9	94	nne.			4–6		6	w.				2	e.	d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.92	760.0	65	18.3		ssw.			1		0							blue sky	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 9° 10′, W. 12° 36′	30.04	763.0	74	23.3		se.			4		5	se.				2	sse.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.21	767.3	74	23.3	72	e.			1–2		8	e.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 49° 48′, W. 53° 08′	30.20	767.1	34	1.1	79	wnw.			6		7	nw.				6	nw.	squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.82	757.4	80	26.7		w.			2		2	w.				1	w.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 4° 58′, E. 84° 03′	29.87	758.7	82.5	28.1		se.			3–4		7	ssw.				3	sw.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 39° 50′, E. 177° 45′	30.00	762.0	60	15.6	94	ne.			2		4	s.				2	se.	d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.82	757.4	83	28.3	79	ne.			1		2	e.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 49° 41′, W. 54° 46′	30.13	765.3	30	—1.1		nw.			4–5		5	nw.				3	nw.	d. clouds	Capt. W. C. Karslake.
H. M. S. Fawn, S. 19° 20′, E. 39° 05′	30.04	763.0	77	25.0	74	ese.			3		9	ese.				4	se.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 16° 59, W. 84° 49′	29.88	758.9	81	27.2	87	ne.			4–5		10					5	ne.	overcast	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Moskyn.
H. M. S. Gannet, N. 3° 51′, W. 159° 22′	29.79	756.7	78	25.6	82	se.			1		7	s.						showery	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	29.88	758.9	61	16.1	88	sw.			4		8							d. clouds	Capt. L. F. Jones.
H. M. S. Griffon, N. 17° 52′, W. 78° 14′	29.93	760.2	81	27.2	82	e.			1		1					2	e.	blue sky	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 31° 00′, E. 138° 30′	29.97	761.2	76	24.4	90	nnw.			5		8	n.				3	n.	squally	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	30.18	766.6	54	12.2		calm			0		3							d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.90	759.4	82	27.8		s.			1		1	calm						blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, Simon's Bay, Cape Colony	29.91	759.7	70	21.1		calm			0		3							d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 35° 44′, E. 12° 29′	30.04	763.0	74	23.3	63	n.			1		5					1	sw.	d. clouds	Lt. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, Hong Kong, China	30.05	763.3	75.5	24.2	95	n.			1		4							d. clouds	Lieut. A. Balfour.
H. M. S. Malabar, N. 17° 52′, E. 67° 46′	29.91	759.7	83	28.3	87	ne.			1		4	ne.				2	ne.	d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 35° 50′, W. 7° 46′	29.97	761.2	71	21.7	77	se.			1		8	ese.				1	se.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead,
H. M. S Monarch, Sfax, Tunis	30.02	762.5	75	23.9	90	se.			3		1							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.10	764.5	52	11.1	86	calm			0		2							d. clouds	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S Northampton, Halifax, Nova Scotia	30.05	763.3	42	5.6	95	ese.			4-5									misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 14° 42′, W. 38° 36′	29.97	761.2	81.5	27.5	85	nne.			4		7	sse.				2	nne.	misty	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 27° 02′, W. 68° 35′	30.13	765.3	78	25.6	86	e.			3		3	e.				3	e.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	29.72	754.9	48	8.9	92	ene.			2		10							heavy rain.	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.88	758.9	82.3	27.9	79	nw.			2		1							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 29° 40′, W. 18° 04′	30.08	764.0	85	29.4	79	calm			0		2	wnw.				1	wnw.	d. clouds	
H. M. S. Sea Gull, S. 12° 18′, E. 43° 43′	29.56	750.8	83	28.3	70	nne.			1-2		1	nne.						blue sky	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			
H. M. S. Tamar, S. 31° 03′, E. 13° 13′	30.06	763.5	71	21.7	71	se.			1		1					1	se.	blue sky	Capt. T. H. Royse.
H. M. S. Tenedos, N. 43° 12′, W. 63° 32′	29.81	757.2	59	15.0	100	s.			5		10					2	s.	showery	Capt. C. G. Fane.
H. M. S. Thetis, N. 22° 08′, W. 113° 45′	30.04	763.0	71	21.7	90	nnw.			3		2					3	nnw.	d. clouds	Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 24° 28′ W. 85° 53′	30.28	769.1	61	16.1	70	se.			6		10	se.				6	se.	squally	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.94	760.5	77	25.0		n.			1		4							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.83	757.7	60	15.6	88	calm			0		9							raining	Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, Jask, West Bay, Persia	29.81	757.2	86.5	30.3	65	nw.			1-3		1	s.				4	w.	misty	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo																			
India																			Carlos Candid dos Reis.
Quanza, Porto Praya, Cape Verd Ids	30.20	767.0	85.1	29.5	88	calm			0		1		s.			1	ne.	blue sky	A. M. da Sitra.
Rio Lima																			Carlos M. de Silva Costa.
Sado																			C. da Silva Costa.
Tamega, Macao, China	29.98	761.4	75.2	24.0	67	n.			2		1							blue sky	G. A. de Brito Capello.
																			P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.13	765.3	72	22.2	85	nw.	4	1.8			2		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	29.90	759.4	46	7.8	92	ne.	6	2.7		10 c	0	ne.		0.2	5.			misty	
Naval Hospital, Yokohama, Japan	29.72	754.9	60.5	15.8	55	e.			4		2		nw.	0	0			clear	
Adams, Callao, Peru	29.78	756.4	61	16.1	94				0-1		10					sm'h		cloudy	
Alaska, Callao, Peru	29.90	759.4	60	15.6	100	calm			0		10			0	0	sm'h		cloudy	
Alert, Hino Misaki Bay, Japan*	29.89	759.2	63	17.2	41	n.			3		5		calm			sm'h		fair	
Alliance, N. 59° 56′, W. 29° 35′	29.48	748.8	46	7.8	69	sse.			5		8			light	light	sm'h		fair	
Ashuelot, Kobe, Japan	30.11	764.8	55	12.8	?	nw.			1		2		calm					clear	
Colorado, New York, N. Y	29.92	760.0	70	21.1	95	sw.	6	2.7			10		sw.					cloudy	
Constitution, Newport, R. I	29.85	758.2	62	16.7	?	wsw.	9	4.0			10							foggy	
Franklin, Yorktown, Va	29.97	761.2	72	22.2	?	sw.	8	3.6			8		sw.	inap.	inap.			cloudy	
Galena, Salonika, Turkey	29.93	760.2	63	17.2	49	nw.			2		8		sw.			sm'h		fair	
Independence, N. Yard, Mare I'd, Cal	30.03	762.7	56	13.3	81	ssw.	7.2	3.2			5		ssw.					cloudy	
Kearsarge, Yorktown, Va	30.04	763.0	72	22.2	95	sw.			3		8		sw.			sm'h		fair	
Lackawanna, San Francisco, Cal †	30.31	769.9	56	13.3	94	sw.			1		0							clear	
Lancaster, N. 36° 53′ W. 62° 43′	30.16	766.1	76	24.4	77	ssw.			4		5		sw.	0	0	sm'h		d. clouds	
Marion, Montevideo, Uruguay	29.74	755.4	61	16.1		wsw.			3		8		wsw.			mod.	wsw.	cloudy	
Michigan, Erie, Pa	29.84	757.9	62	16.7	94	sw.			2		10		sw.					cloudy	
Monocacy, Yokohama, Japan	29.92	760.0	65	18.3	68	nnw.			3		10		n.					cloudy	
Nipsic, Genoa, Italy	30.06	763.5	59	15.0	44	sw.			3		2					sm'h		d. clouds	
Onward, Callao, Peru †	29.99	761.7	59	15.0	94	calm			0		10					long	w.	cloudy	
Palos, Hong Kong, China	30.04	763.0	73	22.8	63	nne.			2		2		n;e.					fair	
Passaic, Washington, D. C	30.00	762.0	70	21.1	90	sw.			1		0							clear	
Pensacola, Callao, Peru	30.01	762.2	59	15.0	88	calm			0		10							cloudy	
Portsmouth, Yorktown, Va	30.04	763.0	71	21.7	100	sw.			2		8		sw.			sm'h		cloudy	
Powhatan, Boston, Mass	29.87	758.7	52	11.1	100	e.			2		10					sm'h		foggy	
Quinnebaug, Marseilles, France	30.07	763.8	59	15.0	70	sw.			2		5		sw.			sm'h		fair	
Ranger, San Francisco, Cal *.	30.06	763.5	56	13.3	81	sw.			1		0							clear	
Saratoga, Yorktown, Va	30.04	763.0	72	22.2	?	ssw.			1		8			light	light	sm'h		fair	
St. Louis, League Island, Pa	29.68	753.9	68	20.0	90	sw.	8	3.6			2			0	0			clear	
Swatara, N. 33° 43′, E. 130° 06′ †	30.14	765.5	62	16.7	66	n.			4		2		n.			mod.	n.	squally	
Tennessee, Yorktown, Va	30.07	763 8	73	22.8	100	sw.	10	4.5			10			0.08	2.0			cloudy	
Vandalia, Yorktown, Va	30.03	762.7	72	22.2	95	ssw.			3		5		w.					fair	
Wabash, Boston, Mass	29.96	761.0	55	12.8	87	e.	2	0.9			10		e.	0.4	10.			foggy	
Wachusetts, Sitka, Alaska	30.06	763.5	34	1.1	79	ne.			1		0							clear	
Wyoming, Port Royal, S. C	30.07	763.8	75	23.9	90	s.	6	2.7			8		sw.	0.16	4.1			cloudy	
Yantic, Yorktown, Va *.	30.02	762.5	72	22.2	95	sw.			1		10							cloudy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Montreal, Canada *†.	29.94	760.5				n.	3		10		n.					rainy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn.†	29.87	758.7	76	24.4	95	ne.	3		2		ne.					fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, England.†	30.12	765.0	46	7.8	69	se.	4		5		se.	0	0			hazy	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 46° 28′, W. 37° 25′.*†.	29.64	752.8	38	3.3	90	nw.	6		5		nw.			hv'y	nnw.	squally	
S. S. Pennsylvania, Capt G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall																	
S. British Merchant, Capt. E. J. Moloney,																	
Bk. Caldew, Capt. W. Petersen. S. 54° 57′, W. 77° 37′	29.21	741.9	42.8	6.0		wnw.	10		10							drizzling	
S. S. Cipero, Capt. W. N. Lailey, Ulna l iver, Honduras, C. A.	29.98	761.5	76.5	24.7		sw.	1		10							raining	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton, N. 28° 29′, W. 122° 24′.‡.	30.18	766.6	60	15.6	88	nnw.	5		3							d. clouds	
S. S. Gordon Castle, Capt. W. Waring, N. 5° 39′, E. 87° 47′	29.87	758.7	83.5	28.6	83	w.	1		4							d. clouds	
Bg. Hermine, Capt. S. G. Jones, S. 42° 08′, W. 61° 40	29.76	755.9	50.6	10.3	86	sw.	4		5							blue sky	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 2° 52′, E. 87° 43′	29.89	759.2	81	27.2	82	ene.	2		8							showery	
Bk. Mertola, Capt. E. W. Turner,																	
Naiad, Capt. J. Smith,																	
Bk. Moorhill, Capt. J. Brown. S. 55° 47′, W. 79° 10′	28.91	734.3	42	5.6	83	wsw.	9		10							threatening	
S. Pleione, Capt. C. H. Renant, S. 45° 19′, E. 132° 54′	30.09	764.3	47.5	8.6	92	w.	5		10							showery	
Queen of Cambria, Capt. M. Parry S. 18° 42′, W. 35° 56′	30.08	764.0	77.6	25.3	65	ne.	4		2							blue sky	
S. S. Rosetta, Capt. A. E. Barlow																	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. M. Gray																	
S. S. Strathleven, Capt. C. W. Pearson, N. 34° 40′, E. 135° 12′	30.03	762.7	55.5	13.1	93	calm	0		5							d. clouds	
S. S. Thames, Capt. Luckhurst N. 55° 05′, W. 33° 58′	28.80	731.5	49	9.4	100	e.	6		10							raining	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin, N. 10° 15′, E. 51° 39′	29.76	755.9	81	27.2		ssw.	1		1							blue sky	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, N. 26° 36′, W. 110° 40′.†.	29.77	756.1	79	26.1	70	nw.	5		0			0	0	mod.	nw.	clear	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains. Off Sandy Hook, N. J.	29.97	761.2	54	12.2		wsw.	2		fog.			12 h'r	light rain	sm'h		foggy	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle,																	
S. S. Hermann, Capt. H. Baur																	E. Schmidt, 3d Officer
S. S. Köln, Capt. T. Jüngst, N. 50° 01′, W. 13° 58′	29.46	748.3	60.0	15.6	88	ssw.	6		8		ssw.	17h'r	light	h'vy	sse; ssw.	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer. N. 44° 07′, W. 55° 57′	30.31	769.9	41.0	5.0	78	n.	1		10			3 h'r	3 h'r	mod.	nw.	light rain	Walter & Reichler.
S. S. Strassburg, Capt. Heimbrouch, N. 44° 37′, W. 57° 22′	30.29	769 4	39.0	3.9	91	e.	3		10		e.	8 h'r	snow	mod.	e.	rainy	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 43° 11′, E. 180° 00′.†.	29.66	753.4	57	13.9	94	wnw.	6		8		nw.	0	0	high	wnw.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley. N. 22° 54′, E. 116° 17′.*†..	30.19	766.8	78	25.6	69	nne.	4		8		ne.			mod.	ne.	cloudy	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 35° 10′, W. 171° 46′	29.98	761.5	65	18.3	73	w.	6		6		w.	0.47	11.9	mod.	w.	cloudy	
OREGON IMROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes, Seattle, Wash. Ter.	30.04	763.0	53	11.7	?	s.	1		4		ssw.					light rain	
OREGON RAILWAY & NAVIGAT'N CO *K. Van Otterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles,																	
S. S. Oregon, Capt. E. Polemann																	J. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 32° 52′, W. 117° 25′ †..	30.02	762.5	60	15.6	88	ese.	2	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——, Puget Sound †...	29.99	761.7	42	5.6	100	s.	2	.....	10	.....	s.	24 h'r	24 h'r	.....	.....	cloudy	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal. †..	30.20	767.1	51	10.6	93	nw.	2	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal. †..	30.22	767.6	46	7.8	84	sw.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, Astoria, Oregon †..	29.89	759.2	52	11.1	?	s.	5	.....	10	.....	se.	.....	.....	.....	.....	cloudy.....	G. Debney.
S. S. Victoria, H. M. Hayward, N. 49° 11′, W. 123° 12′ †..	29.86	758.5	45	7.2	100	ne.	2	.....	10	.....	e.	.....	.....	light	nw.	raining.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb. S. 2° —′, W. 166° —′ †.	29.98	761.5	83	28.3	87	ne.	3	.....	10	.....	ne.	.....	.....	mod.	n.	cloudy.....	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 26° 25′, E. 122° 25′ *†..	30.20	767.1	70	21.1	75	nne.	6	.....	10	.....	nne.	0	0	r'gh	ne.	cloudy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— S. 9° 25′, W. 85° 21′ †..	29.93	760.2	78	25.6	91	se.	2	.....	8	.....	se.	0	0	long	s.	cloudy	.....
S. S. City of Sydney, Capt. H. C. Dearborn, S. 34° 04′, E. 165° 52′ *†..	29.39	746.5	65	18.3	73	n.	6	.....	8	.....	nw.	0.125	3.2	h'vy	nw.	drizzling.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Ritchie, 2d Offl.
S. S. Colima, R. R. Searle N. 15° 07′, W. 96° 48′ †..	29.91	759.7	82	27.8	91	w.	4	.....	3	.....	w.	0	0	sm'h	con.	clear.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	29.51	749.5	60	15.6	76	s.	6	.....	10	.....	s.	.....	.....	.....	.....	rainy.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N 48° 00′, W. 46° 48′ †...	30.60	777.2	45	7.2	.....	wnw.	7	.....	3	.....	n.	4 h'r	4 h'r	very high	nw.	squally.....	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, N. 49° 23′, W. 8° 22′ †...	29.91	759.7	56	13.3	87	se.	6	.....	8	.....	e.	0	0	high	e.	cloudy.....	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 45° 04′, W. 42° 11′ †..	29.61	752.1	41	5.0	.....	nw.	8	.....	5	.....	nw.	hail	rain	high	nw.	squally.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, New York, N. Y. †..	30.45	773.4	62	16.7	94	se.	2	.....	10	.....	se.	0	0	.....	.....	overcast.....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 47° 52′, W. 45° 01′ †..	29.69	754.1	41	5.0	100	wnw.	6	.....	8	.....	nw.	4 h'r	4 h'r	h'vy	wnw.	.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Chesapeake Bay †..	30.16	766.1	73	22.8	?	sw.	3	4 k	5 n	.....	.....	0	0	.....	.....	cloudy.....	.....
Golden Fleece	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler. Lt. Com. Nichols,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pawashick, Capt. E. Fry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz N. 33° 29′, W. 58° 15′ †...	30.52	775.2	75	23.9	.....	se.	2	.....	0	.....	.....	.....	.....	.....	nw.	clear.....	E. Fry.
S. S. Proteus, Capt. Pike	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, N. 33° 32′, W 37° 38′ †....	30.12	765.0	72	22.2	80	nw.	6	.....	5	.....	nw.	h'vy	h'vy	h'vy	nw.	fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 19, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.92	760.0	68.4	20.2	98	w.			2		4			0	0	cloudy	Moiroud.
Algiers ‡			29.94	760.4	70.2	21.2	70	w.			5		2			0	0	fair	Nicolas.
La Calle ‡			29.95	760.7	68.0	20.0	81	e.			4		4			0	0	cloudy	Fonfrède.
Tunis ‡			29.95	760.8															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.99	761.7	78.8	26.0	24	nne.			1		1			0	0	very fair	Dumas.
Tebessa ‡			30.03	762.7	70.5	21.4	32	nw.			5		5			0	0	cloudy	Derché.
Geriville ‡					76.6	24.8	14	w.			2		5			0	0	cloudy	Lonchamp.
Laghouat ‡			30.06	763.4	79.2	26.2	26	s.			2		0			0	0	clear	Herbin.
Biskra ‡			30.04	762.9	79.7	26.5	37	wnw.			1		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.95	760.7	30.04	763.0	52.2	11.2	73	ssw.	14	6.3			9			0	0	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.53	750.0	30.10	764.4	42.8	6.0	74	ne.			1		10			0.035	0.9		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.39	746.4	30.17	766.3	46.0	7.8	78	e.	0.7	0.3			10			0.031	0.8		Dr. Wiersbicki.
Eperies	29.16	740.6	30.06	763.4	44.6	7.0	77	n.			3		10 ns		s.	0	0		Julius Mikolik.
Gratz ‡	28.82	732.0	30.10	764.4	44.1	6.7	69	ne.			2		10			0	0		Andreas Rospini.
Hermannstadt	28.50	724.0	29.97	761.1	42.6	5.9	88	w.			1		10			0.217	5.5	raining	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.72	729.4	30.10	764.4	42.1	5.6	82	ne.			1		5			0	0		The Staff.
Lemberg	29.05	737.9	30.07	763.6	43 9	6.6	85	ne.			1		10			0.024	0.6		Dr. T. Stanecki.
Pola	29.96	760.9	30.07	763.8	54.0	12.2	51	ene.			2		5			0.024	0.6		I. R. Hydrographic Office.
Szathmar	29.50	749.4	29.97	761.3	49.6	9.8	62	nw.			2		10			0.055	1.4		Jozsef Midlinszky, S. J.
Szegedin	29.75	755.7	30.04	763.0	47.1	8.4	78	calm			0		10			0	0		Karl Stancel.
Trieste	29.97	761.3	30.08	763.9	51.8	11.0	65	calm			0		6			0	0		Rieder.
Vienna	29.41	746.9	30.14	765.6	40.6	4.8	90	wnw.			1		10			0.118	3.0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 19, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.27	768.8	30.37	771.4	48.4	9.1	56	se.	31	13.9			6			0.025	0.6	squally	W. Boswell.
Armagh, Observatory	29.79	756.7	30.03	762.7	48.0	8.9	62	ese.	19	8.5			6					squally	S. Call.
Bidston, Liverpool Obs'y			30.12	765.0	46.8	8.2	65	e.	34	15.2			3					blue sky	John Hartnup.
Bolton, Sharples	29.61	752.1	30.15	765.8	45.2	7.3	56	ese.	18	8.0			6					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29.74	755.4	30.14	765.5	48.7	9.3	72	sw.			2		3			0.01	0.3	d. clouds	[A.S. J.McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.15	765.8	47.0	8.3	65	e.			3.0		2					blue sky	John McLaren.
Chatham, School M. E.	30.06	763.5	30.20	767.1	49.1	9.5	77	e.			3		6					d. clouds	R. Craydon, R. E.
Falmouth, Observatory	29.62	752.3	29.84	757.9	50.6	10.3	48	e.			8		3					squally	The Staff.
Fort Napier, Natal	27.67	702.8	29.89	759.2	90.0	32.2	18				1		1					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.64	752.8	29.87	758.7	80.0	26.7	100	sw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.72?	754.9?	53	11.7	69	nw.			7		8					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.92	760.0	29.97	761.2	75.3	24.1	85	e.			4		7					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	30.02	762.5	30.22	767.6	48.2	9.0	51	e.			8		5					squally	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.98	761.5	30.15	765.8	49.1	9.5	67	ese.			4		1					blue sky	The Staff.
Guernsey	29.70	754.4	29.92	760.0	49.5	9.7	50	ene.			5		3					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.11	764.8	30.15	765.8	47.9	8.8	51	e.	26	11.6			2					misty	The Staff.
Leicester, Museum	29.85	758.2	30.11	764.8	46.9	8.3	57	e.			1		5					d. clouds	J. C. Smith.
Malta, Mediterranean	29.94	760.5	30.02	762.5	66.0	18.9	75	nw.			2		9			0	0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.95	760.7	29.99	761.7	79.5	26.4	89	e.			1		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.62	752.3	30.14	765.5	52.1	11.2	27	e.			3		5					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.90	759.4	30.13	765.3	46.7	8.2	48	e.			5		1					misty	The Staff.
Plymouth	29.84	757.9	29.92	760.0	51.0	10.6	53	ese.			6		2					squally	John Merrifield.
Sandwick Manse, Orkneys			30.36	771.1	47.9	8.8	66	sse.	35	15.6			9					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.71	754.6	29.78	756.4	58.8	14.9	94	sw.			2		9					raining	Serg't W. H. Lyne.
Sheffield	29.93	760.2	30.22	767.6	48.7	9.3	74	ese.			4		4			0.01	0.3	d. clouds	W. F. Cooper.
Silloth Rectory	30.17	766.3	30.20	767.1	50.0	10.0	58	se.			6		4			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.78	756.4	45.9	7.7	54	e.	22	9.8			6					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.89	759.2	30.11	764.8	48.7	9.3	46	e.			4		0					squally	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	29.78	756.4	29.82	757.4	54	12.2	55	se.			8		4					d. clouds	W. Newcombe.
Valencia, Observatory	29.75	755.6	29.78	756.4	54.1	12.3	73	e.	49	21.9			6					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.71	754.6	29.75	755.6	38	3.3	94	ne.	12	5.4			10 n			1.055	26.8	light rain	H. J. Cundall, C. E.
Chatham, N. B.*	29.85	758.2	29.91	759.7	35	1.7	92	n.	12	5.4			10 n		n.	0.85	21.6	light rain	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.00	762.0	30.02	762.5	31	— 0.6	92	e.	5	2.2			10 n		calm	0.90	22.9	heavy snow	J. McWilliams.
Fort Garry, Manitoba*	29.41	747.0	30.30	769.6	17	— 8.3	95	nw.	1	0.4		0	0			0	0	clear	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.57	751.1	29.70	754.4	41	5.0	100	nw.	10	4.5			fg.			1.000	25.4	light rain	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.95	760.7	30.30	769.6	32	0.0	88	nw.	3	3.1		0	0			0.04	1.0	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.98	761.5	30.19	766.8	34	1.1	85	w.	15	6.7		0	0			0.11	2.8	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.54	750.3	30.27	768.8	31	— 0.6	88	e.	6	2.7		2 k	8 ks	nw.	nw.	0	0	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.61	752.1	30.33	770.4	33	0.6	100	nw.	4	1.8		8 c	0	sw.		0.07	1.8	fair	H. Morgan.
Port Stanley, Ontario	29.64	752.8	30.31	769.9	35	1.7	100	nw.	3	1.3		5 ck	0	w.		0.05	1.3	fair	M. Payne.
Quebec, Quebec*	29.75	755.6	30.09	764.3	33	0.6	85	w.			1	2 k	5 ks	nw.	nw.	0.15	3.8	clearing	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.77	756.1	30.25	768.3	26	— 3.3	77	calm	0	0		0	0			0	0	clear	W. H. McIntyre.
Sangeen, Ontario*	29.52	749.8	30.26	768.6	36	2.2	100	s.	14	6.3			8 ks			0.01	0.3	cloudy	K. Stewart.
St. Andrews, N. B.	29.84	757.9	29.89	759.2	38	3.3	84	nw.	6	2.7		5 k	2 k	n.	n.	0.76	19.3	fair	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.68	753.9	29.74	755.4	37	2.8	96	ne.	10	4.5			10 n			1.01	25.7	light rain	T. C. Hill, C. E.
Toronto, Ontario*	29.94	760.5	30.34	770.6	32	0.0	96	w.	3	1.3		0	0			0	0	clear	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.79	756.7	29.86	758.4	42	5.6	82	nw.	21	9.4			10 s		nw.	0.68	17.3	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.97	761.2	30.23	767.8	33	0.6	100	e.	3	1.3			10					showery	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	29.92	760.0	29.95	760.7	63.0	17.2	97	w.	6.8	3.0			10 s			0	0	foggy	John Duthie.
Cape Town, C. G. H. Obs'y.																			The Staff, for D. Gill.
Worcester*†	29.15	740.4			78	25.6	39	nw.			2	0	0			0	0		C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.22	767.6	30.24	768.2	54.5	12.5	87	ne.	3.1	1.4		0	0			0	0	clear	M. Marc Dechevrens, S.J

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		

COSTA RICA SERIES.

By authority of the Minister of Foreign Affairs.

Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.

San José																			

DANISH SERIES.

Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	30.34	770.7	30.39	771.9	46.6	8.1	78	e.	31	14			10					raining	Oversergent Fischer.
Fanöe	30.32	770.2	30.34	770.7	45.1	7.3	88	ene.			6		10						Overloerer Lauridsen.
Godthaab, Greenland	29.89	759.2	29.93	760.3	21.2	—6.0	79	ene.			2		6						S. Kleinschmidt.
Stykkisholm, Iceland	29.79	756.6	29.83	757.7	50.0	10.0	79	se.			7		8						A. O. Thorlacius.
Thorshavn	30.32	770.0	30.35	770.9	50.5	10.3	83	se.	16	7			6						Overloerer Bergh.
Vestervig	30.34	770.7	30.43	773.0	45.3	7.4	76	ne.			6		1						Loearer Oesterbol.

FRENCH SERIES.

Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.

Agen, Normal School	29.15	740.3	29.79	756.6	59.4	15.2	41	sse.			1		0					clear	M. Labroue, Director.
Alençon Normal School	29.48	748.2	30.06	763.6	44.6	7	77	ne.			3	c	0			0	0		M. Nicot, Director.
Arras, Engineer School	30.03	762.7	30.30	769.5	46.2	7.9	67	ene.					k		ne.				M. Klein, Commandant.
Avignon, Normal School	29.82	757.4	29.90	759.4	59.0	15	55	n.			1		2		s.	0	0	slightly cl'dy	M. Giraud, Director.
Bar-sur-Seine	29.45	747.9	30.01	762.3	47.5	8.6	46	e.			2		0			0	0	clear	M. Saillard, Director.
Beauvais, Normal School	29.80	757.0	30.08	764.0	45.5	7.5	54	e.			3		0			0	0	clear	M. Frère-Eugène Marie.
Besançon, Normal School	29.10	739.0	30.01	762.3	44.4	6.9	50	ne.			1		0			0	0	clear	M. Gobin, Director.
Bordeaux, Observatory	29.47	748.6	29.73	755.2	60.3	15.7	53	e.			1		0			0	0	clear	M. Rayet, Director.
Bourges, Normal School	29.36	745.8	29.92	759.9	50.2	10.1	40	n.			1		1		n.	0	0	clear	M. Postel, Director.
Brest, Naval Observatory	29.58	751.2	29.82	757.4	53.6	12.0	43	ese.			2		4		ese.	0	0		M. de Kermaree, Dir.
Caen, Normal School	29.93	760.2	30.00	762.1	48.2	9	73	se.			2		2			0	0	slightly cl'dy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.68	753.9	30.00	762.1	49.1	9.5	70	e.			2		2		ne.	0	0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.57	751.0	30.09	764.2	48.6	9.2	69	ne.			4		0			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.50	723.8	29.86	758.4	49.3	9.6	44	n.			1	1 c	0			0	0	clear	M. Alluard, Director.
Cluny, Normal School	29.10	739.0	29.94	760.5	49.3	9.6	56	n.			1		0			0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.18	741.1	30.10	764.6	42.4	5.8	82	e.			3		2 kn	e.	e.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.38	695.5	29.95	760.6	47.3	8.5	78	n.			2		2 n		n.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.84	732.6	29.98	761.6	55.9	13.3	55	e.			3		5		se.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.13	740.0	29.91	759.8	47.1	8.4	57	s.			1	cs	0	sw.		0	0		M. Ablard, Director.
Guéret, Normal School	28.26	717.8	29.84	757.9	45.5	7.5	57	se.			1	5 cs	0	nw.		0	0	cloudy	M. Rivoire, Director.
Lamballe, Normal School	29.60	751.7	29.87	758.6	51.1	10.6	39	se.			4	2 c	0	se.		0	0	clear	M. Ollitrault, Director.
Lescar, Normal School	29.16	740.6	29.69	754.2	74.5	23.6	41	w.			3					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	29.73	755.2	29.84	757.8	57.2	14	78	e.			3		0			0	0	clear	Lt. T.-Carré, Director.
Lyon Obs'y, Park Station	28.88	733.6	29.97	761.1	42.1	5.6	73	e.			1		5 n		s.	0	0	½ covered	M. André, Director.
Mans, Normal School	29.65	753.1	29.97	761.1	46.9	8.3	45	se.			4		2		se.	0	0	slightly cl'dy.	M. Piboen, Director.
Marseille, Observatory	29.62	752.3	29.89	759.2	60.1	15.6	67	ese.			3		8		se.; sw.			sprinkling	M. Stephan, Director.
Montlouis l'instituteur	24.65	626.1	29.89	759.1	54.0	12.2	68	sw.	7.4	3.3			4		w.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.75	755.7	29.86	758.5	55.8	13.2	84	ene.			2		8		se.	0.165	4.2	light rain	M. Pourle, Director.
Nancy, Normal School	29.28	743.7	30.07	763.7	41.4	5.2	71	ene.			2		2 kn			0	0	slightly cl'dy	M. Hasse.
Nantes, Observatory	29.72	754.8	29.88	759.0	51.6	10.9	36	ne.			2–4	2 ck	0	ne.		0	0		M. Larocque, Director.
Nice	29.95	760.6	29.98	761.4	54.3	12.4	50	e.			6		10	e.	e.	0.055	1.4	light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.74	755.5	29.85	758.2	50.0	10.0	79	ne.	5.6	2.5			10			0	0		Dr. Fines.
Pic-du-Midi, Summit	21.15	536.3			41.0	5.0		wsw.			1		1		wsw.	0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School					42.8	6	67	s.			1		10	s.		0	0	covered	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.94	633.5			39.6	4.2	45	sw.			1		2			0	0	¼ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	29.79	756.7	29.82	757.5	53.1	11.7	87	ene.			3		0			0.138	3.5	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.65	753.0	29.86	758.4	51.1	10.6	85	ene.			3		0			0	0	clear	M. Mouillot, Director.
Rodez, Normal School	27.71	703.8	29.85	758.1	54.0	12.2	52	se.			3	c	0	s.		0	0		M. Richard, Director.
Rouen, Normal School	30.01	762.3	30.06	763.4	47.8	8.8	53	e.			3					0	0		M. Platrier, Director.
Saint Lô, Normal School	29.84	757.9	30.00	761.9	47.3	8.5	70	e.			2		1		e.	0	0	clear	M. Delaplanche, Dir.
Saint Maur, Observatory	29.87	758.6	30.03	762.8	50.2	10.1	51	e.			3		1		e.	0	0		M. Renou, Director.
Toulouse, Observatory	29.10	739.0	29.82	757.3	60.3	15.7	52	se.			3		1			0	0	clear	M Bailland, Director.
Tours	29.69	754.1	29.89	759.1	50.4	10.2	40	e.			3		1	calm	w.	0	0	almost clear	M. de Tastes.
Versailles, Observatory	29.53	750.1	30.02	762.6	47.5	8.6	44	se.			6					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.76	755.8	30.05	763.2	47.8	8.8	50	ene.			3		1		ene.	0	0		M. Marié Davy, Director.

GERMAN SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

Bamberg	29.24	742.8	30.11	764.8	42.8	6.0	70	e.			1		9 k	se.		0	0		Prof. Dr. Hoh.
Berlin	30.02	762.6	30.20	767.1	46.4	8.0	72	ne.			1		9			0.118	3.0		Prof. Dr. Arndt.
Breslau	29.65	753.2	30.19	766.8	46.0	7.8	72	e.			1		9			0	0		Royal University Obs'y.
Carlsruhe	29.66	753.4	30.10	764.6	42.8	6.0	70	e.			1		10	ne.		0	0		Albert Senz.
Cassel	29.41	747.0	30.13	765.2	43.5	6.4	82	ne.			2		8	ne.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.76	756.0	30.14	765.6	43.9	6.6	67	n.			1		10			0	0		Physical Society.
Friedrichshafen	28.56	725.3	30.02	762.5	43.5	6.4	63	ne.			3		0			0	0		Wilhelm, Chief Tel.
Hamburg	30.13	765.3	30.22	767.7	48.2	9.0	81	ese.			3		10			0.008	0.2	hazy	E. Preller.
Kiel	30.24	768.1	30.26	768.5	46.6	8.1	93	ne.			5		10			0.079	2.0		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.75	755.6	30.18	766.6	43.0	6.1	87	ene.			1		10	ne.		0.035	0.9		H. Leppig, Asst.
Magdeburg	29.99	761.7	30.19	766.7	44.2	6.8	88	ne.			2		10 n		ne.	0.146	3.7	foggy	Dr. Assmann.
Memel	30.27	768.8	30.32	770.0	47.3	8.5	73	ne.			4.5	0	9 s						Issermann.
Munich	28.22	716.8	30.06	763.5	37.2	2.9	77	e.			2		7	ne.		0.028	0.7		Central Station.
Neufahrwasser	30.24	768.2	30.26	768.6	46.9	8.3	94	ne.			3		10			0.083	2.1	raining	A. Lothes.
Neustadt, Palatinate	29.56	750.9	30.09	764.3	43.5	6.4	73	n.			3		10			0	0		Dicknether.
Stuttgart	29.12	739.6	30.04	763.0	41.0	5.0	76	n.			1		9	n.		0	0	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.57	725.7	30.12	765.0	41.4	5.2	74	ne.			2		7	e.		0	0		Fischer.
Wustrow	30.23	767.9	30.26	768.6	45.9	7.7	94	nne.			2		10			0.398	10.1		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.54	750.4	29.93	760.2	64.9	18.3		w.			7.0		0			0.248	6.3		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.82	757.5	29.88	758.8	83.9	28.8	72	sw.	18.0	8.0			0			0	0	blue sky	
Deesa	29.44	747.7	29.91	759.6	85.5	29.7	42	sw.	7.5	3.4			0			0	0	misty	
Bombay	29.86	758.5	29.90	759.5	83.5	28.6	77	nnw.	12.0	5.4			0			0	0	blue sky	
Poona, Yarrowda	28.06	712.6	29.89	759.2	85.6	29.8	22	ene.	7.0	3.1			2			0	0	d. clouds	
Belgaum	27.35	694.8	29.86	758.5	83.0	28.3	36	ne.	2.0	0.9			0			0	0	blue sky	
Lahore	29.19	741.5	29.95	760.8	71.8	22.1	67	nw.	3.5	1.6			10			0.12	3.0	thund'r st'm.	
Roorkee	28.93	734.8	29.82	757.4	84.8	29.3	49	w.	1.2	0.5			1			0	0		
Agra	29.30	744.3	29.86	758.4	91.2	32.9	45	w.	5.0	2.2			0			0	0		
Nagpur	28.85	732.8	29.89	759.1	86.2	30.1	36	calm	2.5	1.1			4	w.		0	0	d. clouds	
Jubbulpore	28.55	725.2	29.90	759.5	82.8	28.2	47	calm	1.4	0.6			0			0	0	blue sky	
Lucknow	29.48	748.7	29.85	758.1	90.1	32.3	28	calm	2.7	1.2			0			0	0	blue sky	
Allahabad	29.54	750.2	29.85	758.2	81.7	27.6	65	calm	2.0	0.9			0			0	0	blue sky	
Patna	29.68	753.9	29.86	758.5	81.8	27.7	73	sw.	2.6	1.2			0			0	0	blue sky	
Hazaribagh	27.87	707.8	29.87	758.8	80.8	27.1	53	calm	3.9	1.7			0			0	0	blue sky	
Cuttack	29.80	756.9	29.88	759.0	80.5	26.9	72	calm	0.3	0.1			0			0	0	blue sky	
Calcutta, Alipore	29.85	758.2	29.87	758.7	80.1	26.7	70	calm	0	0			0			0	0	blue sky	
Dhubri	29.73	755.2	29.85	758.3	79.6	26.4	73	calm	0.4	0.2			0			0	0	blue sky	
Goalpara																			
Chittagong	29.78	756.4	29.87	758.7	78.7	25.9	80	ene.	1.4	0.6			3			0	0	blue sky	
Sibsagar	29.53	750.1	29.87	758.7	80.1	26.7	82	sw.	2.0	0.9			0			0	0	blue sky	
Jeypore	28.48	723.4	29.91	759.7	86.9	30.5	38	nw.	4.6	2.1			1			0	0	d. clouds	
Zanzibar, Africa			29.99	761.7	83.8	28.6	61	ese.	4	1.8			4			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.67	753.7	30.09	764.2	50.5	10.3	31	calm	0	0			1			0	0		Prof. Giovanni Clodig.
Milan	29.57	751.0	30.08	764.1	52.3	11.3	34	e.	8.1	3.6			6			0	0		Prof. Schiaparelli.
Padua	29.97	761.3	30.08	764.1	50.5	10.3	49	ne.	2.5	1.1			3	s.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.13	739.8	30.04	762.9	48.6	9.2	52	nw.	2.5	1.1			10			0	0		Prof. P. F. Denza.
Genoa	29.87	758.7	30.06	763.6	49.1	9.5	51	n.	1.8	0.8			10	s.		0.020	0.5		Prof. G. M. Garibaldi.
Mondovi	28.11	714.0	30.04	763.1	42.8	6.0	68	w.			2		9			0.004	0.1		Prof. D. C. Bruno.
Pesaro	29.98	761.4	30.02	762.6	47.7	8.7	77	n.			4		10			0.122	3.1		Prof. Luigi Guidi.
Florence	29.80	756.9	30.05	763.3	54.5	12.5	50	ne.			2		10			0	0		Prof. Costantino Pitter.
Leghorn	29.95	760.8	30.04	763.0	53.6	12.0	39	e.	4.3	1.9			10			0	0		Prof. P. Monte.
Rome	29.85	758.2	30.02	762.6	56.7	13.7	49	n.					10			0	0		Prof. P. S. Ferrari.
Lecce	29.77	756.1	30.02	762.4	56.8	13.8	46	nne.	19.2	8.6			5	ne.		0	0		Prof. C. de Giorgi.
Cosenza	29.14	740.2	30.03	762.7	54.0	12.2	58	ese.	3.8	1.7			6	se.		0.028	0.7		Prof. D. Conti.
Cagliari	29.74	755.5	29.94	760.4	65.7	18.7	39	s.			2		1			0	0		Prof. A. Pacinotti.
Palermo	29.79	756.6	30.03	762.8	61.7	16.5	44	ne.	6.3	2.8			6			0	0		Prof. G. Ciacciatore.
Syracuse	29.97	761.2	30.01	762.3	64.6	18.1	61	sw.	5.6	2.5			4	w.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R.	29.50	749.2	30.02	762.4	55.2	12.9	55	ne.	0.7	0.3			1	se.		0	0		Prof. F. Brioschi.
Stelvio	21.98	558.3			18.7	— 7.4	77	w.			2	8 cs	0	s.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.02	559.4			20.3	— 6.5	80	e.			2		10			0.591	15.0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	30.17	766.3	30.19	766.8	51.5	10.8	82	nne.	8.9	4.0		0	0			0	0	clear	K. Sasaki.
Kioto	30.06	763.5	30.24	768.1	50.3	10.2	91	nw.	0.5	0.2		ck	6 s			0	0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.99	761.7	30.20	767.1	56.6	13.7	73	ene.	2.9	1.3			10 s			0	0	overcast	S. Takehayashi
Nemuro																			
Niigata	30.26	768.6	30.29	769.3	48.4	9.1	86	ese.	3.0	1.3		cs;ck	6 s		wsw.	0.020	0.5	cloudy	
Nobiru	30.29	769.3	30.32	770.1	45.6	7.6	75	ne.	6.3	2.8		0	8 s			0	0	fair	
Supporo	30.09	764.3	30.16	766.0	41.1	5.1	87	calm	0	0			10			0.065	1.6		
Tokei Obs'y, Yeddo	30.22	767.6	30.29	769.3	55.8	13.2	81	nne.	4.0	1.8			10 s			0.016	0.4	cloudy	The Staff.
Wakayama	30.17	766.3	30.23	767.8	55.5	13.1	69	e.	4.4	2.0		ck	8 s			0	0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.99	761.7	30.18	766.6	74.0	23.3	60	ese.	22.5	10.1		0	4k;ks;n		se.	0	0	fair	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.70	602.1	29.93	760.1	56.3	13.5	79	calm	0	0		0	s			inap.	Inap.	clear	Vicente Fernandez.
Leon	24.43	620.6	30.10	764.4	60.8	16.0	84	sw.			1	0	3 k			0	0	clear	Prof. M. Leal.
Mazatlan	29.67	753.6	29.93	760.1	77.5	25.3	84	e.	0.9	0.4		1 cs	1 k			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.11	587.0	30.13	765.3	55.9	13 3	80	calm	0	0			10 k			0	0	overcast	The Staff.
Morelia	24.16	613.8	30.20	767.2	58.6	14.8	57	e.			1	0	0			0	0	fair	M. Tena, M. D.
Pabellon, Aguascalientes	23.93	607.8	29.90	759.4	58.6	14.8	92	calm			0	1 c	7 ks		s.	1.422	36.1	raining	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.48	598.6	30.37	771.5	49.1	9.5	92	calm	0	0		0	0			0.032	0.8	fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.20	767.0	30.20	767.0	45.5	7.5		ene.			4					0	0		
Groningen	30.18	766.5	30.23	767.9	46.0	7.8		ne.			2					0	0		
Helder	30.24	768.0	30.24	768.0	45.7	7.6		ene.			4					0.012	0.3		
Hellevoetsluis	30.19	766.8	30.19	766.8	46.6	8.1	75	ene.			3					0	0		
Utrecht	30.17	766.2	30.21	767.4	46.8	7.8	76	ne.			3		8			0.024	0.6	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.51	774.9	30.57	776.5	44.2	6.8	54	calm	0	0			0			0	0		
Christiania	30.54	775.8	30.70	779.8	34.0	1.1	81	e.	7	3			2			0	0		
Gjæsvær	30.35	770.9	30.37	771.5	37.9	3.3		nw.			6		10						
Lodingen	30.45	773.5	30.50	774.7	47.8	8.8	96	sw.			6		10			0.476	12.1		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.62	752.3	29.78	756.3	58.6	14.8	78	nw.	21.7	9.7			4			0.256	6.5		Dr. J. A. Sampaio.
Campo Major	28.89	733.7	29.86	758.5	67.6	19.8	65	wsw.	8.7	3.9			9			0.126	3.2		Dr. A. M. R. dos Santos.
Funchal, Madeira	29.92	759.9	30.00	762.1	75.2	24.0	66	sw.	9.4	4.2			1			0.020	0.5		Capt. D. A. de Cunha.
Lisbon, Observatory	29.50	749.4	29.86	758.4	66.7	19.3	76	ssw.	18.6	8.3			10			0.004	0.1		The Staff.
Ponta Delgada, Azores	29.77	756.1	29.84	757.9	64.4	18.0	59	w.	21.0	9.4			3			0.264	6.7		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.11	739.3	30.20	767.0	49.3	9.6	54	ene.	9	4		0	1 s						Capt. Lasarew.
Archangel	30.45	773.3	30.47	773.8	39.7	4.3	98	calm	0	0			10					raining	Capt. Sseliwerstow.
Astrakhan	30.27	768.9	30.19	766.8	60.1	15.6	38	ene.	4	2		0	0						Capt. Wisganow.
Barnaul ‡	29.73	755.2	30.25	768.3	39.2	4.0	67	calm	0	0			0						Meteorological Obs'y.
Dorpat	30.28	769.1	30.53	775.5	41.2	5.2	78	ene.	13	6			10 k						Observatory.
Ekaterinburg	29.35	745.4	30.32	770.1	52.2	11.2	50	calm	0	0		10 ck	0						Meteorological Obs'y.
Kasan	30.07	763.7	30.34	770.6	56.1	13.4	48	sse.	2	1		0	0						Observatory.
Kertch	29.86	758.4	29.88	758.9	62.1	16.7	71	e.	2	1		2 c	0			0.106	2.7		Lagorio & Sastyrex.
Kieff	29.38	746.3	30.02	762.4	56.1	13.4	58	ne.	4	2		c,cs	8 ks					solar cor'na.	Observatory.
Lugan	29.90	759.5	30.10	764.6	61.7	16.5	32	ese.	34	15			1						Meteorological Obs'y.
Moscow	29.67	753.5	30.13	765.4	61.7	16.5	41	calm	0	0		0	0						Meteorological Obs'y.
Nikolaiev	29.85	758.1	29.92	759.9	61.5	16.4	65	ene.	13	6		cs	9 k						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	29.83	757.6	29.91	759.8	31.6	— 0.2	94	calm			0		10 n			0.039	1.0	snowing	Lieut. Iwanow.
Pekin, China	30.02	762.5	30.16	766.1	52.3	11.3	34	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.49	774.4	30.50	774.8	41.2	5.1	85	nne.	9	4			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.60	726.4	30.17	766.3	58.6	14.8	87	calm	0	0			8			0.547	13.9		Teich, A. M.
Tiflis	28.68	728.5	30.07	763.8	68.5	20.3	48	se.	4	2		0	2 k						Physical Observatory.
Warsaw	29.72	755.0	30.16	766.0	44.2	6.8	78	nnw.	4	2			10					light fog	Astronomical Obs'y.
Wilna	29.84	757.8	30.26	768.7	47.7	8.6	93	nne.	7	3			10					heavy cld's	Berg, Assistant.
Yeniseisk	30.00	762.1	30.30	769.6	38.8	3.8	85	sw.	4	2			10					raining	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.27	768.8	48.4	9.1	70	se.			4	0	8 k			0.04	1.0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.09	764.3	52	11.1	93	sse.			7	5	0	sse.		0	0		J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.72	754.8	29.82	757.5	61.3	16.3	78	e.	3.1	1.4			8			0	0	hazy	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.67	753.6	29.72	755.0	77.0	25.0	48	w.	3.4	1.5		2	0	sw.		0	0	almost clear	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.90	683.2			62.1	16.7	89	sw	6.7	3.0		0	7			0	0	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.69	703.3	29.87	758.7	64.6	18.1	72	sw.	17.4	7.8			10			0	0	covered	The Staff.
Murcia, Met. Obs'y ‡	29.75	755.6	29.89	759.3	78.8	26.0	51	ssw.	2.0	0.9		0	3			0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.73	729.8	29.62	752.3	57.4	14.1	96	sse.	22.4	10.0			10			0.236	6.0	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.89	759.2	29.96	760.9	75.6	24.2	90	e.	2.9	1.3		2 c	k	wnw.	e.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.53	750.0	29.58	751.3	80.2	26.8	81	w.	34.8	15.8		1 cs	9 n		w.	0.551	14.0	stormy	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.91	759.8	30.01	762.3	69.6	20.9	84	sse.	15.9	7.1			10		s.	0.240	6.1	light rain	Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W.I	29.85	758.3	29.95	760.6	77.7	25.4	97	se.	2.2	1.0		3 k	1 kn	se.	se.	0.322	8.2	raining	E. Cadea, Chief Eng'r.
Tugnegarao, Philippine Ids	29.09	738.9	29.22	742.3	74.9	23.8	97	nnw.	50.0	22.3			10 kn		n.	2.04	51.8	stormy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.46	773.7	30.50	774.7	37.4	3.0	93	sw.			2		10			0.142	3.6	raining	
Umea	30.54	775.7	30.59	777.0	39.6	4.2	80	calm			0		10			0.039	1.0		
Hernosand	30.64	778.2	30.69	779.5	42.6	5.9	75	sw.			2		0			0	0		
Stockholm	30.45	773.4	30.63	777.9	42.1	5.6	73	ne.			4		10			0.012	0.3		
Wisby	30.39	771.9	30.45	773.4	46.8	8.2	73	e.			6		5			0	0		
Sub-Series.																			
Upsala	30.56	776.2	30.65	778.4	40.8	4.9	81	ne.	6.3	2.8			10		ne.	0	0		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.55	725.1	30.01	762.2	42.1	5.6	62	nne.			4		8			0	0	covered	The Observatory.
Zurich ‡	28.37	720.5	30.05	763.2	40.6	4.8	68	e.			2		4			0	0	lightly cld'y	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck. Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.84	757.9	55.9	13.3	93	sw.	18	8.0			10		sw.	0.402	10.2	thund'r st'm	The Observatory.
Valona			30.13	765.4	56.5	13.6		nw.			1		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.03	762.8	77.0	25.0	57	nw.			1	0	2 k		sw.	0	0		Prof. C. V. Van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.		
Albany, New York	30.16	766.1	30.24	768.1	46	7.8	59	nw.	10	4.5		2 c	2 s	nw.	nw.	0.66	16.8	fair	
Alpena, Michigan	29.53	750.0	30.22	767.6	34.5	1.4	79	w.	2	0.9		6 cs	2 s	w.		0	0	fair	
Atlanta, Georgia	28.90	734.0	30.12	765.0	57.2	14.0	93	nw.	8	3.6		3 k	0	calm		inap.	inap.	fair	
Atlantic City, New Jersey	30.21	767.3	30.22	767.6	48.3	9.1	63	n.	13	5.8		6 ck	0	calm		0.44	11.2	fair	
Augusta, Georgia	29.88	758.9	30.08	764.0	70.8	21.6	71	ne.	5	2.2		4 ck	0	w.		0.10	2.5	fair	
Baltimore, Maryland	30.20	767.1	30.25	768.3	51	10.6	59	n.	7	3.1		7 ck	0	nw.		inap.	inap	fair	
Barnegat, New Jersey	30.17	766.3	30.19	766.8	48.0	8.9	71	n.	28	12.5		3 cs	5 k	w.	w.	0.08	2.0	fair	
Bismarck, Dakota	28.47	723.1	30.39	771.9	29	— 1.7	80	n.	20	8.9			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.25	692.1	30.17	766.3	44	6.7	86	w.	2	0.9			10 s		calm	0	0	cloudy	
Boston, Massachusetts	29.96	761.0	30.12	765.0	42.0	5.6	82	nw.	12	5.4		3 cs	hz.	w.		0.16	4.1	fair	
Brackettville, Texas	28.94	735.1	29.98	761.5	63	17.2	93	ne.	6	2.7			10 s		se.	0.43	10.9	cloudy	
Brownsville, Texas	29.96	761.0	30.02	762.5	73	22.8	97	ne.	4	1.8		3 c	7 n		ne.	0.05	1.3	light rain	
Buffalo, New York	29.59	751.6	30.33	770.4	41.2	5.1	72	nw.	1	0.4		1 cs	8 s		nw.	0.29	7.4	cloudy	
Burlington, Vermont	29.92	760.0	30.22	767.6	38.0	3.3	69	nw.	11	4.9		3 ck	7 s	w.	nw.	0.13	3.3	cloudy	
Cairo, Illinois	29.89	759.2	30.30	769.6	46.3	7.9	85	ne.	10	4.5			10 s		calm	0	0	cloudy	
Campo, California	27.42	696.5	29.99	761.7	24.6	— 4.1	64	s.	3	1.3		7 c	0	w.		0	0	cloudy	
Camp Thomas, Arizona	27.32	693.9			47	8.3	66	se.			1	0	hz.			0	0	clear	
Cape Henry, Virginia	30.16	766.1	30.18	766.6	59	15.0	65	n.	16	7.2			9 s		sw.	0.75	19.0	cloudy	
Cape May, New Jersey	30.19	766.8	30.22	767.6	50	10.0	63	nw.	18	8.0		0	6 ks		nw.	0.60	15.2	fair	
Castroville, Texas	29.32	744.7	30.02	762.5	63	17.2	84	n.	6	2.7			10 s			1.18	30.0	cloudy	
Cedar Keys, Florida	29.99	761.7	30.01	762.2	73	22.8	97	e.	3	1.3		0	0			0.03	0.8	clear	
Champaign, Illinois	29.47	748.5	30.30	769.6	40.0	4.4	86	se.	5	2.2		0	6 s		w.	0	0	fair	
Charleston, S. Carolina	29.94	760.5	30.00	762.0	73	22.8	97	ne.	8	3.6		3 ck	7 s	calm	ne.	0.19	4.8	cloudy	
Charlotte, N. Carolina	29.25	742.9	30.16	766.1	59.0	15.0	60	ne.	10	4.5		9 cs	0	n.		0.69	17.5	cloudy	
Chattanooga, Tennessee	29.33	745.0	30.18	766.6	55.0	12.8	80	n.	11	4.9			10 s		n.	0	0	cloudy	
Cheyenne, Wyoming	24.17	613.9	30.30	769.6	36.2	2.3	31	n.	10	4.5		0	0			0	0	clear	
Chicago, Illinois	29.56	750.8	30.30	769.6	42.1	5.6	83	sw.	5	2.2		0	hz.			0	0	clear	
Chincoteague, Virginia	30.16	766.1	30.18	766.6	53	11.7	55	n.	23	10.3		2 c	0	ne.		0.15	3.8	fair	
Cincinnati, Ohio	29.63	752.6	30.31	769.9	46.5	8.1	77	ne.	4	1.8		0	2 s			0.01	0.3	clear	
Cleveland, Ohio	29.56	750.8	30.33	770.4	47.8	8.8	57	n.	5	2.2		1 c	6 k		ne.	0.03	0.8	fair	
Coleman City, Texas																			
Columbus, Ohio	29.43	747.5	30.32	770.1	44	6.7	83	n.	2	0.9		5 cs	3 s	w.		0	0	fair	
Concho, Texas	28.26	717.8	30.26	768.6	52	11.1	93	ne.	4	1.8			10 s			0.35	8.9	cloudy	
Corsicana, Texas	29.73	755.1	30.21	767.3	58	14.4	80	n.	4	1.8			10 s			0.16	4.1	cloudy	
Davenport, Iowa	29.61	752.1	30.29	769.4	42	5.6	83	sw.	7	3.1		2 cs	fg.	calm	calm	inap.	inap.	fair	
Dayton, Washington T'y	28.30	718.8	30.16	766.1	47.2	8.4	86	n.	2	0.9			10 s		calm	0.02	0.5	cloudy	
Deadwood, Dakota	25.60	650.2	30.46	773.7	32	0.0	74	calm	0	0			10 s		calm	0	0	cloudy	
Decatur, Texas	28.90	734.0	30.08	764.0	55	12.8	69	n.	3	1.3		0	2 s			0.22	5.6	fair	
Delaware Breakwater, Del.	30.17	766.3	30.19	766.8	54	12.2	61	n.	31	13.9		6 c;k	0	sw;n		1.07	27.2	fair	
Denison, Texas	29.36	745.7	30.19	766.8	55	12.8	86	n.	4	1.8			10 s		calm	0.38	9.7	cloudy	
Denver, Colorado	24.89	632.2	30.26	768.6	36.0	2.2	46	s.	9	4.0		0	0			0	0	clear	
Des Moines, Iowa	29.29	744.0	30.24	768.1	41	5.0	92	sw.	4	1.8		0	0			0	0	clear	
Detroit, Michigan	29.60	751.8	30.34	770.6	43.5	6.4	74	calm	0	0		2 cs	fg.	w.	calm	inap.	inap.	light fog	
Dodge City, Kansas	27.55	699.8	30.24	768.1	39	3.9	82	s.	6	2.7		0	0			0	0	clear	
Dubuque, Iowa	29.51	749.5	30.25	768.3	40.2	4.6	82	s.	4	1.8		0	2 ks		se.	0	0	clear	
Duluth, Minnesota	29.26	743.2	29.99	761.7	40.2	4.6	92	n.	7	3.1			10 n		n.	0.09	2.3	light rain	
Eagle Pass, Texas	29.34	745.2	30.19	766.8	66.0	18.9	100	ne.	4	1.8			10 s		calm	1.25	31.7	cloudy	
Eagle Rock, Idaho	25.39	644.9	30.38	771.6	32	0.0	65	n.	5	2.2		3 cs	0			0	0	fair	
Eastport, Maine	29.84	757.9	29.91	759.7	38	3.3	82	nw.	16	7.2			10 s		nw.	1.18	30.0	cloudy	
El Paso, Texas	26.37	669.8	30.21	767.3	57.4	14.1	69	ne.	7	3.1		0	4 s		se.	0	0	fair	
Erie, Pennsylvania	29.56	750.8	30.32	770.1	46	7.8	68	n.	5	2.2		8 cs	0			0.10	2.5	cloudy	
Escanaba, Michigan	29.41	747.0	30.09	764.3	42	5.6	83	s.	7	3.1			10 s		sw.	0	0	cloudy	
Florence, Arizona	28.45	722.6	30.05	763.3	48.7	9.3	55	ne.	2	0.9		0	0			0	0	clear	
Fort Apache, Arizona	25.10	637.5	30.14	765.5	41	5.0	86	calm	0	0		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.48	698.0	30.42	772.7	13	—10.0	83	calm	0	0			fg.			0.08	2.0	dense fog	
Fort Bennett, Dakota	28.64	727.4	30.25	768.3	36	2.2	82	n.	18	8.0			10 s		n.	0	0	cloudy	
Fort Benton, Montana	27.49	698.2	30.47	773.9	21	— 6.1	73	calm	0	0		1 k	0	calm		0.06	1.5	clear	
Fort Buford, Dakota	28.44	722.4	30.55	776.0	17	— 8.3	83	nw.	8	3.6		6 cs	0	calm		0.07	1.8	fair	
Fort Custer, Montana	27.11	688.6	30.50	774.7	32	0.0	100	n.	6	2.7			10 n		calm	0.04	1.0	light snow	
Fort Davis, Texas	25.08	637.0	30.04	763.0	54	12.2	100	ne.	2	0.9			10 s			0.91	23.1	threatening	
Fort Elliott, Texas	27.41	696.2	30.71	780.0	33	0.6	71	calm	0	0		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.62	752.3	30.19	766.8	46.0	7.8	93	calm	0	0			fg.			0	0	dense fog	
Fort Grant, Arizona					51	10.6	80	n.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.91	734.3	30.21	767.3	49.4	9.7	86	se.	1	0.4		0	0			0.51	13.0	clear	
Fort Keogh, Montana	27.82	706.6	30.50	774.7	32	0.0	81	n.	9	4.0			10 s		n.	0.10	2.5	cloudy	
Fort Macon, North Carolina	30.08	764.0	30.09	764.3	64	17.8	93	n.	24	10.7			10 s		n.	0.70	17.8	cloudy	
Fort McKavett, Texas	27.91	708.9	29.85	758.2	53	11.7	80	ne.	6	2.7			10 ks		n.	0.23	5.8	cloudy	
Fort Missoula, Montana	26.86	682.2	30.51	774.9	36	2.2	100	calm	0	0		0	fg.			0	0	dense fog	
Fort St. Michaels	29.93	760.2	29.96	761.0	38	3.3	91	se.	10	4.5		0	5 s		e.	0	0	fair	
Fort Shaw, Montana	26.60	675.6	30.34	770.6	24	— 4.4	88	ne.	3	1.3		0	7 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.96	735.6	30.25	768.3	43	6.1	93	n.	4	1.8		0	0			0	0	clear	
Fort Stevenson, Dakota	28.47	723.1	30.43	772.9	26	— 3.3	76	nw.	10	4.5		0	3 s		nw.	0.03	0.8	clear	
Fort Verde, Arizona					37.9	3.3	44	w.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.40	721.3	29.95	760.7	57	13.9	93	n.	6	2.7			10 s			0	0	cloudy	
Galveston, Texas	30.00	762.0	30.04	763.0	73	22.8	95	ne.	7	3.1			10 n		e.	0.52	13.2	light rain	
Grand Haven, Michigan	29.60	751.8	30.30	769.6	41.0	5.0	92	s.	6	2.7		6 k	0	sw.		0	0	fair	
Hatteras, North Carolina	30.06	763.5	30.08	764.0	67	19.4	78	ne.	32	14.3			10 s			inap.	inap.	cloudy	
Helena, Montana	25.94	658.9	30.53	775.4	34	1.1	89	s.	8	3.6		0	5 s		calm	0	0	fair	
Henrietta, Texas	29.22	742.2	30.18	766.6	46	7.8	93	n.	5	2.2		0	0			0	0	clear	
Huron, Dakota	28.77	730.7	30.23	767.8	35	1.7	85	n.	19	8.5			10 s			0	0	cloudy	
Indianapolis, Indiana	29.47	748.5	30.30	769.6	41	5.0	92	ne.	2	0.9		6 cs	fg.	sw.	calm	0	0	fair	
Indianola, Texas	30.04	763.0	30.07	763.8	66.6	19.2	93	n.	18	8.0			10 s		calm	0.20	5.1	cloudy	
Jacksboro, Texas	29.01	736.8	30.17	766.3	46	7.8	93	nw.	4	1.8		2 cs	0	calm		0.86	21.8	clear	
Jacksonville, Florida	29.97	761.2	30.01	762.2	72	22.2	90	se.	1	0.4		2 cs	0	w.		0.24	6.1	clear	
Keokuk, Iowa	29.60	751.8	30.28	769.1	40.0	4.4	92	s.	4	1.8		0	1 s			0	0	clear	
Key West, Florida	29.95	760.7	29.98	761.5	79.0	26.1	86	e.	5	2.2		0	3 ks;k		e.	0	0	fair	
Kittyhawk, North Carolina	30.12	765.0	30.14	765.5	63	17.2	78	ne.	40	17.9			10 n		ne.	0.33	8.4	light rain	
Knoxville, Tennessee	29.15	740.4	30.22	767.6	54.2	12.3	73	ne.	7	3.1			10 s		ne.	0	0	cloudy	
La Crosse, Wisconsin	29.30	744.2	30.10	764.5	46	7.8	76	s.	16	7.2		0	3 s			0	0	fair	
La Mesilla, New Mexico	26.22	666.0	30.37	771.4	52.2	11.2	86	calm	0	0		0	0			0	0	clear	
Laredo, Texas	29.66	753.4	29.99	761.7	66.5	19.2	87	n.	8	3.6			10 s		n.	0.72	18.3	cloudy	
Leavenworth, Kansas	29.37	746.0	30.30	769.6	39	3.9	89	s.	1	0.4			fg.			0	0	dense fog	
Lewiston, Idaho	29.26	743.2	30.14	765.5	48	8.9	77	e.	1	0.4			10 s		calm	0.02	0.5	cloudy	
Little Rock, Arkansas	29.88	758.9	30.20	767.1	52	11.1	80	calm	0	0			10 ks			0.13	3.3	cloudy	
Los Angeles, California	29.62	752.3	30.00	762.0	51.3	10.7	72	s.	6	2.7		0	0			0	0	clear	
Louisville, Kentucky	29.67	753.6	30.25	768.3	46.0	7.8	83	n.	7	3.1		5 c	2 s	calm	calm	inap.	inap.	fair	
Lynchburg, Virginia	29.50	749.3	30.21	767.3	56.5	13.6	57	ne.	3	1.3		4 ck	0	w.		inap.	inap.	fair	
Madison, Wisconsin	29.18	741.2	30.26	768.6	42	5.6	82	s.	16	7.2		2 c	0	w.		0	0	clear	
Marquette, Michigan	29.39	746.5	30.15	765.8	41	5.0	73	s.	10	4.5			10 s		s.	0	0	cloudy	
Mason, Texas	28.53	724.6	30.30	769.6	54.2	12.3	86	n.	6	2.7			10 s		n.	inap.	inap.	cloudy	
Memphis, Tennessee	29.86	758.4	30.21	767.3	50	10.0	72	n.	4	1.8			10 s		calm	0.01	0.3	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.49	749.0	30.27	768.8	39	3.9	89	sw.	7	3.1		3 c	0			0	0	clear	
Mobile, Alabama	29.94	760.5	30.01	762.2	70.0	21.1	90	n.	7	3.1		0	3 s			0	0	clear	
Montgomery, Alabama	29.82	757.4	30.06	763.5	65.3	18.5	90	n.	4	1.8		1 cs	0			0	0	clear	
Moorhead, Minnesota	29.20	741.7	30.26	768.6	27	— 2.8	88	n.	20	8.9		0	0			0	0	clear	
Morgantown, W. Virginia	29.29	744.0	30.30	769.6	47.5	8.6	60	e.	5	2.2			10 s		ne.	0.33	8.4	cloudy	
Mt. Washington, N. H.	23.54	597.9	29.91	759.7	15.0	— 9.4	87	nw.	72	32.2			10n;fg		nw.	1.91	48.5	light snow	
Nashville, Tennessee	29.65	753.1	30.21	767.3	48.7	9.3	63	n.	5	2.2		7 ck	0	s.		inap.	inap.	fair	
New Haven, Connecticut	30.01	762.2	30.13	765.3	44	6.7	68	n.	10	4.5		2 c	0	w.		0.02	0.5	clear	
New London, Connecticut	30.09	764.3	30.14	765.5	46	7.8	68	n.	12	5.4		0	0			0.14	3.6	clear	
New Orleans, Louisiana	29.93	760.2	29.99	761.7	76.0	24.4	85	w.	1	0.4		4 c	sk	nw.		0	0	fair	
Newport, Rhode Island	30.09	764.3	30.14	765.5	46.3	7.9	73	nw.	11	4.9		2 c	0	nw.		0.32	8.1	clear	
New River, N. Carolina					58	14.4	100	n.			2		10 n			0.81	20.6	raining	
New Shoreham, Rhode I'd.	30.07	763.8	30.10	764.5	44.8	7.1	76	n.	20	8.9		0	0			0.03	0.8	clear	
New York, New York	30.02	762.5	30.20	767.1	47	8.3	68	n.	10	4.5		2 cs	0			inap.	inap.	clear	
Norfolk, Virginia	30.16	766.1	30.19	766.8	59	15.0	65	ne.	18	8.0			10 k		ne.	0.66	16.8	cloudy	
North Platte, Nebraska	27.17	690.1	30.23	767.8	42.6	5.9	67	sw.	3	1.3		0	0			0	0	clear	
Olympia, Washington T'y	29.82	757.4	29.86	758.4	51.0	10.6	93	s.	1	0.4			10 n		calm	0.43	10.9	light rain	
Omaha, Nebraska	29.02	737.1	30.26	768.6	43.5	6.4	71	s.	9	4.0		0	4 s			0	0	fair	
Oswego, New York	29.95	760.7	30.29	769.4	41.2	5.1	78	nw.	7	3.1		0	5 k		nw.	0.11	2.8	fair	
Pensacola, Florida	29.97	761.2	30.00	762.0	66	18.9	90	nw.	5	2.2		0	0			0	0	clear	
Philadelphia, Pa	30.19	766.8	30.25	768.3	47	8.3	63	ne.	17	7.6		0	hz			0.36	9.1	clear	
Phœnix, Arizona	28.80	731.5	30.62	777.7	50	10.0	52	calm	0	0		0	0			0	0	clear	
Pike's Peak, Colorado	17.87	453.9	30.08	764.0	18	— 7.8	21	se.	14	6.3		0	0			0	0	clear	
Pioche, Nevada	24.18	614.2	30.37	771.4	37	2.8	46	calm	0	0		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.49	749.0	30.34	770.6	45.7	7.6	76	e.	4	1.8		8 ck;k	0	nw.		inap.	inap.	fair	
Port Eads, Louisiana	30.00	762.0	30.01	762.2	74.4	23.6	94	n.	4	1.8		0	hz		calm	0	0	clear	
Port Huron, Michigan	29.62	752.3	30.33	770.4	35.0	1.7	90	sw.	5	2.2		2 c	0	nw.		0	0	clear	
Portland, Maine	30.02	762.5	30.07	763.8	44	6.7	68	nw.	2	0.9		0	fg			0.40	10.2	clear	
Portland, Oregon	29.88	758.9	29.94	760.5	52.8	11.6	90	se.	2	0.9			10 n		s.	1.14	29.0	light rain	
Portsmouth, N. Carolina					65	18.3	84	ne.	40	17.9			10 s		ne.	0.08	2.9	cloudy	
Prescott, Arizona	24.83	630.7	30.14	765.5	33	0.6	57	s.	3	1.3		0	0			0	0	clear	
Punta Rassa, Florida	29.97	761.2	29.98	761.5	75	23.9	90	e.	4	1.8		0	1 ks		e.	0.63	16.0	clear	
Red Bluff, California	29.68	753.9	30.03	762.7	53.0	11.7	66	nw.	5	2.2		0	5 s		w.	0	0	fair	
Rio Grande City, Texas	29.87	758.7	30.07	763.8	70	21.1	94	ne.	4	1.8			10 n		ne.	1.80	45.7	raining	
Rochester, New York	29.61	752.1	30.31	769.9	39	3.9	82	nw.	6	2.7		2 cs	sk	calm		0.21	5.3	clear	
Roseburg, Oregon	29.40	746.7	29.99	761.7	51	10.6	93	calm	0	0			10 n		sw.	0.40	10.2	light rain	
Sacramento, California	29.99	761.7	30.07	763.8	50.2	10.1	86	se.	4	1.8		0	0			0	0	clear	
St. Louis, Missouri	29.70	754.4	30.33	770.4	43.3	6.3	93	e.	4	1.8		0	8 s		sw.	0.02	0.5	fair	
St. Paul, Minnesota	29.10	739.1	30.02	762.5	46.7	8.2	68	sw.	8	3.6			10 s			0	0	cloudy	
Salt Lake City, Utah	25.75	754.0	30.20	767.1	42	5.6	36	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.44	747.8	30.16	766.1	60.6	15.9	84	n.	6	2.7			10 s		n.	1.40	35.6	cloudy	
San Diego, California	29.87	758.7	29.94	760.5	52.0	11.1	66	n.	3	1.3		0	0			0	0	clear	
Sandusky, Ohio	29.60	751.8	30.31	769.9	48	8.9	77	nw.	12	5.4		5 cs	0			0.04	1.0	fair	
Sandy Hook, New Jersey	30.13	765.3	30.16	766.1	50.0	10.0	72	n.	44	19.7		3 ck	0	n.		inap.	inap.	clear	
San Francisco, California	30.03	762.7	30.10	764.5	53	11.7	96	sw.	3	1.3			fg			0	0	dense fog	
Santa Fé, New Mexico	23.39	594.1	30.38	771.6	38	3.3	75	calm	0	0		0	3 s		calm	0	0	clear	
Savannah, Georgia	29.92	760.0	30.01	762.2	71	21.7	94	nw.	9	4.0		hz	1 ks			0.52	13.2	clear	
Shreveport, Louisiana	29.91	759.7	30.14	765.5	57	13.9	100	n.	9	4.0			10 n		ne.	0.27	6.9	heavy rain	
Silver City, New Mexico	24.38	619.2	30.06	763.5	45	7.2	86	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.83	757.7	29.90	759.4	42.2	5.7	66	ne.	2	0.9		0	0			0	0	clear	
Smithville, North Carolina	29.90	761.0	30.00	762.0	71	21.7	94	calm	0	0			10 s		calm	0.54	13.7	cloudy	
Spokane Falls, Wash. Ter.	28.07	713.0	30.14	765.5	43	6.1	93	ne.	7	3.1			10 s		calm	0.10	2.5	cloudy	
Springfield, Illinois	29.62	752.3	30.34	770.6	43.9	6.6	83	calm	0	0		3 ck	fg	sw.		0.01	0.3	dense fog	
Springfield, Massachusetts	30.06	763.5	30.19	766.8	45.1	7.3	76	nw.	3	1.3		6 c	0	w.		0.19	4.8	fair	
Stockton, Texas	27.14	689.3	30.29	769.4	55.2	12.9	100	ne.	4	1.8			10 n		ne.	0.05	1.3	light rain	
St. Vincent, Minnesota	29.38	746.2	30.31	769.9	23	— 5.0	92	nw.	4	1.8		0	1 s		calm	0.13	3.3	clear	
Thatcher's Island, Mass.	30.07	763.8	30.12	765.0	44.0	6.7	76	nw.	35	15.6		0	0			0.47	11.9	clear	
Toledo, Ohio	29.58	751.3	30.30	769.6	39	3.9	82	nw.	5	2.2		0	6 s			0	0	fair	
Tucson, Arizona	27.55	699.8	29.99	761.7	52	11.1	50	se.	5	2.2		0	0			0	0	clear	
Umatilla, Oregon	29.70	754.4	30.13	765.3	50.5	10.3	91	e.	1	0.4			10 s		calm	0.16	4.1	cloudy	
Uvalde, Texas	29.16	740.7	29.97	761.2	64	17.8	90	ne.	6	2.7			10 s		calm	1.56	39.6	cloudy	
Vicksburg, Mississippi	29.85	758.2	30.11	764.8	59	15.0	93	n.	10	4.5			10 s		n.	0.10	2.5	cloudy	
Visalia, California	29.66	753.4	30.03	762.7	41	5.0	82	nw.	2	0.9		0	0			0	0	clear	
Washington, D. C.	30.14	765.5	30.26	768.6	48	8.9	63	nw.	3	1.3		4 ck	0	w.		0	0	fair	
West Los Animas, Colorado	26.13	663.7	30.21	767.3	35	1.7	56	sw.	6	2.7		0	0			0	0	clear	
Wickenburg, Arizona					44	6.7	56	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	29.97	761.2	30.03	762.7	65.0	18.3	90	ne.	20	8.9			10 ks		ne.	0.57	14.5	threatening	
Winnemucca, Nevada	25.67	652.0	30.13	765.3	33	0.6	68	ne.	6	2.7		0	5 ks		sw.	0	0	fair	
Wood's Holl, Mass.	30.06	763.5	30.10	764.5	46	7.8	68	nw.	28	12.5		2 c	0	sw.		0.07	1.8	clear	
Yankton, Dakota	28.80	731.5	30.17	766.3	50	10.0	69	w.	8	3.6			10 s			0	0	cloudy	
Yuma, Arizona	29.78	756.4	29.92	760.0	53.7	12.1	43	ne.	4	1.8		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	29.90	759.4	29.92	760.0	84	28.9	83	s.	5	2.2		2 k	5 ks	e.	e.	0	0		J. A. Racker.
Bogota, U. S. Columbia	22.00	558.8			54.0	12.2	83	calm	0	0		2 k	2 s	w.		1.17	29.7	fair	Joaquin Gomez.
Buenaventura, U. S. C.	29.93	760.2	29.95	760.7	76	24.4	90	s.					0			0.40	10.2	clear	J. B. Dougherty.
Guadeloupe, W. I.‡	29.81	757.2	29.81	757.2	80	26.7	90	e.				8 k	2 ks		e.	0.10	2.5		B. Bigar.
Havana, Cuba, W. I.	29.94	760.5	29.98	761.5	78	25.6	88	calm	0	0		2 cs	2 ks	calm	calm	0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.91	759.7	29.92	760.0	76.3	24.6	88	calm	0	0		8 cs	0			0	0	fair	Robert Johnstone.
Navassa, W. I.	29.83	757.7	29.91	759.7	82	27.8	74	e.	11	4.9		5 cs; k	5 s; k	e.	ene.	0	0		F. M. Everett.
Paramaribo, S. A.	29.97	761.2	29.97	761.2	80	26.7	82	ne.			2	b	5 k			0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.39	746.5	29.94	760.5	79	26.1	89	s.				5 c	3 k	calm	calm	0	0	fair	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24	98	sw.			1		10 n		sw.	1.22	31.0		Earl Flint.
Santiago de Cuba, W. I.	29.91	759.7	29.93	760.2	79	26.1	82	n.	3.6	1.6		3 c	0			0	0	clear	Robert Mason.
St. Thomas, W. I.‡	29.82	757.4	29.93	760.2	81	27.2	82	e.	4	1.8		1 c	1 ks	ne.	e.	0.50	12.7	clear	G. O. Gyllich.
York Factory, B. A.	29.68	753.9	29.74	755.4	14.0	—10.0	91	sw.	12	5.4		1 c	1 s	sw	sw.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross, N. 34° 30′, E. 139° 00′	30.19	766.8	64	17.8		ne.			4		10					1	se.	misty	
H. M. S. Alert, S. 11° 34′, E. 131° 34′	29.95	760.7	81	27.2	81	n.			2		2							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Cagliari, Isd. of Sardinia	29.98	761.5	70.5	21.4	78	se.			1		4	se.						d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.82	757.4	62	16.7		var.			1-2		10	calm						thnd'r storm	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche, N. 46° 36′, W. 40° 39′	29.47	748.5	49	9.4	100	wnw.			9		7					8	wnw.	squally	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.06	763.5	73.5	23.1	65	ese.			3-5		4	ese.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.96	761.0	60	15.6	100	nnw.			2		4	n.				2	nw.	d. clouds	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 40° 25′, E. 5° 18′	29.86	758.4	66	18.9	90	sse.			3-6		9					5	sse.	showery	Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.01	762.2	73	22.8		sw.			3		3	wsw.				2	wsw.	d. clouds	Lt. Comm. J. L. Burr.
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 33° 46′, E. 24° 29′	30.04	763.0	76	24.4		wnw.			2		2	ssw.				1	wsw.	d. clouds	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 33° 22′, E. 136° 52′	30.05	763.3	65	18.3	94	n.			2		8	nne.				2	ne.	d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.90	759.4	63	17.2		nw.			2		4	wnw.						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Diamond																			
H. M. S. Dido, S. 7° 56′, W. 14° 15′	29.99	761.7	75	23.9		se.			4		4	se.				2	sse.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.05	763.3	75	23.9	81	ssw.			1		2	ssw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	29.95	760.7	35.5	1.9	85	ne.			2-3		10	ne.						squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.80	756.9	82	27.8		wnw.			2		3	nw.				1	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 6° 47′, E. 82° 36′	29.87	758.7	82	27.8		se.			3		5	sse.				4	se.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.99	761.7	60	15.6	100	ne.			1-2		3	s.				3	se.	d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.85	758.2	84	28.9	75	nne.			2-3		6	ne.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 49° 41′, W. 54° 46′	29.93	760.2	32	0.0		ne.			2		9	ne.				sm'h		d. clouds	Capt. W. C. Karslake.
H. M. S. Fawn, S. 18° 00′, E. 39° 38′	30.04	763.0	79.5	26.4	74	se.			1		8					2	se.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 17° 11′, W. 86° 45′	29.83	757.7	82	27.8	78	e.			3-4		10					4	ene.	overcast	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 3° 51′, W. 159° 22′	29.79	756.7	79.5	26.4	78	ese.			3		3	s.						d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	30.04	763.0	63	17.2	83	sw.			2		0							blue sky	Capt. L. F. Jones.
H. M. S. Griffon, N. 17° 40′, W. 77° 00′	29.92	760.0	82	27.8	83	ne.			2		2					2	ese.	d. clouds	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 33° 00′, E. 138° 10′	30.06	763.5	67	19.4	94	ene.			6		10	ne.				5	ne.	squally	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	30.19	766.8	56	13.3		calm			0		3							d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. N. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.8[illegible]	758.4	81	27.2		s.			1		1	calm						blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, Simon's Bay, Cape Colony	30.04	763.0	66	18.9		ssw.			2		6	ssw.						d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 35° 18′, E. 14° 40′	30.09	764.3	70	21.1	75	w.			4		4					3	sw.	d. clouds	Lieut. Comm. C. Oldham.
H. M. S. Magpie, Hong Kong, China	30.07	763.8	72.5	22.5	67	n.			1		2	sw.						d. clouds	Lieut. A. Balfour.
H. M. S. Malabar, N. 18° 48′, E. 72° 04′	29.92	760.0	86	30.0	87	ne.			3		3	ne.				2	ne.	d. clouds	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level. Inch.	Barometer reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Sea-swell. Character.	Sea-swell. Dir'n from.	Weather.	Observers.
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 35° 41′, W. 6° 20′	29.92	760.0	71	21.7	90	s.			4		7	ssw.				1	se.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.97	761.2	71	21.7	100	ssw.			2		9	sse.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.09	764.3	56	13.3	87	calm			0		10							d. clouds	Comm. F. Edwards.
H. M. S. Nelson,																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	29.64	752.8	44	6.7	96	nw.			3									raining	Capt. E. B. Drummond.
H. M. S. Orontes, N. 14° 13′, W. 43° 05′	30.05	763.3	82	27.8	85	ne.			4–5		2					3	nne.	d. clouds	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 25° 08′, W. 69° 13′	30.03	762.7	79	26.1	86	e.			2–3		3	e.				3	e.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	29.85	758.2	52	11.1	86	ene.			3		10							heavy rain	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.89	759.2	82.3	27.9	79	calm			0		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sappho, N. 29° 00′, W. 18° 00′	30.06	763.5	77	25.0	86	calm			0		3					2	wnw.	d. clouds	
H. M. S. Sea Gull, S. 12° 33′, E. 43° 09′	29.64	752.8	83	28.3	70	nnw.			1		1							blue sky	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			
H. M. S. Tamar, S. 33° 23′, E. 16° 39′	30.12	765.0	63	17.2	83	sse.			2		1					sm'h		blue sky	Capt. T. H. Royse.
H. M. S. Tenedos, N. 40° 50′, W. 63° 49′	29.80	756.9	56	13.3	93	nw.			6		6					4	nw.	d. clouds	Capt. C. G. Fane.
H. M. S. Thetis, N. 21° 05′, W. 112° 14′	29.95	760.7	75	23.9	95	n.			3–4		1					2	nw.	blue sky	Capt. P. W. Stephens.
H. M. S Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 25° 58′, W. 86° 33′	30.25	768.3	61	16.1	70	ese.			2		10	ese.				4	ese.	overcast	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne																			
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.91	759.7	79	26.1		n.			2		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.79	756.7	53	11.7	86	w.			2–5		10							raining	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark, Jask, West Bay, Persia	29.87	758.7	84.5	29.2	83	sse.			1–2		0					3	w.	misty	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, S. 10° 55′, E. 12° 37′	29.95	760.6	77.0	25.0	77	w.			3		9					2	sw.	overcast	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, Porto Praya, Cape Verd Ids	30.18	766.5	83.3	28.5	96	ne.			1		2		ne.					blue sky	Carlos M. de Silva Costa
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	30.00	762.0	69.8	21.0	57	nnw.			3		2							d. clouds	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

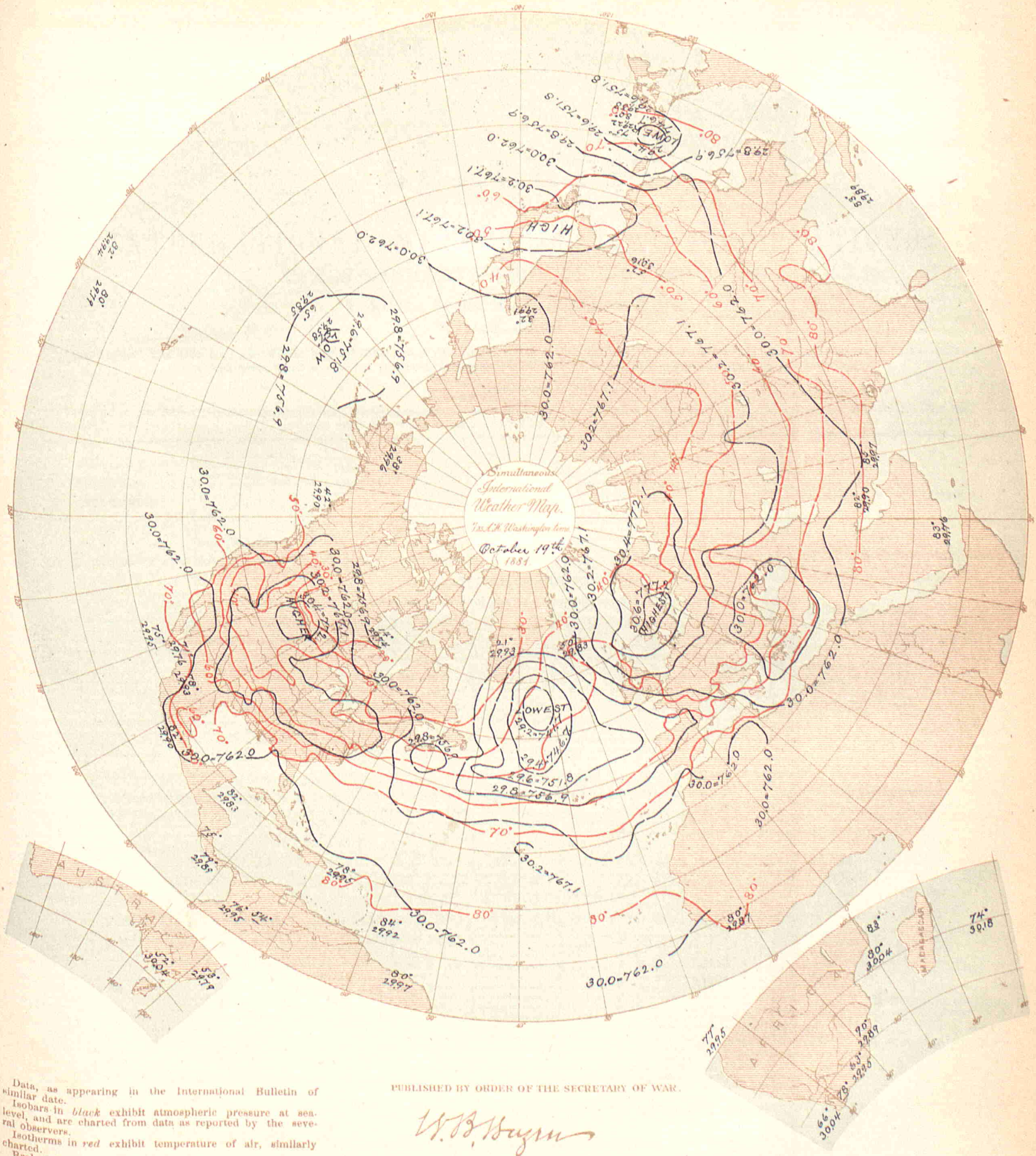
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.16	766.1	71	21.7	85	ne.	4	1.8			0			0	0			clear	
N. Yard, Portsmouth, N. H.	30.08	764.0	42	5.6	74	nw.	10	4.5			0			0.7	18.			clear	
Naval Hospital, Yokohama, Japan	30.06	763.5	61	16 1	66	e.			1		10		ssw.	0	0			gloomy	
Adams, Callao, Peru	29.79	756.7	60	15.6	94	nw.			1		8					sm'h		fair	
Alaska, Callao, Peru	29.93	760.2	60	15.6	100	nnw.			1		8			0	0	sm'h		cloudy	
Alert, Kobe, Japan	30.06	763.5	51	10.6	?	ne.			1		2			0	0	sm'h		fair	
Alliance, N. 58° 20′, W. 34° 50′	29.01	736.8	44	6.7	100	ene.			4		10			light	light	mod.		cloudy	
Ashuelot, Kobe, Japan	30.25	768.3	59	15.0	65	ne.			1		8		nw.					cloudy	
Colorado, New York, N. Y.	30.17	766.3	49	9.4	71	nw.	4	1.8			5		calm					fair	
Constitution, Newport, R. I.	30.05	763.3	44	6.7	84	w.	8	3.6			2		n.					clear	
Franklin, Yorktown, Va.	30.07	763.8	56	13.3	69	n.	8.4	3.8			2		ne.	0	0			fair	
Galena, Volo, Turkey	29.88	758.9	61	16.1	61	wsw.			3		2					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal.	29.92	760.0	55	12.8	87	sw.	6.0	2.7			2		sw.					fair	
Kearsarge, Yorktown, Va.			58	14.4	64	nnw.			4		2		nw.			sm'h		fair	
Lackawanna, San Francisco, Cal. †	30.27	768.8	56	13.3	100	ese.			0–1		10		ese.					cloudy	
Lancaster, N. 37° 27′ W. 57° 55′	29.93	760.2	75	23.9	86	sw.			6		8		sw.	0	0	mod.	sw.	d. clouds	
Marion, Montevideo, Uruguay	29.86	758.4	64	17.8		wsw.			3		2			0	0	sm'h		clear	
Michigan, Erie, Pa.	30.24	768.1	46	7.8	77	ne			3		5		ne.					fair	
Monocacy, Yokohama, Japan	30.25	768.3	62	16.7	77	e.			3		10		e.					cloudy	
Nipsic, Genoa, Italy	30.06	763.5	54	12.2	61	nne.			3		10					sm'h		drizzling	
Onward, Callao, Peru †	29.99	761.7	59	15.0	94	nw.			3		2		se.			long	w.	clear	
Palos, Hong Kong, China	30.01	762.2	74	23.3	54	nnw.			1		2		calm					fair	
Passaic, Washington, D. C.	30.20	767.1	52	11.1	79	nw.			1		2		sw.					clear	
Pensacola, Callao, Peru,	29.99	761.7	60	15.6	88	nw.			1		5					sm'h		fair	
Portsmouth, Yorktown, Va.	30.19	766.8	56	13.3	100	w.			3		8		n.			sm'h		cloudy	
Powhatan, Boston, Mass.	30.10	764.5	42	5.6	91	wsw.			2		2		se.			sm'h		clear	
Quinnebaug, Marseilles, France	29.87	758 7	60	15.6	65	ese			3		8		s.			sm'h		fair	
Ranger, San Francisco, Cal. *	30.05	763.3	56	13.3	87	calm			0		fg.							foggy	
Saratoga, Yorktown, Va.	30.12	765.0	56	13.3	100	nne.			3–4		2			h'vy	h'vy	sm'h		fair	
St. Louis, League Island, Pa.	29.91	759.7	47	8.3	70	n.	9	4.0			10		n.	0.10	2.5			cloudy	
Swatara, Inland Sea, Japan †	30.15	765.8	62	16.7	61	se.			3		8		wsw.			sm'h		fair	
Tennessee, Yorktown, Va.	30.22	767.6	58	14.4	82	nnw.	14	6.3			8		nne.	0	0			cloudy	
Vandalia, Yorktown, Va.	30.16	766.1	56	13.3	75	n.			2		8		ne.					fair	
Wabash, Boston, Mass.	30.11	764.8	44	6.7	68	nw.	7	3.1			2		nw.	0.46	11.7			fair	
Wachusetts, Sitka, Alaska	30.00	762.0	39	3.9	91	calm			0		0							clear	
Wyoming, Port Royal, S. C.	30.00	762.0	73	22.8	90	n.	12	5.4			10		n.	0.03	0.8			cloudy	
Yantic, Yorktown, Va. *	30.17	766.3	56	13.3	69	nnw.			6		8							cloudy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Montreal, Canada *†	30.23	767.8				wnw.	2		0							clear	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, N. 37° 09′, W. 74° 59′	30.17	766.3	56	13.3		ne.	5		5		ne.			mod.	ne.	fair	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Pa †	30.05	763.3	48	8.9	92	nw.	3		5		nw.					fair	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng †	29.88	758.9	46	7.8	60	ese.	4		2		se.	0	0			fair	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 48° 29′, W. 31° 46′ *†	29.42	747.3	54	12.2	93	nnw.	6		2		n.			long	nnw.	squally	
S. S. Pennsylvania, Capt. G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, Capt. E. J. Moloney																	
Bq. Caldew, Capt. N. W. Petersen S. 54° 59′, W. 76° 55′	29.04	737.6	42	5.6		nw.	9		10							threatening	
S. S. Cipero, Capt. W. N. Lailey, Off Port Cortez, Honduras, C. A.	29.84	757.9	78.8	26.0	95	n.	4		10							heavy rain	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton, N. 26° 00′, W. 121° 43′ ‡	30.12	765.0	62	16.7	83	nnw.	5		10							overcast	
S. S. Gordon Castle, Capt. W. Waring, N. 5° 50′, E. 91° 58′	29.89	759.2	83.3	28.5	79	calm	0		4							d. clouds	
Bg. Hermine, Capt. S. G. Jones, S. 44° 01′, W. 62° 14′	29.84	757.9	51.5	10.8	86	wsw.	2		1							blue sky	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 1° 31′, E. 87° 58′	29.88	758.9	77.3	25.2	95	wnw.	6		7							squally	
Bk. Mertola, Capt. E. W. Turner																	
Bk. Moorhill, Capt. J. Brown, S. 56° 02′, W. 78° 53′	28.77	730.7	41.2	5.1	83	w.	9		10							threatening	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant, S. 45° 20′, E. 137° 41′	30.07	763.8	44.5	6.9	91	sse.	5		4							d. clouds	
Queen of Cambria, Capt. M. Parry S. 20° 01′, W. 36° 32′	30.08	764.0	78.8	26.0	69	ne.	4		2							blue sky	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. M. Gray, ‡																	
S. S. Strathleven, Capt. C. W. Pearson																	
S. S. Thames, Capt. Luckhurst N. 54° 26′, W. 39° 57′	29.23	742.4	43	6.1	91	nw.	7–8		8							showery	R. Ladd, 1st Officer.
S. S. Wyberton, Capt R. J. Blacklin N. 12° 23′, E. 49° 19′	29.76	755.9	82.5	28.1		ese.	1		0							blue sky	
CALIFORNIA, AND MEXICAN S.S. CO. *J. Birmingham, Agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers La Paz, Lower Cal †	29.76	755.9	71°	21.7	80	calm	0		0			0	0			clear	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains,																	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
Braunschweig, Capt. C. Pohle																	
S. S. Hermann, Capt. H. Baur																	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N. 49° 52′, W. 9° 20′	29.57	751.1	54.5	12.5	87	s.	7–8		10		s.			very h'vy	s.	stormy	T. Jüngst.
S. S. Leipsic, Capt. F. Pfeiffer. N. 42° 26′, W. 62° 10′	29.66	753.4	56.5	13.6	94	w.	6		10		w.	12 h'r	12 h'r	r'gh	w; wnw.	cloudy	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 46° 19′, W. 52° 54′	29.81	757.2	38.0	3.3	90	e.	6		10		e.	16 h'r	snow	r'gh	e.	snowing	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 43° 11′, W. 174° 03′ †	29.68	753.9	57	13.9	87	wsw.	4		8		wsw.	rain	rain	high	wnw.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, Hong Kong, China *†	30.19	766.8	76	24.4	90	nw.	2		1		ne.					clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 35° 00′, W. 175° 52′	30.05	763.3	65	18.3	84	w.	4		3		nw.	0	0	mod.	nw.	fine	
OREGON IMPROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes, Seattle, Wash. Ter †	30.04	763.0	54	12.2	?	s.	1		8		ssw.					heavy rain	
OREGON RAILWAY & NAVIGAT'N CO. *R. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles,																	
S. S. Oregon, Capt. E. Polemann, N. 40° 57′, W. 124° 22′ †	30.08	764.0	53	11.7	93	sse.	4		10		se.			sm'h	sw.	raining	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 33° 19′, W. 117° 51′ †...	29.94	760.5	60	15.6	94	n.	2	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——— Puget Sound †..	29.93	760.2	45	7.2	92	var.	1	.....	4	.....	w.	10 h'r	10 h'r	.....	.....	fair.....	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal †...	30.08	764.0	54	12.2	93	sw.	1	.....	fg	.....	.....	.....	.....	.....	.....	foggy.....	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal †..	30.18	766.6	54	12.2	87	e.	1	.....	10	.....	.....	.....	.....	.....	.....	foggy.....	T. Wallace.
S. S. State of California, Capt. Debney, N. 43° 15′, W. 124° 30′ †.	29.87	758.7	53	11.7	?	s.	5	.....	10	.....	s.	.....	.....	short	s.	raining.....	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, New Westminster, B. C †..	29.98	761.5	46	7.8	92	var.	2	.....	10	.....	.....	.....	.....	.....	.....	raining.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, N. 2° 20′, W. 165° —′..... †..	29.94	760.5	82	27.8	100	ne.	3	.....	10	.....	ne.	.....	.....	mod.	n.	cloudy	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 27° 35′, E. 125° 07′ *†...	30.12	765.0	71	21.7	80	nne.	6	.....	10	.....	nne.	0	0	f'gh	ne.	cloudy.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——— N. 7° 12′, W. 82° 06′ †..	29.89	759.2	79	26.7	86	s.	2	.....	10	.....	se.	0.1	3.	mod.	s.	rainy...	.....
S. S. City of Sidney, Capt. H. C. Dearborn, S. 33° 57′ E. 159° 42′..... *†..	29.53	750.0	66	18.9	68	nw.	5	.....	10	.....	nw.	0	0	h'vy	sw.	cloudy.....	E. L. Snik.
S. S. City of Tokio, Com. J. Maury, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Richie, 2d Offl.
S. S. Colima, Capt. R. R. Searle, N. 16° 51′, W. 99° 46′ †.	29.90	759.4	82	27.8	91	wnw.	3	.....	2	.....	w.	0	0	.....	.....	clear.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	29.79	756.7	56	13.3	81	s.	6	.....	10	.....	s.	.....	.....	.....	.....	overcast.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 46° 40′, W. 52° 32.. †..	30.47	773.9	39	3.9	.....	se.	4	.....	10	.....	e.	0	0	sm'h	.....	overcast.....	A. Fedderson, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, N. 50° 23′, W. 2° 47′ †..	30.04	763.0	46	7.8	84	e.	6	.....	3	.....	e.	0	0	high	e.	clear	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings, N. 46° 38′, W. 36° 37′ †..	29.39	746.5	48	8.9	.....	nw.	6	.....	5	.....	nw.	rain	hail	hv'y	nnw.	squally.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, New York, N. Y †...	30.30	769.6	57	13.9	94	nnw.	4	.....	10	.....	nw.	0	0	.....	.....	overcast	.....
S. S. Republic, Capt. P. J. Irving N. 45° 43′, W. 50° 37′ †..	29.54	750.3	44	6.7	?	ese.	6	.....	10	.....	e.	4h'r	4h'r	long	cross	raining	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Yorktown, Va †..	30.24	768.1	56	13.3	87	n.	2	4 k	2 s	.....	.....	0.16	4.1	.....	.....	fair.....	.....
Hassler, Lt. Com. Nichols, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
S. Pawashick, Capt. E. Fry, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Lovaine, Capt. H. McCauley N. 41° 25′, W. 64° 22′..... *†..	.....	.....	.....	.....	.....	n.	6	.....	.....	.....	.....	.....	.....	st'g	.....	.....	.....
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 33° 57′, W. 56° 03′..... †...	30.39	771.9	75	23.9	.....	sw.	4	.....	5	.....	sw.	.....	.....	mod.	sw.	fair.....	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam, Capt. Jos. Hand, N. 32° 50′, W. 39° 36′ †.	30.22	767.6	72	22.2	80	nnw.	2	.....	10	.....	sw.	0	0	very h'vy	nnw.	cloudy..	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer. U. S. A.

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BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 20, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.96	761.0	70.5	21.4	91	w.			1		3			0	0	pretty fair	Moiroud.
Algiers ‡			29.97	761.3	75.6	24.2	74	w.			4		7			0	0	very cloudy	Nicolas.
La Calle ‡			29.97	761.2	81.7	27.6	62	w.			5		2			0	0	fair	Fonfréde.
Tunis ‡			29.98	761.4															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.01	762.2	78.8	26.0	24	w.			2		2			inap.	inap.	fair	Dumas.
Tebessa ‡			30.04	763.1	74.8	23.8	40	w.			1		0			0	0	clear	Derché.
Geriville ‡					78.1	25.6	28	w.			7		3			0	0	pretty fair	Lonchamp.
Laghouat ‡			30.08	763.9	81.3	27.4	25	se.			4		0			0	0	clear	Herbin.
Biskra ‡			30.05	763.2	80.6	27.0	38	nnw.			1		6			0	0	very cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.74	755.4	29.83	757.7	42.2	5.7	98	wsw.	30	13.4			10			0.18	4.6	showery	R. L. J. Ellery.
SUB-SERIES.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.50	749.3	30.06	763.5	47.8	8.8	63	s.			2		0			0	0		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.22	742.3	30.01	762.2	44.2	6.8	98	sw.	0.7	0.3			10			0.110	2.8		Dr. Wiersbicki.
Eperies	29.02	737.1	29.90	759.5	49.6	9.8	79	n.			1		10 ks		s.	0	0		Julius Mikolik.
Gratz ‡	28.75	730.2	30.02	762.5	46.4	8.0	61	ssw.			2		0			0	0		Andreas Rospini.
Hermannstadt	28.49	723.7	29.95	760.7	42.1	5.6	90	w.			3		10			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.61	726.8	29.98	761.5	43.5	6.4	87	ne.			2		3			0	0	clear	The Staff.
Lemberg	28.90	734.1	29.91	759.6	44.8	7.1	83	ne.			1		10			0	0		Dr. T. Stanecki.
Pola	29.97	761.3	30.09	764.3	47.5	8.6	92	e.			2		10			0	0		I. R. Hydrographic Office.
Szathmar	29.46	748.3	29.93	760.3	42.6	5.9	04	sw.			4		10			0.102	2.6		Jozsef Midlinszky, S. J.
Szegedin	29.69	754.1	29.97	761.3	49.6	9.8	70	sw.			2		7			0.118	3.0		Karl Stancel.
Trieste	30.00	762.0	30.10	764.6	53.4	11.9	78	calm			0		10			0.169	4.3		Rieder.
Vienna	29.32	744.6	30.05	763.2	42.8	6.0	82	wnw.			2		10			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.15	765.8	30.25	768.3	46.8	8.2	83	e.	32	14.3			10			0.050	1.3	squally	W. Boswell.
Armagh, Observatory	29.66	753.4	29.90	759.4	48.6	9.2	62	e.	23	10.3			5					squally	S. Call.
Bidston, Liverpool Obs'y			29.86	758.4	49.0	9.4	67	ene.	38	17.0			4					d. clouds	John Hartnup.
Bolton, Sharples	29.35	745.5	29.88	758.9	46.1	7.8	69	e.	24	10.7			10					overcast	Thomas Mackereth.
Bradford, Yorkshire	29.54	750.3	29.94	760.5	47.3	8.5	70	se.			3		9			0	0	overcast	[A.S. J.McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.83	757.7	50.0	10.0	62	e.			4.0		1					blue sky	John McLaren.
Chatham, School M. E.	29.68	753.9	29.81	757.2	50.6	10.3	82	e.			4		2					d. clouds	R. Craydon, R. E.
Falmouth, Observatory	29.26	743.2	29.48	748.8	50.9	10.5	71	e.			6		10					squally	The Staff.
Fort Napier, Natal	27.67	702.8	29.89	759.2	80.0	26.7	70	e.			3		0					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.64	752.8	29.87	758.7	82.0	27.8	91	sw.			1		3					drizzling	Sergt. John Robinson.
Galway, Queen's College			29.72	754.9	49	9.4	64	e.			6		6					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	29.91	759.7	29.97	761.2	70.8	21.6	87	sw.			4		6					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	29.80	756.9	30.00	762.0	50.3	10.2	77	e.			7		7					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.62	752.3	29.79	756.7	51.7	10.9	70	e.			5		1					blue sky	The Staff.
Guernsey	29.34	745.2	29.56	750.8	49	9.4	74	ne.			5		8					d clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.74	755.4	29.78	756.4	49.5	9.7	53	ene.	42	18.8			2					misty	The Staff.
Leicester, Museum	29.61	752.1	29.87	758.7	49.1	9.5	57	se.			1		5					d. clouds	J. C. Smith.
Malta, Mediterranean	29.94	760.5	30.01	762.2	73.6	23.1	83	se.			3		8			0	0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.94	760.5	29.98	761.5	79.5	26.4	86	se.			1		4			blank	blank	d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.33	745.0	29.86	758.4	46.7	8.2	73	e.			3		6					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.55	750.6	29.78	756.4	50.4	10.2	42	ene.			6		2					squally	The Staff.
Plymouth	29.48	748.8	29.55	750.6	50.3	10.2	76	ese.			6		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.38	771.6	47.2	8.4	67	ese.	32	14.3			10					misty	Rev. C. Clouston, L. L.D.
Scutari Cemetery, Turkey	29.88	758.9	29.94	760.5	60.6	15.9	57	sw.			3		2			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	29.65	753.1	29.94	760.5	46.1	7.8	90	ene.			2	cs	10 s			0.04	1.0	overcast	W. F. Cooper.
Silloth Rectory	29.96	761.0	30.00	762.0	49 3	9.6	66	se.			6		8			0.075	1.9	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.53	750.0	47.2	8.4	67	e.	27	12.1			7					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.56	750.8	29.78	756.4	51.9	11.1	53	e.			4		0					squally	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	29.44	747.8	29.48	748.8	52	11.1	72	se.			7		10					raining	W. Newcombe.
Valencia, Observatory	29.79	756.7	29.82	757.4	48.9	9.4	76	e.	37	16.5			10			blank	blank	gloomy	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.21	767.3	30.25	768.3	38	3.3	91	sw.	8	3.6			10 s			0.123	3.1	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.15	765.8	30.21	767.3	31	— 0.6	92	calm	0	0		0	0			0.01	0.3	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.01	762.2	30.03	762.7	36	2.2	85	sw.	20	8.9			10 s		calm	0.20	5.1	cloudy	J. McWilliams.
Fort Garry, Manitoba*	29.16	740.7	30.05	763.3	18	— 7.8	100	sw.	4	1.8		0	0			0	0	clear	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.19	766.8	30.33	770.4	34	1.1	100	nw.	1	0.4		2 cs	hz.			0.046	1.2	hazy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.74	755.4	30.08	764.0	50	10.0	77	sw.	10	4.5			10 ks		sw.	0	0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.90	759.4	30.11	764.8	39	3.9	76	s.	10	4.5			10 s		w.	0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.37	746.0	30.09	764.3	38	3.3	100	n.	12	5.4			10 n		n.	0.20	5.1	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.40	746.7	30.10	764.5	45	7.2	94	calm	0	0		10 k	0	sw.		0	0	cloudy	H. Morgan.
Port Stanley, Ontario	29.45	748.0	30.10	764.5	45	7.2	93	w.	3	1.3			10 n		w.	0	0	cloudy	M. Payne.
Quebec, Quebec*	29.79	756.7	30.13	765.3	37	2.8	96	w.			1		10 n		w.	0.08	2.0	light rain	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.61	752.1	30.07	763.8	33	0.6	?	n.	6	2.7			10 s		n.	0.03	0.8	cloudy	W. H. McIntyre.
Saugeen, Ontario*	29.38	746.2	30.10	764.5	44	6.7	83	nw.	12	5.4			10 ks			0.15	3.8	cloudy	K. Stewart.
St. Andrews, N. B.	30.20	767.1	30.25	768.3	37	2.8	93	s.	3	1.3		5 ks	5 k	sw.		0	0	fair	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.25	768.3	30.31	769.9	31	— 0.6	96	sw.	3	1.3		8 c	0	w.		0.37	9.4	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.73	755.1	30.12	765.0	43	6.1	86	w.	3	1.3		2k	8ks	w.	w.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.21	767.3	30.27	768.8	37	2.8	92	e.	2	0.9		10 k	0	w.		0	0	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.05	763.3	30.31	769.9	33	0.6	100	nw.	1	0.4			10			0.08	2.0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	30.14	765.5	30.17	766.3	64.5	18.1	96	w.	19.7	8.8			10 s					showery	John Duthie.
Cape Town, C. G. H. Obs'y.																			The Staff, for D. Gill.
Worcester*†	29.26	743.2			77.7	25.4	37	e.			1	0	2			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.23	767.9	30.26	768.5	55.4	13.0	79	n.	5.8	2.6		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.28	769.0	30.32	770.2	45.9	7.7	77	e.	22	10			10						Oversergent Fischer.
Fanöe	30.20	767.0	30.22	767.5	46.2	7.9	85	ene.			6		10						Overloerer Lauridsen.
Godthaab, Greenland	29.41	746.9	29.45	748.0	26.2	—3.2	91	calm			0		10					snowing	S. Kleinschmidt.
Stykkisholm, Iceland	30.19	766.9	30.24	768.0	47.8	8.8	71	se.			4		5						A. O. Thorlacius.
Thorshavn	30.45	773.4	30.48	774.3	51.3	10.7	79	ese.	16	7			3						Overloerer Bergh.
Vestervig	30.20	767.1	30.29	769.4	44.2	6.8	85	ene.			6		9					foggy	Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	28.92	734.6	29.56	750.7	60.4	15.8	91	sse.			2		n		w.				M. Labroue, Director.
Alençon Normal School	29.08	738.7	29.69	754.0	43.5	6.4	91	ne.			3		n		sw.	0	0		M. Nicot, Director.
Arras, Engineer School	29.48	748.9	29.74	755.5	50.5	10.3	50	se.					k		se.				M. Klein, Commandant.
Avignon, Normal School	29.72	754.8	29.80	756.8	51.8	11	86	e.			1		10			0.16	4.	raining	M. Giraud, Director.
Bar-sur-Seine	29.17	740.9	29.73	755.2	45.7	7.6	83	se.			2		10		s.			sprinkling	M. Saillard, Director.
Beauvais, Normal School	29.46	748.2	29.73	755.1	43.7	6.5	70	e.			2		8	w.	ese.	0	0	very cloudy.	M. Frère Eugène Marie.
Besançon, Normal School	28.89	733.7	29.79	756.6	44.8	7.1	88	ne			1		10 n		ne.	0.04	1.	raining	M. Gobin, Director.
Bordeaux, Observatory	29.26	743.3	29.52	749.8	63.3	17.4	67	sse.			1		10		sw.	0.012	0.3	covered	M. Rayet, Director.
Bourges, Normal School	29.04	737.7	29.60	751.7	50.9	10.5	90	ne.			3		n		ne.	0.173	4.4		M. Postel, Director.
Brest, Naval Observatory	29.22	742.3	29.47	748.5	45.0	7.2	97	se.			2		10		se.	0.197	5.0		M. de Kermaree, Dir.
Caen, Normal School	29.54	750.4	29.62	752.4	42.8	6	85	e.			1		2		s.	0	0	slightly cl'dy	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.46	748.3	29.78	756.4	45.1	7.3	62	se.			3		10			0	0	covered	M. Jadot, Director.
Charleville, Normal School	29.27	743.5	29.78	756.5	48.9	9.4	44	sse.			1		0			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.64?	727.5?	29.98?	761.5?	60.3	15.7	61	se.			3		8			0.366	9.3	¾ covered	M. Alluard, Director.
Cluny, Normal School	28.87	733.4	29.72	754.8	49.8	9.9	97	s.			3		4		n.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	28.92	734.6	29.81	757.1	45.3	7.4	61	e.			1		5 kn	e.	e.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.35	694.7	29.94	760.4	40.6	4.8	84	calm			0		3 n		n.	0.689	17.5		M. Jeangirard, Director.
Gréasque, du. Rhone	28.75	730.3	29.89	759.3	49.1	9.5	69	se.			3		10		se.	0.016	0.4	covered	M. Kina, Director.
Grenoble, Normal School	29.01	736.8	29.78	756.5	48.4	9.1	78	se.			1		k			0.213	5.4		M. Ablard, Director.
Guéret, Normal School	28.02	711.6	29.58	751.4	54.5	12.5	76	sw.			1		n		ne.	0.39	10.		M. Rivoire, Director.
Lamballe, Normal School	29.23	742.5	29.52	749.7	42.1	5.6	97	se.			2		10 n		se.			raining	M. Ollitrault, Director.
Lescar, Normal School	28.98	736.0	29.53	750.1	64.4	18	71	w.			1					0.047	1.2		M. Chauvin, Director.
Lorient, Naval Observatory	29.39	746.4	29.49	749.0	45.5	7.5	91	ese.			2		10			0.079	2.0	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.67	728.2	29.72	754.8	54.0	12.2	75	sse.			2		8 n		s.	0.256	6.5		M. André, Director.
Mans, Normal School	29.29	743.9	29.60	751.9	41.9	5.5	88	e.			3		10			0.063	1.6	covered	M. Piboen, Director.
Marseille, Observatory	29.51	749.5	29.78	756.3	55.9	13.3	64	ese.			5		10		sse.	0.016	0.4		M. Stephan, Director.
Montlouis l'instituteur	24.54	623.4	29.78	756.4	50.4	10.2	68	sw.	15.0	6.7			10			0.268	6.8	raining	M. Cave, for Dr. Fines.
Montpellier, Normal School	29.64	752.9	29.75	755.7	48.6	9.2	100	nne.			3		10		ese.	0.803	20.4	covered	M. Pourle, Director.
Nancy, Normal School	29.03	737.3	29.84	757.9	45.0	7.2	57	ne.			1		5 k			0	0	cloudy	M. Hasse.
Nantes, Observatory	29.39	746.4	29.55	750.5	43.9	6.6	93	e.			1–2		10			0.043	1.1		M. Larocque, Director.
Nice	29.88	759.0	29.91	759.8	51.8	11.0	85	e.			3		10	e.	e.	0.031	0.8	light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.48	748.9	29.59	751.6	62.6	17.0	81	se.	22.4	10.0			10		se.	0.063	1.6	raining	Dr. Fines.
Pic-du-Midi, Summit	20.96	532.3			31.3	—0.4		sw.			2		10		sw.	0.496	12.6	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.69	728.8	29.78	756.3	45.0	7.2	86	s.			1		10	s.		0	0	covered	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.80	629.9			42.1	5.6	99	s.			4		10			0.358	9.1	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.56	750.7	29.59	751.5	57.6	14.2	95	sw.			1		10		w.	0.291	7.4	covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.24	742.6	29.45	748.0	51.8	11	93	ne.			1		10		e.	0	0	covered	M. Mouillot, Director.
Rodez, Normal School	27.56	700.0	29.67	753.7	55.0	12.8	58	se.			4	c	10		e.			raining	M. Richard, Director.
Rouen, Normal School	29.61	752.1	29.65	753.2	46.0	7.8	64	e.			4					c	0		M. Platrier, Director.
Saint Lô, Normal School	29.45	747.9	29.60	751.9	41.7	5.4	79	ne.			3		10					raining	M. Delaplanche, Dir.
Saint Maur, Observatory	29.51	749.6	29.68	753.8	45.0	7.2	67	e.			2		10		ese.	0	0		M. Renou, Director.
Toulouse, Observatory	28.95	735.3	29.66	753.4	58.5	14.7	92	sse.			3		10	w.		0.335	8.5	covered	M Bailland, Director.
Tours																0.209	5.3		M. de Tastes.
Versailles, Observatory	29.17	740.9	29.66	753.4	43.5	6.4	62	se.			4					0.047	1.2		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.41	746.9	29.70	754.3	44.4	6.9	68	e.			2		10			inap.	inap.	sprinkling	M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.13	740.0	30.00	761.9	50.0	10.0	44	s.			3		2 k	s.		0	0		Prof. Dr. Hoh.
Berlin	29.91	759.6	30.08	764.0	47.5	8.6	92	ne.			1		10			0.024	0.6		Prof. Dr. Arndt.
Breslau	29.53	750.0	30.06	763.5	46.2	7.9	96	ne.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.48	748.7	29.91	759.7	46.8	8.2	56	e.			1		5	nw.		0	0		Albert Senz.
Cassel	29.29	744.0	30.01	762.3	48.2	9.0	62	e.			2		3	e.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.60	751.7	29.96	761.0	49.3	9.6	66	se.			2		1			0	0		Physical Society.
Friedrichshafen	28.43	722.0	29.88	758.9	46.4	8.0	51	ne.			5		10	w.		0.114	2.9		Wilhelm, Chief Tel.
Hamburg	30.05	763.3	30.15	765.7	47.1	8.4	82	e.			3		10			0.031	0.8	rain and fog	E. Preller.
Kiel	30.17	766.2	30.18	766.6	46.9	8.3	80	e.			4		10			0.138	3.5		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.67	753.7	30.10	764.6	44.1	6.7	82	ene.			1		10			0	0		H. Leppig, Asst.
Magdeburg	29.90	759.4	30.10	764.4	45.1	7.3	93	nne.			1		10 ks			0.004	0.1		Dr. Assmann.
Memel	30.19	766.7	30.23	767.9	41.0	5.0	76	ne.			3		10 n						Issermann.
Munich	28.10	713.8	29.90	761.0	43.7	6.5	47	ne.			4		2	nw.		0	0		Central Station.
Neufahrwasser	30.19	766.7	30.20	767.1	43.2	6.2	76	ne.			3		10			0	0		A. Lothes.
Neustadt, Palatinate	29.40	746.7	29.92	760.0	45.5	7.5	68	e.			1		2	e.		0	0		Dickrether.
Stuttgart	28.95	735.3	29.85	758.3	46.0	7.8	56	se.			1		5	nw.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.44	722.4	29.96	761.0	46.2	7.9	53	e.			6		4	w.		0	0		Fischer.
Wustrow	30.18	766.6	30.21	767.3	46.9	8.3	84	ene.			4		10 ks			0.039	1.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.72	754.8	30.11	764.7	66.7	19.3		w.			0.5		0			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.87	758.7	29.92	760.0	83.7	28.7	72	sw.	18.0	8.0			3	sw.		0	0	d. clouds	
Deesa	29.46	748.2	29.93	760.2	86.9	30.5	39	s.	6.0	2.7			2		ssw.	0	0	d. clouds	
Bombay	29.85	758.3	29.89	759.2	83.3	28.5	77	nnw.	14.0	6.3			0			0	0	blue sky	
Poona, Yarrowda.	28.04	712.2	29.87	758.6	88.1	31.2	25	ene.	7.0	3.1			5	w.		0	0	d. clouds	
Belgaum	27.36	694.9	29.86	758.5	83.4	28.6	34	ne.	4.0	1.8			0			0	0	blue sky	
Lahore	29.15	740.5	29.89	759.2	85.0	29.4	44	n.	1.9	0.8			6			0	0	d. clouds	
Roorkee	28.95	735.4	29.84	758.0	84.8	29.3	28	nw.	3.6	1.6			0			0	0		
Agra	29.34	745.2	29.90	759.5	89.2	31.8	37	w.	5.8	2.6			0			0	0		
Nagpur	28.87	733.2	29.90	759.5	86.9	30.5	33	calm	2.6	1.2			0			0	0	blue sky	
Jubbulpore	28.57	725.7	29.92	760.0	82.8	28.2	57	calm	1.4	0.6			0			0	0	blue sky	
Lucknow	29.49	749.1	29.86	758.5	88.6	31.4	25	nnw.	3.4	1.5			0			0	0	blue sky	
Allahabad																			
Patna	29.69	754.1	29.87	758.7	82.6	28.1	73	e.	2.1	0.9			0			0	0	blue sky	
Hazaribagh	27.88	708.2	29.89	759.3	80.0	26.7	94	calm	6.1	2.7			0			0	0	blue sky	
Cuttack	29.82	757.3	29.90	759.4	83.5	28.6	70	calm	0.1	0.04			0			0	0	blue sky	
Calcutta, Alipore	29.86	758.4	29.88	759.0	80.8	27.1	73	calm	0	0			0			0	0	blue sky	
Dhubri	29.76	755.9	29.88	759.0	79.5	26.4	73	calm	0.4	0.2			0			0	0	blue sky	
Goalpara																			
Chittagong	29.79	756.6	29.88	758.9	81.3	27.4	72	wnw.	1.5	0.7			2			0	0	blue sky	
Sibsagar	29.55	750.6	29.89	759.2	78.9	26.1	82	ne.	2.2	1.0			0			0	0	blue sky	
Jeypore	28.51	724.1	29.94	760.5	86.0	30.0	37	nw.	4.9	2.2			3	nw.		0	0	d. clouds	
Zanzibar, Africa			30.00	762.0	77.8	25.4	78	nne.	3	1.3			7		ese.	0	0	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.68	753.9	30.10	764.4	49.5	9.7	47	calm	0	0			10			0	0		Prof. Giovanni Clodig.
Milan	29.58	751.3	30.10	764.4	48.6	9.2	58	n.	1.3	0.6			10			0	0		Prof. Schiaparelli.
Padua	29.98	761.5	30.09	764.3	46.4	8.0	70	nne.	3.8	1.7			10	ne.		0.004	0.1		Prof. Dott. Lorenzoni.
Moncalieri	29.21	741.8	30.11	764.9	46.8	8.2	70	nw.	2.5	1.1			10			0.114	2.9		Prof. P. F. Denza.
Genoa	29.83	757.7	30.02	762.6	45.9	7.7	72	n.	11.2	5.0			10	ne.		0.035	0.9		Prof. G. M. Garibaldi.
Mondovi	28.16	715.2	30.09	764.3	39.6	4.2	87	wnw.			4		10			0.012	0.3		Prof. D. C. Bruno.
Pesaro	29.99	761.8	30.04	763.0	49.6	9.8	92	se.			1		10			0.118	3.0		Prof. Luigi Guidi.
Florence	29.75	755.7	30.00	762.1	51.8	11.0	81	ne.			2		10			0.276	7.0		Prof. Costantino Pitter.
Leghorn	29.88	758.9	29.97	761.1	50.5	10.3	76	ene.	13.0	5.8			10			0.173	4.4		Prof. P. Monte.
Rome	29.78	756.5	29.96	760.9	56.1	13.4	91	e.					10			0.520	13.2		Prof. P. S. Ferrari.
Lecce	29.84	757.9	30.09	764.2	62.6	17.0	51	sse.	12.5	5.6			8	sw.		0	0		Prof. C. de Giorgi.
Cosenza	29.17	740.9	30.06	763.4	63.0	17.2	68	sse.	2.5	1.1			7	se.		0	0		Prof. D. Conti.
Cagliari	29.70	754.4	29.89	759.3	72.0	22.2	63	se.			2		3			0	0		Prof. A. Pacinotti.
Palermo	29.74	755.3	29.98	761.5	74.1	23.4	49	wsw.	15.0	6.7			6			0	0		Prof. G. Ciacciatore.
Syracuse	30.01	762.3	30.06	763.4	67.1	19.5	75	wnw.	9.4	4.2			8	s.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.46	748.3	29.98	761.6	61.5	16.4	80	se.	7.4	3.3			10	sw.		0	0		Prof. F. Brioschi.
Stelvio	22.04	559.7			20.8	— 6.2	66	w.			4	cs	10 kn	w.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.05	560.1			25.0	— 3.9	79	e.			2		10			0	0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.05	763.3	30.07	763.8	56.6	13.7	73	nne.	3.8	1.7		ck	9 s			0	0	very cloudy	K. Sasaki.
Kioto	29.88	758.9	30.05	763.3	59.0	15.0	87	wsw.	0.5	0.2			10 s			0	0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.93	760.2	30.13	765.3	61.3	16.3	70	nne.	5.1	2.3			10 s			0	0	overcast	S. Takehayashi.
Nemuro																			
Niigata	30.02	762.5	30.05	763.3	55.4	13.0	90	sse.	1.9	0.8		ck	10 ks			0.050	1.3	cloudy	
Nobiru	30.02	762.5	30.03	762.7	50.8	10.4	86	nnw.	4.8	2.1			10 s			0.015	0.4	cloudy	
Supporo	29.79	756.6	29.85	758.2	45.6	7.6	94	ese.	6.0	2.7			10			0	0		
Tokei Obs'y, Yeddo	29.97	761.2	30.04	763.0	52.3	11.3	97	nw.	8.2	3.7			10 n			0.927	23.5	raining	The Staff.
Wakayama	30.01	762.2	30.06	763.5	59.8	15.4	85	n.	6.4	2.9			10 n			0.004	0.1	raining	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	30.02	762.5	30.21	767.3	74.4	23.6	54	ese.	17.5	7.8		0	8k;ks		se.	0	0	cloudy	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.70	602.0	29.92	760.0	56.5	13.6	80	calm	0	0		0	3 s		se.	0.354	9.0	clear	Vicente Fernandez.
Leon	24.45	621.0	30.10	764.5	58.5	14.7	86	sw.			1	7 c	1 k	s.		inap.	inap.		Prof. M. Leal.
Mazatlan	29.64	753.0	29.90	759.5	78.5	25.8	84	ene.	0.9	0.4		4 cs	0	sw.		0	0	fair	F. Quijano, C. E.
Mexico, Central Obs'y	23.13	587.7	30.19	767.0	52.2	11.2	87	ne.	0.4	0.2		1 c	3 ks	ne.		0	0	fine	The Staff.
Morelia	24.05	611.0	30.11	764.8	57.2	14.0	69	s			2	2	2	s.	s.	inap.	inap.		M. Tena, M. D.
Pabellon, Aguascalientes	23.95	608.3	29.92	760.0	61.3	16.3	84	calm			0	0	9 ks		s.	0	0	very cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.46	596.0	30.38	771.6	46.4	8.0	92	calm	0	0		0	0			0	0		Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.89	759.1	29.89	759.1	48.6	9.2		e.			5					0	0		
Groningen	30.04	763.1	30.10	764.5	46.0	7.8		ene.			2					0	0		
Helder	30.02	762.6	30.02	762.6	44.2	6.8		e.			4					0	0		
Hellevoetsluis	29.93	760.1	29.93	760.1	47.3	8.5	72	e.			5					0	0		
Utrecht	29.93	760.3	29.98	761.5	48.7	9.3	61	e.			4		2			0	0	lightly cl'dy	H. van der Brink.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES.																			
Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.34	770.5	30.40	772.1	46.4	8.0	67	calm	0	0			5			0.012	0.3		
Christiania	30.34	770.7	30.49	774.5	50.5	10.3	60	ne.	4	2			8			0	0		
Gjæsvær	30.69	779.4	30.71	780.0	37.0	2.8		se.			2		0						
Lodingen	30.62	777.7	30.67	778.9	46.9	8.3	98	calm			0		10			0.016	0.4	foggy	
PORTUGUESE SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.62	752.3	29.77	756.2	66.7	19.3	88	wsw.	22.4	10.0			7			0	0		Dr. J. A. Sampaio.
Campo Major	28.84	732.5	29.84	757.8	59.0	15.0	80	wsw.	11.2	5.0			9			0.224	5.7		Dr. A. M. R. dos Santos.
Funchal, Madeira	30.00	762.0	30.09	764.2	71.8	22.1	61	w.	5.6	2.5			8			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.52	749.9	29.88	758.9	62.2	16.8	63	wsw.	22.4	10.0			7			0.461	11.7		The Staff.
Ponta Delgada, Azores	29.83	757.6	29.90	759.4	68.4	20.2	83	w.	19.9	8.9			3			0	0		
RUSSIAN SERIES.																			
Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.94	735.0	30.02	762.5	50.2	10.1	55	ese.	7	3		0	0						Capt. Lasarew.
Archangel	30.36	771.2	30.38	771.7	35.1	1.7	80	nne.	9	4			9 ks						Capt. Ssellwerstow.
Astrakhan	30.10	764.4	30.01	762.3	59.7	15.4	43	s.	7	3		0	0						Capt. Wisganow.
Barnaul	29.59	751.5	30.10	764.5	41.7	5.4	74	calm	0	0			0						Meteorological Obs'y.
Dorpat	29.99	761.7	30.24	768.1	39.9	4.4	90	ene.	7	3			10 ks						Observatory.
Ekaterinburg	29.22	742.1	30.20	767.0	46.6	8.1	81	se.	4	2		10c;ck	0					light clouds	Meteorological Obs'y.
Kasan	29.80	756.9	30.07	763.8	53.4	11.9	53	sse.	2	1		8 c	0						Observatory.
Kertch	29.78	756.4	29.80	756.9	54.3	12.4	76	w.	11	5		0	8 n			0.020	0.5		Lagorio & Sastyrex.
Kieff	29.11	739.4	29.76	755.9	40.1	4.5	82	n.	18	8		0	8 ks;n						Observatory.
Lugan	29.59	751.6	29.80	756.8	52.5	11.4	79	sse.	13	6			9			blank	blank		Meteorological Obs'y.
Moscow	29.41	747.0	29.89	759.3	40.3	4.6	65	sw.	4	2			10 s						Meteorological Obs'y.
Nikolaiev	29.52	749.8	29.59	751.6	53.8	12.1	94	e.	4	2			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor																			Lieut. Iwanow.
Pekin, China	30.07	763.8	30.21	767.4	48.4	9.1	57	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.19	766.9	30.21	767.3	41.0	5.0	76	ne.	11	5			10n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.74	724.9	30.10	764.5	61.3	16.3	69	calm	0	0			2						Teich, A. M.
Tiflis	28.51	724.2	29.87	758.8	72.5	22.5	39	nnw.	11	5		0	0						Physical Observatory.
Warsaw	29.64	752.9	30.08	763.9	39.2	4.0	82	ne.	13	6			10 ks						Astronomical Obs'y.
Wilna	29.73	755.1	30.16	766.1	39.4	4.1	74	nne.	7	3			10					heavy cl'ds.	Berg, Assistant.
Yeniseisk	29.69	754.0	29.98	761.4	41.4	5.2	58	sw.	11	5			8						M. O. Marks.
SCOTTISH SERIES.																			
Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.10	764.5	48.0	8.9	96	se.			4		10 k			0.14	3.6	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			30.00	762.0	52	11.1	93	ene.			6	5	0	ene.		0	0		J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES.																			
Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.61	752.0	29.71	754.7	68.0	20	81	s.	2.5	1.1			7			0	0	hazy	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.55	750.5	29.60	751.9	64.6	18.1	53	w.	4.7	2.1		3	2	sw.		0.055	1.4	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.74	679.3			48.2	9.0	97	sw.	13.9	6.2			9			0	0	almost cov'd	Domingo Martin.
Madrid, Royal Obs'y	27.54	699.4	29.74	755.3	58.1	14.5	72	sw.	30.6	13.7			10			0.083	2.1	covered	The Staff.
Murcia, Met. Obs'y	29.65	753.0	29.80	756.8	74.1	23.4	72	wnw.	1.3	0.6		5	5			0.016	0.4	raining	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.69	728.7	29.58	751.4	52.3	11.3	88	w.	15.4	6.9			9			1.354	34.4	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.90	759.4	29.96	761.0	75.7	24.3	90	e.	3.6	1.6		6 c;cs	k	wnw.		0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.63	752.6	29.68	753.9	79.2	26.2	83	ssw.	30.7	16.7			s; n		sw.	0.453	11.5	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.87	758.6	29.97	761.1	66.9	19.4	80	wsw.	14.8	6.6			10		w.	0.155	3.9		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I.	29.85	758.1	29.94	760.4	78.4	25.8	92	calm	0	0		4 k	5 s			0.120	3.2	d. clouds	E. Cadea, Chief Engr.
Tuguegarao, Philippine Ids	29.41	747.1	29.55	750.5	80.0	26.7	78	s.	16.1	7.2		5 cs	5 ks		s.	0.20	5.0	covered	José L. Fastovra.
SWEDISH SERIES.																			
Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.68	779.3	30.72	780.3	35.2	1.8	75	ne.			2		10			0	0		
Umea	30.60	777.3	30.65	778.6	38.1	3.4	76	ne.			6		9			0.075	1.9		
Hernosand	30.60	777.3	30.65	778.6	43.3	6.3	75	ne.			4		3			0	0		
Stockholm	30.20	767.0	30.37	771.5	43.9	6.6	85	ne.			4		10			0	0		
Wisby	30.28	769.2	30.34	770.7	43.2	6.2	85	ene.			4		10			0	0		
Sub-Series.																			
Upsala	30.33	770.4	30.42	772.6	44.2	6.8	90	nne.	14.8	6.6			10		ne.	0.012	0.3		S. G. Fineman.
SWISS SERIES.																			
Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.43	722.1	29.90	759.5	39.0	3.9	100	e.			1		10			1.091	27.7	covered	The Observatory
Zurich	28.23	717.0	29.91	759.6	42.8	6.0	72	ne.			1		7			0.098	2.5	cloudy	The Observatory.
TURKISH SERIES.																			
Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. W. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.99	761.8	58.1	14.5	60	wnw.	11	5.0			3		sw.	0	0		The Observatory.
Valona			30.12	765.1	63.0	17.2		sw.			1		5			0.04	1.	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.06	763.5	77.2	25.1	62	nw.			1	0	0			0	0		Prof. C. W. Van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	OBSERVERS.
Albany, New York	30.15	765.8	30.23	767.8	46	7.8	68	w.	2	0.9		10 c	0	w.		0	0	cloudy	
Alpena, Michigan	29.54	750.3	30.23	767.8	32	0.0	78	nw.	8	3.6		3 k	2 ks	nw.	nw.	0.11	2.8	fair	
Atlanta, Georgia	28.92	734.6	30.14	765.5	55.5	13.1	93	ne.	7	3.1			10 s		calm	0.32	8.1	cloudy	
Atlantic City, New Jersey	30.10	764.5	30.11	764.8	57	13.9	80	e.	19	8.5			10 n		e.	inap.	inap.	light rain	
Augusta, Georgia	29.93	760.2	30.13	765.3	59.2	15.1	81	ne.	6	2.7			10 s		ne.	0.10	2.5	threatening.	
Baltimore, Maryland	30.12	765.0	30.17	766.3	52	11.1	66	e.	6	2.7			10 s		e.	0	0	cloudy	
Barnegat, New Jersey	30.10	764.5	30.12	765.0	57.2	14.0	72	e.	16	7.2			10 s		e.	0	0	cloudy	
Bismarck, Dakota	28.21	716.5	30.13	765.3	28	— 2.2	88	e.	5	2.2		4 c	0	calm		0	0	fair	
Boise City, Idaho	27.10	688.3	30.02	762.5	39	3.9	92	nw.	4	1.8			10 n		calm	0.34	8.6	light rain	
Boston, Massachusetts	30.10	764.5	30.26	768.6	43.0	6.1	74	calm	0	0			fg.			0	0	dense fog	
Brackettville, Texas	28.94	735.1	29.97	761.2	67	19.4	90	e.	6	2.7			9 s		se.	0.06	1.5	cloudy	
Brownsville, Texas	29.98	761.5	30.04	763.0	69	20.6	100	n.	2	0.9			10 s		n.	0.11	2.8	cloudy	
Buffalo, New York	29.38	746.2	30.12	765.0	48.3	9.1	67	sw.	5	2.2			10 s		sw.	0	0	cloudy	
Burlington, Vermont	29.87	758.7	30.17	766.3	41.2	5.1	64	s.	11	4.9		7 ck;c	0	w;sw		0	0	fair	
Cairo, Illinois	29.87	758.7	30.28	769.1	44.8	7.1	85	n.	2	0.9		0	fg.			0	0	clear	
Campo, California	27.36	694.9	29.93	760.2	26.4	— 3.1	76	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.20	690.9			49	9.4	66	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.01	762.2	30.03	762.7	62	16.7	78	ne.	14	6.3			10 s			0	0	cloudy	
Cape May, New Jersey	30.07	763.8	30.10	764.5	54	12.2	93	n.	10	4.5			10 n		n.	0.04	1.0	light rain	
Castroville, Texas	29.33	745.0	30.03	762.7	63	17.2	90	e.	6	2.7			10 s			0	0	cloudy	
Cedar Keys, Florida	29.98	761.5	30.00	762.0	75	23.9	90	ne.	2	0.9			1 k			0	0	clear	
Champaign, Illinois	29.37	746.0	30.19	766.8	41.5	5.3	90	nw.	7	3.1		0	0			0	0	clear	
Charleston, S. Carolina	30.01	762.2	30.07	763.8	59	15.0	87	n.	10	4.5			10 s		n.	0	0	threatening.	
Charlotte, N. Carolina	29.25	742.9	30.16	766.1	52.2	11.2	93	n.	4	1.8			10 s		n.	0.29	7.4	cloudy	
Chattanooga, Tennessee	29.32	744.7	30.17	766.3	55.0	12.8	86	n.	5	2.2			10 s		n.	0.57	14.5	cloudy	
Cheyenne, Wyoming	24.02	610.1	30.15	765.8	26.3	— 3.2	58	nw.	1	0.4		0	0			0	0	clear	
Chicago, Illinois	29.49	749.0	30.23	767.8	47.9	8.8	71	n.	9	4.0			10 k		n.	inap.	inap.	cloudy	
Chincoteague, Virginia	30.05	763.3	30.07	763.8	60	15.6	75	ne.	20	8.9			10 ks		ne.	0	0	cloudy	
Cincinnati, Ohio	29.55	750.6	30.23	767.8	44.5	6.9	88	nw.	1	0.4			fg.			0	0	dense fog	
Cleveland, Ohio	29.41	747.0	30.18	766.6	42.5	5.8	78	s.	6	2.7		9 k	fg.	w.		0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.31	744.5	30.20	767.1	40	4.4	82	n.	1	0.4		0	fg.			0	0	clear	
Concho, Texas	28.21	716.5	30.21	767.3	53	11.7	93	calm	0	0		0	0			0	0	clear	
Corsicana, Texas	29.73	755.1	30.21	767.3	59	15.0	81	e.	4	1.8		0	8 ks			0	0	cloudy	
Davenport, Iowa	29.61	752.1	30.29	769.4	40	4.4	82	ne.	4	1.8		hz.	3 s	calm	ne.	0	0	fair	
Dayton, Washington T'y	28.22	716.8	30.08	764.0	45.5	7.5	84	sw.	2	0.9		0	4 s		sw.	0.21	5.3	fair	
Deadwood, Dakota	25.27	641.8	30.13	765.3	41	5.0	70	calm	0	0		0	0			0	0	clear	
Decatur, Texas	28.92	734.6	30.09	764.3	58	14.4	65	ne.	5	2.2		3 ck	1 s			0	0	fair	
Delaware Breakwater, Del.	30.05	763.3	30.07	763.8	59	15.0	87	ne.	22	9.8			10 n		ne.	inap.	inap.	light rain	
Denison, Texas	29.36	745.7	30.19	766.8	53	11.7	93	s.	1	0.4		0	fg.			0	0	clear	
Denver, Colorado	24.79	629.7	30.16	766.1	32.0	0.0	62	sw.	4	1.8		0	0			0	0	clear	
Des Moines, Iowa	29.39	746.5	30.34	770.6	33	0.6	78	calm	0	0		0	0			0	0	clear	
Detroit, Michigan	29.42	747.3	30.16	766.1	46.8	8.2	86	sw.	4	1.8			10 n		calm	0.03	0.8	light rain	
Dodge City, Kansas	27.58	700.5	30.27	768.8	36.3	2.4	100	ne.	6	2.7			fg.			0	0	dense fog	
Dubuque, Iowa	29.54	750.3	30.28	769.1	37.4	3.0	72	n.	5	2.2		0	0			inap.	inap.	clear	
Duluth, Minnesota	29.50	749.3	30.23	767.8	26	— 3.3	76	sw.	6	2.7		0	0			0.17	4.3	clear	
Eagle Pass, Texas	29.32	744.7	30.17	766.3	68.3	20.2	93	ne.	4	1.8			10 s		calm	0	0	cloudy	
Eagle Rock, Idaho	25.20	640.1	30.19	766.8	40	4.4	62	w.	5	2.2			10 s			0	0	cloudy	
Eastport, Maine	30.18	766.6	30.26	768.6	38	3.3	86	s.	4	1.8		7 c	3 s	w.		0	0	cloudy	
El Paso, Texas	26.30	668.0	30.14	765.5	55.1	12.8	93	ne.	2	0.9		0	5 s		e.	0	0	fair	
Erie, Pennsylvania	29.38	746.2	30.14	765.5	47	8.3	77	s.	4	1.8			10s;fg		sw.	0	0	cloudy	
Escanaba, Michigan	29.54	750.3	30.22	767.6	29	— 1.7	88	w.	3	1.3		0	0			0.03	0.8	clear	
Florence, Arizona	28.39	721.1	29.99	761.7	52.6	11.4	58	w.	2	0.9		1 cs	c	calm		0	0	clear	
Fort Apache, Arizona	25.0:	635.2	30.05	763.3	45	7.2	71	ne.	3	1.3		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.13	689.1	30.07	763.8	25	— 3.9	88	s.	5	2.2			10 s		s.	0	0	cloudy	
Fort Bennett, Dakota	28.46	722.9	30.07	763.8	30	— 1.1	88	se.	14	6.3		3 cs	0	se.		0	0	fair	
Fort Benton, Montana	27.15	689.6	30.13	765.3	21	— 6.1	73	calm	0	0			10 s		calm	0	0	cloudy	
Fort Buford, Dakota	28.01	711.4	30.12	765.0	30	— 1.1	81	w.	6	2.7			10 s		calm	0	0	cloudy	
Fort Custer, Montana	26.68	677.7	30.08	764.0	40	4.4	49	n.	1	0.4			10 s		calm	0.01	0.3	cloudy	
Fort Davis, Texas	25.02	635.5	29.98	761.5	52	11.1	80	w.	1	0.4			10 s			0.16	4.1	threatening.	
Fort Elliott, Texas	27.36	694.9	30.66	778.7	50	10.0	58	se.	8	3.6			10 s		se.	0	0	cloudy	
Fort Gibson, Indian T'y	29.63	752.6	30.20	767.1	44.0	6.7	93	calm	0	0		0	0			0	0	clear	
Fort Grant, Arizona					55	12.8	35	ne.	8	3.6		0	0			0	0	clear	
Fort Griffin, Texas	28.88	733.5	30.16	766.1	56.5	13.6	93	e.	4	1.8			fg.			0	0	foggy	
Fort Keogh, Montana	27.42	696.5	30.09	764.3	36	2.2	82	ne.	4	1.8		8 c	0			0	0	cloudy	
Fort Macon, North Carolina	30.03	762.7	30.04	763.0	60	15.6	93	n.	16	7.2			10 s		n.	0.10	2.5	cloudy	
Fort McKavett, Texas	27.88	708.1	29.80	756.9	55.2	12.9	81	e.	5	2.2		6 k	0			0	0	fair	
Fort Missoula, Montana	26.68	677.7	30.33	770.4	42	5.6	100	calm	0	0			10 n			0.03	0.8	light rain	
Fort St. Michaels	29.60	751.8	29.63	752.6	38	3.3	81	e.	12	5.4		0	5 s		e.	0	0	fair	
Fort Shaw, Montana	26.32	668.5	30.06	763.5	25	— 3.9	88	ne.	1	0.4		0	8 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.94	735.1	30.23	767.8	56.3	13.5	88	calm	0	0		9 k	0	w.		0	0	cloudy	
Fort Stevenson, Dakota	28.13	714.5	30.09	764.3	23	— 5.0	87	s.	4	1.8			10 s		n.	0	0	cloudy	
Fort Verde, Arizona					45	7.2	49	ne.			1	0	4 s		e.	0	0	fair	
Fredericksburg, Texas	28.40	721.3	29.96	761.0	57	13.9	100	e.	2	0.9			fg.			0	0	dense fog	
Galveston, Texas	30.08	764.0	30.12	765.0	63	17.2	89	ne.	16	7.2			10 s		ne.	0.03	0.8	cloudy	
Grand Haven, Michigan	29.54	750.3	30.24	768.1	40.0	4.4	82	ne.	4	1.8		0	4 s		w.	0.05	1.3	fair	
Hatteras, North Carolina	29.96	761.0	29.98	761.5	65	18.3	90	n.	30	13.4			10 s		n.	0.77	19.6	cloudy	
Helena, Montana	25.70	652.8	30.29	769.4	43	6.1	93	s.	2	0.9		0	5 s		calm	0	0	fair	
Henrietta, Texas	29.19	741.4	30.13	765.3	58	14.4	86	calm	0	0			10 s			0	0	cloudy	
Huron, Dakota	28.79	731.3	30.25	768.3	23.8	— 4.6	84	se.	9	4.0		0	0			0	0	clear	
Indianapolis, Indiana	29.38	746.2	30.20	767.1	41.5	5.3	87	s.	3	1.3		0	hz.		calm	0	0	clear	
Indianola, Texas	30.06	763.5	30.09	764.3	66.5	19.2	90	ne.	20	8.9		0	8 k		e.	0	0	cloudy	
Jacksboro, Texas	28.99	736.3	30.13	765.3	53	11.7	93	e.	2	0.9		0	2 s		calm	0	0	clear	
Jacksonville, Florida	29.96	761.0	30.00	762.0	73	22.8	90	ne.	4	1.8		5 k	0	ne.		0	0	fair	
Keokuk, Iowa	29.58	751.3	30.26	768.6	39.0	3.9	96	n.	4	1.8		0	1 s			0	0	clear	
Key West, Florida	29.94	760.5	29.98	761.5	79.0	26.1	85	e.	3	1.3		3 cs	2 k;ks	calm	e;calm	0	0	fair	
Kittyhawk, North Carolina	29.98	761.5	30.00	762.0	63	17.2	84	ne.	36	16.1			10 ks		ne.	1.21	30.7	cloudy	
Knoxville, Tennessee	29.14	740.1	30.22	767.6	52.5	11.4	86	n.	6	2.7			9 s		calm	0.65	16.5	cloudy	
La Crosse, Wisconsin	29.48	748.8	30.28	769.1	37	2.8	61	n.	1	0.4		0	0			0.03	0.8	clear	
La Mesilla, New Mexico	26.14	663.9	30.29	769.4	54.5	12.5	80	calm	0	0		3 k	5 s			0	0	cloudy	
Laredo, Texas	29.64	752.8	29.98	761.5	64	17.8	90	calm	0	0		0	0			0	0	clear	
Leavenworth, Kansas	29.35	745.5	30.28	769.1	40	4.4	89	ne.	6	2.7			10 s		e.	0	0	cloudy	
Lewiston, Idaho	29.14	740.1	30.02	762.5	48	8.9	86	sw.	1	0.4			10 s		calm	0.09	2.3	cloudy	
Little Rock, Arkansas	29.92	760.0	30.24	768.1	47	8.3	93	calm	0	0			fg.			inap.	inap.	dense fog	
Los Angeles, California	29.56	750.8	29.94	760.5	47.2	8.4	77	se.	7	3.1		0	0			0	0	clear	
Louisville, Kentucky	29.62	752.3	30.20	767.1	43.0	6.1	100	n.	1	0.4			fg.		calm	0	0	dense fog	
Lynchburg, Virginia	29.44	747.8	30.15	765.8	54.8	12.7	80	calm	0	0			10 s		w.	0.11	2.8	cloudy	
Madison, Wisconsin	29.23	742.4	30.30	769.6	33	0 6	80	n.	6	2.7		0	0			inap.	inap.	clear	
Marquette, Michigan	29.45	748.0	30.21	767.3	31	— 0.6	68	sw.	6	2.7		0	0			0.21	5.3	clear	
Mason, Texas	28.49	723.6	30.27	768.8	52.8	11.6	93	e.	2	0.9			10 s		e.	0	0	cloudy	
Memphis, Tennessee	29.89	759.2	30.24	768.1	47	8.3	86	n.	1	0.4		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.48	748.8	30.26	768.6	38	3.3	89	n.	3	1.3	.....	0	8 s	.....	n.	0.16	4.1	clearing	
Mobile, Alabama	30.01	762.2	30.08	764.0	60.0	15.6	87	n.	11	4.9	.....	.....	10 s	.....	.....	0.33	8.4	cloudy	
Montgomery, Alabama	29.86	758.4	30.10	764.5	62.0	16.7	87	nw.	7	3.1	.....	.....	10 s	.....	nw.	0	0	cloudy	
Moorhead, Minnesota	29.15	740.4	30.21	767.3	22.1	— 5.5	88	s.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Morgantown, W. Virginia	29.14	740.1	30.15	765.8	47.0	8.3	86	n.	1	0.4	.....	sk.	sk	.....	.....	0	0	light smoke.	
Mt. Washington, N. H.	23.79	604.3	30.16	766.1	19.0	— 7.2	73	nw.	40	17.9	.....	9 c	3 s	w.	calm	0.10	2.5	cloudy	
Nashville, Tennessee	29.67	753.6	30.23	767.8	44.8	7.1	88	calm	0	0	.....	0	fg	.....	.....	0	0	dense fog	
New Haven, Connecticut	30.10	764.5	30.22	767.6	44	6.7	68	n.	8	3.6	.....	.....	10 s	.....	.....	0	0	cloudy	
New London, Connecticut	30.17	766.3	30.22	767.6	46	7.8	76	ne.	5	2.2	.....	.....	10 s	.....	ne.	0	0	cloudy	
New Orleans, Louisiana	30.02	762.5	30.08	764.0	66.0	18.9	81	n.	7	3.1	.....	.....	10 s	.....	.....	0	0	cloudy	
Newport, Rhode Island	30.18	766.6	30.23	767.8	48.5	9.2	76	ne.	5	2.2	.....	.....	10 s	.....	calm	0	0	cloudy	
New River, N. Carolina	.....	.....	.....	.....	56	13.3	93	nw.	.....	.....	2	.....	10 s	.....	.....	0.11	2.8	threatening.	
New Shoreham, Rhode I'd.	30.17	766.3	30.20	767.1	51.0	10.6	66	se.	8	3.6	.....	.....	10 ks	.....	se.	0	0	cloudy	
New York, New York	30.01	762.2	30.19	766.8	52.5	11.4	71	ne.	10	4.5	.....	.....	10s;fg	.....	.....	0	0	cloudy	
Norfolk, Virginia	30.01	762.2	30.04	763.0	60	15.6	81	ne.	10	4.5	.....	0	9 ks	.....	sw.	0.08	2.0	cloudy	
North Platte, Nebraska	27.24	691.9	30.30	769.6	31.6	— 0.2	84	e.	10	4.5	.....	5 c	hz.	.....	.....	0	0	fair	
Olympia, Washington T'y	29.91	759.7	29.95	760.7	47.0	8.3	93	s.	1	0.4	.....	.....	10 s	.....	calm	0.39	9.9	cloudy	
Omaha, Nebraska	29.13	739.9	30.37	771.4	32	0.0	78	n.	3	1.3	.....	7 c	0	.....	.....	0	0	fair	
Oswego, New York	29.79	756.7	30.13	765.3	41.0	5.0	73	s.	5	2.2	.....	5 cs	0	w.	.....	0	0	fair	
Pensacola, Florida	30.03	762.7	30.06	763.5	60	15.6	90	n.	10	4.5	.....	.....	10 s	.....	ne.	0	0	cloudy	
Philadelphia, Pa.	30.10	764.5	30.16	766.1	50	10.0	64	ne.	9	4.0	.....	.....	10 s	.....	.....	0	0	cloudy	
Phœnix, Arizona	28.77	730.7	30.58	776.7	50.2	10.1	52	e.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Pike's Peak, Colorado	17.75	450.8	29.96	761.0	18	— 7.8	58	w.	40	17.9	.....	0	0	.....	.....	0	0	clear	
Ploche, Nevada	24.06	611.1	30.24	768.1	43	6.1	23	s.	7	3.1	.....	0	0	.....	.....	0	0	clear	
Pittsburg, Pennsylvania	29.35	745.5	30.20	767.1	41	5.0	92	w.	6	2.7	.....	0	0	.....	.....	0	0	clear	
Port Eads, Louisiana	30.04	763.0	30.04	763.0	73.0	22.8	87	ne.	23	10.3	.....	7 k;hz	2 k	nw.; c.	ne.	0.30	7.6	cloudy	
Port Huron, Michigan	29.43	747.5	30.14	765.5	42.8	6.0	100	n.	5	2.2	.....	.....	10 n	.....	calm	0.08	2.0	light rain	
Portland, Maine	30.20	767.1	30.25	768.3	41	5.0	82	nw.	3	1.3	.....	3 k	6 s	nw.	calm	0	0	cloudy	
Portland, Oregon	29.90	759.4	29.97	761.2	49	9.4	93	s.	1	0.4	.....	.....	10 n	.....	s.	0.40	10.2	light rain	
Portsmouth, N. Carolina	.....	.....	.....	.....	64	17.8	78	ne.	28	12.5	.....	.....	10 s	.....	n.	0.79	20.1	cloudy	
Prescott, Arizona	24.74	628.4	30.05	763.3	38	3.3	66	s.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Punta Rassa, Florida	29.95	760.7	29.96	761.0	76	24.4	88	ne.	5	2.2	.....	1 ck	0	calm	.....	0	0	clear	
Red Bluff, California	29.61	752.1	29.96	761.0	56.5	13.6	68	calm	0	0	.....	.....	10 s	.....	calm	0	0	cloudy	
Rio Grande City, Texas	29.90	759.4	30.11	764.8	69	20.6	90	ne.	2	0.9	.....	3 c	0	calm	.....	0.21	5.3	clear	
Rochester, New York	29.43	747.5	30.13	765.3	39	3.9	82	sw.	10	4.5	.....	6 ck	sk	calm	.....	0	0	fair	
Roseburg, Oregon	29.39	746.5	29.98	761.5	46.4	8.0	95	calm	0	0	.....	.....	10 n	.....	.....	0.42	10.7	light rain	
Sacramento, California	29.91	759.7	29.99	761.7	52.5	11.4	86	se.	9	4.0	.....	0	0	.....	.....	0	0	clear	
St. Louis, Missouri	29.65	753.1	30.28	769.1	44.4	6.9	91	nw.	5	2.2	.....	0	sk	.....	.....	0	0	clear	
St. Paul, Minnesota	29.37	746.0	30.29	769.4	30.0	— 1.1	88	w.	3	1.3	.....	0	1 ks	.....	w.	0	0	clear	
Salt Lake City, Utah	25.56	649.2	30.01	762.2	44	6.7	41	se.	2	0.9	.....	0	4 s	.....	calm	0	0	fair	
San Antonio, Texas	29.45	748.0	30.17	766.3	50.9	10.5	87	ne.	6	2.7	.....	.....	10 s	.....	ne.	0	0	cloudy	
San Diego, California	29.83	757.7	29.90	759.4	48.5	9.2	93	n.	4	1.8	.....	.....	10 s	.....	.....	0	0	cloudy	
Sandusky, Ohio	29.44	747.8	30.15	765.8	45	7.2	76	sw.	8	3.6	.....	.....	10 s	.....	.....	0	0	cloudy	
Sandy Hook, New Jersey	30.13	765.3	30.16	766.1	56.4	13.6	62	se.	12	5.4	.....	0	8 ks	.....	se.	0	0	cloudy	
San Francisco, California	29.99	761.7	30.06	763.5	53	11.7	96	sw.	2	0.9	.....	.....	fg	.....	sw.	0	0	foggy	
Santa Fé, New Mexico	23.33	592.6	30.32	770.1	43	6.1	86	e.	2	0.9	.....	.....	10 s	.....	calm	0.12	3.0	cloudy	
Savannah, Georgia	29.95	760.7	30.04	763.0	62.5	16.9	92	n.	7	3.1	.....	.....	10 n	.....	.....	0.10	2.5	light rain	
Shreveport, Louisiana	29.97	761.2	30.20	767.1	49	9.4	96	ne.	6	2.7	.....	2 k	2 s	ne.	ne.	0.38	9.7	fair	
Silver City, New Mexico	24.31	617.5	29.99	761.7	49	9.4	50	calm	0	0	.....	0	3 s	.....	calm	0	0	clear	
Sitka, Alaska	29.88	758.9	29.95	760.7	43.2	6.2	74	sw.	4	1.8	.....	.....	10 ks	.....	calm	0	0	cloudy	
Smithville, North Carolina	30.02	762.5	30.06	763.5	57	13.9	100	n.	5	2.2	.....	.....	fg	.....	.....	0.16	4.1	dense fog	
Spokane Falls, Wash. Ter.	27.93	709.4	30.00	762.0	47	8.3	86	calm	0	0	.....	.....	10 s	.....	.....	0.23	5.8	cloudy	
Springfield, Illinois	29.54	750.3	30.26	768.6	44.7	7.1	83	nw.	6	2.7	.....	0	fg	.....	.....	0	0	clear	
Springfield, Massachusetts	30.11	764.8	30.24	768.1	40.8	4.9	73	e.	3	1.3	.....	10 cs	0	sw.	.....	0	0	cloudy	
Stockton, Texas	27.08	687.8	30.23	767.8	55.0	12.8	100	calm	0	0	.....	hz	6 s	.....	e.	0.01	0.3	fair	
St. Vincent, Minnesota	29.18	741.2	30.11	764.8	19	— 7.2	100	s.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Thatcher's Island, Mass.	30.22	767.6	30.27	768.8	47.5	8.6	100	se.	10	4.5	.....	.....	10 s	.....	se.	0	0	cloudy	
Toledo, Ohio	29.42	747.3	30.14	765.5	47	8.3	86	w.	8	3.6	.....	.....	10s;fg	.....	.....	inap.	inap.	cloudy	
Tucson, Arizona	27.50	698.5	29.94	760.5	52	11.1	50	se.	6	2.7	.....	1 k	0	.....	.....	0	0	clear	
Umatilla, Oregon	29.65	753.1	30.08	764.0	42.0	5.6	96	nw.	4	1.8	.....	0	4 s	.....	calm	0.21	5.3	fair	
Uvalde, Texas	29.15	740.4	29.96	761.0	63	17.2	90	calm	0	0	.....	hz	5 s	.....	calm	0.02	0.5	fair	
Vicksburg, Mississippi	29.90	759.4	30.16	766.1	51	10.6	86	ne.	7	3.1	.....	.....	10 s	.....	ne.	0.33	8.4	cloudy	
Visalia, California	29.59	751.6	29.96	761.0	47.3	8.5	67	se.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Washington, D. C.	30.04	763.0	30.16	766.1	50	10.0	77	n.	3	1.3	.....	.....	9 ks	.....	w.	0	0	cloudy	
West Los Animas, Colorado	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Wickenburg, Arizona	.....	.....	.....	.....	41	5.0	67	calm	.....	.....	0	0	0	.....	.....	0	0	clear	
Wilmington, N. Carolina	30.01	762.2	30.07	763.8	58.0	14.4	93	n.	6	2.7	.....	.....	10 k	.....	calm	0	0	cloudy	
Winnemucca, Nevada	25.54	648.7	30.00	762.0	49	9.4	56	sw.	8	3.6	.....	.....	10 s	.....	calm	0	0	cloudy	
Wood's Holl, Mass.	30.19	766.8	30.23	767.8	52	11.1	69	se.	10	4.5	.....	.....	10 s	.....	se.	0	0	cloudy	
Yankton, Dakota	28.96	735.6	30.34	770.6	27	— 2.8	88	calm	0	0	.....	0	sk	.....	.....	0	0	clear	
Yuma, Arizona	29.71	754.6	29.85	758.2	50.3	10.2	59	ne.	1	0.4	.....	0	0	.....	.....	0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. A. Racker.
Bogota, U. S. Columbia	22.02	559.3	.....	.....	55.0	12.8	83	calm	0	0	.....	0	8 s; n	.....	.....	0.52	13.2	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	29.89	759.2	29.91	759.7	76	24.4	90	sw.	.....	.....	.....	.....	10	.....	.....	.....	.....	raining	J. B. Dougherty.
Guadeloupe, W. I. ‡	29.90	759.4	29.90	759.4	83	28.3	83	s.	.....	.....	.....	2 c	2 k	.....	se.	0.40	10.2	.....	B. Bigar.
Havana, Cuba, W. I.	29.94	760.5	29.99	761.7	78	25.6	88	calm	0	0	.....	8 cs	2 ks	calm	calm	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.92	760.0	29.93	760.2	75.2	24.0	85	calm	0	0	.....	2ck;cs	0	.....	.....	0	0	fair	Robert Johnstone.
Navassa, W. I.	29.80	756.9	29.88	758.9	80	26.7	82	ne.	4	1.8	.....	5cs;hz	hz	ne.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.98	761.5	29.98	761.5	81	27.2	78	e.	.....	.....	2	5 k	8 k	e.	e.	0.410	10.4	cloudy	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.42	747.3	29.98	761.5	78	25.6	95	calm	.....	.....	.....	.....	10 ks	.....	ne.	0.35	8.9	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	73.4	23	98	calm	.....	.....	0	5 ck	0	e.	.....	0.059	1.5	.....	Earl Flint.
Santiago de Cuba, W. I.	29.92	760.0	29.94	760.5	79	26.1	78	nw.	1.2	0.5	.....	3 c	0	.....	.....	0	0	fair	Robert Mason.
St. Thomas, W. I. ‡	29.84	757.9	29.95	760.7	81	27.2	82	s.	4	1.8	.....	6 c	1 ks	e.	e.	0.24	6.1	fair	G. O. Gyllich.
York Factory, B. A.	29.26	743.2	29.31	744.5	22.0	— 5.6	93	sw.	8	3.6	.....	3 k	4 s	w.	sw.	0	0	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross, N. 33° 22′, E. 135° 55′	30.00	762.0	67	19.4		ne.			3		9					5	se.	d. clouds	
H. M. S. Alert, Port Darwin, Australia.	29.93	760.2	83.2	28.4	.81	w.			1-2		2							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Cagliari, Isd. of Sardinia	29.96	761.0	64.8	18.2	60	se.			1		4							d. clouds	Capt. Lord Walter Kerr
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	30.03	762.7	53	11.7		wsw.			3		4	w.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 46° 50′, W. 39° 18′	29.75	755.6	49	9.4	100	ne.			8		10					6	ene.	raining	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.06	763.5	73	22.8	70	se.			2-4		4	se.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao Bay, Peru	29.96	761.0	61	16.1	100	nnw.			2		2					2	w.	d. clouds	Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 38° 55′, E. 8° 21′	29.91	759.7	71	21.7	71	sse.			3-4		6					4	sse.	d. clouds	Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.03	762.7	74	23.3		sw.			4		5	wsw.				4	sw.	raining	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 32° 30′, E. 29° 11′	30.06	763.5	79	26.1		calm			0										Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 33° 37′, E. 135° 08′	29.90	759.4	65	18.3	100	wnw.			4-6		4	n.				2	n.	d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	30.06	763.5	68	20.0		nw.			1		6	calm						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parrys.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 7° 55′, W. 14° 25′	29.98	761.5	76	24.4		e.			3-4		5	se.						showery	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.03	762.7	75	23.9	83	ssw.			1		1	ssw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.22	767.6	37	2.8	80	nw.			1		10							overcast	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.86	758.4	82	27.8		wsw.			1		4	wsw.				1	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 8° 48′, E. 80° 37′	29.93	760.2	80	26.7		se.			1		10	s.				4	se.	overcast	Capt. E. St. J. Garforth
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.96	761.0	55	12.8	100	calm			0		0							blue sky	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.88	758.9	84	28.9	79	nne.			1		7	n.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 49° 10′, W. 52° 10′	30.02	762.5	35	1.7		wnw.			4-5		3	wnw.				4	wnw.	d. clouds	Capt. W. C. Karslake.
H. M. S. Fawn, S. 17° 35′, E. 41° 10′	30.04	763.0	80	26.7	80	nne.			2		8	nne.				1	nne.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 16° 46′, W. 87° 40′	29.86	758.4	81	27.2	82	ne.			3		8	ne.				3	e.	showery	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 3° 20′, W. 158° 40′	29.87	758.7	80	26.7	78	ese.			3		6							showery	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	30.04	763.0	63	17.2	83	nne.			1		6							d. clouds	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant, N. 35° 00′, E. 139° 00′	29.97	761.2	61	16.1	100	ne.			5-6		10	ne.				5	ne.	showery	Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′ E. 129° 50′	30.01	762.2	62	16.7		calm			0		5							d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.88	758.9	81	27.2		calm			0		2	calm						d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 32° 50′, E. 16° 10′	30.13	765.3	64	17.8		ssw.			4		4	sw.				4	sw.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 31′, E. 18° 04′	30.26	768.6	64	17.8	83	se.			5-6		10					6	se.	overcast	Lieut. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, Hong Kong, China	29.99	761.7	72.5	22.5	54	n.			2-3		0					1		misty	Lieut. A. Balfour.
H. M. S. Malabar, Bombay, India	29.89	759.2	85	29.4	96	nw.			3		3	nw.						d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 35° 56′, W. 5° 40′	29.88	758.9	71.5	21.9	85	ssw.			4		8	ssw.				2	nw.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch, Sfax, Tunis	30.05	763.3	76	24.4	95	sse.			2		2	sse.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.02	762.5	57	13.9	81	calm			0		10							overcast	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.24	768.1	47	8.3	89	calm			0									foggy	Capt. E. B. Drummond.
H. M. S. Orontes, N. 13° 57′, W. 47° 22′	30.06	763.5	82	27.8	87	ene.			4–5		2					4	ne.	d. clouds	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 23° 03′, W. 70° 04′	29.93	760.2	79	26.1	86	ene.			3		3	ene.				3	e.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	29.96	761.0	49	9.4	85	n.			1		9							d. clouds	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.89	759.2	84.3	29.1	75	nw.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 28° 30′, W. 18° 30′	30.15	765.8	78	25.6	82	wnw.			2		3	wnw.				5	wnw.	d. clouds	
H. M. S. Sea Gull, S. 13° 51′, E. 41° 42′	29.66	753.4	83	28.3	79	var.			0–1		1					1	sse.	blue sky	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos, N. 38° 19′, W. 64° 17′	30.14	765.5	65	18.3	83	e.			3		10					7	s.	overcast	Capt. C. G. Fane.
H. M. S. Thetis, N. 19° 50′, W. 110° 50′	29.80	756.9	79	26.1	90	nne.			4		9					2	nnw.	raining	Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 26° 55′ W. 86° 30′	30.23	767.8	61	16.1	82	calm			0		10	calm				2	ese.	overcast	Capt. A. H. Markham.
H. M. S.Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.91	759.7	79	26.1		nnw.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.74	755.4	58	14.4	87	calm			0		0							blue sky	Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, N. 25° 36′, E. 57° 36′	29.90	759.4	83.5	28.6	87	sse.			2–3		0					1	s.	misty	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
India																			Carlos Candid dos Reis.
Bengo, S. 13° 09′, E. 12° 16′	29.95	760.8	75.2	24.0	80	w.			3		10					2	sw.	overcast	A. M. da Sitra.
Quanza, Porto Praya, Cape Verd Ids	30.15	765.7	83.3	28.5	92	ne.			3		3		ne.			2	ne.	d. clouds	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.92	760.0	71.2	21.8	51	nnw.			3		2							d. clouds	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

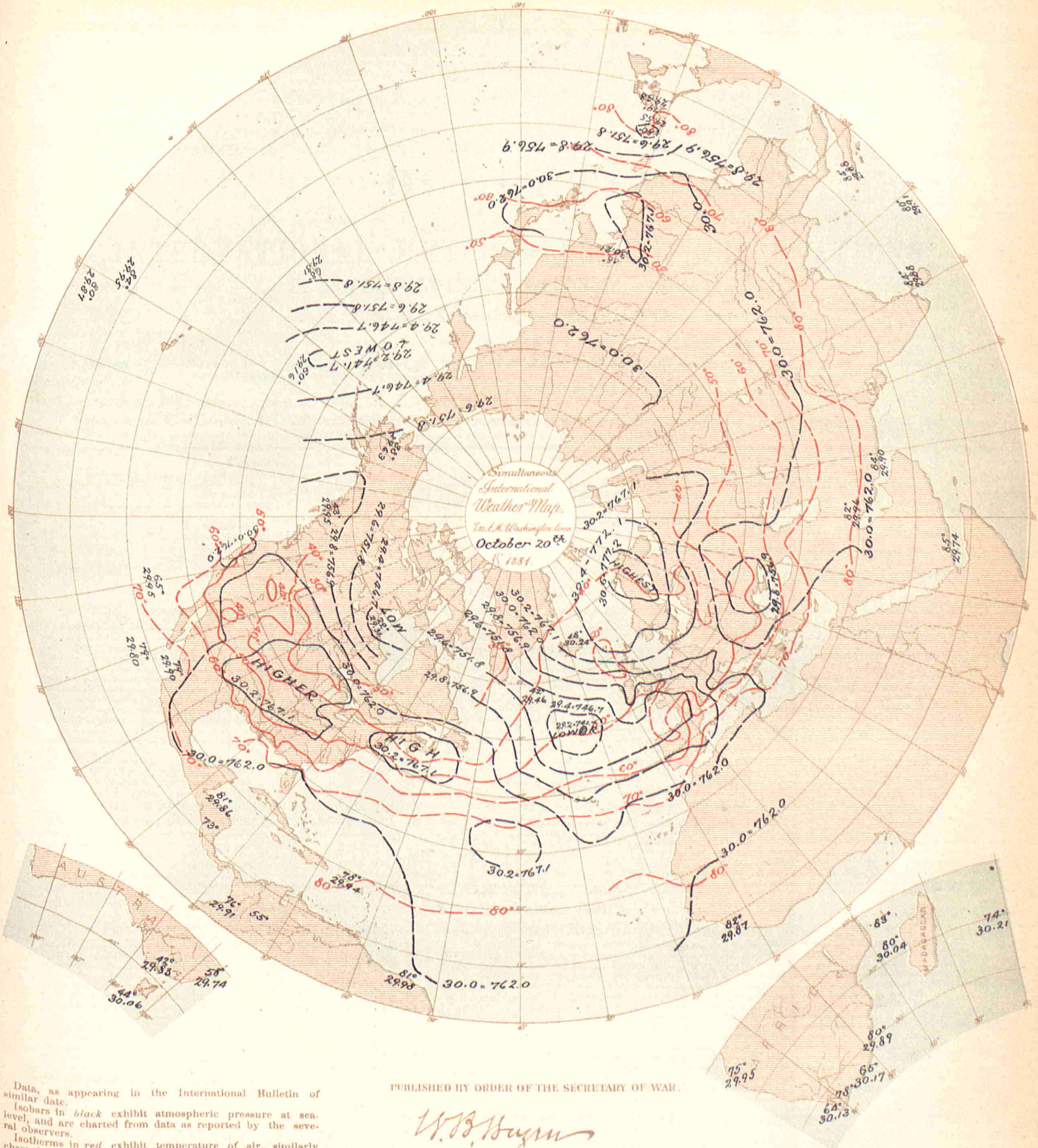
Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.15	765.8	64	17.8	89	n.	6	2.7			8		n.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.34	770.6	39	3.9	82	calm	0	0			8			0	0			cloudy	
Naval Hospital, Yokohama, Japan	29.87	758.7	53.5	11.9	93	nnw.			5		10		nnw.	0.90	22.9			raining	
Adams, Callao, Peru	29.81	757.2	61	16.1	94	nnw.			1		0					sm'h		fair	
Alaska, Callao, Peru	29.94	760.5	60	15.6	100	calm			0		0			0	0	sm'h		clear	
Alert, Kobe, Japan	29.87	758.7	66	18.9	74	calm			0		10		calm	0	0	sm'h		overcast	
Alliance, N. 57° 20′, W. 35° 35′	29.46	748.3	42	5.6	74	n.			2-3		10			light	light	long	nnw.	cloudy	
Ashuelot, Kobe, Japan	30.04	763.0	64	17.8	73	nw.			1		10		calm					overcast	
Colorado, New York, N. Y.	30.16	766.1	52	11.1	79	ne.	2	0.9			10		s.					overcast	
Constitution, Newport, R. I.	30.18	766.6	50	10.0	79	e.	2	0.9			10		se.					fair	
Franklin, Yorktown, Va	29.97	761.2	59	15.0	82	n.	10.8	4.8			10		ne.	0	0			cloudy	
Galena, Volo, Turkey	30.07	763.8	65	18.3	51	nnw.			1		2					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal.	29.92	760.0	54	12.2	74	calm	0	0			0							clear	
Kearsarge, Yorktown, Va	30.06	763.5	60	15.6	82	nnw.			5		10		n.			sm'h		cloudy	
Lackawanna, San Francisco, Cal. †	30.23	767.8	57	13.9	94	calm			0		10							cloudy	
Lancaster, N. 37° 38′ W. 53° 53′	30.13	765.3	68	20.0	90	ne.			4		8		ne.			mod.	w.	d. clouds	
Marion, Montevideo, Uruguay	29.85	758.2	64	17.8		n.			2		8		n;w	0	0	sm'h		cloudy	
Michigan, Erie, Pa	30.04	763.0	44	6.7	92	se.			3		8		se.					fair	
Monocacy, Yokohama, Japan	30.05	763.3	57	13.9	81	nnw.			3		10		nw.					rainy	
Nipsic, Genoa, Italy	30.02	762.5	49	9.4	78	n.			4		10					sm'h		squally	
Onward, Callao, Peru †	29.99	761.7	62	16.7	94	n.			1		2					long	w.	clear	
Palos, Hong Kong, China	29.92	760.0	74	23.3	52	n.			2		5		n;e.					fair	
Passaic, Washington, D. C.	30.12	765.0	50	10.0	79	ne.			1		8		ne.					cloudy	
Pensacola, Callao, Peru	30.03	762.7	61	16.1	88	nnw.			1		0							fair	
Portsmouth, Yorktown, Va	30.05	763.5	58	14.4	100	nw.			4		10					sm'h		cloudy	
Powhatan, Boston, Mass	30.23	767.8	42	5.6	83	wnw.			1		10							misty	
Quinnebaug, Marseilles, France	29.73	755.1	58	14.4	70	ese.			6		10		s.			sm'h		overcast	
Ranger, San Francisco, Cal. *	30.00	762.0	57	13.9	94	calm			0							sm'h		foggy	
Saratoga, Yorktown, Va	30.05	763.3	59	15.0	100	nne.			3-4		10		nne.	light	light	sm'h		cloudy	
St. Louis, League Island, Pa	29.88	758.9	47	8.3	70	n.	3	1.3			10			0	0			cloudy	
Swatara, N. 34° 38′, E. 135° 00′ †	30.03	762.7	63	17.2	78	e.			2		10					sm'h		cloudy	
Tennessee, Yorktown, Va	30.08	764.0	61	16.1	100	n.	10	4.5			10							drizzling	
Vandalia, Yorktown, Va	30.09	764.3	62	16.7	83	nnw.			1		0							clear	
Wabash, Boston, Mass	30.27	768.8	41	5.0	74	nnw.	1	0.4			10		nw.	0	0			hazy	
Wachusetts, Sitka, Alaska	30.04	763.0	41	5.0	91	s.			1		10		s.					cloudy	
Wyoming, Port Royal, S. C.	30.06	763.5	61	16.1	88	n.	12	5.4			10		ne.	0.02	0.5			overcast	
Yantic, Yorktown, Va *	30.02	762.5	60	15.6	82	nnw.			3		8							cloudy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Montreal, Canada *†.	30.14	765.5				wsw.	2		10		sw.					cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 39° 12′, W. 69° 27	30.11	764.8	59	15.0		ene.	4		10		e.			sli't	e.	cloudy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn.†	30.06	763.5	51	10.6	93	ne.	3		8		ne.					cloudy	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent.. Liverpool, England.†	29.86	758.4	50	10.0	71	sse.	4		2		se.	0	0			fair	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 49° 59′, W, 25° 02′*†...	29.28	743.7	50	10.0	93	ne.	8		10		ne.			long	nnw.	squally	
S. S. Pennsylvania, Capt G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall S. 42° 10′, W. 17° 40′	30.28	769.1	50	10.0	93	sw.	4		4							blue sky	
S. British Merchant, Capt. E. J. Moloney,																	
Bk. Caldew, Capt. W. Petersen. S. 55° 37′, W. 77° 13	29.13	739.9	42	5.6		nw.	9		10							threatening	
S. S. Cipero, Capt. W. N. Lailey, Port Cortez, Honduras, C. A.	29.88	758.9	76	24.4	100	wsw.	1		10							raining	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton, N. 23° 28′. W. 121° 00′.‡.	30.05	763.3	65	18.3	89	nnw.	4		8							overcast	
S. S. Gordon Castle, Capt. W. Waring, N. 5° 45′, E. 96° 08′	29.88	758.9	83.7	28.7	75	n.	1		2							d. clouds	
Bg. Hermine, Capt. S. G. Jones, S. 46° 01′, W. 63° 16	29.71	754.6	49	9.4	77	s.	6		1							blue sky	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, N. 0° 40′, E. 88° 25′	29.91	759.7	79.8	26.6	86	w.	6		5							showery	
Bk. Mertola, Capt. E. W. Turner,																	
Naiad, Capt. J. Smith,																	
Bk. Moorhill, Capt. J. Brown. S. 56° 02′, W. 78° 47′	29.00	736.6	42	5.6	91	w.	8		10							raining	
S. Pleione, Capt. C. H. Renant, S. 44° 22′, E. 143° 22′	30.06	763.5	44	6.7	83	s.	6		4							d. clouds	
Queen of Cambria, Capt. M. Parry S. 21° 46′. W. 37° 24′	30.03	762.7	77.8	25.4	82	nne.	4		2							blue sky	
S. S. Rosetta, Capt. A. E. Barlow																	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. M. Gray,																	
S. S. Strathleven, Capt. C. W. Pearson, N. 34° 40′, E. 135° 12′	30.00	762.0	63.5	17.5	94	s.	3		4							d. clouds	
S. S. Thames, Capt. Luckhurst N. 55° 46′, W. 43° 30′	29.72	754.9	37.8	3.2	71	nw.	5		9							d. clouds	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin, N. 12° 49′, E. 45° 46′	29.74	755.4	85	29.4		ese.	2		0							blue sky	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers, N. 23° 22′, W. 107° 01′.†..	29.66	753.4	83	28.3	75	calm	0		3		se.	h'vy	h'vy	gentle	nw.	fair	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains																	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle,																	
S. S. Hermann, Capt. H. Baur N. 50° 19′, W. 1° 22′	30.24?	768.1?	46.4	8.0		e.	6		1		e.	0	0	mod.	se.	fine	E. Schmidt, 3d Officer
S. S. Köln, Capt. T. Jüngst, N. 49° 40′, W. 6° 39′	29.45	748.0	51.5	10.8	93	ese.	6–7		10		ese.	h'vy	h'vy	very h'vy	sse.	stormy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeiffer.. N. 40° 05′, W. 67° 29′	30.22	767.6	50.0	10.0	79	ene.	4		10		e.	0	0	mod.	ene.	cloudy	Walter & Reichler.
S. S. Strassburg, Capt. Heimbrouch, N. 47° 44′, W. 49° 09′	30.08	764.0	37.0	2.8	81	n.	6		8		n.	12 h'r	snow	r'gh	nne.	fair	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 43° 05′, W. 167° 34′.†	29.26	743.2	60	15.6	71	sw.	6		8		sw.	sh's	sh's	high	sw.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley Hong Kong, China *†.	30.07	763.8	75	23.9	68	ne.	2		4		ne.					clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 34° 53′, W. 180° 00′	30.01	762.2	68	20.0	56	wnw.	6		8		wnw.	0.16	4.1	mod.	w.	cloudy	
OREGON IMROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes, Seattle, Wash. Ter.†.	30.07	763.8	49	9.4	100	s.	1		5		sw.					foggy	
OREGON RAILWAY & NAVIGAT'N CO *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles,																	
S. S. Oregon, Capt. E. Polemann. N. 45° 35′, W. 124° 13′.†..	29.88	758.9	49	9.4	93	e.	4		8		sw.			mod.	w.	gloomy	O. W. Pohl, 2d Officer.

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 34° 03′, W. 119° 00′ †..	29.89	759.2	59	15.0	94	nw.	2	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——, Esquimalt, Vancouver's Id. †..	29.93	760.2	50	10.0	65	w.	1	.....	10	.....	w.	6 h'r	6 h'r	.....	.....	fair.....	.....
S. S. Idaho, Capt. T. Huntington, San Francisco, Cal. †..	30.02	762.5	55	12.8	87	sw.	1	.....	fog.	.....	.....	.....	.....	.....	.....	foggy.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 35° 36′, W. 121° 20′ †..	29.96	761.0	55	12.8	93	nw.	2	.....	10	.....	.....	.....	.....	mod.	nw.	foggy.....	T. Wallace.
S. S. State of California, Capt. Debney, N. 38° 40′, W. 123° 20′ †	30.05	763.3	53	11.7	?	nw.	4	.....	0	.....	.....	.....	.....	sm'h	nw.	clear.....	G. Debney.
S. S. Victoria, H. M. Hayward, Nanaimo, Vancouver's Isl'd †	30.10	764.5	48	8.9	92	calm	0	.....	10	.....	.....	2 h'r	2 h'r	.....	.....	cloudy.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulley, Supt. New York.*																	
S. S. Australia, Capt. ——,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb. N. 6° 51′, W. 163° —′ †.	29.95	760.7	84	28.9	91	var.	2	.....	10	.....	.....	.....	.....	mod.	.....	cloudy.....	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 29° 11′, E. 128° 10′ *†..	30.15	765.8	72	22.2	85	nne.	6	.....	10	.....	nne.	0	0	r'gh	ne.	squally.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— N. 8° 42′, W. 79° 32′ †..	29.90	759.4	79	26.1	91	sw.	1	.....	8	.....	se.	0.1	3.	mod.	s.	cloudy	.....
S. S. City of Sydney, Capt. H. C. Dearborn, S. 33° 54′, E. 153° 32′ *†..	29.43	747.5	60	15.6	71	sw.	7	.....	8	.....	sw.	0	0	very h'vy	sw.	squally.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Ritchie, 2d Offl.
S. S. Colima, R. R. Searle N. 17° 10′, W. 101° 08′ †	29.90	759.4	82	27.8	100	nw.	3	.....	9	.....	w.	0.08	2.0	small	.....	cloudy	R. R. Searle.
S. S. Grenada, Capt. M. Connolly.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. South Carolina, Capt. —— N. 34° 57′, W. 122° 24′ *†...	30.32	770.1	63	17.2	89	nw.	2	.....	10	.....	nw.	.....	.....	long	sw.	gloomy.....	.....
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	29.78	756.4	57	13.9	81	sw.	1	.....	0	.....	.....	.....	.....	.....	.....	fine.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N 44° 12′, W. 58° 24′ †...	30.79	782.1	45	7.2	.....	calm	0	.....	2	.....	sw.	6 h'r	6 h'r	sm'h	.....	fine.....	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, N. 51° 21′, E. 3° 00′ †...	29.91	759.7	46	7.8	77	e.	6	.....	2	.....	ese.	0.05	1.3	.....	.....	clear.....	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 48° 54′, W. 30° 15′ †..	29.43	747.5	52	11.1	.....	n.	3	.....	5	.....	n.	shr's	shr's	mod.	nnw.	fair	A. Horsfall.
S. S. Britannic, Capt. H. Perry,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, New York, N. Y. †..	30.24	768.1	55	12.8	100	ne.	4	.....	10	.....	sw.	.....	.....	.....	.....	overcast.....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 43° 41′, W. 58° 48′ †..	30.26	768.6	45	7.2	?	sw.	2	.....	5	.....	w.	0	0	mod.	w.	.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Yorktown, Va. †..	30.15	765.8	59	15.0	100	nne.	2	.....	10 n	.....	.....	.....	.....	.....	.....	drizzling	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler. Lt. Com. Nichols,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Lovaine, Capt. H. McCauley N. 41° 26′, W. 59° 52′ *†..	30.79	782.1	.....	.....	.....	ne.	6	.....	.....	.....	n.	.....	.....	.....	ne.	overcast.....	.....
S. Pawashick, Capt. E. Fry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz N. 34° 03′, W. 53° 49′ †..	30.41	772.4	76	24.4	.....	wsw.	3	.....	0	.....	.....	.....	.....	long	nw.	clear.....	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, N. 33° 48′, W. 40° 43′ †...	30.27	768.8	76	24.4	82	wsw.	6	.....	2	.....	w.	0	0	very h'vy	nnw.	fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. Hazen

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BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 21, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.88	759.0	73.8	23.2	77	w.			1		0			0.217	5.5	clear	Moiroud.
Algiers ‡			29.89	759.1	71.2	21.8	77	wnw.			3		4			0.067	1.7	cloudy	Nicolas.
La Calle ‡			29.95	760.6	73.0	22.8	64	nnw.			5		7			0	0	very cloudy	Fonfréde.
Tunis ‡			29.95	760.7															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.93	760.3	73.9	23.3	38	nw.			1		2			0	0	fair	Dumas.
Tebessa ‡			29.97	761.3	73.8	23.2	39	nw.			1		3			0	0	pretty fair	Derché.
Geriville ‡					78.4	25.8	23	w.			3		5			0	0	cloudy	Lonchamp.
Laghouat ‡			30.00	762.0	76.3	24.6	45	s.			2		2			0	0	fair	Herbin.
Biskra ‡			29.97	761.3	83.5	28.6	30	nnw.			3		4			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.02	762.5	30.11	764.8	47.3	8.5	75	ssw.	22	9.8			7			1.19	30.2	showery	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.12	739.7	29.68	753.8	45.1	7.3	90	n.			3		10			0.406	10.3	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.09	738.8	29.87	758.7	42.4	5.8	88	ene.	10.5	4.7			10			0	0		Dr. Wiersbicki.
Eperies	28.95	735.2	29.83	757.7	46.4	8.0	89	calm			0		10 n;ks		n.	0	0		Julius Mikolik.
Gratz ‡	28.47	723.0	29.74	755.4	41.0	5.0	78	sw.			2		10			0	0		Andreas Rospini.
Hermannstadt	28.46	722.8	29.89	759.2	51.1	10.6	69	e.			2		0			0.043	1.1		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.27	718.0	29.63	752.7	39.2	4.0	88	ne.			2		10			0.252	6.4		The Staff.
Lemberg	28.89	733.7	29.89	759.2	42.6	5.9	83	s.			1		10			0	0		Dr. T. Stanecki.
Pola	29.41	746.9	29.50	749.4	61.2	16.2	99	sse.			5		10			1.126	28.6		I. R. Hydrographic Office.
Szathmar	29.41	746.9	29.87	758.8	50.0	10.0	66	e.			2		10			0.236	6.0		Joszef Midlinszky, S. J.
Szegedin	29.52	749.7	29.80	756.9	49.6	9.8	70	s.			2		10			0	0		Karl Stancel.
Trieste	29.40	746.8	29.50	749.4	61.2	16.2	85	e.			1		10			1.721	43.7		Rieder.
Vienna	29.00	736.5	29.72	754.9	42.8	6.0	82	se.			3		10			0.598	15.2		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 20, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.95	760.7	30.05	763.3	45.6	7.6	86	ese.	35	15.6			10			0.090	2.3	showery	W. Boswell.
Armagh, Observatory	29.40	746.7	29.64	752.8	47.8	8.8	81	e.	21	9.4			7					squally	S. Call.
Bidston, Liverpool Obs'y			29.66	753.4	45.9	7.7	93	e.	23	10.3			10					raining	John Hartnup.
Bolton, Sharples	29.15	740.4	29.69	754.1	46.8	8.2	79	ese.	18	8.0			10					raining	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.32	744.7	29.72	754.9	46.5	8.1	86	ne.			3		10			0.39	9.9	raining	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.65	753.1	47.0	8.3	93	e.			1.0		10					overcast	John McLaren.
Chatham, School M. E.	29.54	750.3	29.67	753.6	46.6	8.1	93	e.			1		10					overcast	R. Craydon, R. E.
Falmouth, Observatory	29.25	742.9	29.47	748.5	55.7	13.2	86	ese.			3		6?					overcast ?	The Staff.
Fort Napier, Natal	27.79	705.9	30.01	762.2	71.0	21.7	56	calm			0		8					overcast	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.63	752.6	29.86	758.4	86.0	30.0	75	w.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.89?	759.27	50	10.0	86	e.			4		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.81	757.2	29.86	758.4	71.0	21.7	82	sw.			6		6					d. clouds	Cpl. O. Baldwin.
Glasgow, Observatory	29.64	752.8	29.84	757.9	48.4	9.1	73	ene.			8		10					squally	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.47	748.5	29.65	753.1	47.3	8.5	92	ene.			1		10					overcast	The Staff.
Guernsey	29.31	744.5	29.53	750.0	54	12.2	90	ese.			2		8			blank	blank	d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.61	752.1	29.64	752.8	47.7	8.7	85	e.	7	3.1			10					foggy	The Staff.
Leicester, Museum	29.41	747.0	29.67	753.6	46.4	8.0	92	ne.			2		10					drizzling	J. C. Smith.
Malta, Mediterranean	29.84	757.9	29.92	760.0	76.0	24.4	72	sw.			3		2			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.99	761.7	30.04	763.0	80.0	26.7	87	se.			1		7					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.13	739.9	29.66	753.4	44.8	7.1	98	ene.			1		10					raining	John Mac Email.
Oxford, Radcliffe Obs'y	29.40	746.7	29.63	752.6	46.7	8.2	88	ene.			3		10					overcast	The Staff.
Plymouth	29.42	747.3	29.50	749.3	55.0	12.8	86	se.			3		8					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.15	765.8	46.6	8.1	72	se.	34	15.2			5					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.96	761.0	30.03	762.7	65.0	18.3	48	sw.			1		4					d. clouds	Serg't W. H. Lyne.
Sheffield	29.44	746.7	29.72	754.9	46.9	8.3	96	ene.			1		10			0.38	9.7	raining	W. F. Cooper.
Silloth Rectory	29.72	754.9	29.75	755.6	47.7	8.7	83	e.			6		10			0	0	threatening	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.31	744.5	48.5	9.2	74	e.	20	8.9			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	29.41	747.0	29.63	752.6	47.3	8.5	92	e.			1		10					overcast	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.39	746.5	29.43	747.5	59	15.0	81	se.			6		8					gloomy	W. Newcombe.
Valencia, Observatory	29.31	744.5	29.34	745.2	53.6	12.0	79	e.	25	11.2			6					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.21	767.3	30.26	768.6	38	3.3	96	ne.	3	1.3		2 cs	2 s			0	0	fair	H. J. Cundall, C. E.
Chatham, N. B.*	30.21	767.3	30.27	768.8	31	— 0.6	100	calm	0	0			fg.			0	0	light fog	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.17	766.3	30.20	767.1	37	2.8	96	nw.	20	8.9			10 s		w.	0	0	cloudy	J. McWilliams.
Fort Garry, Manitoba*	29.17	740.9	30.05	763.3	22	— 5.6	96	sw.	4	1.8		0	2 s		sw.	0	0	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.10	764.5	30.23	767.8	44	6.7	89	n.	6	2.7			10 s			0	0	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.95	760.7	30.30	769.6	34	1.1	89	nw.	4	1.8		0	0			inap.	inap.	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.96	761.0	30.17	766.3	43	6.1	89	w.	8	3.6		5 ck	2 s	w.		0.06	1.5	fair	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.51	749.5	30.23	767.8	35	1.7	89	s.	3	1.3		2 k	2 ks	w.	w.	0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.59	751.6	30.31	769.9	35	1.7	100	nw.	3	1.3		10 k	0	sw.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.62	752.3	30.31	769.9	32	0.0	96	nw.	3	1.3		5 ck	0	w.		inap.	inap.	fair	M. Payne.
Quebec, Quebec*	29.88	758.9	30.21	767.3	39	3.9	89	w.			1		10 ks		nw.	0.03	0.8	cloudy	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.77	756.1	30.26	768.6	29	— 1.7	77	se.	2	0.9		10 ck	fg.	w.	se.	0	0	foggy	W. H. McIntyre.
Saugeen, Ontario*	29.51	749.5	30.25	768.3	36	2.2	89	s.	7	3.1		8 k	0			0	0	cloudy	K. Stewart.
St. Andrews, N. B.	30.19	766.8	30.24	768.1	37	2.8	94	calm	0	0		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.22	767.6	30.28	769.1	35	1.7	96	calm	0	0		10 ck	0			0	0	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.92	760.0	30.32	770.1	34	1.1	92	nw.	6	2.7			8 ks		sw.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.15	765.8	30.22	767.6	42	5.6	96	ne.	2	0.9		8 k	0	sw.		0	0	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.23	767.8	30.49	774.4	34	1.1	90	s.	1	0.4		5 k	5 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.28	769.1	30.31	769.9	66.5	19.2	76	e.	8.8	3.9		0	3 s			0.350	8.9	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.26	743.2			81	27.2	39	sse.			1	1	2			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.23	767.9	30.26	768.5	56.5	13.6	82	nne.	3.6	1.6		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.08	763.9	30.12	765.1	44.4	6.9	74	e.	38	17			9						Oversergent Fischer.
Fanöe	30.01	762.3	30.03	762.8	45.1	7.3	76	ene.			6		9						Overloerer Lauridsen.
Godthaab, Greenland	30.08	764.0	30.12	765.1	28.8	—1.8	90	nne.			2		9						S. Kleinschmidt.
Stykkisholm, Iceland	30.24	768.1	30.28	769.2	44.6	7.0	85	se.			2		10					raining	A. O. Thorlacius.
Thorshavn	30.22	767.6	30.26	768.5	47.3	8.5	96	e.	9	4			7						Overloerer Bergh.
Vestervig	30.07	763.7	30.16	766.0	41.7	5.4	78	ne.			6		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.14	740.1	29.78	756.4	60.4	15.8	61	s.			1	ck	0						M. Labroue, Director.
Alençon Normal School	29.13	740.0	29.74	755.3	50.7	10.4	97	sw.			3		n			0.067	1.7		M. Nicot, Director.
Arras, Engineer School	29.37	746.1	29.63	752.7	46.9	8.3	97	se.					10 n					covered	M. Klein, Commandant.
Avignon, Normal School	29.65	753.0	29.72	755.0	64.4	18	62	n.			1		2		e.	0.126	28.6	slightly cl'dy	M. Giraud, Director.
Bar-sur-Seine	29.14	740.2	29.70	754.3	51.8	11.0	81	sw.			1		10		w.	0.185	4.7	covered	M. Saillard, Director.
Beauvais, Normal School	29.41	747.1	29.68	753.8	50.2	10.1	87	wsw.			1		10		w.	0.098	2.5	covered	M. Frère Eugène Marie.
Besançon, Normal School	28.83	732.2	29.73	755.1	50.0	10	97	ssw.			1		10 n			0.122	3.1	raining	M. Gobin, Director.
Bordeaux, Observatory	29.43	747.5	29.69	754.0	61.5	16.4	62	sse.			1		8			0.429	10.9	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.15	740.3	29.69	754.0	59.5	15.3	68	sw.			1		kn		sw.	0.177	4.5		M. Postel, Director.
Brest, Naval Observatory	29.26	743.3	29.51	749.5	64.0	17.8	72	ssw.			1		4		ssw.	0.307	7.8		M. de Rermaree, Dir.
Caen, Normal School	29.55	750.5	29.62	752.4	51.8	11	95	s.			1		8		s.	0.094	2.4	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.26	743.3	29.58	751.4	49.6	9.8	92	s.			2		10			0.264	6.7	covered	M. Jadot, Director.
Charleville, Normal School					42.4	5.8	85	sse.			3		5			0.20	5.		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.39	721.1	29.73	755.1	56.8	13.8	57	sw.			2		8		w.	0	0	¾ covered	M. Alluard, Director.
Cluny, Normal School	28.91	734.4	29.76	755.8	55.0	12.8	74	w.			1		8		e.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	28.82	731.9	29.69	754.0	40.5	4.7	97	e.			1		10 kn	e.	e.	0.453	11.5	raining	Dr. Coulet, Director.
Gap, Normal School	27.15	689.6	29.66	753.3	55.4	13	45	n.			4		3 k			1.02	26.		M. Jeangirard, Director.
Gréasque, du. Rhone	28.67	728.3	29.82	757.3	55.9	13.3	68	nw.			3		8		nw.	0.724	18.4	¾ covered	M. Kina, Director.
Grenoble, Normal School	29.00	736.5	29.76	756.0	50.7	10.4	90	ene.			2		k			1.488	37.8		M. Ablard, Director.
Guéret, Normal School	28.15	715.0	29.73	755.1	56.3	13.5	53	sw.			1		kn		ne.	0.12	3.		M. Rivoire, Director.
Lamballe, Normal School	29.28	743.7	29.54	750.4	60.8	16	75	s.			1		5 k		s.	0.532	13.5	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.20	741.6	29.75	755.6	66.2	19	46	n.			2	c	0			0.165	4.2		M. Chauvin, Director.
Lorient, Naval Observatory	29.46	748.3	29.56	750.9	63.5	17.5	80	s.			3		2		s.	0.449	11.4	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.72	729.4	29.77	756.2	52.2	11.2	83	ese.			1		10		wnw.	1.532	38.9	covered	M. André, Director.
Mans, Normal School	29.35	745.6	29.66	753.4	52.7	11.5	94	w.			1		5		sw.	0.193	4.9	cloudy	M. Piboen, Director.
Marseille, Observatory	29.49	749.0	29.76	755.8	62.1	16.7	58	wnw.			3		4		wnw.	0.669	17.0		M. Stephan, Director.
Montlouis l'Instituteur	24.62	625.2	29.85	758.2	48.2	9.0	51	sw.	11.2	5.0			5		nw.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.65	753.1	29.76	755.9	63.3	17.4	78	w.			2		5		w.	2.488	63.2	fair	M. Pourle, Director.
Nancy, Normal School	28.94	735.0	29.72	754.9	41.0	5	97	ne.			1		10 n			0.295	7.5	raining	M. Hasse.
Nantes, Observatory	29.47	748.6	29.64	752.8	61.3	16.3	72	s.			1–2		8 kn	ssw.	ssw.	0.244	6.2	showery	M. Larocque, Director.
Nice	29.52	749.8	29.56	750.7	59.4	15.2	76	e.			4		10	w.	w.	1.681	42.7	light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.67	753.6	29.78	756.3	63.0	17.2	49	s.	11.2	5.0			7	w.	w.	0.142	3.6	raining	Dr. Fines.
Pic-du-Midi, Summit	21.01	533.6			29.8	—1.2		ssw.			1		5		ssw.	0	0	cloudy	Gen'l de Nansouty Dir.
Privas, Normal School	28.69	728.7	29.76	755.9	50.7	10.4	100	nw.			1		1	n.		0	0	clear	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.86	631.4			36.0	2.2	100	w.			4		10			0.071	1.8	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.65	753.0	29.68	753.8	60.8	16.0	83	s.			2		5		sw.	0.079	2.0	½ covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.34	745.1	29.55	750.5	59.5	15.3	75	s.			1		5		s.	0.445	11.3	cloudy	M. Mouillot, Director.
Rodez, Normal School	27.64	702.0	29.78	756.3	51.1	10.6	82	se.			4		10		w.	1.110	28.2	covered	M. Richard, Director.
Rouen, Normal School	29.60	751.9	29.65	753.0	50.7	10.4	74	sw.			1					0.04	1.		M. Platrier, Director.
Saint Lô, Normal School	29.45	748.1	29.61	752.1	56.3	13.5	86	sw.			1		5		sw.	0.209	5.3	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.50	749.4	29.67	753.6	52.0	11.1	85	ssw.			1		10		wsw.	0.256	6.5		M. Renou, Director.
Toulouse, Observatory	29.08	738.7	29.80	757.0	61.5	16.4	66	n.			1		5	nw.		0	0	cloudy	M Bailland, Director.
Tours																0.299	7.6		M. de Tastes.
Versailles, Observatory	29.17	741.0	29.66	753.4	51.4	10.8	86	w.			1					0.016	0.4		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.39	746.4	29.68	753.8	51.6	10.9	90	sw.			1		10		wsw.	0.102	2.6		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.84	732.6	29.69	754.2	50.0	10.0	55	se.			3		8 ks	ese.		0	0		Prof. Dr. Hoh.
Berlin	29.70	754.3	29.87	758.8	46.0	7.8	72	se.			4		8			0	0		Prof. Dr. Arndt.
Breslau	29.35	745.4	29.87	758.8	43.5	6.4	83	e.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.27	743.4	29.70	754.3	43.2	6.2	79	ssw.			2		10	sw.		0.169	4.3		Albert Senz.
Cassel	29.04	737.5	29.75	755.7	42.1	5.6	87	e.			2		10	e.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.33	745.0	29.70	754.3	48.0	8.9	70	ese.			1		10			0	0		Physical Society.
Friedrichshafen	28.27	718.0	29.71	754.5	38.1	3.4	93	e.			2		10	w.		0.638	16.2	raining	Wilhelm, Chief Tel.
Hamburg	29.82	757.4	29.91	759.8	46.9	8.3	69	e.			5		5	ese.		0	0	hazy	E. Preller.
Kiel	29.94	760.5	29.96	760.9	46.9	8.3	68	e.			4		6			0.024	0.6		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.38	746.3	29.84	757.9	41.4	5.2	87	ene.			4		10			0	0		H. Leppig, Asst.
Magdeburg	29.65	753.0	29.84	757.9	42.1	5.6	88	nne.			3		10 ks		ene.	0.008	0.2		Dr. Assmann.
Memel	30.05	763.2	30.10	764.4	41.0	5.0	84	ne.			3		10 k						Issermann.
Munich	27.84	707.2	29.68	753.9	38.7	3.7	80	calm			0		10			0	0		Central Station.
Neufahrwasser	30.02	762.4	30.03	762.8	43.0	6.1	75	ene.			2		10	e.		0	0		A. Lothes.
Neustadt, Palatinate	29.15	740.5	29.68	753.8	45.0	7.2	80	e.			1		10			0.075	1.9		Dicknether.
Stuttgart	28.72	729.4	29.62	752.4	42.4	5.8	81	sw.			1		10			0.075	1.9	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.18	715.8	29.70	754.3	44.8	7.1	78	w.			2		10	ne.		0	0		Fischer.
Wustrow	29.98	761.5	30.00	762.1	44.8	7.1	84	se.			2		8 k			0.012	0.3		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.67	753.7	30.06	763.4	71.1	21.7		sw.			1.5		6			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.85	758.1	29.90	759.4	82.8	28.2	75	sw.	18.0	8.0			0			0	0	blue sky	
Deesa	29.46	748.4	29.93	760.3	89.8	32.1	29	wnw.	5.7	2.6			0			0	0	blue sky	
Bombay	29.86	758.3	29.89	759.3	84.1	28.9	78	nw.	9.0	4.0			3			0	0	d. clouds	
Poona, Yarrowda	28.04	712.2	29.87	758.6	87.7	30.9	27	nne.	4.0	1.8			4	wnw.	wnw.	0	0	d. clouds	
Belgaum	27.34	694.5	29.85	758.2	82.6	28.1	43	nne.	3.0	1.3			1		n.	0	0	d. clouds	
Lahore	29.12	739.6	29.86	758.4	82.0	27.8	47	calm	2.0	0.9			0			0	0	blue sky	
Roorkee	28.92	734.5	29.81	757.3	82.0	27.8	38	nw.	2.1	0.9			1			0	0	misty	
Agra	29.31	744.4	29.86	758.5	90.2	32.3	35	w.	5.7	2.6			2		w.	0	0		
Nagpur	28.85	732.9	29.89	759.1	86.2	30.1	36	calm	2.6	1.2			1			0	0	d. clouds	
Jubbulpore	28.59	726.2	29.94	760.6	83.8	28.8	45	calm	1.4	0.6			3	s.		0	0	d. clouds	
Lucknow	29.47	748.5	29.84	758.0	85.2	29.6	31	wnw.	6.2	2.8			0			0	0	blue sky	
Allahabad	29.54	750.2	29.85	758.2	81.7	27.6	52	w.	2.7	1.2			0			0	0	blue sky	
Patna	29.65	753.0	29.83	757.6	82.0	27.8	58	wnw.	3.1	1.4			0			0	0	blue sky	
Hazaribagh	27.85	707.5	29.88	758.8	76.6	24.8	53	nw.	8.7	3.9			0			0	0	blue sky	
Cuttack	29.79	756.6	29.87	758.7	83.1	28.4	72	w.	0.3	0.1			0			0	0	blue sky	
Calcutta, Alipore	29.81	757.1	29.83	757.7	83.2	28.4	67	calm	0	0			0			0	0	blue sky	
Dhubri	29.70	754.4	29.82	757.5	79.2	26.2	79	calm	0.7	0.3			0			0	0	blue sky	
Goalpara																			
Chittagong	29.77	756.0	29.86	758.3	78.5	25.8	63	nw.	1.5	0.7			2			0	0	d. clouds	
Sibsagar	29.53	749.9	29.87	758.6	75.5	24.2	88	nne.	1.3	0.6			10	w.	w.	0.60	15.2	d. clouds	
Jeypore	28.45	722.7	29.88	759.0	85.2	29.6	31	nw.	6.0	2.7			2		w.			d. clouds	
Zanzibar, Africa			30.00	762.0	78.1	25.6	65	nnw.	3	1.3			9			0.02	0.5	threatening.	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.11	739.4	29.52	749.8	50.7	10.4	90	calm	0	0			10			1.378	35.0		Prof. Giovanni Clodig.
Milan	29.09	738.8	29.61	752.0	46.4	8.0	92	wsw.	4.3	1.9			10			0.618	15.7		Prof. Schiaparelli.
Padua	29.43	747.6	29.54	750.3	50.0	10.0	96	wsw.	8.7	3.9			10			1.394	35.4		Prof. Dott. Lorenzoni.
Moncalieri	28.72	729.6	29.63	752.7	47.8	8.8	77	s.	1.8	0.8			9	n.		0.232	5.9		Prof. P. F. Denza.
Genoa	29.42	747.3	29.61	752.1	46.0	7.8	75	n.	8.7	3.9			8	nw.		0.768	19.5		Prof. G. M. Garibaldi.
Mondovi	27.68	703.1	29.60	751.9	45.1	7.3	77	wnw.			2		0			0.091	2.3		Prof. D. C. Bruno.
Pesaro	29.52	749.7	29.56	750.9	49.8	9.9	91	n.			4		9			0.689	17.5		Prof. Luigi Guidi.
Florence	29.33	744.9	29.58	751.3	57.2	14.0	94	sw.			2		10	sw.		1.378	35.0		Prof. Costantino Pitter.
Leghorn	29.52	749.9	29.61	752.0	56.1	13.4	84	wsw.	1.3	0.6			10			1.787	45.4		Prof. P. Monte.
Rome	29.51	749.6	29.69	754.0	64.9	18.3	68	wsw.	16.8	7.5			5			0.291	7.4		Prof. P. S. Ferrari.
Lecce	29.60	751.7	29.84	758.0	69.4	20.8	82	ssw.	18.1	8.1			8	sw.		0	0		Prof. C. de Giorgi.
Cosenza	29.08	738.6	29.95	760.8	70.2	21.2	68	sse.	2.5	1.1			9	se.		0.205	5.2		Prof. D. Conti.
Cagliari	29.65	753.1	29.84	758.0	69.1	20.6	47	wnw.			6		5	w.		0.043	1.1		Prof. A. Pacinotti.
Palermo	29.65	753.2	29.90	759.4	78.1	25.6	45	sw.	13.0	5.8			6	wsw.		0	0		Prof. G. Ciacciatore.
Syracuse	29.89	759.1	29.93	760.2	74.5	23.6	81	ssw.	6.3	2.8			6	sw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.23	742.4	29.75	755.6	66.2	19.0	80	sw.	18.6	8.3			10	w.		0.067	1.7		Prof. F. Brioschi.
Stelvio	21.80	553.7			◀0.9	— 0.6	90	e.			2		10			0.350	8.9	misty	Prof. P. F. Denza.
Valdobbia	21.80	553.8			31.5	— 0.3	90	se.			2		10			0.984	25.0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.10	764.5	30.12	765.0	53.4	11.9	84	nne.	8.0	3.6		0	0			0	0	clear	K. Sasaki.
Kioto	30.00	762.0	30.17	766.3	48.4	9.1	91	nw.	1.8	0.8		0	2 s			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.97	761.2	30.18	766.6	54.6	12.6	73	ne.	0.8	0.4		0	0			0	0	clear	S Takehayashi.
Nemuro																			
Niigata	30.14	765.5	30.18	766.6	52.3	11.3	81	se.	2.5	1.1		cs;ck	5 n		e.	0.005	0.1	light rain	
Nobiru	30.12	765.0	30.14	765.5	46.9	8.3	77	nnw.	13.1	5.9		0	0			0	0	clear	
Supporo	29.95	760.7	30.02	762.5	40.8	4.9	93	n.	4.8	2.1			10			0.065	1.6		
Tokei Obs'y, Yeddo	30.07	763.8	30.13	765.3	56.8	13.8	92	ese.	1.8	0.8		ck	10 s		wsw.	0	0	covered	The Staff.
Wakayama	30.10	764.5	30.15	765.8	54.9	12.7	79	ene.	2.5	1.1		ck	9 s			0	0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.99	761.7	30.18	766.6	74.7	23.7	53	ese.	21.0	9.4		0	4 k;ks		ese.	0	0	fair	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.70	602.0	29.92	760.0	54.5	12.5	80	calm	0	0		k	s			0	0	clear	Vicente Fernandez
Leon	24.45	621.0	30.13	765.3	59.5	15.3	90	sw.			1	1 c	0			0	0	clear	Prof. M. Leal.
Mazatlan	29.65	753.0	29.90	759.6	77.5	25.3	93	e.	0.9	0.4		8 cs	1 k	s.		0	0	very cloudy	F. Quijano, U. E.
Mexico, Central Obs'y	23.13	587.6	30.21	767.5	49.6	9.8	78	calm	0	0		0	0			0	0	very fine	The Staff.
Morelia	24.38	619.3	30.51	775.1	57.0	13.9	75	sw.			3	3	4	s.	sw.	0.091	2.3	cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.93	607.7	29.89	759.3	58.8	14.9	91	calm			0	1 c	1 s	s.	s.	0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.46	595.9	30.35	770.8	48.2	9.0	89	calm	0	0			10			0.107	2.6	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.68	753.9	29.68	753.9	48.0	8.9		ese.			4					0	0		
Groningen	29.80	756.8	29.85	758.2	43.9	6.6		e.			5					0	0		
Helder	29.79	756.7	29.79	756.7	43.0	6.1		ene.			5					0	0		
Hellevoetsluis	29.70	754.3	29.70	754.3	47.1	8.4	86	ene.			4					0	0		
Utrecht	29.71	754.5	29.75	755.7	44.4	6.9	85	ene.			4		10			0	0	dull	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.20	767.0	30.26	768.6	49.6	9.8	40	calm	0	0			0			0	0		
Christiania	30.36	768.6	30.41	772.5	39.2	4.0	55	nne.	11	5			10			0	0		
Gjesvær	30.50	774.7	30.52	775.3	40.6	4.8		w.			6		10						
Lodingen	30.52	775.2	30.57	776.4	43.5	6.4	85	ene.			4		1			0	0	foggy	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.64	752.9	29.80	756.9	60.1	15.6	55	nw.	23.0	10.3			4			0.256	6.5		Dr. J. A. Sampaio.
Campo Major	28.83	732.3	29.82	757.4	61.2	16.2	77	ssw.	18.6	8.3			10			0	0		Dr. A. M. R. dos Santos.
Funchal, Madeira	29.91	759.6	29.99	761.8	72.5	22.5	70	w.	9.8	4.4			10			0.008	0.2		Capt. D. A. de Cunha.
Lisbon, Observatory	29.42	747.3	29.77	756.2	65.1	18.4	88	ssw.	25.5	11.4			10			0.059	1.5		The Staff.
Ponta Delgada, Azores	29.76	755.8	29.83	757.6	65.1	18.4	44	nw.	32.2	14.4			4	e.		0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.96	735.6	30.05	763.2	48.9	9.4	57	w.	7	3		0	2 s						Capt. Lasarew.
Archangel	30.40	772.2	30.42	772.7	34.7	1.5	80	ne.	2	1			10						Capt. Sseliwerstow.
Astrakhan	30.17	766.2	30.08	764.1	59.0	15.0	50	sse.	2	1			10 s						Capt. Wiskanow.
Barnaul ‡	29.54	750.3	30.06	763.5	34.3	1.3	75	w.	2	1			9						Meteorological Obs'y.
Dorpat	29.87	758.6	30.12	765.0	37.0	2.8	84	ne.	16	7			10 ks					light rain	Observatory.
Ekaterinburg	29.03	737.4	29.98	761.5	48.9	9.4	49	wsw.	13	6		9 c;ok	0						Meteorological Obs'y.
Kasan	29.81	757.1	30.08	763.9	54.3	12.4	57	sse.	2	1		3 c	0						Observatory.
Kertch	29.99	761.7	30.01	762.2	53.8	12.1	72	calm	0	0			9 n			0	0		Lagorio & Sastyres.
Kieff	29.19	741.4	29.84	757.8	40.1	4.5	66	wnw.	7	3		c;os	10 ks						Observatory.
Lugan	28.65	733.1	29.85	758.3	49.8	9.9	87	ssw.	22	10			10			blank	blank		Meteorological Obs'y.
Moscow	29.30	744.3	29.79	756.6	42.8	6.0	79	sse.	7.8	3.5		0	8 ks						Meteorological Obs'y.
Nikolaiev	29.92	760.0	29.99	761.8	47.8	8.8	74	calm	0	0			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.67	753.5	29.75	755.7	27.3	— 2.6	87	w.			6		10 n			0.079	2.0		Lieut. Iwanow.
Pekin, China	30.04	763.0	30.18	766.6	51.4	10.8	51	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.14	765.5	30.15	765.9	36.1	2.3	87	ne.	11	5			10 n					light rain	Central Physical Obs'y.
Tashkend, Laboratory	28.62	726.9	30.20	767.0	55.9	13.3	78	calm	0	0			1			0.366	9.3		Teich, A. M.
Tiflis	28.62	726.9	30.00	761.9	70.0	21.1	46	nw.	13	6		0	1 k						Physical Observatory.
Warsaw	29.52	749.8	29.95	760.8	41.4	5.2	71	ene.	7	3			10 ks						Astronomical Obs'y.
Wilna	29.55	750.5	29.98	761.4	38.1	3.4	88	n.	4	2			10					heavy cl'ds.	Berg, Assistant.
Yeniseisk	29.56	750.9	29.86	758.4	32.5	0.3	87	w.	9	4			10					snowing	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.90	759.4	48.9	9.4	78	e.			6		10 k			0.08	2.0	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			29.87	758.7	51	10.6	93	e.			6	5	0	e.		0	0		J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.66	753.4	29.77	756.1	65.7	18.7	52	sw.	4.3	1.9		2 c;os	0			0.150	3.8		Antonio Rave, Director.
Bilbao, Met. Obs'y	29.59	751.6	29.65	753.0	65.8	18.8	52	s.	5.8	2.6		3	7	w.		0	0	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.79	680.4			50.0	10.0	97	s.	14.8	6.6			10			0.173	4.4	raining	Domingo Martin.
Madrid, Royal Obs'y	27.65	702.4	29.87	758.6	57.0	13.9	73	s.	16.1	7.2		10	0	w.		0.020	0.5	light clouds.	The Staff.
Murcia, Met. Obs'y ‡	29.80	756.8	29.95	760.6	68.0	20.2	56	e.	0.9	0.4		5	5	ene.		0	0	covered	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.45	722.7	29.33	744.9	61.5	16.4	96	sse.	40.9	18.3			10			1.272	32.3	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.96	761.0	30.02	762.6	74.8	23.8	87	e.	1.3	0.6		1 c;os	0	wnw.		0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.76	756.0	29.82	757.3	78.4	25.8	95	sse.	3.3	1.5		4 os	4 k		sw.	0.650	16.5		Federico Faura, S. J.
San Fernando, Naval Obs'y	29.91?	759.8?	30.01?	762.2?	69.1	20.6	78	ssw.	8.0	3.6			10		sw.	0.095	2.4		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.95	760.8	30.04	763.1	77.7	25.4	98	calm	0	0		2 k	4 s			0	0	d. clouds	E. Cadea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.69	754.1	29.82	757.5	78.9	26.1	86	s.	7.6	3.4		3 cs	6 ks		s.	0	0	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.55	775.9	30.59	776.9	28.0	— 2.2	87	n.			2		8			0	0		
Umea	30.50	774.7	30.55	776.0	31.6	— 0.2	89	ne.			2		10			0	0		
Hernosand	30.50	774.7	30.55	776.0	35.4	1.9	65	nne.			6		10			0	0		
Stockholm	30.13	765.3	30.31	769.8	37.4	3.0	69	ne.			6		10			0	0		
Wisby	30.13	765.3	30.19	766.8	43.2	6.2	71	ene.			4		7			0.083	2.1		
Sub-Series.																			
Upsala	30.24	768.0	30.32	770.2	34.5	1.4	90	nne.	11.4	5.1			10		n.	0.047	1.2	snowing	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.35	720.0	29.78	756.5	49.8	9.9	87	nw.			1		9			0.866	22.0	covered	The Observatory.
Zurich ‡	28.10	713.7	29.78	756.3	42.8	6.0	93	w.			4		10			0.413	10.5	raining	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.10	764.5	59.0	15.0	61	ne.	6	2.5			7		n.	0	0		The Observatory.
Valona			29.95	760.7	72.3	22.4		s.			4		5			0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.03	762.7	77.0	25.0	71	n.			1	5 c	0			0	0		Prof. C. V. Van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.24	768.1	30.32	770.1	47	8.3	63	s.	2	0.9		7 c	fg.	w.		0	0	fair	
Alpena, Michigan	29.54	750.3	30.23	767.8	34	1.1	89	w.	6	2.7		6 cs	2 s	w.		0	0	fair	
Atlanta, Georgia	29.07	738.4	30.29	769.4	51.0	10.6	100	ne.	8	3.6			fg.			0	0	dense fog	
Atlantic City, New Jersey	30.29	769.4	30.30	769.6	49.2	9.6	93	n.	3	1.3		0	0			0.02	0.5	clear	
Augusta, Georgia	30.08	764.0	30.28	769.1	56.8	13.8	86	ne.	1	0.4		1 c	0			0.16	4.1	clear	
Baltimore, Maryland	30.28	769.1	30.33	770.4	50	10.0	64	e.	2	0.9		0	0			0	0	clear	
Barnegat, New Jersey	30.27	768.8	30.29	769.4	48.0	8.9	93	n.	6	2.7		0	fg.		calm	inap.	inap.	clear	
Bismarck, Dakota	28.22	716.8	30.14	765.5	34	1.1	82	nw.	14	6.3			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.16	689.9	30.08	764.0	37	2.8	92	calm	0	0		5 cs	0	calm		0.21	5.3	fair	
Boston, Massachusetts	30.13	765.3	30.29	769.4	39.0	3.9	91	nw.	5	2.2			fg.			0	0	dense fog	
Brackettville, Texas	28.86	733.0	29.90	759.4	63	17.2	93	e.	8	3.6			10 s		e.	0.03	0.8	threatening.	
Brownsville, Texas	29.97	761.2	30.02	762.5	70	21.1	94	ne.	4	1.8		0	8 ks		ne.	0.24	6.1	fair	
Buffalo, New York	29.56	750.8	30.30	769.6	41.3	5.2	81	ne.	3	1.3		5 k	sk.	sw.		0.02	0.5	dense smoke.	
Burlington, Vermont	29.98	761.5	30.28	769.1	46.5	8.1	70	sw.	5	2.2		0	7 s		w.	0	0	fair	
Cairo, Illinois	29.89	759.2	30.30	769.6	46.7	8.2	91	sw.	3	1.3		4 c	fg.	sw.		0	0	fair	
Campo, California	27.34	694.4	29.91	759.7	27	— 2.8	88	s.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.14	689.3			40	4.4	67	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.25	768.3	30.27	768.8	60	15.6	75	ne.	14	6.3		0	1 k			0	0	clear	
Cape May, New Jersey	30.27	768.8	30.30	769.6	48	8.9	86	ne.	7	3.1		0	0			0	0	clear	
Castroville, Texas	29.25	742.9	29.95	760.7	66	18.9	78	calm	0	0			10 n			0.01	0.3	light rain	
Cedar Keys, Florida	30.09	764.3	30.11	764.8	70	21.1	84	ne.	11	4.9			10 s		ne.	0	0	cloudy	
Champaign, Illinois	29.42	747.3	30.24	768.1	42.5	5.8	86	s.	4	1.8		3 c	0	s.		0	0	clear	
Charleston, S. Carolina	30.15	765.8	30.21	767.3	62	16.7	84	ne.	10	4.5		0	0			0	0	clear	
Charlotte, N. Carolina	29.42	747.3	30.33	770.4	49.0	9.4	86	n.	5	2.2		0	fg.			0	0	clear	
Chattanooga, Tennessee	29.46	748.3	30.31	769.9	51.5	10.8	85	ne.	6	2.7		5 k; cs	1 ks	se; c	se.	0	0	fair	
Cheyenne, Wyoming	23.92	607.6	30.05	763.3	37.2	2.9	67	ne.	8	3.6		0	2 s			0	0	clear	
Chicago, Illinois	29.51	749.5	30.25	768.3	44.8	7.1	81	s.	4	1.8		0	hz.			0	0	clear	
Chincoteague, Virginia	30.26	768.6	30.28	769.1	54	12.2	93	n.	8	3.6		0	sk		calm	0	0	clear	
Cincinnati, Ohio	29.66	753.4	30.34	770.6	45.6	7.6	83	calm	0	0			fg.			0	0	dense fog	
Cleveland, Ohio	29.58	751.3	30.34	770.6	37.8	3.2	100	se.	7	3.1			fg.			inap.	inap.	dense fog	
Coleman City, Texas																			
Columbus, Ohio	29.43	747.5	30.32	770.1	43	6.1	93	n.	1	0.4		2 cs	fg.			0	0	fair	
Concho, Texas	28.12	714.2	30.12	765.0	59	15.0	87	ne.	6	2.7		10 k	0	sw.		0	0	cloudy	
Corsicana, Texas	29.69	754.1	30.17	766.3	56	13.3	74	se.	3	1.3		0	8 s			0	0	cloudy	
Davenport, Iowa	29.52	749.8	30.20	767.1	47	8.3	77	s.	5	2.2		3 k	3 s	w.	w.	0	0	fair	
Dayton, Washington T'y	28.37	720.6	30.23	767.8	46	7.8	93	calm	0	0			10 s		calm	0	0	cloudy	
Deadwood, Dakota	25.37	644.4	30.23	767.8	36	2.2	82	calm	0	0			10 s		calm	0	0	cloudy	
Decatur, Texas																			
Delaware Breakwater, Del.	30.28	769.1	30.30	769.6	57	13.9	74	n.	8	3.6		1 k	sk.	n.		0.01	0.3	clear	
Denison, Texas	29.37	746.0	30.20	767.1	52	11.1	93	se.	2	0.9			10 s		se.	0	0	cloudy	
Denver, Colorado	24.65	626.1	30.02	762.5	40.8	4.9	40	s.	4	1.8			9 s		calm	0	0	cloudy	
Des Moines, Iowa	29.15	740.4	30.10	764.5	50	10.0	86	s.	4	1.8			10 ks		s.	0	0	cloudy	
Detroit, Michigan	29.58	751.3	30.32	770.1	40.2	4.6	89	nw.	1	0.4			fg.			inap.	inap.	dense fog	
Dodge City, Kansas	27.33	694.2	30.02	762.5	54.3	12.4	95	s.	15	6.7		0	1 s			0	0	clear	
Dubuque, Iowa	29.42	747.3	30.16	766.1	46.3	7.9	83	s.	3	1.3			10 s		se.	0	0	threatening.	
Duluth, Minnesota	29.31	744.5	30.04	763.0	42	5.6	83	calm	0	0			10 s		calm	0.05	1.3	cloudy	
Eagle Pass, Texas	29.27	743.4	30.12	765.0	65.2	18.4	100	se.	2	0.9			10 n		calm	0.20	5.1	light rain	
Eagle Rock, Idaho	25.14	638.5	30.13	765.3	38	3.3	76	n.	12	5.4			10 s		sw.	0.07	1.8	cloudy	
Eastport, Maine	30.18	766.6	30.25	768.3	41	5.0	92	n.	4	1.8		0	1 s			0	0	clear	
El Paso, Texas	26.23	666.2	30.07	763.8	49.3	9.6	80	ne.	1	0.4		0	5 ks			0.57	14.5	fair	
Erie, Pennsylvania	29.56	750.8	30.32	770.1	46	7.8	83	s.	4	1.8			10 s			0.07	1.8	cloudy	
Escanaba, Michigan	29.46	748.3	30.14	765.5	36	2.2	69	sw.	5	2.2		3 c	2 s	calm	calm	0	0	fair	
Florence, Arizona	28.34	719.8	29.94	760.5	50.8	10.4	41	w.	3	1.3		0	0			0	0	clear	
Fort Apache, Arizona	24.96	634.0	30.00	762.0	35	1.7	69	e.	2	0.9		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.33	694.2	30.27	768.8	11	—11.7	80	sw.	5	2.2		0	0			0	0	clear	
Fort Bennett, Dakota	28.40	721.3	30.01	762.2	34	1.1	81	n.	3	1.3		4 cs	0	nw.		0	0	fair	
Fort Benton, Montana	27.37	695.2	30.35	770.9	16	— 8.9	70	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	28.12	714.2	30.23	767.8	25	— 3.9	88	nw.	1	0.4		0	0			0	0	clear	
Fort Custer, Montana	26.92	683.8	30.31	769.9	39	3.9	67	n.	10	4.5			10 s		calm	0	0	cloudy	
Fort Davis, Texas	25.05	636.3	30.01	762.2	54	12.2	77	calm	0	0		0	0			0	0	clear	
Fort Elliott, Texas	27.26	692.4	30.56	776.2	55	12.8	74	se.	12	5.4			10 s		se.	0	0	cloudy	
Fort Gibson, Indian T'y	29.58	751.3	30.15	765.8	52.5	11.4	72	se.	2	0.9		0	0			0	0	clear	
Fort Grant, Arizona					50	10.0	74	ne.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.78	731.0	30.04	763.0	57.8	14.3	90	calm	0	0			10 s			inap.	inap.	cloudy	
Fort Keogh, Montana	27.59	700.8	30.26	768.6	35	1.7	88	nw.	6	2.7			10 s		nw.	0	0	cloudy	
Fort Macon, North Carolina	30.23	767.8	30.24	768.1	60	15.6	93	n.	12	5.4		hz.	2 k	calm	n.	0	0	clear	
Fort McKavett, Texas	27.80	706.1	29.69	754.1	59.1	15.1	88	e.	6	2.7			10 s			0	0	cloudy	
Fort Missoula, Montana	26.81	681.0	30.46	773.7	40	4.4	100	nw.	5	2.2			10 s			0.01	0.3	cloudy	
Fort St. Michaels	29.41	747.0	29.45	748.0	38	3.3	81	e.	11	4.9			10 ks		e.	0	0	cloudy	
Fort Shaw, Montana	26.52	673.6	30.26	768.6	22	— 5.6	73	w.	7	3.1		0	0			0.02	0.5	clear	
Fort Sill, Indian Territory	28.86	733.0	30.15	765.8	54.5	12.5	73	s.	8	3.6		10 cs	0			0	0	cloudy	
Fort Stevenson, Dakota	28.31	719.1	30.27	768.8	28	— 2.2	88	n.	4	1.8		0	0			0	0	clear	
Fort Verde, Arizona					39.4	4.1	57	w.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.31	719.1	29.91	759.7	58	14.4	93	e.	2	0.9			10 n			inap.	inap.	light rain	
Galveston, Texas	30.02	762.5	30.06	763.5	68	20.0	84	ne.	14	6.3			10 s		ne.	0	0	threatening.	
Grand Haven, Michigan	29.56	750.8	30.26	768.6	37.0	2.8	94	se.	6	2.7		4 k	0	w.		0	0	fair	
Hatteras, North Carolina	30.21	767.3	30.23	767.8	64	17.8	68	ne.	20	8.9		0	0			0	0	clear	
Helena, Montana	25.88	657.3	30.47	773.9	34	1.1	82	s.	1	0.4		0	0			0	0	clear	
Henrietta, Texas	29.11	739.4	30.03	762.7	61	16.1	65	s.	10	4.5			10 s			0	0	cloudy	
Huron, Dakota	28.58	725.9	30.04	763.0	31	— 0.6	88	nw.	10	4.5		0	5 ks			0	0	fair	
Indianapolis, Indiana	29.46	748.3	30.29	769.4	41	5.0	82	calm	0	0		0	hz.		calm	0	0	dense haze.	
Indianola, Texas	30.01	762.2	30.04	763.0	66.7	19.3	93	ne.	20	8.9		4 ck	4 s; ks	w.	calm	0	0	cloudy	
Jacksboro, Texas	28.93	734.8	30.06	763.5	55	12.8	86	se.	6	2.7			10 s		calm	0	0	cloudy	
Jacksonville, Florida	30.10	764.5	30.14	765.5	65	18.3	84	n.	10	4.5		4 k	0	n.		0.15	3.8	fair	
Keokuk, Iowa	29.51	749.5	30.19	766.8	46.0	7.8	96	se.	4	1.8			fg.			0	0	dense fog	
Key West, Florida	30.00	762.0	30.03	762.7	78.5	25.8	85	e.	2	0.9		0	1 k		e.	0.01	0.3	clear	
Kittyhawk, North Carolina	30.24	768.1	30.26	768.6	63	17.2	73	e.	23	10.3		0	4 k		e	0	0	fair	
Knoxville, Tennessee	29.28	743.7	30.35	770.9	44.2	6.8	91	ne.	4	1.8		0	sk.		calm	0	0	clear	
La Crosse, Wisconsin	29.31	744.5	30.11	764.8	48.3	9.1	71	s.	12	5.4			10 s			0	0	cloudy	
La Mesilla, New Mexico	26.08	662.4	30.23	767.8	49.5	9.7	96	calm	0	0		0	1 s			0.18	4.6	clear	
Laredo, Texas	29.58	751.3	29.92	760.0	64	17.8	100	ne.	5	2.2			10 n		ne.	0.52	13.2	light rain	
Leavenworth, Kansas	29.21	741.9	30.14	765.5	52	11.1	72	s.	8	3.6		0	5 s		sw.	0	0	fair	
Lewiston, Idaho	29 28	743.7	30.16	766.0	50	10.0	77	calm	0	0			10 s		calm	0.04	1.0	cloudy	
Little Rock, Arkansas	29.89	759.2	30.21	767.3	48	8.9	93	ne.	1	0.4			fg.			0	0	dense fog	
Los Angeles, California	29.54	750.3	29.92	760.0	56.0	13.3	69	w.	4	1.8		0	0			0	0	clear	
Louisville, Kentucky	29.71	754.6	30.29	769.4	46.5	8.1	93	calm	0	0			fg.		calm	0	0	dense fog	
Lynchburg, Virginia	29.03	752.6	30.34	770.6	48.5	9.2	76	calm	0	0		0	fg.			0	0	clear	
Madison, Wisconsin	29.14	740.1	30.21	767.3	44	6.7	83	s.	7	3.1			10 s		w.	0	0	cloudy	
Marquette, Michigan	29.33	745.0	30.09	764.3	43	6.1	51	sw.	14	6.3			10 s		w.	0	0	cloudy	
Mason, Texas	28.48	723.4	30.24	768.1	59.8	15.4	87	se.	6	2.7			10 s		se.	0.10	2.5	cloudy	
Memphis, Tennessee	29.90	759.4	30.25	768.3	47	8.3	86	calm	0	0		3 c	0	calm		0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.43	747.5	30.21	767.3	43	6.1	93	s.	6	2.7		4 ck	5 s	w.		0	0	cloudy	
Mobile, Alabama	30.08	764.0	30.14	765.5	58.0	14.4	86	n.	4	1.8			10 s			0	0	cloudy	
Montgomery, Alabama	29.97	761.2	30.21	767.3	60.0	15.6	87	ne.	2	0.9			10 s		ne.	0	0	cloudy	
Moorhead, Minnesota	28.99	736.3	30.05	763.3	30	— 1.1	88	nw.	8	3.6		hz.	0			0	0	clear	
Morgantown, W. Virginia	29.33	745.0	30.36	771.1	38.0	3.3	86	calm	0	0			fg.			0	0	dense fog	
Mt. Washington, N. H.	23.89	606.8	30.26	768.6	25.5	— 3.6	94	nw.	34	15.2			fg		nw.	0	0	light fog	
Nashville, Tennessee	29.74	755.4	30.30	769.6	43.2	6.2	94	n.	1	0.4		2 cs	fg			0	0	dense fog	
New Haven, Connecticut	30.18	766.6	30.30	769.6	38	3.3	89	ne.	3	1.3		0	sk			0	0	dense smoke	
New London, Connecticut	30.26	768.6	30.31	769.9	41	5.0	100	ne.	3	1.3			fg			0	0	dense fog	
New Orleans, Louisiana	30.06	763.5	30.12	765.0	61.7	16.5	88	ne.	8	3.6			10 s		ne.	0	0	cloudy	
Newport, Rhode Island	30.25	768.3	30.30	769.6	43.8	6.6	87	ne.	4	1.8		1 k	hz	calm		0	0	dense haze	
New River, N. Carolina					57	13.9	80	n.			2	0	0			0	0	clear	
New Shoreham, Rhode I'd	30.25	768.3	30.28	769.1	49.5	9.7	77	ne.	8	3.6		0	0			0	0	clear	
New York, New York	30.14	765.5	30.32	770.1	48	8.9	86	nw.	3	1.3		0	fg			0	0	clear	
Norfolk, Virginia	30.26	768.6	30.29	769.4	58	14.4	64	ne.	7	3.1		0	0			inap.	inap.	clear	
North Platte, Nebraska	26.95	684.5	30.01	762.2	48	8.9	98	e.	11	4.9			fg			0.01	0.3	dense fog	
Olympia, Washington T'y	30.15	765.8	30.19	766.8	37.5	3.1	92	e.	1	0.4		0	fg			0	0	clear	
Omaha, Nebraska	28.85	732.8	30.09	764.3	54.5	12.5	79	s.	4	1.8			10 s		sw.	0	0	cloudy	
Oswego, New York	29.96	761.0	30.30	769.6	47.0	8.3	77	nw.	1	0.4		0	7 k		w.	inap.	inap.	fair	
Pensacola, Florida	30.12	765.0	30.15	765.8	60	15.6	93	n.	6	2.7		0	3 s		n.	0	0	fair	
Philadelphia, Pa	30.24	768.1	30.30	769.6	53	11.7	80	n.	1	0.4			fg			0	0	dense fog	
Phœnix, Arizona	28.74	730.0	30.57	776.5	47	8.3	48	e.	2	0.9		0	0			0	0	clear	
Pike's Peak, Colorado	17.68	449.1	29.90	759.4	18	— 7.8	100	sw.	18	8.0			fg		sw.	c	0	dense fog	
Pioche, Nevada	23.95	608.3	30.14	765.5	36	2.2	53	nw.	7	3.1		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.52	749.8	30.37	771.4	47.1	8.4	86	w.	1	0.4		0	fg		calm	0	0	clear	
Port Eads, Louisiana	30.09	764.3	30.10	764.5	73.0	22.8	84	ne.	17	7.6		3 c	2 k	ne.	ne.	0	0	fair	
Port Huron, Michigan	29.60	751.8	30.32	770.1	33.5	0.8	100	s.	2	0.9			fg		calm	0	0	dense fog	
Portland, Maine	30.24	768.1	30.29	769.4	39	3.9	89	sw.	2	0.9			fg			0	0	dense fog	
Portland, Oregon	30.14	765.5	30.21	767.3	43.1	6.2	93	nw.	2	0.9			fg			0.11	2.8	dense fog	
Portsmouth, N. Carolina					65	18.3	73	ne.	25	11.2		0	0			0	0	clear	
Prescott, Arizona	24.64	625.8	29.94	760.5	46	7.8	40	s.	4	1.8		0	0			0	0	clear	
Punta Rassa, Florida	30.01	762.2	30.02	762.5	74	23.3	94	ne.	5	2.2			fg		ne.	0	0	dense fog	
Red Bluff, California	29.72	754.9	30.07	763.8	50.0	10.0	61	n.	6	2.7		0	0			inap.	inap.	clear	
Rio Grande City, Texas	29.80	756.9	30.01	762.2	69	20.6	84	ne.	3	1.3			10 s		ne.	0	0	cloudy	
Rochester, New York	29.61	752.1	30.31	769.9	40	4.4	89	sw.	4	1.8		7 k	fg	w.		inap.	inap.	fair	
Roseburg, Oregon	29.62	752.3	30.21	767.3	40	4.4	92	e.	2	0.9			fg			0.67	17.0	dense fog	
Sacramento, California	29.95	760.7	30.03	762.7	47.8	8.8	63	nw.	10	4.5		0	0			0	0	clear	
St. Louis, Missouri	29.66	753.4	30.29	769.4	45.0	7.2	100	calm	0	0			fg			0	0	dense fog	
St. Paul, Minnesota	29.12	739.6	30.04	763.0	44.0	6.7	83	se.	8	3.6			10 k		w.	0	0	cloudy	
Salt Lake City, Utah	25.48	647.2	29.93	760.2	45	7.2	63	calm	0	0			10 s		calm	0	0	threatening	
San Antonio, Texas	29.49	749.0	30.21	767.3	61.6	16.4	100	calm	0	0			10 n		calm	inap.	inap.	light rain	
San Diego, California	29.79	756.7	29.86	758.4	59.0	15.0	70	e.	4	1.8			10 s			0	0	cloudy	
Sandusky, Ohio	29.60	751.8	30.31	769.9	41	5.0	73	sw.	4	1.8		0	0			0.02	0.5	clear	
Sandy Hook, New Jersey	30.26	768.6	30.29	769.4	51.0	10.6	80	nw.	7	3.1		0	0			0	0	clear	
San Francisco, California	29.98	761.5	30.05	763.3	51	10.6	93	calm	0	0		0	fg.		sw.	0	0	clear	
Santa Fé, New Mexico	23.24	590.3	30.23	767.8	40	4.4	67	calm	0	0		0	5 s		calm	0	0	fair	
Savannah, Georgia	30.11	764.8	30.20	767.1	62	16.7	81	n.	5	2.2			10 ks		ne.	0.10	2.5	cloudy	
Shreveport, Louisiana	29.93	760.2	30.16	766.1	49	9.4	93	ne.	2	0.9		8 ck	2 s	calm	calm	0.02	0.5	cloudy	
Silver City, New Mexico	24.23	615.4	29.91	759.7	44	6.7	86	nw.	1	0.4		0	0			0.45	11.4	clear	
Sitka, Alaska	29.79	754.4	29.77	756.1	52	11.1	66	se.	27	12.1			10 s		se.	0.20	5.1	cloudy	
Smithville, North Carolina	30.18	766.6	30.22	767.6	57	13.9	86	n.	8	3.6		6 ck	2 k	sw.	calm	0	0	fair	
Spokane Falls, Wash. Ter.	28.11	714.0	30.18	766.6	38	3.3	92	w.	1	0.4			10 s		calm	0.02	0.5	cloudy	
Springfield, Illinois	29.56	750.8	30.27	768.8	45.7	7.6	97	s.	6	2.7		2 cs	fg	sw.		0	0	clear	
Springfield, Massachusetts	30.18	766.6	30.32	770.1	36.0	2.2	92	calm	0	0		4 c	fg			0	0	fair	
Stockton, Texas	26.99	685.5	30.14	765.5	56.0	13.3	100	calm	0	0		0	4 s		sw.	0	0	fair	
St. Vincent, Minnesota	29.13	739.9	30.06	763.5	24	— 4.4	100	nw.	4	1.8		0	0			0	0	clear	
Thatcher's Island, Mass	30.19	766.8	30.25	768.3	48.0	8.9	77	nw.	2	0.9		0	0			0	0	clear	
Toledo, Ohio	29.58	751.3	30.30	769.6	40	4.4	89	w.	1	0.4		3 ck	fg			0	0	dense fog	
Tucson, Arizona	27.46	697.5	29.90	759.4	50	10.0	48	se.	3	1.3		0	0			0	0	clear	
Umatilla, Orégon	29.84	757.9	30.27	768.8	38.5	3.6	87	sw.	3	1.3			10 s		w.	0	0	cloudy	
Uvalde, Texas	29.08	738.6	29.88	758.9	63	17.2	93	e.	2	0.9			10 n		e.	0.12	3.0	light rain	
Vicksburg, Mississippi	29.92	760.0	30.18	766.6	52	11.1	86	ne.	3	1.3		5 cs	fg	calm	calm	0	0	fair	
Visalia, California	29.56	750.8	29.93	760.2	48	8.9	77	w.	1	0.4		0	0			0	0	clear	
Washington, D. C.	30.21	767.3	30.33	770.4	42	5.6	92	nw.	1	0.4			fg			0	0	dense fog	
West Los Animas, Colorado																			
Wickenburg, Arizona					40	4.4	50	calm			0		0			0	0	clear	
Wilmington, N. Carolina	30.17	766.3	30.23	767.8	56.0	13.3	86	ne.	5	2.2		5 ck	0	calm		0	0	fair	
Winnemucca, Nevada	25.62	650.7	30.08	764.0	34	1.1	88	sw.	12	5.4		2 ck	0	sw.		0.69	17.5	clear	
Wood's Holl, Mass	30.14	765.5	30.18	766.6	46	7.8	93	ne.	5	2.2		1 k	0	ne.		0	0	clear	
Yankton, Dakota	28.66	728.0	30.03	762.7	43	6.1	93	calm	0	0		10 cs	sk.			0	0	cloudy	
Yuma, Arizona	29.64	752.8	29.78	756.4	56.8	13.8	86	se.	2	0.9		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡																			J. A. Racker.
Bogota, U. S. Columbia	21.97	558.0			53.2	11.8	82	calm	0	0		2 k	2 s	w.		0.10	2.5	fair	Joaquin Gomez.
Buenaventura, U. S. C.	29.91	759.7	29.93	760.2	76	24.4	90	s.					10			4.30	109.2	raining	J. B. Dougherty.
Guadeloupe, W. I.‡	29.94	760.5	29.94	760.5	81	27.2	90	nne.				8 k	2 n			0	0		B. Bigar.
Havana, Cuba, W. I.	30.00	762.0	30.05	763.3	79	26.1	82	calm	0	0		1 cs	2 ks	calm	calm	0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.98	761.5	29.99	761.7	75.5	24.2	92	calm	0	0		2 cs	6 s			0.04	1.0		Robert Johnstone.
Navassa, W. I.	29.88	758.9	29.96	761.0	80	26.7	82	e.	9	4.0		8 cs; k	2 k; hz	e.	e.	0	0	hazy	F. M. Everett.
Paramaribo, S. A.	29.98	761.5	29.98	761.5	80	26.7	82	e.			2	0	5 k			0.200	5.1	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.41	747.0	29.97	761.2	79	26.1	85	calm					10 ks		calm	0.06	1.5	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					74.5	23.6	95	ne.			1	5 ck	0	ne.		0	0		Earl Flint.
Santiago de Cuba, W. I.	29.98	761.5	30.01	762.2	80	26.7	82	calm	0	0		3 c	0			0	0	fair	Robert Mason.
St. Thomas, W. I.‡	29.93	760.2	30.04	763.0	81	27.2	88	e.	2	0.9		1 cs	1 ks	se.	e.	0.35	8.9	clear	G. O. Gyllich.
York Factory, B. A.	29.49	749.0	29.54	750.3	0.5	—17.5	85	n.	10	4.5		5 k	5 s	n.	n.			snowing	J. Fortescue & W. Wood.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES,																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross, N. 33° 25′, E. 135° 58′	30.11	764.8	66	18.9		nne.			3		0					2	se.	blue sky	
H. M. S. Alert, Port Darwin, Australia	29.93	760.2	83.2	28.4	78	nw.			2		1							blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, Cagliari, Isd. of Sardinia	29.88	758.9	70.3	21.3	60	nne.			2–4		8	w.				1	w.	squally	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	30.10	764.5	59	15.0		var.			1		6	se.						d. clouds	Capt. Hon. W. H. Joliffe
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 46° 48′, W. 35° 35′	29.86	758.4	54	12.2	100	nnw.			7		5					7	nnw.	squally	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	29.97	761.2	72	22.2	73	ssw.			1		0							blue sky	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	30.00	762.0	61	16.1	100	calm			0		9							d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 39° 00′, E. 9° 14′	29.85	758.2	69	20.6	90	wsw.			5–6		7					5	wsw.	showery	Comm. F. W. Egerton.
H. M. S. Coquette Gibraltar, Mediterranean	29.97	761.2	71	21.7		calm			0		0					1	w.	blue sky	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, Suez Canal	30.01	762.2	79	26.1	66	ne.			1–2		1							blue sky	Capt. C. S. Cardell.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 05′, E. 134° 54′	30.05	763.3	65	18.3	100	ne.			4		8	nw.						d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 22′, E. 20° 43′	29.97	761.2	68	20.0		sw.			1		5	calm						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 6° 21′, W. 14° 33′	29.99	761.7	75	23.9		se.			3–4		5	se.				2	se.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	29.93	760.2	76	24.4	86	wsw.			1		2	wsw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.37	771.4	34	1.1	90	sw.			1		7	w.						misty	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 28° 59′, E. 50° 50′	29.87	758.7	84	28.9		wnw.			2–3		3	nw.				3	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 9° 05′, E. 79° 18′	29.86	758.4	79	26.1		se.			5		8	se.				6	se.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.81	757.2	56	13.3	100	calm			0		10							d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.86	758.4	84	28.9	79	ne.			1		3	n.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 16° 20′, E. 41° 30′	30.04	763.0	78	25.6	67	ne.			3–4		3	nne.				2	nne.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 17° 30, W. 88° 12′	29.88	758.9	82	27.8	83	n.			1		4							d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Moskyn.
H. M. S. Gannet, N. 2° 40′, W. 157° 50′	29.91	759.7	80	26.7	75	se.			3–4		7							d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet																			Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	30.15	765.8	61	16.1		calm			0		2							d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 5′, W. 79° 30′	29.90	759.4	81	27.2		e.			1		3	se.				1	se.	raining	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 31° 00′, E. 12° 40′	29.98	761.5	64	17.8		sse.			2		9	se.				3	se.	d. clouds	Comm. F. H. Haygarth.
H. M. S. Lark, S. 35° 30′, E. 17° 37′	30.21	767.3	69	20.6	79	ene.			6–8		3					6	e.	d. clouds	Lt. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, Hong Kong, China	29.85	758.2	73.5	23.1	68	ne.			1		7							misty	Lieut. A. Balfour.
H. M. S. Malabar, Bombay, India	29.89	759.2	87	30.6	91	w.			1		2	nw.						d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 36° 07′, W. 5° 21′	29.90	759.4	72	22.2	85	ssw.			1		4	ssw.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.96	761.0	76	24.4	100	ne.			4		5	ene.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.17	766.3	57	13.9	87	calm			0		10							misty	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.16	766.1	46	7.8	89	nnw.			1		9							d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes, N. 13° 30′, W. 51° 52′	30.05	763.3	82	27.8	87	ene.			4–5		1					3	ne.	blue sky	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 21° 41′, W. 71° 05′	30.01	762.2	81	27.2	91	ese.			2		5					1	e.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	30.21	767.3	40	4.4	91	calm			0									blue sky	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.89	759.2	84.3	29.1	79	nw.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sappho, N. 27° 22′, W. 19° 30′	30.17	766.3	76	24.4	95	wnw.			3		3	wnw.				4	w.	d. clouds	
H. M. S. Sea Gull, S. 15° 01′, E. 40° 47′	29.63	752.6	82	27.8	74	ene.			2–3		1							blue sky	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos, N. 36° 26′, W. 64° 38′	29.91	759.7	70	21.1	90	nnw.			6		5					4	nnw.	d. clouds	Capt. C. G. Fane.
H. M. S. Thetis, N. 19° 17′, W. 108° 08′	29.93	760.2	80	26.7	95	se.			3		1					2	se.	blue sky	Capt. P. W. Stephens.
H. M. S Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 28° 57′, W. 84° 28′	30.21	767.3	65	18.3	73	wnw.			1		5	calm				1	ssw.	d. clouds	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne																			
H. M. S Urgent, Port Royal, Jamaica, W. I.	29.91	759.7	81	27.2		n.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.78	756.4	58	14.4	87	calm			0		2							d. clouds	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, Mossamedes, Benguela	29.93	760.3	74.8	23.8	72	nw.			3		0					1		blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, Porto Praya, Cape Verd Ids	30.13	765.2	84.2	29.0	92	ne.			3		3		ne.			2	ne.	d. clouds	Carlos M. de Silva Costa
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.87	758.8	74.8	23.8	77	nnw.			3		10							overcast	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

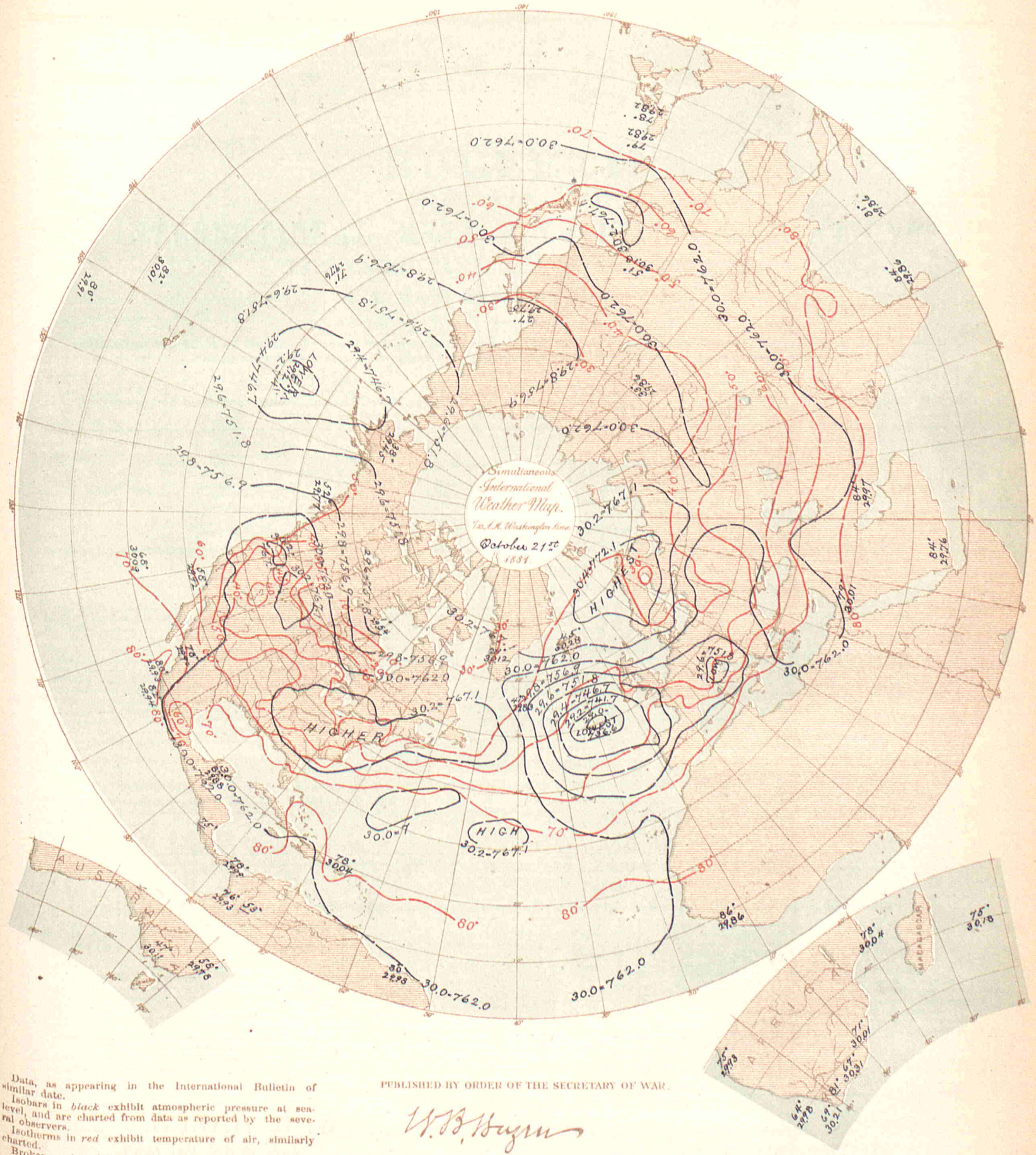
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.						
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.	Character.	Dir'n from.		
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	30.17	766.3	64	17.8	89	ne.	5	2.2			8		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.28	769.1	38	3.3	90	calm	0	0			0			0	0			clear.	
Naval Hospital, Yokohama, Japan	29.90	759.4	60	15.6	79	calm			0		10		w.	0	0			cloudy.	
Adams, Callao, Peru	29.84	757.9	63	17.2	83	sw.			0-1		10					sm'h		overcast	
Alaska, Callao, Peru	29.98	761.5	61	16.1	94	calm			0		10			0	0	sm'h		cloudy	
Alert, Kobe, Japan *	29.91	759.7	64	17.8	68	wnw.			1		2		wsw.	0	0	sm'h		fair.	
Alliance, N. 55° 41′, W. 37° 33′	29.83	757.7	41	5.0	82	n.			5		10			light	light	mod.	n.	cloudy	
Ashuelot, Kobe, Japan	30.14	765.5	61	16.1	82	calm			0		2		calm					clear	
Colorado, New York, N. Y.	30.24	768.1	50	10.0	93	nw.	1	0.4			0							clear.	
Constitution, Newport, R. I.	30.25	768.3	45	7.2	100	ne.	2	0.9										clear.	
Franklin, Yorktown, Va.	30.15	765.8	57	13.9	87	n.	8.4	3.8			0			0	0			clear	
Galena, Volo, Turkey	30.01	762.2	67	19.4	60	calm			0		10					sm'h		cloudy	
Independence, N. Yard, Mare I'd, Cal.	29.82	757.4	51	10.6	86	calm	0	0			0							clear	
Kearsarge, Yorktown, Va.	30.27	768.8	57	13.9	87	n.			2		0					sm'h		hazy.	
Lackawanna, San Francisco, Cal. †	30.20	767.1	56	13.3	94	calm			0		0							clear	
Lancaster, N. 38° 15′ W. 53° 46′	29.94	760.5	75	23.9	86	wsw.			5		5		sw.			mod.	s.	d. clouds	
Marion, Montevideo, Uruguay	29.91	759.7	68	20.0		ssw.			2		2		ssw.			sm'h		fair	
Michigan, Erie, Pa.	30.23	767.8	45	7.2	92	s.			3		8		s.					fair	
Monocacy, Yokohama, Japan	30.13	765.3	64	17.8	83	nw.			1		10		nw.					rainy	
Nipsic, Genoa, Italy	29.60	751.8	48	8.9	78	n.			4		8		n.			sm'h		squally	
Onward, Callao, Peru †	29.99	761.7	60	15.6	94	calm			0		0?					long	w.	cloudy	
Palos, Hong Kong, China	29.85	758.2	73	22.8	55	nne.			2		10		n;e.					cloudy	
Passaic, Washington, D. C.	30.27	768.8	46	7.8	77	calm			0									foggy	
Pensacola, Callao, Peru,	30.07	763.8	61	16.1	82	calm			0		10							cloudy	
Portsmouth, Yorktown, Va.	30.28	769.1	55	12.8	100	n			3		2		n.			sm'h		fair	
Powhatan, Boston, Mass.	30.27	768.8	40	4.4	100	wnw.			1		8							foggy	
Quinnebaug, Marseilles, France	29.73	755.1	61	16.1	61	wnw.			3		2		nw.			sm'h		fair	
Ranger, San Francisco, Cal. *	30.00	762.0	55	12.8	93	calm			0		0					sm'h		foggy	
Saratoga, Yorktown, Va.	30.27	768.8	56	13.3	100	nne.			2		1		nne.	0	0	sm'h		clear	
St. Louis, League Island, Pa.	29.99	761.7	44	6.7	100	calm	0	0			10			0	0			cloudy	
Swatara, N. 33° 52′, E. 137° 08′ †	30.06	763.5	66	18.9	68	ne.			5		8		nw.			mod.	ene.	squally	
Tennessee, Yorktown, Va.	30.32	770.1	57	13.9	?	nne.	8	3.6			0			0	0			fair	
Vandalia, Yorktown, Va.	30.26	768.6	58	14.4	88	n.			2		2		wsw.					fair	
Wabash, Boston, Mass.	30.29	769.4	39	3.9	82	nnw.								0	0			foggy	
Wachusetts, Sitka, Alaska	29.87	758.7	50	10.0	86	ene.			5		10		s.					overcast	
Wyoming, Port Royal, S. C.	30.19	766.8	64	17.8	78	nne.	10	4.5			8		ne.	0	0			cloudy	
Yantic, Yorktown, Va. *	30.22	767.6	60	15.6	76	nnw.			2		0							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind. Up'er	Amount and kind. Lo'er	Direction. Upper.	Direction. Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 46° 30′ W. 72° 15′ *†	30.17	766.3				nne.	1		8		ne.					cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N. 41° 40′, W. 65° 37′	30.16	766.1	50	10.0		nne.	4		10		ne.			slt	one.	hazy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn †	30.22	767.6	46	7.8	92	sw.	2		10		sw.					foggy	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng †	29.60	751.8	47	8.3	85	sse.	3		8		se.	light	light			cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, N. 50° 43′, W. 18° 22′ *†	28.99	736.3	54	12.2	93	nne.	5		8		nne.			h'vy	nne.	squally	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,																	
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, E. J. Moloney,																	
Bk. Caldew, Capt. W. Petersen S. 56° 07′, W. 77° 15′	28.95	735.3	37.3	2.9		nw.	1		10							snowing	
S. S. Cipero, Capt. W. N. Lailey, Sittee River, Honduras, C. A.	29.86	758.4	76.5	24.7	98	nnw.	3		8							raining	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton, ‡ N. 21° 27′, W. 120° 32′	30.09	764.3	68	20.0	74	nnw.	3		10							overcast	
S. S. Gordon Castle, Capt. W. Waring.																	
Bg. Hermine, Capt. S. G. Jones, S. 47° 27′, W. 64° 09′	29.66	753.4	47.8	8.8	85	n.	6		10							overcast	
Bkt. Hope, Capt. J. Campbell ‡																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, S. 4° 50′, E. 90° 10′	29.86	758.4	80.8	27.1	87	wnw.	4		5							d. clouds	
Bk. Mertola. Capt. E. W. Turner,																	
Bk. Moorhill, Capt. J. Brown, S. 56° 40′, W. 78° 23′	28.86	733.0	35.8	2.1	95	w.	6		6							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pielone, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry, S. 23° 36′, W. 39° 23′	29.87	758.7	75	23.9	90	nnw.	6		10							overcast	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estrella, Capt. P. Murdock,																	
Bk. Shun Lee, Capt. J. M. Gray,																	
S. S. Strathleven, Capt. C. W. Pearson, Near Cape Sima, Japan	30.09	764.3	64.5	18.1	83	sw.	3		5							d. clouds	
S. S. Thames, Capt. Luckhurst. N. 53° 23′, W. 48° 01′	30.25	768.3	37.9	3.3	63	w.	3		10							overcast	R. Ladd, 1st Officer.
S. S. Wybertan, Capt. R. J. Blacklin. N. 12° 37′, E. 44° 36′	29.76	755.9	84	28.9		ese.	3		0							blue sky	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt, E. Rogers N. 23° 04′, W. 108° 21′ †	29.66	753.4	81	27.2	62	n.	2		4			0	0	gentle	ese.	fair	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Galia, Capt. W. H. P. Hains																	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 37° 05′, W. 75° 18′	30.19	766.8	62.0	16.7	77	ne.	5		2		n.			r'gh cross	ne.	fair	
S. S. Hermann, Capt. H. Baur, N. 50° 05′, W. 3° 29′	29.43	747.5	57.2	14.0		e.	5		1		sw.	0	0	mod.	s.	fine	E. Schmidt, 3d Officr.
S. S. Koln, Capt. T. Jüngst, N. 50° 18′, W. 2° 03′	29.60	751.8	56.5	13.6	87	sse.	3		8		sse.	6 hr	light	sm'h	sse;	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer N. 38° 31′, W. 73° 00′	30.27	768.8	59.5	15.3	70	n.	4		2		n.	9 h'r	9 h'rs	mod.	n.	clear	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 48° 47′, W. 43° 11′	30.24	768.1	44.5	6.9	84	nnw.	5		8		ne.	3 hr	hail	long	nnw.	cloudy	Englehart & von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 42° 55′, W. 161° 00′ †	29.22	742.2	61	16.1	88	ssw.	6		5		ssw.	shr's	sh'rs	high	sw.	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, Hong Kong *†	30.07	763.8	74	23.3	72	ene.	1		1		ne.					clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 34° 49′, E. 175° 37′	29.96	761.0	71	21.7	85	wnw.	4		5		wnw.	0	0	mod.	wnw.	fair	
OREGON IMPROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes, N. 47° 55′, W. 124° 51′ †	30.32	770.1	51	10.6	93	ese.	1		0					light	sse.	clear	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann.																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles, Columbia River †	30.16	766.1	44	6.7	92	ne.	2									dense fog	
S. S. Oregon, Capt. E. Polemann. Portland, Oregon †	30.15	765.8	45	7.2	84	calm	0		10							foggy	C. W. Pohl, 2d Office

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 35° 09′, W. 120° 43′ †	29.92	760.0	54	12.2	74	calm	0	.....	0	.....	.....	.....	.....	sm'h	.....	clear	J. W. Ingalls.
S. S. Dakota, Capt. ——, N. 45° 23′, W. 124° 41′ †	30.13	765.3	52	11.1	93	se.	3	.....	10	.....	s.	0	0	sm'h	.....	cloudy	.....
S. S. Idaho, Capt. T. Huntington, N. 39° 11′, W. 123° 51′ †	30.06	763.5	57	13.9	94	nw.	4	.....	10	.....	nw.	.....	.....	h'vy	w.	cloudy	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 35° 09′, W. 120° 43′ †	30.00	762.0	58	14.4	76	nw.	8	.....	fg	.....	nw.	.....	.....	long	sw.	dense fog	G. H. Harrison.
S. S. Senator. Capt. Wallace, Santa Barbara, Cal †	29.80	756.9	56	13.3	87	nw.	1	.....	0	.....	.....	.....	.....	.....	.....	clear	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal †	30.01	762.2	50	10.0	86	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, Departure Bay †	30.28	769.2	46	7.8	92	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, N. 11° —′, W. 162° —′ †	30.01	762.2	82	27.8	91	ne.	2	.....	10	.....	ne.	.....	.....	mod.	ne.	cloudy	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 31° 14′, E. 131° 39′ *†	30.21	767.3	69	20.6	80	nne.	4	.....	8	.....	ne.	0	0	sm'h	.....	squally	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——, Panama, Panama †	29.99	761.7	78	25.6	95	nne.	2	.....	5	.....	ne.	0.1	3.	sm'h	.....	fair	.....
S. S. City of Sidney, Capt. H. C. Dearborn, Sydney, N. S. W. *†	29.43?	747.5?	59	15.0	76	ssw.	6	.....	8	.....	sw.	0	0	sm'h	.....	cloudy	E. L. Saik.
S. S. City of Tokio, Com. J. Maury,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, N. 19° 03′, W. 104° 17′ †	29.94	760.5	82	27.8	83	nnw.	3	.....	3	.....	calm	0	0	.....	.....	clear	R. R. Searle.
S. S. Grenada, Capt. M. Connolly,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. South Carolina, Capt. ——, N. 31° 37′, W. 120° 20′ *†	29.92	760.0	58	14.4	94	nw.	5	.....	2	.....	nw.	.....	.....	r'gh	sw.	fine	.....
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	29.90	759.4	54	12.2	87	w.	1	.....	0	.....	.....	.....	.....	.....	.....	clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, N. 42° 18′, W. 64° 31 †	30.58	776.7	44	6.7	.....	ne.	6	.....	8	.....	ne.	0	0	sm'h	.....	fine	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †	29.73	755.1	48	8.9	85	ese.	4	.....	10	.....	ese.	0.1	3.	.....	.....	rainy	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings, N. 50° 07′, W. 23° 15′ †	29.09	738.9	54	12.2	.....	ne.	4	.....	5	.....	ne.	12 h'r	shr's	mod.	ne.	fair	R. Horsfall.
S. S. Britannic, Capt. H. Perry,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, Off Ballycotton, Ireland †	29.41	747.0	54	12.2	93	se.	4	.....	8	.....	se	.....	.....	r'gh	se.	cloudy	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, New York, N. Y. †	30.38	771.6	53	11.7	93	n.	4	.....	10	.....	n.	.....	.....	.....	.....	overcast	.....
S. S. Republic, Capt. P. J. Irving N. 41° 39′, W. 66° 07′ †	30.15	765.8	52	11.1	?	w.	3	.....	8	.....	nw.	6 h'r	drizs	mod.	se.	.....	W. A. Ward.
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Potomac River †	30.38	771.6	55	12.8	100	nnw.	2	0	1 s	.....	.....	0	0	.....	.....	clear	.....
Hassler, Lt. Com. Nichols,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pawashick, Capt. E. Fry,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
S. S. Lovaine, Capt. H. McCauley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 34° 41′, W. 51° 47′ †	30.38	771.6	78	25.6	.....	sw.	4	.....	5	.....	sw.	.....	.....	long	n.	fair	E. Fry.
S. S. Proteus, Capt. Pike	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam. Capt. Jos. Hand, N. 34° 22′, W. 42° 40′ †	30.32	770.1	72	22.2	71	ne.	2	.....	0	.....	.....	light	light	very h'vy	nnw.	clear	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTÔBER 22, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.80	757.0	70.9	21.6	86	sw.			6		3			0	0	pretty fair...	Moiroud.
Algiers ‡			29.79	756.7	76.6	24.8	56	w.			1		1			0	0	very fair.....	Nicolas.
La Calle ‡			29.85	758.3	79.2	26.2	73	e.			2		3			0	0	pretty fair...	Fonfréde.
Tunis ‡			29.85	758.2															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.85	758.1	81.0	27.2	18	sw.			5		0			0	0	clear	Dumas.
Tebessa ‡			29.89	759.3	76.3	24.6	43	ssw.			3		3			0	0	pretty fair...	Derché.
Geriville ‡					78.4	25.8	11	ssw.			9		2			0	0	very fair.....	Lonchamp.
Laghouat ‡			29.93	760.1	82.8	28.2	39	s.			5		2			0	0	very fair.....	Herbin.
Biskra ‡			29.90	759.4	82.0	27.8	34	se.			2		4			0	0	cloudy.....	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.09	764.3	30.18	766.6	49.0	9.4	85	sw.	7	3.1			10			0.08	2.0	showery.....	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.30	744.2	29.85	758.3	50.4	10.2	74	sw.			2		7			0.047	1.2		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.12	739.7	29.91	759.6	41.7	5.4	87	ne.	10.5	4.7			10			0.079	2.0		Dr. Wiersbicki.
Eperies	28.89	733.9	29.78	756.4	45.0	7.2	86	calm			0		10			0	0		Julius Mikolik.
Gratz ‡	28.59	726.1	29.85	758.1	47.1	8.4	72	e.			2		10			0.551	14.0		Andreas Rospini.
Hermannstadt	28.34	719.9	29.74	755.5	59.7	15.4	58	sw.			2		2			0.024	0.6		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.42	721.9	29.78	756.3	45.3	7.4	88	e.			2		2			0	0	slightly cl'dy	The Staff.
Lemberg	28.85	732.7	29.85	758.3	40.8	4.9	96	ne.			1		10			0.059	1.5		Dr. T. Stanecki.
Pola	29.74	755.5	29.85	758.3	59.2	15.1	77	s.			1		5			0.433	11.0		I. R. Hydrographic Office.
Szathmar	29.30	744.1	29.76	755.8	55.2	12.9	77	w.			2		10			0	0		Jozsef Midlinszky, S. J.
Szegedin	29.52	749.9	29.81	757.1	50.0	10.0	86	s.			2		10			0.181	4.6		Karl Stancel.
Trieste	29.76	756.0	29.87	758.6	56.8	13.8	94	calm			0		10			0.071	1.8		Rieder.
Vienna	29.15	740.3	29.87	758.8	44.2	6.8	82	nw.			1		10			0.252	6.4		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cac.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 21, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.75	755.6	29.85	758.2	45.0	7.2	71	ese.	31	13.9			9			0.260	6.6	showery	W. Boswell.
Armagh, Observatory	29.14	740.1	29.37	746.0	46.3	7.9	92	e.	19	8.5			10					raining	S. Call.
Bidston, Liverpool Obs'y			29.39	746.5	47.7	8.7	83	e.	39	17.4			10					overcast	John Hartnup.
Bolton, Sharples	28.90	734.0	29.43	747.5	45.4	7.4	88	e.	24	10.7			10					overcast	Thomas Mackereth.
Bradford, Yorkshire	29.16	740.7	29.55	750.6	45.1	7.3	92	ne.			5		10			0.98	24.9	raining	J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.46	748.3	49.0	9.4	100	se.			4.0		10					raining	John McLaren.
Chatham, School M. E.	29.34	745.2	29.47	748.5	48.0	8.9	93	e.			3		10					raining	R. Craydon, R. E.
Falmouth, Observatory	28.76	730.5	28.98	736.1	55.7	13.2	90	ese.			6		10					squally	The Staff.
Fort Napier, Natal	27.72	704.1	29.94	760.5	71.3	21.8	67	se.			2		6						Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.64	752.8	29.87	758.7	85.0	29.4	79	calm			0		7					drizzling	Sergt. John Robinson.
Galway, Queen's College			29.06	738.1	49	9.4	56	e.			6		10					squally	J. O'Donaghue.
Gibraltar, Mediterranean	29.79	756.7	29.85	758.2	69.5	20.8	79	w.			5		8					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	29.43	747.5	29.63	752.6	48.1	8.9	84	e.			8		10					raining	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.23	742.4	29.40	746.7	48.0	8.9	94	e.			4		10					raining	The Staff.
Guernsey	28.91	734.3	29.13	739.9	54	12.2	93	ese.			4		8					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.33	745.0	29.37	746.0	48.5	9.2	89	e.	27	12.1			6					raining	The Staff.
Leicester, Museum	29.21	741.9	29.47	748.5	46.2	7.9	94	se.			2		10					drizzling	J. C. Smith.
Malta, Mediterranean	29.85	758.2	29.93	760.2	74.8	23.8	74	ne.			2		2			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.06	763.5	30.10	764.5	79.0	26.1	84	e.			1		8					overcast	C. S. Duncombe.
Oscott, St. Mary's College	28.87	733.3	29.39	746.5	45.6	7.6	98	e.			3		10					raining	John Mac Emall.
Oxford, Radcliffe Obs'y	29.11	739.4	29.34	745.2	48.0	8.9	92	e.			6		10					raining	The Staff.
Plymouth	29.00	736.6	29.07	738.4	55.3	12.9	93	ese.			4		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			29.95	760.7	43.9	6.6	81	se.	30	13.4			6					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.82	757.4	29.89	759.2	64.6	18.1	65	calm			0		10					gloomy	Serg't W. H. Lyne.
Sheffield	29.23	742.4	29.51	749.5	45.2	7.3	92	e.			2		10			0.51	13.0	overcast	W. F. Cooper.
Silloth Rectory	29.48	748.8	29.51	749.5	47.4	8.6	82	ese.			6		10			0.020	0.5	squally	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.07	738.4	45.2	7.3	84	e.	31	13.9			10					squally	Rev. S. J. Perry.
Stratfield Turgiss	29.12	739.6	29.33	745.0	48.4	9.1	92	e.			3		10					raining	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	28.91	734.3	28.95	735.3	58	14.4	87	e.			8		10					raining	W. Newcombe.
Valencia, Observatory	28.81	731.8	28.83	732.3	56.5	13.6	84	e.	43	19.2			10					raining	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.23	767.8	30.27	768.8	38	3.3	96	nw.	2	0.9			10 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.19	766.8	30.25	768.3	34	1.1	96	calm	0	0			0			0	0	clear	G. A. Blair.
Chicoutimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.16	766.1	30.18	766.6	35	1.7	92	w.	10	4.5		2 c	hz.	w.		0	0	clear	J. McWilliams.
Fort Garry, Manitoba*	29.52	749.8	30.42	772.7	14	—10.0	87	calm	0	0						0	0	hazy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.19	766.8	30.32	770.1	35	1.7	100	w.	1	0.4			fg.			0	0	foggy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.86	758.4	30.20	767.1	51	10.6	86	sw.	7	3.1			10 s		sw.	0	0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	30.01	762.2	30.21	767.3	41	5.0	96	sw.	10	4.5		8 c	fg.			0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.40	746.7	30.11	764.8	38	3.3	100	s.	8	3.6			10 n		sw.	0.45	11.4	heavy rain	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.51	749.5	30.20	767.1	54	12.2	100	sw.	5	2.2		8 ck	0	sw.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.56	750.8	30.20	767.1	55	12.8	86	w.	11	4.9		5 ck	0	w.		0	0	cloudy	M. Payne.
Quebec, Quebec*	29.91	759.7	30.25	768.3	36	2.2	92	w.			1	0	5 k		sw.	0	0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.65	753.1	30.12	765.0	41	5.0	93	s.	6	2.7			10 s		s.	0.09	2.3	heavy rain	W. H. McIntyre.
Saugeen, Ontario*	29.39	746.5	30.11	764.8	51	10.6	93	sw.	6	2.7			10 ks			0.14	3.6	cloudy	K. Stewart.
St. Andrews, N. B.	30.23	767.8	30.28	769.1	42	5.6	90	calm	0	0		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.25	768.3	30.32	770.1	37	2.8	89	calm	0	0		10 k	0			0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.82	757.4	30.21	767.3	43	6.1	96	sw.	3	1.3		5 cs	5 s	nw.		0.01	0.3	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.24	768.1	30.31	769.9	37	2.8	96	e.	1	0.4		2 ck	sk.	w.		0	0	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.15	765.8	30.41	772.4	36	2.2	100	calm	0	0			10			0	0	hazy	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	29.91	759.7	29.94	760.5	64.0	17.8	82	e.	24.0	10.7		0	2 s			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.01	736.8			89.3	31.8	29	wnw.			1	0	0			0	0		C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.21	767.4	30.24	768.0	60.8	16.0	69	ene.	8.1	3.6			10			0	0	covered	M. Marc Dechevrens, S. J.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.10	764.4	30.14	765.6	44.1	6.7	78	e.	31	14			9						Oversergent Fischer.
Fanöe	29.98	761.4	30.00	761.9	44.8	7.1	83	e.			6		9						Overloerer Lauridsen.
Godthaab, Greenland	30.08	764.9	30.16	766.0	23.4	—4.8	90	ene.			2		6						S. Kleinschmidt.
Stykkisholm, Iceland	30.23	767.8	30.27	768.9	41.0	5.0	94	calm			0		8						A. O. Thorlacius.
Thorshavn	30.02	762.5	30.06	763.4	46.2	7.9	71	e.	16	7			10						Overloerer Bergh.
Vestervig	30.00	761.9	30.09	764.2	42.8	5.8	85	ene.			6		9						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	28.79	731.3	29.42	747.3	55.4	13	84	se.			1		10 n					covered	M. Labroue, Director.
Alençon Normal School	28.79	731.3	29.39	746.6	53.2	11.8	98	s.			2		n		n.	0.31	8.		M. Nicot, Director.
Arras, Engineer School	29.20	741.6	29.45	748.1	48.7	9.3	86	se.					n		se.				M. Klein, Commandant.
Avignon, Normal School	29.57	751.0	29.65	753.0	62.2	16.8	73	se.			1		8		se.	0	0	very cloudy.	M. Giraud, Director.
Bar-sur-Seine	28.98	736.2	29.53	750.1	52.9	11.6	85	sse.			2		10		w.			light rain	M. Saillard, Director.
Beauvais, Normal School	29.16	740.6	29.42	747.2	50.9	10.5	83	se.			2		10		ssw.	0	0	covered	M. Frère Eugène Marie.
Besançon, Normal School	28.74	729.9	29.64	752.9	44.6	7	74	ene.			1		5 cn		ne.	0.020	0.5	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.08	738.6	29.34	745.1	59.2	15.1	78	se.			1		8			0.134	3.4	very cloudy	M. Rayet, Director.
Bourges, Normal School	28.85	732.9	29.40	746.7	54.5	12.5	79	se.			2		n		se.	0	0		M. Postel, Director.
Brest, Naval Observatory	28.76	730.6	29.01	736.8	59.0	15.0	89	se.			6		10		s.	0.059	1.5	raining	M. de Rermaree, Dir.
Caen, Normal School	29.17	740.9	29.24	742.8	54.3	12.4	95	sse.			1		5		sse.	0.244	6.2	cloudy	M. Blétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.16	740.6	29.47	748.6	51.1	10.6	76	se.			2		10			0	0	covered	M. Jadot, Director.
Charleville, Normal School	29.04	737.5	29.55	750.6	47.8	8.8	67	sse.			3		4			0.20	5.		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.15	714.9	29.47	748.4	59.0	15.0	58	w.			1		10			0	0	covered	M. Alluard, Director.
Cluny, Normal School	28.68	728.5	29.53	750.0	58.3	14.6	61	w.			2		7			0	0		M. de Villemontée, Dir.
Commercy, Normal School	28.73	729.7	29.60	751.7	47.7	8.7	86	e.			1		5 kn	e.	e.	0.126	3.2	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.27	692.7	29.80	756.8	51.4	10.8	90	calm			0		1 n		n.	0.08	2.		M. Jeangirard, Director.
Gréasque, du. Rhone	28.63	727.1	29.77	756.1	62.1	16.7	77	se.			2		10		se.	0	0	covered	M. Kina, Director.
Grenoble, Normal School	28.82	731.9	29.58	751.3	51.4	10.8	70	nne.			4		n		s.	0.043	1.1		M. Ablard, Director.
Guéret, Normal School	27.81	706.4	29.37	745.9	58.1	14.5	74	se.			3		kn		nw.	0.59	15.		M. Rivoire, Director.
Lamballe, Normal School	28.87	733.4	29.14	740.2	55.4	13	95	se.			2		10 kn		se.	0.28	7.	thund'r st'm	M. Ollitrault, Director.
Lescar, Normal School	28.76	730.4	29.31	744.4	61.9	16.6	75	n.			4		s			0.134	3.4		M. Chauvin, Director.
Lorient, Naval Observatory	29.06	738.1	29.16	740.7	60.8	16	93	s.			6		10			0.768	19.5	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.50	723.9	29.54	750.2	59.5	15.3	65	s.			4	c	10 n	wsw.	s.	c	0	covered	M. André, Director.
Mans, Normal School	29.01	730.9	29.31	744.5	56.7	13.7	77	s.			3		8		sw.	0.406	10.3	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.43	747.4	29.69	754.1	65.3	18.6	74	se.			3		10		sse.	0.417	10.6		M. Stephan, Director.
Montlouis l'instituteur	24.44	620.7	29.67	753.7	46.8	8.2	100	sw.	26.2	11.7			9		w.	0.197	5.0	raining	M. Cave, for Dr. Fines.
Montpellier, Normal School	29.45	747.9	29.56	750.7	63.0	17.2	98	ese.			4		8		ese.	0	0	very cloudy	M. Pourle, Director.
Nancy, Normal School	28.87	733.2	29.63	752.6	48.2	9	86	n.			1		10 n			0.378	9.6	covered	M. Hasse.
Nantes, Observatory	29.06	738.0	29.22	742.1	68.2	20.1	59	s.			2–3		4 k	s.	s.	0.874	22.2		M. Larocque, Director.
Nice	29.78	756.4	29.81	757.2	59.4	15.2	75	e.			2		10	e.	e.	0.157	4.0	light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.32	744.8	29.43	747.5	70.0	21.1	48	sw.	24.2	10.8			10		sw.	0	0		Dr. Fines.
Pic-du-Midi, Summit	20.82	528.7			29.5	—1.4		sw.			4–5		10		sw.	0.240	6.1	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.55	725.2	29.63	752.6	56.5	13.6	82	se.			1		5		se.	0.126	3.2	cloudy	M. Talhieu.
Puy de Dôme Obs'y, Summit	24.70	627.3			43.0	6.1	83	s.			4		10			0.004	0.1	covered	M. Alluard, Director.
Rochefort, Naval Obs'y	29.27	743.4	29.30	744.2	63.9	17.7	93	sse.			3		0			0.020	0.5	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.02	737.0	29.22	742.2	64.2	17.9	71	s.			4		5		s.	0.71	18.	cloudy	M. Mouillot, Director.
Rodez, Normal School	27.37	095.3	29.47	748.4	57.9	14.4	76	se.			4		10		s.	0	0	covered	M. Richard, Director.
Rouen, Normal School	29.30	744.3	29.35	745.4	51.4	10.8	82	se.			3					0	0		M. Platrier, Director.
Saint Lô, Normal School	29.07	738.4	29.23	742.4	55.6	13.1	81	se.			1		10		se.	0.217	5.5	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.26	743.1	29.42	747.3	52.3	11.3	81	e.			2		10		ssw.	0.012	0.3		M. Renou, Director.
Toulouse, Observatory	28.77	730.8	29.48	748.8	59.2	15.1	71	sse.			6		10	w.		0	0	covered	M Bailland, Director.
Tours																0.421	10.7		M. de Tastes.
Versailles, Observatory	28.92	734.6	29.41	747.1	51.4	10.8	80	se.			4					0.091	2.3		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.13	740.0	29.43	747.4	53.2	11.8	81	ese.			2		10		ssw.	0.004	0.1		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.96	735.6	29.82	757.3	46.8	8.2	64	se.			3	0	8 ks			0	0		Prof. Dr. Hoh.
Berlin	29.78	756.3	29.95	760.8	44.2	6.8	57	se.			2		7			0	0		Prof. Dr. Arndt.
Breslau	29.44	747.7	29.97	761.2	41.2	5.1	74	e.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.25	742.9	29.67	753.7	49.6	9.8	77	e.			3		10	e.		0.020	0.5		Albert Senz.
Cassel	29.09	738.8	29.80	757.0	41.4	5.2	81	e.			2		10	e.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.35	745.4	29.71	754.7	50.2	10.1	57	ese.			1		9			0	0		Physical Society.
Friedrichshafen	28.24	717.3	29.66	753.4	53.2	11.8	79	ne.			4		8	sw.		0	0		Wilhelm, Chief Tel.
Hamburg	29.85	758.3	29.95	760.7	43.2	6.2	63	ese.			3		4	ese.		0	0		E. Preller.
Kiel	29.96	761.0	29.98	761.4	44.2	6.8	62	e.			4		1			0.071	1.8		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.48	748.9	29.92	759.9	41.9	5.5	77	e.			3		10			0	0		H. Leppig, Asst.
Magdeburg	29.73	755.1	29.93	760.1	41.7	5.4	82	e.			3		10 ks		e.	0	0		Dr. Assmann.
Memel	30.12	765.0	30.17	766.2	39.9	4.4	84	ne.			2		10 s						Issermann.
Munich	27.92	709.2	29.77	756.1	45.7	7.0	82	se.			2		10	sw.		0.205	5.2		Central Station.
Neufahrwasser	30.09	764.3	30.11	764.7	41.9	5.5	76	ne.			2		10	ene.		0	0		A. Lothes.
Neustadt, Palatinate	29.17	740.9	29.69	754.1	50.0	10.0	72	e.			4		8			0	0		Dicknether.
Stuttgart	28.74	730.0	29.63	752.7	49.1	9.5	78	e.			2		10			0.008	0.2	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.25	717.6	29.77	756.1	47.8	8.8	70	e.			2		9	e.		0	0		Fischer.
Wustrow	30.00	761.9	30.02	762.5	44.4	6.9	80	ese.			2		8 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.56	750.9	29.95	760.6	73.9	23.3		sw.			1.0		6			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.79	756.6	29.84	758.0	82.6	28.1	82	wsw.	25.0	11.2			4		wsw.	0	0	d. clouds	
Deesa	29.39	746.4	29.86	758.4	86.7	30.4	35	w.	5.9	2.6			0			0	0	blue sky	
Bombay	29.81	757.1	29.84	758.0	84.7	29.3	73	nw.	11.0	4.9			7			0	0	d. clouds	
Poona, Yarrowda.	28.01	711.4	29.84	757.9	85.0	29.4	40	nne.	4.0	1.8			8	wsw.		0	0	d. clouds	
Belgaum	27.31	693.7	29.81	757.2	83.4	28.6	40	ne.	3.0	1.3			1	ne		0	0	d. clouds	
Lahore	29.06	738.2	29.80	757.0	83.0	28.3	43	ne..	0.6	0.3			2			0	0	blue sky	
Roorkee	28.89	733.7	29.78	756.4	81.8	27.7	33	nw.	2.0	0.9			3			0	0		
Agra	29.28	743.6	29.83	757.8	86.2	30.1	44	w.	4.2	1.9			0			0	0		
Nagpur	28.82	731.9	29.85	758.2	85.3	29.6	36	n.	2.5	1.1			4	ne.		0	0	d. clouds	
Jubbulpore	28.53	724.6	29.88	759.0	81.6	27.6	58	calm	1.5	0.7			2			0	0	blue sky	
Lucknow	29.50	749.2	29.87	758.7	87.1	30.6	27	wnw.	5.2	2.3			0			0	0	blue sky	
Allahabad	29.52	749.8	29.83	757.7	81.2	27.3	50	sw.	2.5	1.1			0			0	0	blue sky	
Patna	29.65	753.1	29.83	757.7	81.4	27.4	59	nw.	3.9	1.7			0			0	0	blue sky	
Hazaribagh	27.84	707.2	29.86	758.5	76.3	24.6	51	nw.	9.1	4.1			0			0	0	blue sky	
Cuttack	29.78	756.3	29.86	758.4	83.2	28.4	62	w.	0.1	0.04			2			0	0	d. clouds	
Calcutta, Alipore	29.82	757.3	29.84	757.9	78.2	25.7	80	calm	0	0			0			0	0	blue sky	
Dhubri	29.71	754.6	29.83	757.7	78.1	25.6	83	ene.	5.6	2.5			0			0	0	blue sky	
Goalpara																			
Chittagong	29.74	755.4	29.83	757.7	79.3	26.3	80	wnw.	1.3	0.6			4			0	0	blue sky	
Sibsagar	29.52	749.8	29.86	758.5	76.1	24.5	91	se.	2.0	0.9			6	w.	w.	0.02	0.5	d. clouds	
Jeypore	28.41	721.7	29.85	758.1	83.2	28.4	38	wnw.	4.1	1.8			3			0	0	d. clouds	
Zanzibar, Africa			29.95	760.7	78.4	25.8	76	nnw.	4	1.8			3			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.44	747.8	29.85	758.2	56.5	13.6	64	calm	0	0			8			0.449	11.4		Prof. Giovanni Clodig.
Milan	29.37	746.1	29.89	759.3	49.6	9.8	89	se.	2.5	1.1			10			0.035	0.9		Prof. Schiaparelli.
Padua	29.74	755.5	29.85	758.2	55 8	13.2	78	ne.	2.5	1.1			7	ne.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	28.93	734.8	29.84	757.9	52.9	11.6	78	s.	1.3	0.6			7	nw.		0.138	3.5		Prof. P. F. Denza.
Genoa	29.64	752.9	29.83	757.7	61.2	16.2	71	se.	3.1	1.4			8	s.		0	0		Prof. G. M. Garibaldi.
Mondovi	27.92	709.2	29.84	758.0	49.8	9.9	73	nw.			2		5	w.		0	0		Prof. D. C. Bruno.
Pesaro	29.79	756.7	29.84	757.9	57.7	14.3	86	n.			2		4	se.		0.315	8.0		Prof. Luigi Guidi.
Florence	29.61	752.0	29.86	758.4	59.0	15.0	81	nw.			2		10	sw.		0.079	2.0		Prof. Costantino Pitter.
Leghorn	29.76	755.9	29.84	758.0	63.9	17.7	71	ne.	1.3	0.6			9			0.063	1.6		Prof. P. Monte.
Rome	29.71	754.6	29.88	759.0	67.6	19.8	60	sw.	8.1	3.6			5			0	0		Prof. P. S. Ferrari.
Lecce	29.66	753.4	29.91	759.7	71.1	21.7	35	wnw.	11.2	5.0			3	w.		0	0		Prof. C. de Giorgi.
Cosenza	29.03	737.3	29.90	759.5	65.5	18.6	71	se.	3.1	1.4			1	s.		0	0		Prof. D. Conti.
Cagliari	29.63	752.6	29.82	757.5	72.0	22.2	70	se.			2		0			0	0		Prof. A. Pacinotti.
Palermo	29.67	753.6	29.91	759.8	73.4	23.0	37	ne.	7.4	3.3			0			0	0		Prof. G. Ciacciatore.
Syracuse	29.83	757.6	29.87	758.7	75.6	24.2	74	sw.	5.6	2.5			6	wsw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.39	746.4	29.91	759.6	66.4	19.1	62	ssw.	2.5	1.1			2	ssw.		0.016	0.4		Prof. F. Brioschi.
Stelvio	22.00	558.8			29.1	— 1.6	76	sw.			6		8 sn	w.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.02	559.3			30.7	— 0.7	61	n.			2	cs	10 k			0	0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.21	767.3	30.23	767.8	55.6	13.1	69	nne.	7.3	3.3		0	0			0	0	clear	K. Sasaki.
Kioto	30.08	764.0	30.26	768.6	51.1	10.6	85	nnw.	1.8	0.8		ck	3 s			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	30.01	762.2	30.21	767.3	58.8	14.9	66	ne.	1.7	0.8		0	2 s			0	0	clear	S Takehayashi.
Nemuro	30.26	768.6	30.30	769.6	51.6	10.9	61	n.	11.5	5.1		3 ck	0			0.120	3.0	fair	
Niigata	30.15	765.8	30.17	766.3	47.6	8.7	58	nnw.	19.1	8.5		0	0			0.040	1.0	clear	
Nobiru	29.92	759.9	29.98	761.5	34.3	1.3	85	se	7.8	3.5			6			0.485	12.3		
Supporo	30.10	764.5	30.17	766.3	53.1	11.7	73	nnw.	9.7	4.3		0	0			0	0	clear	
Tokei Obs'y, Yeddo	30.20	767.1	30.25	768.3	56.7	13.7	69	ne.	2.8	1.3		0	0			0	0	clear	The Staff.
Wakayama																			Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.90	759.4	30.09	764.3	74.4	23.6	60	ene.	10.0	4.5		0	4 k;ks		sse.	0	0	fair	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.72	602.6	29.95	760.6	56.3	13.5	90	calm	0	0		0	1 s		ne.	0.217	5.5	clear	Vicente Fernandez
Leon	24.45	621.0	30.14	765.5	59.0	15.0	86	ne.			1	1 c	0			0	0	clear	Prof. M. Leal.
Mazatlan	29.67	753.6	29.93	760.2	76.5	24.7	79	e.	1.6	0.8			10n		se.	1.772	45.0	covered	F. Quijano, U. E.
Mexico, Central Obs'y	23.14	587.9	30.17	766.4	56.7	13.7	77	calm	0	0		2 c	2 ks			0	0		The Staff.
Morelia	24.09	612.0	30.13	765.4	56.3	13.5	78	sw.			4	0	0			0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.94	607.9	29.90	759.5	57.7	14.3	87	sw.			1	1 cs	0			Inap.	Inap.	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.45	595.7	30.20	767.0	55.8	13.2	94	calm	0	0		0	7		sw.	0.354	9.0	cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.56	750.9	29.56	750.9	49.6	9.8		e.			5					0.098	2.5		
Groningen	29.77	756.1	29.82	757.5	41.4	5.2		e.			5					0	0		
Helder	29.72	754.8	29.72	754.8	43.0	6.1		e.			5					0.031	0.8		
Hellevoetsluis	29.60	751.9	29.60	751.9	47.1	8.4	81	ese.			5					0	0		
Utrecht	29.61	753.4	29.66	753.4	46.9	8.3	72	ese.			4		8			0.008	0.2	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.09	764.3	30.15	765.9	44.6	7.0	66	nw.	1.1	0.5			2			0	0		
Christiania	30.04	763.0	30.19	766.8	48.7	9.3	32	nne.	2	1			0			0	0		
Gjæsvær	30.28	769.2	30.31	769.8	38.1	3.4		calm			0		10						
Lodingen	30.33	770.4	30.38	771.6	37.8	3.2	84	ne.			7		1			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.57	751.1	29.72	755.0	66.6	19.2	90	sw.	13.6	6.1			7			0.185	4.7		Dr. J. A. Sampaio.
Campo Major	28.75	730.2	29.74	755.4	67.3	19.6	68	w.	11.9	5.3			8			0.402	10.2		Dr. A. M. R. dos Santos.
Funchal, Madeira	29.98	761.4	30.06	763.6	72.0	22.2	54	w.	8.7	3.9			5			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.43	747.5	29.74	756.5	61.2	16.2	64	wsw.	23.0	10.3			9			0.244	6.2	raining	The Staff.
Ponta Delgada, Azores	29.74	755.5	29.82	757.3	68.7	20.4	81	sw.	24.2	10.8			4			0.232	5.9		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.58	725.8	29.64	752.9	50.7	10.4	59	sw.	13	6			9 n						Capt. Lazarew.
Archangel	30.27	768.8	30.29	769.3	29.8	— 1.2	88	ene.	9	4			10						Capt. Sseliwerstow.
Astrakhan	30.06	763.6	29.98	761.5	55.0	12.8	54	n.	2	1			10 ks						Capt. Wisganow.
Barnaul ‡	29.37	745.9	29.89	759.1	30.7	— 0.7	98	calm	0	0			10						Meteorological Obs'y.
Dorpat	29.83	757.7	30.08	764.1	36.5	2.5	79	n.	2	1			10 ks						Observatory.
Ekaterinburg	28.87	733.3	29.89	759.1	21.4	— 5.9	90	se.	11	5			10					snowing	Meteorological Obs'y.
Kasan	29.72	754.8	30.00	762.0	28.9	— 1.7	68	n.	2	1			7						Observatory.
Kertch	29.82	757.4	29.84	757.9	53.8	12.1	91	calm	0	0			10 n			0.024	0.6		Lagorio & Sastyrea.
Kieff	29.22	742.1	29.86	758.5	40.8	4.9	98	ene.	7	3			10 n					raining	Observatory.
Lugan	29.73	755.1	29.93	760.2	53.6	12.0	53	ese.	9	4			9			blank	blank		Meteorological Obs'y.
Moscow	29.45	747.9	29.94	760.5	34.2	1.2	92	se.	7.8	3.5			10 s						Meteorological Obs'y.
Nikolaiev	29.71	754.6	29.78	756.4	55.8	13.2	90	calm	0	0		0	8 k						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.90	759.4	29.98	761.6	18.7	— 7.4	67	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	30.07	763.8	30.21	767.4	52.5	11.4	82	calm	0	0		0	1 k			0	0		Physical Observatory.
St. Petersburg	30.06	763.5	30.08	763.9	36.1	2.3	85	ne.	7	3			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.47	723.1	30.03	762.7	59.7	15.4	60	calm	0	0			0			0	0		Teich, A. M.
Tiflis	28.56	725.5	29.96	761.0	63.5	17.5	52	se.	4	2		0	6 s					light clouds	Physical Observatory.
Warsaw	29.49	749.1	29.93	760.1	41.4	5.2	68	ene.	11	5			10 ks						Astronomical Obs'y.
Wilna	29.57	751.0	30.00	761.9	43.0	6.1	88	calm	0	0			10					heavy cl'ds	Berg, Assistant.
Yeniseisk	29.74	755.4	30.05	763.2	16.3	— 8.7	74	sw.	7	3			4						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.74	755.4	46.5	8.1	88	se.			6		10 s			0.02	0.5	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			29.65	753.1	52	11.1	93	e.			6	5	0	e.		0	0	d. clouds	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.47	748.6	29.58	751.2	67.3	19.6	54	w.	4.5	2.0			2			0	0		Antonio Rave, Director
Bilbao, Met. Obs'y	29.44	747.8	29.50	749.2	65.3	18.5	58	se.	8.9	4.0		3	5	w.		0.091	2.3	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.67	677.5			48.2	9.0	73	sw.	18.6	8.3			10			0.197	5.0	covered	Domingo Martin.
Madrid, Royal Obs'y	27.47	697.8	29.70	754.4	51.4	10.8	78	sw.	23.5	10.5			10			0.087	2.2	covered	The Staff.
Murcia, Met. Obs'y ‡	29.59	751.6	29.74	755.4	68.0	20.0	67	w.	2.0	0.9		5	5	se.		0.028	0.7	raining	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.58	726.0	29.47	748.5	56.3	13.5	89	sw.	6.3	2.8			10			1.260	32.0	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I	30.02	762.5	30.08	764.1	77.8	25.4	85	e.	4.3	1.9		3 ck	2 k;s	ese.	ese.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.82	757.4	29.87	758.7	80.6	27.0	85	w.	19.8	9.0		2 c	8 kn		w.	0.158	4.0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.78	756.5	29.88	759.0	60.3	15.7	91	wsw.	17.6	7.9			10		w.	0.296	7.5	raining	Capt. C. Fujazon, R. N.
San Juan de Porto Rico, W. I	29.92	760.1	30.02	762.4	78.1	25.6	95	calm	0	0			10 kn			0.520	13.2	raining	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.74	755.5	29.88	758.9	78.1	25.6	91	nnw.	2.5	1.1		4 cs	6 ks	e.	n.	0.02	0.5	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.40	772.2	30.44	773.2	36.0	2.2	75	ne.			2		8			0	0		
Umea	30.34	770.7	30.39	772.0	36.7	2.6	89	nne.			4		9			0	0		
Hernosand	30.33	770.3	30.38	771.6	39.4	4.1	72	nne.			6		10			0	0		
Stockholm	30.01	762.2	30.19	766.7	37.8	3.2	90	n.			4		10			0	0		
Wisby	30.06	763.4	30.11	764.9	44.6	7.0	71	ene.			4		7			0.020	0.5		
Sub-Series.																			
Upsala	30.08	764.1	30.17	766.3	37.4	3.0	85	n.	8.1	3.6			0			0.004	0.1		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.18	715.7	29.61	752.1	51.4	10.8	86	ne.			1		10			0.870	22.1	covered	The Observatory.
Zurich ‡	27.97	710.5	29.62	752.3	52.0	11.1	85	w.			1		8			0.287	7.3	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.85	758.3	63.5	17.5	70	sse.	9	4.0			3		sw.	0	0		The Observatory.
Valona			29.97	761.3	69.3	20.7		w.			1		10			0	0	covered	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.89	759.3	79.3	26.3	59	w.			1	0	5 k		w.	0	0		Prof. C. V. Van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		

UNITED STATES SERIES.
By authority of the Secretary of War.
Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

Albany, New York	30.10	764.5	30.18	766.6	54.5	12.5	71	sw.	4	1.8			10 s		w.	0	0	cloudy	
Alpena, Michigan	29.50	749.3	30.19	766.8	39.5	4.2	100	ne.	5	2.2			10 n			0.15	3.8	light rain	
Atlanta, Georgia	29.01	736.8	30.23	767.8	56.8	13.8	80	e.	7	3.1			10 s		calm	0	0	cloudy	
Atlantic City, New Jersey	30.25	768.3	30.26	768.6	58	14.4	86	sw.	7	3.1		2 c	0	calm		0	0	clear	
Augusta, Georgia	30.02	762.5	30.22	767.6	62.3	16.8	84	ne.	2	0.9			10 s			0	0	cloudy	
Baltimore, Maryland	30.19	766.8	30.24	768.1	50	10.0	77	sw.	1	0.4		0	hz.		calm	0	0	clear	
Barnegat, New Jersey	30.21	767.3	30.23	767.8	55.0	12.8	93	sw.	8	3.6		3 c	0	calm		0	0	clear	
Bismarck, Dakota	28.36	720.3	30.28	769.1	20	— 6.7	87	e.	4	1.8		0	0			0	0	clear	
Boise City, Idaho	27.40	695.9	30.32	770.1	33	0.6	81	w.	2	0.9		0	0			0	0	clear	
Boston, Massachusetts	29.99	761.7	30.15	765.8	51.0	10.6	86	w.	8	3.6		8 ck	0	w.		0	0	fair	
Brackettville, Texas	28.74	730.0	29.76	755.9	70	21.1	100	e.	4	1.8			10 s		calm	0.07	1.8	cloudy	
Brownsville, Texas	29.84	757.9	29.89	759.2	78	25.6	97	se.	4	1.8		0	0			0.16	4.1	clear	
Buffalo, New York	29.39	746.5	30.13	765.3	49.4	9.7	73	se.	3	1.3		8ck;cs	2 s	w.		0	0	cloudy	
Burlington, Vermont	29.82	757.4	30.12	765.0	49.0	9.4	93	n.	5	2.2			10 n		n.	0.09	2.3	light rain	
Cairo, Illinois	29.62	752.3	30.03	762.7	61.6	16.4	99	se.	6	2.7			10 n		se.	0.47	11.9	light rain	
Campo, California	27.37	695.2	29.92	760.0	34.5	1.4	81	s.	2	0.9		0	1 s			0	0	clear	
Camp Thomas, Arizona	27.27	692.6			43	6.1	59	calm			0	4 cs	4 k			0	0	cloudy	
Cape Henry, Virginia	30.25	768.3	30.27	768.8	62	16.7	84	s.	8	3.6		1 c	3 s			0	0	fair	
Cape May, New Jersey	30.22	767.6	30.25	768.3	60	15.6	87	se.	22	9.8		0	0			0	0	clear	
Castroville, Texas	29.12	739.6	29.80	756.9	74	23.3	90	s.	2	0.9			10 s			0.03	0.8	threatening.	
Cedar Keys, Florida	30.08	764.0	30.10	764.5	72	22.2	90	ne.	5	2.2		0	0			0	0	clear	
Champaign, Illinois	29.19	741.4	29.98	761.5	53.4	11.9	91	se.	4	1.8			10 s		se.	0	0	cloudy	
Charleston, S. Carolina	30.14	765.5	30.20	767.1	65	18.3	90	n.	5	2.2		0	0			0.06	1.5	clear	
Charlotte, N. Carolina	29.37	746.0	30.28	769.1	52.6	11.4	80	ne.	3	1.3			10 s		ne.	0	0	cloudy	
Chattanooga, Tennessee	29.37	746.0	30.22	767.6	58	14.4	93	s.	3	1.3			10 ks		s.	inap.	inap.	cloudy	
Cheyenne, Wyoming	24.15	613.4	30.28	769.1	32.5	0.3	94	n.	8	3.6			10 n			0.12	3.0	light snow	
Chicago, Illinois	29.32	744.7	30.06	763.5	53.1	11.7	90	n.	5	2.2			fg.			0	0	dense fog	
Chincoteague, Virginia	30.24	768.1	30.26	768.6	62	16.7	100	sw.	3	1.3		2 k	sk.	calm	calm	0	0	fair	
Cincinnati, Ohio	29.47	748.5	30.15	765.8	58	14.4	83	se.	2	0.9		0	8 ks		w.	0	0	fair	
Cleveland, Ohio	29.38	746.2	30.15	765.8	50	10.0	86	se.	10	4.5		8 k	0	w.		0	0	fair	
Coleman City, Texas																			
Columbus, Ohio	29.27	743.4	30.16	766.1	52	11.1	80	s.	2	0.9		6 ck	0	sw.		0	0	fair	
Concho, Texas	28.02	711.7	30.02	762.5	68	20.0	90	sw.	6	2.7			10 s		s.	0	0	cloudy	
Corsicana, Texas	29.42	747.3	29.90	759.4	70	21.1	100	calm	0	0			10 n			0.47	11.9	light rain	
Davenport, Iowa	29.33	745.0	30.01	762.2	52	11.1	86	e.	9	4.0			10 s		calm	inap.	inap.	cloudy	
Dayton, Washington T'y	28.52	724.4	30.38	771.6	43.5	6.4	89	n.	3	1.3		4 k	0	w.		0	0	fair	
Deadwood, Dakota	25.50	647.7	30.36	771.1	35	1.7	92	calm	0	0			10 ks			0.37	9.4	threatening.	
Decatur, Texas					56	13.3	62	se.	4	1.8		0	3 s			0.34	8.6	fair	
Delaware Breakwater, Del.	30.23	767.8	30.25	768.3	56	13.3	93	s.	14	6.3		5 c	fg.	nw.		0	0	fair	
Denison, Texas	29.13	739.9	29.96	761.0	65	18.3	93	calm	0	0			10 s		calm	1.37	34.8	cloudy	
Denver, Colorado	24.93	633.2	30.30	769.6	39.0	3.9	92	nw.	2	0.9			10 s		calm	0	0	cloudy	
Des Moines, Iowa	29.00	736.6	29.96	761.0	57	13.9	93	ne.	2	0.9			10 n		ne.	0.20	5.1	heavy rain	
Detroit, Michigan	29.37	746.0	30.11	764.8	51.2	10.7	93	nw.	1	0.4			10s;fg		calm	0	0	cloudy	
Dodge City, Kansas	27.52	699.0	30.22	767.6	38.2	3.4	88	n.	14	6.3		3 k	1 s	w.		0.16	4.1	fair	
Dubuque, Iowa	29.28	743.7	30.02	762.5	49.5	9.7	89	e.	6	2.7			10 n			0.13	3.3	light rain	
Duluth, Minnesota	29.52	749.8	30.25	768.3	36	2.2	69	n.	7	3.1			10 s		n.	0	0	cloudy	
Eagle Pass, Texas	29.14	740.1	29.99	761.7	72.2	22.3	97	calm	0	0			10 s		calm	0.05	1.3	cloudy	
Eagle Rock, Idaho	25.46	646.7	30.44	773.2	27	— 2.8	80	n.	6	2.7		0	0			0	0	clear	
Eastport, Maine	30.06	763.5	30.13	765.3	47	8.3	93	sw.	1	0.4			10s;fg			0	0	cloudy	
El Paso, Texas	26.29	667.8	30.13	765.3	50.4	10.2	55	nw.	10	4.5		0	5 ks		w.	0.02	0.5	fair	
Erie, Pennsylvania	29.38	746.2	30.14	765.5	53	11.7	72	s.	5	2.2		10 cs	0			0	0	cloudy	
Escanaba, Michigan	29.52	749.8	30.20	767.1	34	1.1	79	n.	7	3.1		0	3 s		calm	0	0	clear	
Florence, Arizona	28.44	722.4	30.04	763.0	52.4	11.3	51	w.	1	0.4		1 cs	1 ks	sw.	s.	0	0	clear	
Fort Apache, Arizona	25.01	635.2	30.05	763.3	33	0.6	74	e.	4	1.8		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.39	695.7	30.33	770.4	24	— 4.4	76	sw.	13	5.8		0	0			0	0	clear	
Fort Bennett, Dakota	28.62	726.9	30.23	767.8	30	— 1.1	88	n.	4	1.8			10 n			0.30	7.6	light snow	
Fort Benton, Montana	27.43	696.7	30.41	772.4	33	0.6	71	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	28.19	716.0	30.30	769.6	31	— 0.6	81	calm	0	0		0	c			0	0	clear	
Fort Custer, Montana	27.07	687.6	30.46	773.7	32	0.0	65	n.	7	3.1		0	0			0	0	clear	
Fort Davis, Texas	24.94	633.5	29.90	759.4	52	11.1	80	sw.	4	1.8		0	0			0	0	clear	
Fort Elliott, Texas	27.29	693.2	30.59	777.0	43	6.1	83	n.	20	8.9			10 n		n.	0.04	1.0	light rain	
Fort Gibson, Indian T'y	29.36	745.7	29.93	760.2	63.2	17.3	93	se.	3	1.3			10 s		s.	0.74	18.8	cloudy	
Fort Grant, Arizona					46	7.8	74	n.	3	1.3		0	0			0	0	clear	
Fort Griffin, Texas	28.65	727.7	29.89	759.2	64.0	17.8	90	ne.	1	0.4		0	fg.			0	0	clear	
Fort Keogh, Montana	27.74	704.6	30.40	772.1	39	3.9	72	w.	5	2.2		9 cs	0			0	0	cloudy	
Fort Macon, North Carolina	30.25	768.3	30.26	768.6	62	16.7	87	n.	4	1.8		hz.	2 k	calm	calm	0	0	clear	
Fort McKavett, Texas	27.75	704.8	29.62	752.3	64	17.8	93	sw.	4	1.8			fg.			0.81	20.6	foggy	
Fort Missoula, Montana	27.01	686.0	30.66	778.7	35	1.7	89	ne.	2	0.9			10 s			0	0	cloudy	
Fort St. Michaels	29.19	741.4	29.22	742.2	36	2.2	80	ne.	7	3.1		0	5 s		ne.	0	0	fair	
Fort Shaw, Montana	26.59	675.4	30.33	770.4	27	— 2.8	88	w.	1	0.4		0	0			0	0	clear	
Fort Sill, Indian Territory	28.73	729.7	30.02	762.5	63	17.2	100	ne.	6	2.7			fg.			0.31	7.9	dense fog	
Fort Stevenson, Dakota	28.34	719.8	30.30	769.6	34	1.1	72	w.	1	0.4		6 ck	0	n.		0	0	fair	
Fort Verde, Arizona					35.1	1.7	56	nw.			1	3 cs	0	w.		0	0	fair	
Fredericksburg, Texas	28.19	716.0	29.68	753.9	70	21.1	97	se.	1	0.4			10 s		se.	0.02	0.5	cloudy	
Galveston, Texas	29.90	759.4	29.94	760.5	78	25.6	91	s.	13	5.8			10 s		sw.	0.86	21.8	threatening.	
Grand Haven, Michigan	29.38	746.2	30.08	764.0	51.5	10.8	93	e.	6	2.7			10 s		calm	0	0	cloudy	
Hatteras, North Carolina	30.24	768.1	30.26	768.6	63	17.2	93	ne.	4	1.8		5 k	0	se.		0	0	fair	
Helena, Montana	26.02	660.9	30.60	777.2	34	1.1	88	s.	3	1.3		0	0			0	0	clear	
Henrietta, Texas	28.97	735.8	29.86	758.4	65	18.3	90	se.	5	2.2			10 s			0.22	5.6	cloudy	
Huron, Dakota	28.78	731.0	30.24	768.1	31	— 0.6	78	nw.	12	5.4			10 s			0.29	7.4	cloudy	
Indianapolis, Indiana	29.26	743.2	30.09	764.3	57	13.9	83	s.	2	0.9		3 cs	5 s;hz	calm	calm	0	0	cloudy	
Indianola, Texas	29.91	759.7	29.94	760.5	78.1	25.6	90	s.	7	3.1		0	4 s;ks		sw.;c	0.02	0.5	fair	
Jacksboro, Texas	28.77	730.7	29.87	758.7	64	17.8	100	e.	2	0.9			10 s		calm	0.47	11.9	cloudy	
Jacksonville, Florida	30.07	763.8	30.11	764.8	72	22.2	97	ne.	6	2.7			10 s		ne.	0.17	4.3	cloudy	
Keokuk, Iowa	29.30	744.2	29.98	761.5	56.5	13.6	90	s.	2	0.9			10 n		s.	0.03	0.8	light rain	
Key West, Florida	30.06	763.5	30.10	764.5	79.0	26.1	79	e.	1	0.4		0	2 k		e.	0	0	clear	
Kittyhawk, North Carolina	30.26	768.6	30.28	769.1	63	17.2	84	se.	8	3.6		hz.	0			0	0	dense haze	
Knoxville, Tennessee	29.19	741.4	30.26	768.6	48.3	9.1	98	ne.	4	1.8			10 s		calm	0	0	cloudy	
La Crosse, Wisconsin	29.29	744.0	30.09	764.3	41	5.0	82	ne.	8	3.6			10 s			0.68	17.3	cloudy	
La Mesilla, New Mexico	26.13	663.7	30.28	769.1	45.0	7.2	76	calm	0	0		0	0			0.01	0.3	clear	
Laredo, Texas	29.46	748.3	29.79	756.7	75.0	23.9	90	calm	0	0			10 ks		s.	0	0	cloudy	
Leavenworth, Kansas	29.09	738.9	30.02	762.5	50	10.0	93	nw.	10	4.5			10 s		nw.	0.52	13.2	cloudy	
Lewiston, Idaho	29.49	749.0	30.37	771.4	43	6.1	74	calm	0	0		0	5 s		calm	0	0	fair	
Little Rock, Arkansas	29.57	751.1	29.89	759.2	64	17.8	100	calm	0	0			10 n			1.20	30.5	light rain	
Los Angeles, California	29.60	751.8	29.98	761.5	51.2	10.7	80	w.	3	1.3		0	0			0	0	clear	
Louisville, Kentucky	29.51	749.5	30.09	764.3	59.0	15.0	81	se.	9	4.0			10 s		calm	0	0	cloudy	
Lynchburg, Virginia	29.56	750.8	30.27	768.8	47.8	8.8	77	calm	0	0		0	fg.			0	0	clear	
Madison, Wisconsin	29.03	737.3	30.10	764.5	42	5.6	93	ne.	10	4.5			10 n		calm	0.23	5.8	light rain	
Marquette, Michigan	29.48	748.8	30.24	768.1	36	2.2	61	n.	5	2.2		0	2 s		n.	0	0	clear	
Mason, Texas	28.30	718.8	30.01	762.2	66	18.9	93	calm	0	0			10 s		s.	0.10	2.5	cloudy	
Memphis, Tennessee	29.64	752.8	29.99	761.7	64	17.8	100	se.	2	0.9			10 n		calm	1.76	44.7	light rain	

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.31	744.5	30.09	764.3	48	8.9	93	n.	12	5.4			10 s			0.05	1.3	threatening.	
Mobile, Alabama	29.98	761.5	30.06	763.5	71.0	21.7	90	se.	3	1.3		0	8 ks		sw.	0.23	5.8	cloudy	
Montgomery, Alabama	29.90	759.4	30.14	765.5	65.2	18.4	84	e.	6	2.7			10 s			0.01	0.3	cloudy	
Moorhead, Minnesota	29.21	741.9	30.27	768.8	20.1	— 6.6	84	n.	5	2.2		3 cs	0	n.		0	0	fair	
Morgantown, W. Virginia	29.18	741.2	30.19	766.8	43.0	6.1	96	calm	0	0			fg			0	0	dense fog	
Mt. Washington, N. H.	23.84	605.5	30.21	767.3	33.0	0.6	96	nw.	30	13.4			fg		nw.	0.15	3.8	dense fog	
Nashville, Tennessee	29.56	750.8	30.12	765.0	59.0	15.0	88	se.	3	1.3			10 n		se.	0.03	0.8	light rain	
New Haven, Connecticut	30.08	764.0	30.20	767.1	53	11.7	90	sw.	6	2.7		4 c	hz.			0	0	dense haze.	
New London, Connecticut	30.15	765.8	30.20	767.1	55	12.8	86	nw.	5	2.2		0	fg			0	0	clear	
New Orleans, Louisiana	29.97	761.2	30.03	762.7	73.0	22.8	90	se.	5	2.2		1 c	0			0.30	7.6	clear	
Newport, Rhode Island	30.15	765.8	30.20	767.1	56.8	13.8	87	sw.	9	4.0		3 k	2 s	w.	calm	0	0	fair	
New River, N. Carolina																			
New Shoreham, Rhode I'd.	30.17	766.3	30.20	767.1	58.0	14.4	86	sw.	14	6.3		3 c	0	calm		0	0	fair	
New York, New York	30.05	763.3	30.23	767.8	52.5	11.4	92	sw.	7	3.1		6 cs	fg	w.		0	0	fair	
Norfolk, Virginia	30.24	768.1	30.27	768.8	57	13.9	93	calm	0	0		1 c	fg			0	0	clear	
North Platte, Nebraska	27.21	691.1	30.27	768.8	29.4	— 1.4	88	n.	14	6.3		4 c	6 s	nw.	ne.	0.05	1.3	cloudy	
Olympia, Washington T'y	30.15	765.8	30.19	766.8	47.0	8.3	93	n.	4	1.8			10 s		calm	0	0	cloudy	
Omaha, Nebraska	28.84	732.5	30.08	764.0	45.2	7.3	91	nw.	16	7.2			10 s		nw.	0.39	9.9	cloudy	
Oswego, New York	29.80	756.9	30.14	765.5	53.0	11.7	80	s.	2	0.9		2 c	7 s	w.	w.	inap.	inap.	cloudy	
Pensacola, Florida	30.04	763.0	30.07	763.8	71	21.7	100	ne.	5	2.2			10 n		calm	2.03	51.6	heavy rain	
Philadelphia, Pa.	30.18	766.6	30.24	768.1	50	10.0	100	w.	4	1.8			fg			0	0	dense fog	
Phœnix, Arizona	28.86	733.0	30.71	780.0	45	7.2	45	calm	0	0		4 ck	0	n.		0	0	fair	
Pike's Peak, Colorado	17.70	449.6	29.90	759.4	17	— 8.3	36	nw.	12	5.4			2 k			0.11	2.8	clear	
Pioche, Nevada	24.15	613.4	30.34	770.6	35	1.7	69	nw.	7	3.1		3 k	0	s.		0	0	fair	
Pittsburg, Pennsylvania	29.37	746.0	30.22	767.6	47	8.3	86	ne.	2	0.9		8 ck	0	nw.		0	0	fair	
Port Eads, Louisiana	30.04	763.0	30.05	763.3	76.0	24.4	88	s.	8	3.6		hz	hz	calm	calm	0	0	dense haze.	
Port Huron, Michigan	29.39	746.5	30.10	764.5	50.0	10.0	97	calm	0	0			fg			0	0	dense fog	
Portland, Maine	30.06	763.5	30.11	764.8	52	11.1	86	w.	1	0.4			10n;fg		calm	0.02	0.5	light rain	
Portland, Oregon	30.10	764.5	30.17	766.3	44.1	6.7	93	nw.	7	3.1		0	0			0	0	clear	
Portsmouth, N. Carolina					67	19.4	68	ne.	6	2.7		0	1 k		calm	0	0	clear	
Prescott, Arizona	24.75	628.6	30.06	763.5	28	— 2.2	61	s.	3	1.3		0	0			0	0	clear	
Punta Rassa, Florida	30.05	763.3	30.06	763.5	78	25.6	82	s.	8	3.6		0	1 ks		s.	0.12	3.0	clear	
Red Bluff, California	29.65	753.1	30.00	762.0	53.0	11.7	52	n.	4	1.8		0	0			0	0	clear	
Rio Grande City, Texas	29.70	754.4	29.91	759.7	75	23.9	85	s.	4	1.8		3 c	3 s	calm	s.	0	0	fair	
Rochester, New York	29.45	748.0	30.15	765.8	46	7.8	83	sw.	9	4.0		3 c	5 s	sw.	sw.	0	0	cloudy	
Roseburg, Oregon	29.56	750.8	30.15	765.8	41	5.0	92	calm	0	0			fg			0	0	dense fog	
Sacramento, California	29.92	760.0	30.00	762.0	48.7	9.3	71	ne.	4	1.8		0	0			0	0	clear	
St. Louis, Missouri	29.39	746.5	30.02	762.5	58.2	14.6	100	se.	8	3.6			10 s			inap.	inap.	cloudy	
St. Paul, Minnesota	29.22	742.2	30.14	765.5	38.8	3.8	89	n.	9	4.0			10 n		n.	0.24	6.1	light rain	
Salt Lake City, Utah	25.76	654.3	30.21	767.3	40	4.4	50	s.	4	1.8		0	0			0	0	clear	
San Antonio, Texas	29.23	742.4	29.95	760.7	73.1	22.8	100	calm	0	0			10 s		calm	0.08	2.0	cloudy	
San Diego, California	29.85	758.2	29.92	760.0	58.9	14.9	80	e.	1	0.4			10 s			0	0	cloudy	
Sandusky, Ohio	29.40	746.7	30.11	764.8	53.7	12.1	80	s.	13	5.8		5 k	3 s	w.	calm	0	0	cloudy	
Sandy Hook, New Jersey	30.19	766.8	30.22	767.6	54.0	12.2	86	w.	8	3.6		3 ck	0	calm		0	0	clear	
San Francisco, California	29.93	760.2	30.00	762.0	52	11.1	83	calm	0	0		0	0			0	0	clear	
Santa Fé, New Mexico	23.32	592.3	30.32	770.1	33.5	0.8	80	n.	3	1.3		0	0			0	0	clear	
Savannah, Georgia	30.08	764.0	30.17	766.3	63	17.2	92	n.	5	2.2		3 ck	3 s		calm	inap.	inap.	fair	
Shreveport, Louisiana	29.72	754.9	29.95	760.7	66	18.9	100	nw.	8	3.6			10 n		n.	1.16	29.5	heavy rain	
Silver City, New Mexico	24.30	617.2	29.98	761.5	40	4.4	67	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.66	753.4	29.73	755.1	53	11.7	86	s.	3	1.3			10 s		se.	1.79	45.5	cloudy	
Smithville, North Carolina	30.18	766.6	30.22	767.6	63	17.2	90	ne.	6	2.7		0	4 k		ne.	0	0	fair	
Spokane Falls, Wash. Ter.	28.28	718.3	30.35	770.9	33	0.6	88	calm	0	0		0	0			0	0	clear	
Springfield, Illinois	29.31	744.5	30.02	762.5	56	13.3	90	s.	4	1.8			10 s		sw.	0	0	cloudy	
Springfield, Massachusetts	30.06	763.5	30.19	766.8	47.9	8.8	93	calm	0	0		10 c	fg			0	0	cloudy	
Stockton, Texas	26.96	684.8	30.11	764.8	59.2	15.1	93	nw.	4	1.8		0	2 s		calm	0.06	1.5	fair	
St. Vincent, Minnesota	29.32	744.7	30.25	768.3	28	— 2.2	77	sw.	6	2.7			10 s			0	0	cloudy	
Thatcher's Island, Mass.	30.11	764.8	30.16	766.1	53.6	12.0	74	sw.	8	3.6		0	6 s		sw.	0	0	fair	
Toledo, Ohio	29.38	746.2	30.10	764.5	55	12.8	80	sw.	1	0.4			10 ks		sw.	0	0	cloudy	
Tucson, Arizona	27.54	699.5	29.98	761.5	53	11.7	57	se.	4	1.8		0	4 ks			0	0	fair	
Umatilla, Oregon	29.98	761.5	30.41	772.4	49.5	9.7	76	ne.	6	2.7			10 s		n.	0	0	cloudy	
Uvalde, Texas	28.96	735.6	29.74	755.4	74	23.3	94	calm	0	0			10 s		calm	0.20	5.1	cloudy	
Vicksburg, Mississippi	29.75	755.6	30.01	762.2	70	21.1	94	se.	8	3.6			10 s		se.	0.85	21.6	cloudy	
Visalia, California	29.60	751.8	29.97	761.2	43	6.1	74	e.	4	1.8		0	0			0	0	clear	
Washington, D. C.	30.12	765.0	30.24	768.1	49.0	9.4	93	calm	0	0		1 c	fg			0	0	clear	
West Los Animas, Colorado	26.15	664.2	30.23	767.8	42	5.6	82	nw.	2	0.9		0	4 s		w.	0	0	fair	
Wickenburg, Arizona					40	4.4	54	calm			0	0	2 s			0	0	clear	
Wilmington, N. Carolina	30.16	766.1	30.22	767.6	63.0	17.2	90	e.	4	1.8		8 ck;k	0	calm		0	0	fair	
Winnemucca, Nevada	25.74	653.8	30.20	767.1	33	0.6	88	ne.	8	3.6		0	0			0	0	clear	
Wood's Holl, Mass.	30.14	765.5	30.18	766.6	57	13.9	86	w.	15	6.7		6 k	0	w		0	0	fair	
Yankton, Dakota	28.79	731.3	30.16	766.1	34	1.1	89	nw.	15	6.7			10 n			0.80	20.3	light rain	
Yuma, Arizona	29.78	756.4	29.92	760.0	56.0	13.3	60	ne.	1	0.4		0	1 s		calm	0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡																			J. A. Racker.
Bogota, U. S. Columbia	22.06	560.3			54.0	12.2	88	calm	0	0			8 s			0.12	3.0	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	30.00	762.0	30.02	762.5	76	24.4	90	s.					5			0.05	1.3	cloudy	J. B. Dougherty.
Guadeloupe, W. I.‡	29.88	758.9	29.88	758.9	79	26.1	90	e.				5 c	0			0	0		B. Bigar.
Havana, Cuba, W. I.	30.05	763.3	30.10	764.5	80	26.7	82	se.	1.2	0.5		0	10 ks		calm	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	30.04	763.0	30.05	763.3	77.8	25.4	78	n.	1	0.4		1 k	0			0	0	fine	Robert Johnstone.
Navassa, W. I.	29.92	760.0	30.00	762.0	79.5	26.4	91	ne.	5	2.2		2 ck	5 s	e.	ne.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.97	761.2	29.97	761.2	81	27.2	78	e.			2	3 c	5 k	e.	e.	0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.50	749.3	30.06	763.5	74	23.3	94	ne.					10 ks		calm	0.20	5.1	raining	Francesco J. Cisneros.
Rivas, Nicaragua					74.3	23.5	98	w.			1	0	5 ks		w.	0.87	22.		Earl Flint.
Santiago de Cuba, W. I.	30.03	762.7	30.05	763.3	79	26.1	86	calm	0	0		2 c	0			0	0	fair	Robert Mason.
St. Thomas, W. I.‡	29.90	759.4	30.01	762.2	81	27.2	82	e.	6	2.7		0	2 ks		ne.	0.04	1.0	clear	G. O. Gyllich.
York Factory, B. A.	30.05	763.3	30.10	764.5	8.0	—13.3	89	nw.	14	6.3		0	0			0	0	clear	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross, Kii Channel, Japan	30.26	768.6	64	17.8		nnw.			2-3		4					3	nw.	d. clouds	
H. M. S. Alert, Port Darwin, Australia	29.90	759.4	82.8	28.2	80	wsw.			2		1							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 38° 41′, E. 12° 36′	29.75	755.6	72.5	22.5	83	ssw.			4		3	sse.				3	s.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.91	759.7	68	20.0		e.			1		7	ne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche, N. 46° 37′, W. 27° 50′	29.54	750.3	55	12.8	100	nnw.			2		3					4	nnw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.03	762.7	72	22.2	65	w.			3		3	ssw.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	30.04	763.0	62	16.7	100	calm			0		8							d. clouds	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 34° 34′, E. 11° 30′	29.81	757.2	78	25.6	77	s.			2-3		4					3	sse.	d. clouds	Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	29.87	758.7	75	23.9		nw.			3		4	nw.				3	nw.	raining	Lt. Comm. J. L. Burr.
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile																			Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 41′, E. 135° 11′	30.18	766.6	61	16.1	100	var.					0							blue sky	Capt. S. Long.
H. M. S Cygnet, N. 38° 14′, E. 21° 44′	29.84	757.9	77	25.0		calm			0		3	calm						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido, S. 2° 27′, W. 14° 36′	29.96	761.0	77	25.0		se.			3-4		8	ene.				4	nnw.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.10	764.5	70.5	21.4	61	nnw.			1-2		4	nnw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 46° 23′, W. 54° 01′	30.14	765.5	44.5	6.9	79	w.			1		2					2	e.	d. clouds	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 30° 34′, E. 47° 49′	29.81	757.2	83	28.3		sse.			1		5	s.						d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 12° 39′, E. 74° 01′	29.90	759.4	77	25.0		ese.			4		4	ese.				4	ese.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.22	742.2	53	11.7	100	s.			2-4		10							misty	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.83	757.7	85	29.4	75	ne.			3		6	ne.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 14° 50′, E. 41° 00′	29.90	759.4	78.5	25.8	80	ese.			3		2							d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 17° 30′, W. 88° 12′	29.99	761.7	82	27.8	91	ne.			2		2							d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 1° 58′, W. 157° 28′	29.96	761.0	79	26.1	69	ese.			3		2							d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	30.04	763.0	65	18.3	89	se.			5		10							overcast	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris, Off Cagliari, Sardinia	29.75	755.6	70	21.1	90	sse.			1		7					1	sse.	gloomy	Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	30.17	766.3	63	17.2		n.			1		2	n.						d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. N. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.98	761.5	78	25.6		n.			2		3	n.				1-2	se.	raining	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 27° 00′, E. 100 00′	30.08	764 0	63	17.2		ssw.			3		3	sse.				1	ssw.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 12′, E. 180 26′	30.02	762.5	67	19.4	79	nw.			3-5		5					2	nnw.	squally	Lieut. Comm. C. Oldham
H. M. S. Magpie, Hong Kong, China	29.92	760.0	77.5	25.3	77	e.			4-5		10					1	cf'd	dense mist	Lieut. A. Balfour.
H. M. S. Malabar, Bombay, India	29.88	758.9	89	31.7	91	wnw.			1		1	nw.						blue sky	Capt. I. G. F. Grant.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 36° 07′, W. 5° 21′	29.73	755.1	65.5	18.6	89	ssw.			1		10							heavy rain.	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead,
H. M. S Monarch, Sfax, Tunis	29.94	760.5	73	22.8	100	sse.			2		1							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.14	765.5	59	15.0	87	calm			0		10							misty	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S Northampton, Halifax, Nova Scotia	30.21	767.3	37	2.8	85	nnw.			1									foggy	Capt. E. B. Drummond.
H. M. S. Orontes, N. 13° 10′, W. 56° 05′	30.03	762.7	81	27.2	87	e.			3-4		10	s.				3	ne.	raining	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 20° 31′, W. 72° 32′	30.08	764.0	81	27.2	87	ne.			2		2					1	ene.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	30.26	768.6	48	8.9	92	calm			0		5							d. clouds	Capt. V. B. Orlebar.
H. M. S. Ruby																			Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 25° 38′, W. 20° 29′	30.17	766.3	77	25.0	86	wnw.			3		3	wnw.				4	w.	d. clouds	
H. M. S. Sea Gull, S. 15° 01′, E. 40° 47′	29.51	749.5	81	27.2	82	ne.			4-5		1							blue sky	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb, N. 38° 40′, E. 9° 40′	29.88	758.9	69	20.6	84	sse.			2-3		1	se.						blue sky	
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos, N. 34° 30′, W. 64° 45′	30.15	765.8	69	20.6	87	nnw.			6		7					4	nnw.	d. clouds	Capt. C. G. Fane.
H. M. S. Thetis, N. 18° 28′, W. 105° 38′	29.86	758.4	82	27.8	87	sse.			2		3					3	se.	d. clouds	Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 29° 29′ W. 82° 42′	30.40	772.1	60	15.6	76	sse.			4		10	s.				4	s.	squally	Capt. A. H. Markham.
H. M. S.Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	30.00	762.0	78	25.6		n.			1		2							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.56	750.8	57	13.9	81	sw.			1		0							misty	Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, N. 26° 06′, E. 55° 48′	29.88	758.9	83.5	28.6	83	wsw.			1		2	e.						d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
India																			Carlos Candid dos Reis.
Bengo, Mossamedes, Benguela	29.95	760.6	75.2	24.0	77	nnw.			2		3					1		blue sky	A. M. da Sitra.
Quanza, Porto Praya, Cape Verd Ids	30.08	764.0	83.3	28.5	88	ne.			2		1		ne.			1	ne.	blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.89	759.2	76.5	24.7	86	nne.			2		8							overcast	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

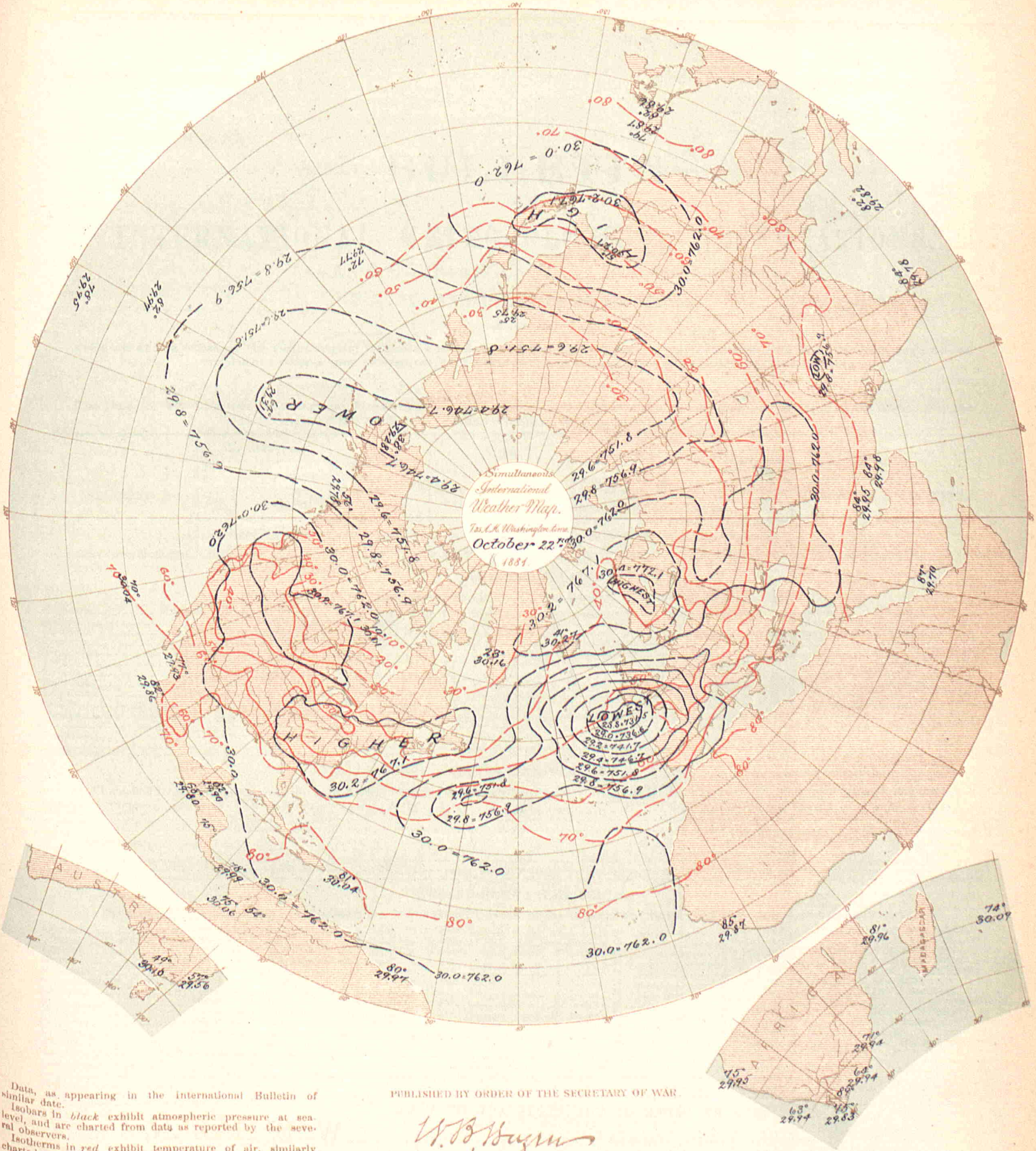
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	30.18	766.6	72	22.2	85	ne.	10	4.5			10		ne.	0	0			cloudy	
N. Yard, Portsmouth, N. H.	30.27	768.8	41	5.0	91	nw.	7	3.1			0			0	0			clear	
Naval Hospital, Yokohama, Japan	29.95	760.7	57	13.9	54	n.			3		0			0	0			clear	
Adams, Callao, Peru	29.84	757.9	62	16.7	100	sse.			0–1		10					sm'h		overcast	
Alaska, Callao, Peru	30.02	762.5	61	16.1	94	s.			1		10			0	0	sm'h		cloudy	
Alert, Kobe, Japan *.	30.05	763.3	61	16.1	66	nw.			1		2		calm	0	0	sm'h		clear	
Alliance, N. 53° 10′, W. 39° 45′	29.92	760.0	40	4.4	91	n.			5		10			rain&	snow	mod.		overcast	
Ashuelot, Kobe, Japan	30.24	768.1	60	15.6	76	nnw.			1		2		calm					clear	
Colorado, New York, N. Y.	30.32	770.1	48	8.9	92	sw.	1	0.4			fg; mist							foggy	
Constitution, Newport, R. I.	30.28	769.1	53	11.7	93	calm	0	0										hazy	
Franklin, Yorktown, Va.	30.27	768.8	60	15.6	88	ene.	4	1.8			2		e.	0	0			fair	
Galena, 39° 04′, E. 23° 23′	29.87	758.7	69	20.6	85	ese.			2–3		2					mod.	se.	fair	
Independence, N. Yard, Mare I'd, Cal.	29.93	760.2	50	10.0	86	calm	0	0			0							clear	
Kearsarge, Yorktown, Va.	30.38	771.6	57	13.9	75	ssw.			1		0					sm'h		hazy	
Lackawanna, San Francisco, Cal. †	30.19	766.8	55	12.8	93	se.			1		0							clear	
Lancaster, N. 38° 22′ W. 50° 32′	29.59	751.6	73	22.8	85	ssw.			6		10		sw.			mod.	s.	squally	
Marion, Montevideo, Uruguay	29.86	758.4	72	22.2		nnw.			2		2		calm			sm'h		fair	
Michigan, Erie, Pa.	30.21	767.3	51	10.6	72	s.			3		8		w.					fair	
Monocacy, Yokohama, Japan	30.17	766.3	60	15.6	76	nw.			1		0							clear	
Nipsic, Genoa, Italy	29.81	757.2	55	12.8	?	s.			1		8					sm'h		d. clouds	
Onward, Callao, Peru †	30.01	762.2	60	15.6	94	sse.			1		8		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.88	758.9	76	24.4	86	e.			4		8		n;e.					fair	
Passaic, Washington, D. C.	30.37	771.4	44	6.7	92	sw.			1		2		sw.					clear	
Pensacola, Callao, Peru,	30.13	765.3	61	16.1	82	s.			1		10					sm'h		cloudy	
Portsmouth, Yorktown, Va.	30.38	771.6	53	11.7	100	nw.			1		2		n.			sm'h		clear	
Powhatan, Boston, Mass.	30.30	769.6	42	5.6	91	wsw.			1		2		sw.					hazy	
Quinnebaug, Marseilles, France	29.67	753.6	64	17.8	83	se.			4		10					sm'h		cloudy	
Ranger, San Francisco, Cal. *.	29.97	761.2	56	13.3	87	wsw.			1		2					sm'h		clear	
Saratoga, Yorktown, Va.	30.32	770.1	53	11.7	100	w.			1		0			0	0	sm'h		clear	
St. Louis, League Island, Pa.	30.08	764.0	44	6.7	100	calm	0	0			2			0	0			clear	
Swatara, N. 34° 56′, E. 139° 28′. †	30.12	765.0	67	19.4	64	n.			5		0					mod.	n.	clear	
Tennessee, Yorktown, Va.	30.41	772.4	55	12.8	93	wnw.	5	2.2			0			0	0			hazy	
Vandalia, Yorktown, Va.	30.36	771.1	55	12.8	80	nw.			1		2		calm					fair	
Wabash, Boston, Mass.	30.31	769.9	44	6.7	84	w.	3	1.3			2		w.	0	0			clear	
Wachusetts, Sitka, Alaska	29.87	758.7	57	13.9	81	ne.			4		10					sm'h		overcast	
Wyoming, Port Royal, S. C.	30.22	767.6	65	18.3	84	ne.	14	6.3			10		n.	0	0			cloudy	
Yantic, Yorktown, Va. *.	30.36	771.1	62	16.7	72	wnw.			2		0							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, Quebec, Canada *†	30.32	770.1				ssw.	1		8		sw.					cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith																	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, Off Sambro, N. S.						ene.	2		10		ene.			sm'h		foggy	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, Agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Pa. †	30.27	768.8	49	9.4	93	nw.	1		2		nw.					fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, Liverpool, Eng †	29.36	745.7	50	10.0	59	ese.	6		8		se.	light	light			cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, N. 51° 45′, W. 13° 02′ *†	28.97	735.8	52	11.1	93	nne.	6		10		nne.			h'vy	ne.	squally	
S. S. Pennsylvania, Capt. G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, Capt. E. J. Moloney																	
Bq. Caldew, Capt. N. W. Petersen S. 56° 13′, W. 77° 03′	29.03	737.3	38	3.3		wsw.	7		7							d. clouds	
S. S. Cipero, Capt. W. N. Lailey, Belize, Honduras, C. A.	30.07	763.8	80	26.7	100	w.	1		6							d. clouds	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton, N. 19° 55′, W. 120° 07′ ‡	30.04	763.0	70	21.1	80	nnw.	3		10							overcast	
S. S. Gordon Castle, Capt. W. Waring,																	
Bg. Hermine, Capt. S. G. Jones, S. 49° 57′, W. 65° 07′	29.43	747.5	42.3	5.7	67	sw.	7		1							blue sky	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, N. 6° 18′, E. 91° 02′	29.82	757.4	81.8	27.7	83	nnw.	2		8							d. clouds	
Bk. Mertola, Capt. E. W. Turner																	
Bk. Moorhill, Capt. J. Brown, S. 56° 30′, W. 78° 00′	29.06	738.1	40	4.4	73	ssw.	6		6							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry S. 25° 33′, W. 40° 01′	29.90	759.4	69.8	21.0	79	sw.	6		8							showery	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. M. Gray,																	
S. S. Strathleven, Capt. C. W. Pearson N. 33° 42′, E. 128° 32′	30.15	765.8	66.0	18.9	90	ene.	5		4							d. clouds	
S. S. Thames, Capt. Luckhurst N. 52° 17′, W. 53° 13′	30.22	767.6	37.9	3.3	90	ssw.	3		9							d. clouds	R. Ladd, 1st Officer.
S. S. Wyberton, Capt R. J. Blacklin N. 15° 05′, E. 42° 02′	29.70	754.4	87	30.6		se.	3		0							blue sky	
CALIFORNIA, AND MEXICAN S. S. CO.																	
J. Birmingham, Agent San Francisco.																	
S. S. Newbern, Capt. E. Rogers San Jose, Guatemala, C. A. †	29.80	756.9	68	20.0	90	wsw.	1		1		nw.	0	0	gentle	ese.	clear	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., Agents, New York.																	
S. S. Gallia, Capt. W. H. P. Hains,																	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD.																	
A. Schumacher & Co., Agents, Baltimore, and Oetrich & Co., Agents, New York.																	
Braunschweig, Capt. C. Pohle N. 37° 58′, W. 70° 23′	30.31	769.9	60.0	15.6	76	ne.	4		2		ne.			r'gh cross	ne.	fair	
S. S. Hermann, Capt. H. Baur N. 49° 42′, W. 11° 00′	28.56	725.4	59.0	15.0		se.	7		10		se.	3 h'r	3 h'r	r'gh	cross	cloudy	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N. 52° 26′, E. 3° 24′	29.54	750.3	46.0	7.8	96	ese.	5-6		10		ese.	0	0	r'gh	ese.	cloudy	T. Jüngst.
S. S. Leipsic, Cept. F. Pfeiffer.																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 49° 51′, W. 36° 54′	29.95	760.7	46.0	7.8	88	n.	6		10		nne.	4 h'r	hail	r'gh	n.	cloudy	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, N. 42° 50′, W. 154° 10′ †	29.41	747.0	64	17.8	78	sw.	6		8		sw.	rain	sq 'lls	high	sw.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, Hong Kong, China *†	30.07	763.8	77	25.0	82	e.	2		4?		e.					cloudy?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 34° 44′, E. 170° 52′	29.97	761.2	72	22.2	85	wnw.	4		3		w.	0	0	mod.	wnw.	fine	
OREGON IMPROVEMENT CO.																	
John L. Howard, Agent, San Francisco.																	
S. S. Mississippi, Capt. E. W. Holmes, N. 44° 12′, W. 124° 49 †	30.32	770.1	53	11.7	93	e.	2		0					mod.	w.	clear	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Oterendorp, Agent, San Francisco.																	
S. S. City of Chester, Capt. G. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles. N. 42° ′,46 W. 124° 35′ †	30.09	764.3	54.5	12.5	80	n; w.	5		0					mod.	n; w	clear	
S. S. Oregon, Capt. E. Polemann, Portland, Oregon †	30.21	767.3	47	8.3	92	nw.	1		10							cloudy	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 37° 20′, W. 122° 29′ †..	30.00	762.0	58	14.4	94	nne.	3	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——, N. 41° 08′, W. 124° 36′ †..	30.07	763.8	52	11.1	93	n.	4	.....	2	.....	n.	0	0	long	w.	clear.....	.....
S. S. Idaho, Capt. T. Huntington, N. 42° 36′, W. 124° 59′ †..	30.06	763.5	52	11.1	93	nw.	5	.....	0	.....	.....	.....	.....	mod.	w.	clear.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 33° 42′, W. 118° 14′ †.	30.00	762.0	62	16.7	72	se.	5	.....	fog.	.....	ssw.	.....	.....	long	sw.	foggy.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 34° 29′, W. 120° 22′ †..	29.88	758.9	58	14.4	58	w.	2	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal †..	29.97	761.2	46	7.8	94	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	G. Debney.
S. S. Victoria, H. M. Hayward, Departure Bay †..	30.36	771.2	47	8.3	85	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, N. 15° 20′, W. 160° 30′ †	30.07	763.8	82	27.8	91	ne.	6	.....	10	.....	ne.	.....	.....	mod.	ne.	cloudy.....	W. H. Hawes, 2d Offl. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. City of Peking, Capt. G. G. Barry, N. 33° 14′, E. 135° 46′ *†..	30.27	768.8	70	21.1	70	n.	5	.....	0	.....	.....	0	0	mod.	nne.	clear.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama †	29.99	761.7	78	25.6	91	ene.	2	.....	10	.....	ne.	0.2	5.	sm'h	.....	clearing.....	.....
S. S. City of Sydney, Capt. H. C. Dearborn, Sydney, N. S. W. *†..	29.81	757.2	66	18.9	54	ssw.	5	.....	8	.....	sw.	0	0	sm'h	.....	cloudy	E. L. Saik. A. L. Ritchie, 2d Offl.
S. S. City of Tokio, Com. J. Maury.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Colima, R. R. Searle N. 20° 29′, W. 105° 45′ †	29.95	760.7	82	27.8	71	baff.	2	.....	9	.....	calm	0.04	1.0	mod.	sw.	drizzling.....	R. R. Searle. M. Connolly.
S. S. Grenada, Capt. M. Connolly.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. South Carolina, Capt. —— N. 28° 50′, W. 117° 13′ *†...	29.91	759.7	57	13.9	94	n.	2	.....	10	.....	n.	.....	.....	light	sw.	overcast.....	.....
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.09	764.3	54	12.2	100	.....	2	.....	2	.....	.....	.....	.....	.....	.....	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, N 40° 47′, W. 70° 20′ †...	30.71	780.0	55	12.8	.....	s.	1	.....	0	.....	.....	0	0	sm'h	.....	fine.....	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †	29.64	752.8	53	11.7	67	ese.	3	.....	10	.....	e.	0.15	3.8	.....	.....	cloudy.....	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings N. 50° 36′, W. 17° 05′ †..	28.70	729.0	54	12.2	.....	ne.	5	.....	8	.....	ne.	shr's	shr's	h'vy	e.	fair.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 51° 20′, W. 15° 31′ †	28.76	730.5	60	15.6	88	ne.	5	.....	5	.....	nne.	.....	.....	h'vy	ene.	fair.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, New York, N. Y. †..	30.42	772.7	55	12.8	93	n.	4	.....	10	.....	n.	.....	.....	.....	.....	overcast.....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving Off Sandy Hook, N. J. †...	30.17	766.3	60	15.6	82	wsw.	2	.....	2	.....	wsw.	0	0	sm'h	.....	clear.....	.....
MISCELLANEOUS.																	
U. S. F. C. S. Fish Hawk, Washington, D. C. †...	30.38	771.6	47	8.3	100	calm	0	0	2 s	.....	.....	.....	.....	.....	.....	clear.....	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Lovaine, Capt. H. McCauley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
S. Pawashick, Capt. E. Fry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Fry.
Bk. Peppina, Capt. Giov. S. d'Anconz N. 35° 49′, W. 48° 19′ †...	29.97	761.2	76	24.4	.....	sse.	8—9	.....	10	.....	sw.	.....	.....	long	nne.	threatening	.....
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, N. 34° 56′, W. 45° 27′ †....	29.82	757.4	76	24.4	82	ssw.	7	.....	8	.....	ssw.	light	light	cross	sw; n	cloudy.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the international Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 23, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.90	759.4	69.3	20.7	98	sw.			4		5			0.051	1.3	cloudy.	Moiroud.
Algiers ‡			29.86	758.5	70.2	21.2	64	w.			5		10			0	0	covered	Nicolas.
La Calle ‡			29.81	757.2	79.2	26.2	73	nw.			1		6			0	0	very cloudy	Fonfréde.
Tunis ‡			29.78	756.3															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.93	760.1	69.8	21.0	46	wnw.			2		4			0	0	cloudy	Dumas.
Tebessa ‡			29.91	759.6	75.6	24.2	38	sw.			5		3			0	0	pretty fair	Derché.
Geriville ‡					77.7	25.4	12	ssw.			6		2			0	0	fair	Lonchamp.
Laghouat ‡			29.90	759.4	75.9	24.4	46	sw.			2		3			0	0	pretty fair	Herbin.
Biskra ‡			29.87	758.6	82.8	28.2	30	se.			1		8			0	0	very cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.07	763.8	30.16	766.0	51.1	10.6	83	s.	7	3.1			4			0.22	5.6	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.12	739.7	29.67	753.5	55.4	13.0	85	calm			0		10			0.189	4.8		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.03	737.4	29.82	757.3	41.7	5.4	91	ene.	8.1	3.6			10			0.004	0.1		Dr. Wiersbicki.
Eperies	28.89	733.9	29.78	756.3	47.5	8.6	91	calm			0		10			0.193	4.9	drizzling	Julius Mikolik.
Gratz ‡	28.39	721.0	29.63	752.7	48.4	9.1	84	sw.			2		10			0	0		Andreas Rospini.
Hermannstadt	28.39	721.2	29.82	757.4	53.4	11.9	80	w.			2		10			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.23	717.1	29.58	751.4	43.7	6.5	96	ene.			3		10			0.094	2.4	foggy	The Staff.
Lemberg	28.84	732.4	29.84	758.0	40.6	4.8	90	s.			1		10			0	0		Dr. T. Stanecki.
Pola	28.18	715.8	29.67	753.6	63.0	17.2	83	sse.			5		10			0	0		I. R. Hydrographic Office.
Szathmar	29.35	745.5	29.82	757.3	50.7	10.4	74	sw.			2		10			0.059	1.5		Jozsef Midlinszky, S. J.
Szegedin	29.48	748.7	29.76	755.8	52.7	11.5	85	sw.			2		10			0	0		Karl Stancel.
Trieste	29.56	750.8	29.66	753.4	61.5	16.4	87	se.			1		10			0.354	9.0		Rieder.
Vienna	28.93	734.8	29.65	753.2	44.6	7.0	96	ese.			2		10			0.024	0.6		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 23, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.77	756.1	29.87	758.7	47.6	8.7	69	ese.	37	16.5			10			0.030	0.8	squally	W. Boswell.
Armagh, Observatory	29.18	741.2	29.41	747.0	49 6	9.8	89	e.	25	11.2								squally	S. Call.
Bidston, Liverpool Obs'y			29.45	748.0	49.0	9.4	85	e.	36	16.1			10					overcast	John Hartnup.
Bolton, Sharples	28.96	735.6	29.49	749.0	46.0	7.8	92	e.	18	8.0			10					raining	Thomas Mackereth.
Bradford, Yorkshire																0.27	6.9		J.McLandsborough, F. R. A.S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.44	747.8	49.2	9.6	99	se.			1.0		10					overcast	John McLaren.
Chatham, School M. E.	29.36	745.7	29.49	749.0	49.7	9.8	97	e.					10			blank	blank	gloomy	R. Craydon, R. E.
Falmouth, Observatory	29.02	737.1	29.24	742.7	58.5	14.7	81	se.			6		5					d. clouds	The Staff.
Fort Napier, Natal	27.57	700.3	29.79	756.7	76.0	24.4	54	se.			1		2					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.64	752.8	29.88	758.9	78.0	25.6	95	sw.			1		.4					drizzling	Sergt. John Robinson.
Galway, Queen's College			29.44	747.8	55	12.8	86	e.			6		10					squally	J. O'Donaghue.
Gibraltar, Mediterranean	29.87	758.7	29.92	760.0	68.4	20.2	78	w.			5		7					gloomy	Cpl. O. Baldwin.
Glasgow, Observatory	29.38	746.2	29.58	751.3	47.3	8.5	76	e.			9		10 k						Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.27	743.4	29.44	747.8	50.0	10.0	96	e.			1		10					overcast	The Staff.
Guernsey	29.11	739.4	29.33	745.0	59	15.0	81	se.			2								Dr. S. E. Hoskins, F.R.S.
Kew, Observatory	29.41	747.0	29.45	748.0	50.9	10.5	90	e	18	8.0			10					misty	The Staff.
Leicester, Museum	29.23	742.4	29.49	749.0	48.0	8.9	91	se.			2		10					drizzling	J. C. Smith.
Malta, Mediterranean	29.88	758.9	29.95	760.7	76.0	24.4	72	se.			2		3			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.04	763.0	30.09	764.3	82.5	28.1	74	ne.			1		5					d clouds	C. S. Duncombe.
Oscott, St. Mary's College	28.96	735.6	29.48	748.8	47.0	8.3	98	ene.			2		10					raining	John Mac Emall.
Oxford, Radcliffe Obs'y	29.20	741.7	29.43	747.5	51.4	10.8	93	e.			3		10					showery	The Staff.
Plymouth	29.21	741.9	29.28	743.7	60.5	15.8	82	sse.			3		5					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			29.96	761.0	46.5	8.1	80	se.	40	17.9			10					misty	Rev. C. Clouston, L.L.D.
Scutari Cemetery, Turkey	29.80	756.9	29.86	758.4	67.0	19.4	67	sw.			1		4			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	29.28	743.7	29.56	750.8	44.0	6.7	100	ene.			2		10			0.11	2.8	overcast	W. F. Cooper.
Silloth Rectory	29.55	750.6	29.58	751.3	49.0	9.4	73	ese.			5		10			0	0	squally	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.15	740.4	47.2	8.4	83	e.	19	8.5			10					overcast	Rev. S. J. Perry.
Straitfield Turgiss	29.23	742.4	29.44	747.8	54.0	12.2	95	e.			1		10					foggy	Rev. C.H. Griffiths, F.M.S.
Truro, Royal Institution	29.24	742.7	29.28	743.7	63	17.2	83	s.			4		10					raining	W. Newcombe.
Valencia, Observatory	28.95	735.3	28.98	736.1	56.9	13.8	91	se.	28	12.5			10					raining	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.07	763.8	30.11	764.8	47	8.3	95	sw.	3	1.3			10 s			0.010	0.3	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.06	763.5	30.12	765.0	42	5.6	89	calm	0	0			10 s		sw.	0	0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B																			H. A. Johnson.
Father Point, Quebec*	30.17	766.3	30.19	766.8	32	0.0	81	n.	20	8.9			10 s		calm	0.06	1.5	cloudy	J. McWilliams.
Fort Garry, Manitoba*	29.34	745.2	30.21	767.3	28	— 2.2	88	w.	5	2.2		5k	5 ks	nw.	w.	0	0	cloudy	James Stewart.
Fredericton, N. B																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.02	762.5	30.15	765.8	52	11.1	89	sw.	2	0.9			10 ks		w.	0	0	fair	A. Allison.
Hamilton. Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.79	756.7	30.13	765.3	46	7.8	89	ne.	6	2.7			10 s		calm	0.12	3.0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S																			C. H. Rigby.
Montreal, Quebec*	29.93	760.2	30.14	765.5	41	5.0	93	ne.	12	5.4			10 s			0.11	2.8	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.45	748.0	30.16	766.1	37	2.8	100	n.	6	2.7			10 n		n.	0.23	5.8	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.41	747.0	30.11	764.8	45	7.2	100	nw.	5	2.2		10 ck	0	w.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.44	747.8	30.10	764.5	43	6.1	100	e.	1	0.4		8 ck	0	w.		0	0	cloudy	M. Payne.
Quebec, Quebec*	29.82	757.4	30.15	765.8	39	3.9	89	n.			1	0	2 s		nw.	0.09	2.3	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.74	755.4	30.22	767.6	31	— 0.6	74	ne.	3	1.3			10 s		ne.	0.17	4.3	cloudy	W. H. McIntyre.
Saugeen, Ontario*	29.40	746.7	30.13	765.3	42	5.6	93	ne.	7	3.1			10 ks			0.40	10.2	light rain	K. Stewart.
St. Andrews, N .B	30.07	763.8	30.12	765.0	45	7.2	92	calm	0	0			10 n			0	0	cloudy	
St. John, N. B																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.06	763.5	30.13	765.3	46	7.8	96	sw.	11	4.9			10 n			0.01	0.3	light rain	T. C. Hill, C. E.
Toronto, Ontario*	29.73	755.1	30.12	765.0	50	10.0	93	n.	2	0.9		2 ck	8ks	w.	w.	0.01	0.3	cloudy	Magnetic Observatory.
Windsor, N. S																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.08	764.0	30.14	765.5	49	9.4	100	calm	0	0		10 k	hz.			0	0	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.19	766.8	30.45	773.4	36	2.2	90	sw.				0	1 s			0	0		John Delany.
St. Pierre, N. F																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	29.88	758.9	29.91	759.7	62.0	16.7	88	w.	24.5	11.0		0	7 s			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.08	738.6			72	22.2	42	wnw.			2	2	3			0	0		C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.19	766.8	30.21	767.4	61.0	16.1	89	ne.	4.0	1.8		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.00	762.0	30.05	763.2	45.0	7.2	89	e.	22	10			10						Oversergent Fischer.
Fanöe	29.90	759.5	29.92	760.0	44.6	7.0	89	e.			4		10						Overloerer Lauridsen.
Godthaab, Greenland	29.98	761.6	30.03	762.7	29.3	—1.5	90	ene.			3		2						S. Kleinschmidt.
Stykkisholm, Iceland	30.19	766.7	30.23	767.8	44.6	7.0	71	se.			6		5						A. O. Thorlacius.
Thorshavn	30.14	765.6	30.18	766.5	46.6	8.1	74	ese.	20	9			5						Overloerer Bergh.
Vestervig	29.94	760.4	30.03	762.7	41.7	5.4	91	ne.			6		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	28.88	733.6	29.51	749.5	65.8	18.8	56	sw.			1	ck	2 n						M. Labroue, Director.
Alençon Normal School	29.02	737.1	29.63	752.5	55.4	13	98	se.			2		n			0.071	1.8		M. Nicot, Director.
Arras, Engineer School	29.21	741.9	29.47	748.4	54.0	12.2	95	sw.					n						M. Klein, Commandant.
Avignon, Normal School	29.45	747.9	29.52	749.9	68.4	20.2	67	ssw.			1		8		s.	0.08	2.	very cloudy	M. Giraud, Director.
Bar-sur-Seine	28.96	735.7	29.51	749.5	57.2	14.0	78	w.			1		8 kn		w.	0.472	12.0	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.21	742.0	29.47	748.5	57.7	14.3	81	s.			1		8		sw.	0.177	4.5	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.66	728.0	29.54	750.2	55.6	13.1	88	s.			1		5 cn		n.	0.303	7.7	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.21	741.9	29.46	748.3	62.8	17.1	57	ssw.			2		8			0	0	very cloudy.	M. Rayet, Director.
Bourges, Normal School	28.93	734.8	29.47	748.4	60.1	15.6	68	sw.			1		kn		sw.	0.16	4.		M. Postel, Director.
Brest, Naval Observatory	29.06	738.0	29.30	744.1	60.8	16.0	79	ssw.			4		7		ssw.	0.157	4.0		M. de Kermaree, Dir.
Caen, Normal School	29.37	745.9	29.44	747.8	62.6	17	97	s.			1		2		sw.	0.094	2.4	slightly cl'dy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.11	739.4	29.47	748.4	58.6	14.8	76	sw.			3		5		se.	0.748	19.0	cloudy	M. Jadot, Director.
Charleville, Normal School.	28.95	735.2	29.45	748.1	53.6	12	78	sse.			1		3			0.012	0.3		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.17	715.6	29.50	749.3	57.2	14.0	78	sw.			1		10			0.134	3.4	sprinkling	M. Alluard, Director.
Cluny, Normal School	28.69	728.6	29.52	749.9	61.5	16.4	87	ne.			3		4		sw.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	28.65	727.7	29.50	749.4	53.1	11.7	87	w.			1		10 kn	w.	w.	0.650	16.5	raining	Dr. Coulet, Director.
Gap, Normal School	27.03	686.6	29.50	749.3	57.2	14	93	calm			0		2 n		n.	0.71	18.		M. Jeangirard, Director.
Gréasque, du. Rhone	28.48	723.4	29.62	752.4	63.9	17.7	67	s.			3		2		sw.	0.417	10.6	¾ covered	M. Kina, Director.
Grenoble, Normal School	28.83	732.3	29.60	751.8	50.7	10.4	84	ese.			1		10 n			0.130	3.3	raining	M. Ablard, Director.
Guéret, Normal School	27.94	709.6	29.50	749.4	57.2	14	53	sw.			1		10 k		ne.	0	0	covered	M. Rivoire, Director.
Lamballe, Normal School	29.06	738.1	29.33	744.9	59.0	15	78	s.			3		5 k		s.	0.55	14.	cloudy	M. Ollitrault, Director.
Lescar, Normal School	28.91	734.2	29.46	748.2	64.8	18.2	52	wsw.			1					0.08	2.		M. Chauvin, Director.
Lorient, Naval Observatory	29.28	743.8	29.39	746.4	62.6	17	80	s.			8		0			0.197	5.0	clear	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.51	724.2	29.55	750.6	54.7	12.6	83	sse.			1	8 c	0		s.	1.370	34.8	¾ covered	M. André, Director.
Mans, Normal School	29.19	741.3	29.49	749.0	58.8	14.9	72	s.			3		5		sw.	0.071	1.8	cloudy	M. Piboen, Director.
Marseille, Observatory	29.31	744.5	29.58	751.2	67.3	19.6	63	s.			2		1		s.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.48	621.8	29.72	754.8	45.5	7.5	76	sw.	16.8	7.5			7		sw.	0.020	0.5	raining	M. Cave, for Dr. Fines.
Montpellier, Normal School	29.38	746.2	29.49	749.0	63.3	17.4	86	nne.			4		2			0.130	3.3	slightly cl'dy	M. Pourie, Director.
Nancy, Normal School	28.77	730.8	29.53	750.1	51.8	11	97	ene.			1		10 n		ene.	0.453	11.5	raining	M. Hasse.
Nantes, Observatory	29.29	744.0	29.46	748.2	59.4	15.2	86	sse.			0-1		9 k;kn	sw.	ssw.	0.008	0.2		M. Larocque, Director.
Nice	29.55	750.6	29.58	751.4	61.2	16.2	94	e.			3		10	e.	e.	0.709	18.0	light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.37	746.0	29.48	748.7	64.9	18.3	68	e.	11.2	5.0			1		nw.	0	0		Dr. Fines.
Pic-du-Midi, Summit	20.84	529.4			27.9	—2.3		ssw.			1		10		ssw.	0.185	4.7	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.53	724.6	29.59	751.6	50.2	10.1	97	se.			1		5	n.		0	0	cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.72	627.8			39.4	4.1	97	wsw.			3		8			0.130	3.3	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	29.43	747.4	29.46	748.2	59.5	15.3	90	s.			1		10			0.315	8.0	covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.22	742.3	29.43	747.6	60.4	15.8	81	w.			1		5		sw.	0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School	27.50	698.6	29.63	752.6	52.2	11.2	85	nw.			1		10		sw.	0.102	2.6	raining	M. Richard, Director.
Rouen, Normal School	29.39	746.5	29.43	747.6	57.2	14	84	se.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School	29.26	743.2	29.42	747.2	62.2	16.8	72	sw.			2		5		sw.	0.134	3.4	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.32	744.7	29.48	748.9	58.6	14.8	80	ssw.			1		10	w.	sw.	0.201	5.1		M. Renou, Director.
Toulouse, Observatory	28.85	732.7	29.56	750.8	64.0	17.8	65	e.			1		10			0.551	14.0	covered	M Bailland, Director.
Tours	29.27	743.4	29.54	750.4	61.2	16.2	75	se.			1		8	calm	w.	0.209	5.3	¾ covered	M. de Tastes.
Versailles, Observatory	28.98	736.1	29.47	748.6	58.6	14.8	82	sw.			1					0.063	1.6		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.20	741.6	29.49	749.0	57.6	14.2	86	sse.			1		10		s.	0.154	3.9	sprinkling	M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.77	730.8	29.62	752.4	46.4	8.0	77	se.			2		9 n	se.		0.039	1.0	raining	Prof. Dr. Hoh.
Berlin	29.63	752.6	29.81	757.1	43.0	6.1	69	ne.			1		10			0	0		Prof. Dr. Arndt.
Breslau	29.30	744.1	29.82	757.5	40.8	4.9	84	e.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.12	739.7	29.54	750.4	50.4	10.2	90	sse.			1		10	sw.		0.177	4.5		Albert Senz.
Cassel	28.92	734.5	29.63	752.7	40.6	4.8	96	e.			2		10	e.		0.228	5.8		Dr. H. Möll.
Frankfort on the Main	29.20	741.7	29.57	751.0	45.9	7.7	85	ene.			1		10			0.150	3.8		Physical Society.
Friedrichshafen	28.14	714.8	29.56	750.7	54.1	12.3	80	ssw.			1		8	sw.		0.244	6.2		Wilhelm, Chief Tel.
Hamburg	29.73	755.1	29.82	757.5	41.2	5.1	71	e.			4		10			0	0		E. Preller.
Kiel	29.87	758.6	29.88	759.0	42.8	6.0	65	e.			6		10			0	0		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.30	744.3	29.73	755.1	40.8	4.9	82	ne.			5		10	ne.		0	0		H. Leppig, Asst.
Magdeburg	29.55	750.5	29.74	755.4	41.4	5.2	77	e.			4		10 n		e.	0	0		Dr. Assmann.
Memel	30.01	762.2	30.06	763.4	42.4	5.8	87	ne.			2		10 n						Isaermann.
Munich	27.78	705.6	29.61	752.2	45.1	7.3	86	nw.			1		10	w.		0	0		Central Station.
Neufahrwasser	29.98	761.5	30.00	761.9	43.2	6.2	76	ne.			2		10			0	0		A. Lothes.
Neustadt, Palatinate	29.02	737.1	29.54	750.3	47.7	8.7	91	n.			1		10			0.094	2.4		Dicknether.
Stuttgart	28.61	726.8	29.50	749.2	51.8	11.0	77	n.			1		9	w.		0.110	2.8	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.11	714.0	29.63	752.7	42.8	6.0	90	se.			2		10	w.		0.087	2.2		Fischer.
Wustrow	29.92	760.0	29.95	760.6	42.3	5.7	70	e.			5		10 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.52	749.8	29.90	759.4	76.6	24.8		w.			1.0		2			0.004	0.1		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.86	758.5	29.92	759.8	82.9	28.3	83	sw.	21.0	9.4			0			0	0	blue sky	
Deesa	29.43	747.6	29.90	759.5	89.2	31.8	37	ne.	5.4	2.4			1	w.		0	0	d. clouds	
Bombay	29.82	757.3	29.85	758.2	86.1	30.1	66	nw.	13.0	5.8			1			0	0	d. clouds	
Poona, Yarrowda.	28.03	712.0	29.86	758.5	86.9	30.5	27	ene.	6.0	2.7			3	wnw.		0	0	d. clouds	
Belgaum	27.34	694.4	29.85	758.2	82.0	27.8	41	ene.	3.0	1.3			1	n.		0	0	d. clouds	
Lahore	29.22	742.1	29.96	761.1	81.2	27.3	34	w.	2.9	1.3			2			0	0	blue sky	
Roorkee	28.99	736.3	29.88	759.1	81.0	27.2	22	nw.	1.7	0.8			5			0	0		
Agra	29.35	745.4	29.91	759.6	87.2	30.7	37	w.	3.4	1.5			0			0	0		
Nagpur	28.85	732.9	29.88	759.1	87.5	30.8	33	calm	2.5	1.1			2	sw.		0	0	d. clouds	
Jubbulpore	28.53	724.7	29.88	759.0	81.8	27.7	48	calm	1.3	0.6			0			0	0	blue sky	
Lucknow	29.49	749.1	29.87	758.6	86.6	30.3	22	wnw.	4.0	1.8			0			0	0	blue sky	
Allahabad	29.58	751.2	29.89	759.2	79.8	26.6	55	calm	2.0	0.9			0			0	0	blue sky	
Patna	29.70	754.3	29.88	758.9	77.7	25.4	71	nw.	2.9	1.3			0			0	0	blue sky	
Hazaribagh	27.87	708.0	29.88	759.1	79.3	26.3	44	n.	8.8	3.9			0			0	0	blue sky	
Cuttack	29.80	756.8	29.88	758.9	81.8	27.7	69	calm	0.2	0.1			0			0	0	blue sky	
Calcutta, Alipore	29.85	758.2	29.87	758.7	77.9	25.5	74	calm	0	0			0			0	0	blue sky	
Dhubri	29.74	755.3	29.86	758.4	78.2	25.7	73	calm	4.1	1.8			0			0	0	blue sky	
Goalpara																			
Chittagong	29.78	756.4	29.87	758.7	80.3	26.8	74	nne.	1.5	0.7			1			0	0	blue sky	
Sibsagar	29.56	750.8	29.90	759.4	76.6	24.8	84	ne.	1.1	0.5			0			0	0	blue sky	
Jeypore	28.50	723.8	29.94	760.4	82.9	28.3	38	n.	4.1	1.8			3		nw.	0	0	d. clouds	
Zanzibar, Africa			29.91	759.7	80.7	27.1	76	sw.	2	0.9			6			0.48	12.2	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.28	743.7	29.69	754.1	54.9	12.7	96	calm	0	0			10			0.366	9.3		Prof. Giovanni Clodig.
Milan	29.17	741.0	29.69	754.2	50.5	10.3	94	sw.	1.3	0.6			10			0.921	23.4		Prof. Schiaparelli.
Padua	29.54	750.4	29.65	753.1	52.3	11.3	95	n.	9.8	4.4			10	w.		0.150	3.8		Prof. Dott. Lorenzoni.
Moncalieri	28.75	730.3	29.66	753.4	51.4	10.8	80	nw.	0.7	0.3			10			0.618	15.7		Prof. P. F. Denza.
Genoa	29.45	747.9	29.63	752.7	58.1	14.5	83	n.	1.3	0.6			10	sw.		3.473	88.2		Prof. G. M. Garibaldi.
Mondovi	27.76	705.2	29.69	754.0	49.6	9.8	80	w.			2		2	wsw.		0.976	24.8		Prof. D. C. Bruno.
Pesaro	29.66	753.4	29.71	754.6	62.8	17.1	87	se.			1		9	se.		0	0		Prof. Luigi Guidi.
Florence	29.39	746.4	29.64	752.8	66.2	19.0	89	sse.			4		10	sw.		0.087	2.2		Prof. Costantino Pitter.
Leghorn					63.0	17.2	95	ssw.	11.9	5.3			10			1.630	41.4		Prof. P. Monte.
Rome	29.57	751.1	29.74	755.5	69.4	20.8	63	sse.	18.6	8.3			10			0	0		Prof. P. S. Ferrari.
Lecce	29.60	751.9	29.85	758.2	71.4	21.9	57	s.	17.4	7.8			4	s.		0	0		Prof. O. de Giorgi.
Cosenza	28.99	736.4	29.87	758.6	70.5	21.4	73	ese.	4.3	1.9			2	se.		0	0		Prof. D. Conti.
Cagliari																			Prof. A. Pacinotti.
Palermo	29.52	749.8	29.76	756.0	84.4	29.1	25	sw.	10.5	4.7			5			0	0		Prof. G. Ciacciatore.
Syracuse	29.82	757.4	29.86	758.5	70.9	21.6	81	sw.	4.3	1.9			5	sw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.27	743.5	29.79	756.7	69.1	20.6	67	sse.	1.8	0.8			6	ssw.		0	0		Prof. F. Brioschi.
Stelvio	22.84	554.7			33.6	0.9	87	sw.			6		10 n			0.429	10.9	covered	Prof. P. F. Denza.
Valdobbia	21.86	555.3			32.7	0.4	74	e.			2	0	6 k	sw.		0.433	11.0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	30.18	766.6	30.20	767.1	54.6	12.6	82	nne.	6.7	3.0		ck	10 s			0	0	overcast	K. Sasaki.
Kioto	30.06	763.5	30.24	768.1	53.0	11.7	82	nw.	0.7	0.3		0	8 s			0	0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	30.00	762.0	30.20	767.1	59.9	15.5	82	ne.	1.1	0.5		0	0			0	0	clear	S Takehayashi.
Nemuro																			
Niigata	30.28	769.1	30.32	770.1	47.0	8.3	82	e.	2.3	1.0		2 ck	0			0	0	fair	
Nobiru	30.30	769.6	30.32	770.1	46.3	7.9	71	nnw.	6.8	3.0			9 s			0	0	cloudy	
Supporo	30.10	764.5	30.17	766.3	42.2	5.7	71	wnw.	4.2	1.9			10			0	0		
Tokei Obs'y, Yeddo	30.25	768.3	30.32	770.1	52.3	11.3	83	calm	0	0			10 s			0.003	0.1	cloudy	The Staff.
Wakayama	30.17	766.3	30.22	767.6	56.1	13.4	76	calm	0	0		9 ck	0	w.		0	0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.86	758.4	30.05	763.3	76.0	24.4	60	ene.	13.0	5.8		0	7k;ks		wsw.	0	0	fair	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.72	602.6	29.94	760.6	59.7	15.4	79	calm	0	0		c	6 k		se.	inap.	inap.	fair	Vicente Fernandez.
Leon	24.46	621.2	30.11	764.7	62.0	16.7	85	ne.			2	5 c	0	se.		0	0	½ cloudy	Prof. M. Leal.
Mazatlan	29.71	754.6	29.97	761.3	75.5	24.2	77	ne.	0.9	0.4		8 cs	0	ese.		0.276	7.0	cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.15	588.1	30.20	767.2	54.0	12.2	89	calm	0	0		2 c	2 k			0.205	5.2	fair	The Staff.
Morelia	24.29	617.0	30.33	770.5	55.8	13.2	74	sw.			3	1	2	s.	s.	0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.96	608.6	29.95	760.4	57.2	14.0	87	calm			0	0	2 s		s.	0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.45	595.8	30.17	766.4	57.6	14.2	88	calm	0	0		0	4		sw.	0	0		Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.49	749.0	29.49	749.0	48.2	9.0		ene.			4					0.228	5.8		
Groningen	29.63	752.5	29.68	753.9	41.4	5.2		e.			5					0.102	2.6		
Helder	29.59	751.6	29.59	751.6	39.6	4.2		e.			5					0.350	8.9		
Hellevoetsluis	29.49	749.0	29.49	749.0	44.2	6.8	97	ene.			4					0.098	2.5		
Utrecht	29.49	749.1	29.54	750.3	43.0	6.1	94	e.			4		10			0.335	8.5	dull	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.15	765.9	30.22	767.5	42.4	5.8	38	calm	0	0			1			0	0		
Christiania	30.23	767.9	30.39	771.8	38.8	3.8	67	ne.	13	6			8			0	0		
Gjesvær	30.27	768.9	30.30	769.5	39.6	4.2		wnw.			7		10					raining	
Lodingen	30.41	772.3	30.45	773.5	39.7	4.3	90	ne.			2		2			0	0	foggy	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.79	756.7	29.95	760.7	59.4	15.2	75	nnw.	13.0	5.8			4			0	0		Dr. J. A. Sampaio.
Campo Major	28.61	726.8	29.60	751.9	59.2	15.2	68	ssw.	15.4	6.9			8			0.720	18.3		Dr. A. M. R. dos Santos.
Funchal, Madeira	29.86	758.5	29.95	760.7	71.4	21.9	50	wsw.	11.9	5.3			2			0.177	4.5		Capt. D. A. de Cunha.
Lisbon, Observatory	29.24	742.7	29.60	751.7	62.1	16.7	73	sw.	29.8	13.3			7			0.894	22.7	raining	The Staff.
Ponta Delgada, Azores	29.90	759.5	29.97	761.3	61.5	16.4	55	nnw.	18.1	8.1			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.72	729.6	29.80	756.8	50.9	10.5	51	wsw.	16	7		10	0						Capt. Lasarew.
Archangel	30.19	766.9	30.21	767.4	36.5	2.5	98	nw.	4	2			10					light rain	Capt. Sseliwerstow.
Astrakhan	30.17	766.4	30.09	764.3	56.8	13.8	69	calm	0	0			10 s						Capt. Wisganow.
Barnaul ‡	29.19	741.4	29.69	754.0	47.8	8.8	48	sw.	11	5			9						Meteorological Obs'y.
Dorpat	29.92	760.0	30.17	766.4	38.7	3.7	88	ne.	11	5			10 n						Observatory.
Ekaterinburg	28.94	735.0	29.94	760.4	30.0	— 1.1	67	nne.	4	2			10						Meteorological Obs'y.
Kasan	29.69	754.2	29.97	761.3	36.0	2.2	91	ne.	7	3			10						Observatory.
Kertch	30.03	762.8	30.05	763.3	57.9	14.4	67	se.	2	1		0	3 n			0	0		Lagorio & Sastyrez.
Kieff	29.34	745.1	30.00	761.9	36.3	2.4	89	ene.	7	3			10 n					snowing	Observatory.
Lugan	29.88	759.0	30.09	764.2	47.7	8.7	63	wsw.	2	1			10						Meteorological Obs'y.
Moscow	29.41	747.0	29.89	759.1	46.4	8.0	92	e.	4	2			10 s					raining	Meteorological Obs'y.
Nikolaiev	29.91	759.8	29.98	761.6	54.7	12.6	74	se.	9	4		cs	8 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.74	755.4	29.75	755.6	25.2	— 3.8	91	w.			8		10 n			0	0		Lieut. Iwanow.
Pekin, China	30.13	765.3	30.27	768.9	50.9	10.5	64	calm	0	0			9 n			0	0		Physical Observatory.
St. Petersburg	30.21	767.4	30.23	767.8	34.7	1.5	93	ene.	11	5			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.54	725.0	30.11	764.9	57.2	14.0	71	calm	0	0			0			0	0		Teich, A. M.
Tiflis	28.63	727.2	30.03	762.7	64.8	18.2	39	nw.	31	14		0	0						Physical Observatory.
Warsaw	29.57	751.0	30.00	762.0	42.1	5.6	58	ne.	11	5			10 ks						Astronomical Obs'y.
Wilna	29.65	753.0	30.08	764.0	39.6	4.2	76	nnw.	4	2			10						Berg, Assistant.
Yeniseisk	29.12	739.6	29.41	747.0	32.4	0.2	95	s.	7	3			10					snowing	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.69	754.1	44.2	6.8	88	se.			6		10 ks			0.08	2.0	overcast	Andrew Gibb.
Monach Lt. House, Hebrides			29.64	752.8	49	9.4	93	e.			6	10	0	e.		0	0		J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.51	749.6	29.61	752.2	66.6	19.2	81	w.	3.8	1.7			8			0	0		Antonio Rave, Director.
Bilbao, Met. Obs'y	29.28	743.6	29.33	745.0	73.4	23.0	40	s.	9.6	4.3		3	4	s.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.53	673.8			50.0	10.0	86	sw.	21.5	9.6		0	8			0.445	11.3	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.39	695.6	29.60	751.9	53.1	11.7	89	sw	23.9	10.7		0	9			0.354	9.0	very cloudy	The Staff.
Murcia, Met. Obs'y ‡	29.54	750.4	29.69	754.2	69.8	21.0	74	ssw.	0.9	0.4		5	4	ene.		0.020	0.5	raining	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.32	719.4	29.21	742.0	54.1	12.3	91	sw.	23.0	10.3			10			2.343	59.5	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	30.03	762.8	30.10	764.4	75.2	24.0	88	calm	0	0		0	0			0	0	clear	Benito Vines, S. J.
Manilla, Philippine Islands	29.81	757.2	29.86	758.5	81.9	27.7	80	w.	1.1	0.5		2 cs	1 s			0	0	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.67	753.6	29.77	756.1	68.2	20.1	77	wsw.	11.2	5.0			10		sw.	1.313	33.4		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.95	760.6	30.04	762.9	81.3	27.4	88	e.	9.4	4.2		2 k	4 km	e.	e.	0.228	5.8	cloudy	E. Cadea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.74	755.4	29.87	758.8	79.2	26.2	86	nw.	3.0	1.3		0	1 k		nw.	0	0	fair	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.35	770.9	30.39	771.9	35.2	1.8	67	w.			2		0			0	0		
Umea	30.41	772.5	30.47	773.8	35.2	1.8	82	n.			2		9			0	0		
Hernosand	30.41	772.4	30.47	773.9	35.1	1.7	69	n.			2		8			0	0		
Stockholm	30.14	765.5	30.32	770.0	38.8	3.8	73	ne.			4		10			0.047	1.2		
Wisby	30.19	766.8	30.25	768.3	42.4	5.8	73	e.			4		10			0.079	2.0		
Sub-Series.																			
Upsala	30.23	767.9	30.32	770.1	38.1	3.4	82	ne.	11.0	4.9			10		ne.	inap.	inap.		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.26	717.9	29.71	754.6	48.6	9.2	79	nnw.			1		10			0.008	0.2	covered	The Observatory
Zurich ‡	28.06	712.7	29.71	754.6	50.4	10.2	78	nw.			2		5			0.004	0.1	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.92	760.0	65.8	18.8	79	s.	10	4.5			10		ne.	0.185	4.7		The Observatory.
Valona			29.98	761.5	68.4	20.2		w.			1		2			0.39	10.	slightly cld'y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.05	763.3	75.9	24.4	68	n.			2	7 0	0			0	0		Prof. C. V. Van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.26	768.6	30.34	770.6	47	8.3	71	w.	2	0.9		7 c	0	w.		0	0	fair	
Alpena, Michigan	29.44	747.8	30.13	765.3	49	9.4	93	w.	5	2.2			10 s			0.38	9.7	cloudy	
Atlanta, Georgia	29.09	738.9	30.31	769.9	54.0	12.2	80	e.	8	3.6		4 k	6 s	w.	calm	0	0	cloudy	
Atlantic City, New Jersey	30.36	771.1	30.37	771.4	49.7	9.8	93	se.	2	0.9		5 c	0	calm		0	0	fair	
Augusta, Georgia	30.13	765.3	30.33	770.4	59.1	15.1	75	ne.	4	1.8			10 s			0	0	cloudy	
Baltimore, Maryland	30.32	770.1	30.37	771.4	49	9.4	71	s.	1	0.4		0	hz.		calm	0	0	dense haze	
Barnegat, New Jersey	30.32	770.1	30.34	770.6	51.0	10.6	90	sw.	6	2.7		2 cs	0	calm		0	0	clear	
Bismarck, Dakota	28.45	722.6	30.37	771.4	18	— 7.8	87	calm	0	0		0	0			0	0	clear	
Boise City, Idaho	27.36	694.9	30.28	769.1	34.5	1.4	82	nw.	2	0.9		0	0			0	0	clear	
Boston, Massachusetts	30.15	765.8	30.31	769.9	44.0	6.7	79	w.	10	4.5		0	fg.			0	0	clear	
Bracketville, Texas	28.80	731.5	29.83	757.7	66	18.9	100	e.	6	2.7			10 s		calm	0.06	1.5	cloudy	
Brownsville, Texas	29.90	759.4	29.95	760.7	75	23.9	97	se.	4	1.8		0	4 ks		se.	0.16	4.1	fair	
Buffalo, New York	29.51	749.5	30.25	768.3	53.2	11.8	71	sw.	8	3.6			10 s		sw.	0	0	cloudy	
Burlington, Vermont	29.98	761.5	30.28	769.1	42.2	5.7	79	s.	7	3.1		7 ck	0	w.		0	0	fair	
Cairo, Illinois	29.84	757.9	30.24	768.1	53.6	12.0	89	s.	3	1.3		8 ck	0	s.		0	0	fair	
Campo, California	27.39	695.7	29.96	761.0	26.2	— 3.2	76	s.	2	0.9		0	0			0	0	clear	
Camp Thomas, Arizona	27.20	690.9			43	6.1	73	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.37	771.4	30.39	771.9	56	13.3	69	e.	2	0.9		0	0			0	0	clear	
Cape May, New Jersey	30.31	769.9	30.34	770.6	57	13.9	80	sw.	12	5.4		0	0			0	0	clear	
Castroville, Texas	29.20	741.7	29.89	759.2	67	19.4	90	se.	3	1.3			10 n			0.17	4.3	light rain	
Cedar Keys, Florida	30.14	765.5	30.16	766.1	70	21.1	84	ne.	8	3.6		7 ck	0			0	0	fair	
Champaign, Illinois	29.37	746.0	30.18	766.6	44.7	7.1	76	se.	8	3.6		0	0			0	0	clear	
Charleston, S. Carolina	30.22	767.6	30.28	769.1	65	18.3	84	ne.	11	4.9			10 s		ne.	0	0	threatening	
Charlotte, N. Carolina	29.47	748.5	30.38	771.6	51.0	10.6	80	ne.	2	0.9		0	fg.			0	0	clear	
Chattanooga, Tennessee	29.49	749.0	30.34	770.6	52.5	11.4	88	ne.	5	2.2		7 cs	fg.	w.	calm	0	0	fair	
Cheyenne, Wyoming	24.05	610.9	30.18	766.6	32.5	0.3	94	calm	0	0			fg.			0.24	6.1	dense fog	
Chicago, Illinois	29.44	747.8	30.18	766.6	49.9	9.9	77	sw.	6	2.7		0	hz.			0	0	clear	
Chincoteague, Virginia	30.36	771.1	30.38	771.6	56	13.3	86	w.	4	1.8		0	0			0	0	clear	
Cincinnati, Ohio	29.62	752.3	30.30	769.6	46.7	8.2	85	se.	1	0.4			fg.			0	0	dense fog	
Cleveland, Ohio	29.53	750.0	30.30	769.6	45.5	7.5	80	se.	9	4.0		1 c	0			0	0	clear	
Coleman City, Texas																			
Columbus, Ohio	29.42	747.3	30.31	769.9	43	6.1	93	calm	0	0			fg.			0	0	dense fog	
Concho, Texas	28.05	712.5	30.05	763.3	64	17.8	93	se.	8	3.6			10 s		s.	0	0	cloudy	
Corsicana, Texas	29.62	752.3	30.10	764.5	63	17.2	81	se.	4	1.8			10 s			0	0	cloudy	
Davenport, Iowa	29.48	748.8	30.16	766.1	50	10.0	71	sw.	2	0.9		3 cs	hz.	w.	calm	inap.	inap.	fair	
Dayton, Washington T'y	28.47	723.1	30.33	770.4	41	5.0	82	ne.	4	1.8		0	4 k		calm	0	0	fair	
Deadwood, Dakota	25.47	646.9	30.33	770.4	35	1.7	92	e.	4	1.8			10 n		calm	0.03	0.8	snowing	
Decatur, Texas																			
Delaware Breakwater, Del.	30.34	770.6	30.36	771.1	54	12.2	86	sw.	11	4.9		2 c	0			0	0	fair	
Denison, Texas	29.28	743.7	30.11	764.8	58	14.4	93	se.	4	1.8			10 n		calm	inap.	inap	light rain	
Denver, Colorado	24.80	629.9	30.17	766.3	41.0	5.0	86	e.	2	0.9			10 s		calm	0	0	cloudy	
Des Moines, Iowa	29.15	740.4	30.10	764.5	53	11.7	86	sw.	7	3.1			10 s		sw.	0.14	3.6	cloudy	
Detroit, Michigan	29.51	749.5	30.25	768.3	58.9	14.9	65	s.	7	3.1		3 ck;c	0	w.		0	0	clear	
Dodge City, Kansas	27.37	695.2	30.06	763.5	55	12.8	100	se.	3	1.3			10 n			0.04	1.0	light rain	
Dubuque, Iowa	29.41	747.0	30.15	765.8	48.8	9.3	93	calm	0	0			10 s		calm	0.19	4.8	cloudy	
Duluth, Minnesota	29.54	750.3	30.27	768.8	33	0.6	78	nw.	12	5.4		4 cs	0	nw.		0	0	fair	
Eagle Pass, Texas	29.21	741.9	30.06	763.5	67.0	19.4	100	se.	5	2.2			fg.		calm	0.07	1.8	light fog	
Eagle Rock, Idaho	25.33	643.4	30.32	770.1	28	— 2.2	92	calm	0	0			fg.			0.18	4.6	dense fog.	
Eastport, Maine	30.20	767.1	30.28	769.1	44	6.7	93	sw.	3	1.3			10 s		sw.	0	0	cloudy	
El Paso, Texas	26.23	666.2	30.07	763.8	51.4	10.8	74	calm	0	0		0	8 s			0.11	2.8	cloudy	
Erie, Pennsylvania	29.50	749.3	30.26	768.6	53	11.7	66	s.	10	4.5		5 c	0			0	0	fair	
Escanaba, Michigan	29.50	749.3	30.18	766.6	42	5.6	92	nw.	6	2.7			10 s		calm	0	0	cloudy	
Florence, Arizona	28.39	721.1	29.99	761.7	46.8	8.2	69	ne.	3	1.3		0	0			0	0	clear	
Fort Apache, Arizona	25.01	635.2	30.05	763.3	34	1.1	64	e.	3	1.3		0	0			0	0	clear	
Fort Assinnaboine, Montana	27.28	692.9	30.22	767.6	11	—11.7	80	calm	0	0		0	0			0	0	clear	
Fort Bennett, Dakota	28.65	727.7	30.26	768.6	29	— 1.7	80	ne.	1	0.4		3 cs	0			0	0	clear	
Fort Benton, Montana	27.31	693.7	30.29	769.4	16	— 8.9	53	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	28.22	716.8	30.33	770.4	23	— 5.0	88	ne.	3	1.3		0	0			0	0	clear	
Fort Custer, Montana	26.94	684.3	30.33	770.4	36	2.2	66	calm	0	0			10 s		calm	0	0	cloudy	
Fort Davis, Texas	24.92	633.0	29.88	758.9	58	14.4	90	sw.	4	1.8			10 s			0	0	cloudy	
Fort Elliott, Texas	27.26	692.4	30.56	776.2	61	16.1	84	se.	8	3.6			fg.			0	0	dense fog	
Fort Gibson, Indian T'y	29.53	750.0	30.10	764.5	53.1	11.7	86	e.	6	2.7		10 cs	0	s.		0	0	cloudy	
Fort Grant, Arizona					51	10.6	52	ne.	3	1.3		0	0			0	0	clear	
Fort Griffin, Texas	28.72	729.5	29.96	761.0	63.6	17.6	90	se.	4	1.8			10 s			0.02	0.5	cloudy	
Fort Keogh, Montana	27.63	701.8	30.30	769.6	31	— 0.6	85	n.	2	0.9		0	0			0	0	clear	
Fort Macon, North Carolina	30.32	770.1	30.33	770.4	58	14.4	75	n.	12	5.4		9 c;cs	0	n;calm		0	0	cloudy	
Fort McKavett, Texas	27.79	705.8	29.67	753.6	63.8	17.7	93	se.	3	1.3			10 s			0.02	0.5	cloudy	
Fort Missoula, Montana	26.89	683.0	30.54	775.7	33	0.6	100	calm	0	0			10 s			0	0	cloudy	
Fort St. Michaels	29.25	742.9	29.28	743.7	38	3.3	91	e.	9	4.0		0	8 s		ne.	0	0	fair	
Fort Shaw, Montana	26.44	671.6	30.18	766.6	25	— 3.9	76	sw.	2	0.9		0	0			0	0	clear	
Fort Sill, Indian Territory	28.79	731.3	30.08	764.0	58.5	14.7	91	se.	11	4.9			10 s			0	0	cloudy	
Fort Stevenson, Dakota	28.42	721.9	30.38	771.6	21	— 6.1	87	ne.	4	1.8		0	0			0	0	clear	
Fort Verde, Arizona					36	2.2	58	n.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.26	717.8	29.78	756.4	63	17.2	100	se.	2	0.9			fg.			0.05	1.3	dense fog	
Galveston, Texas	30.00	762.0	30.04	763.0	73	22.8	95	s.	4	1.8			10 s		nw.	1.48	37.6	threatening	
Grand Haven, Michigan	29.48	748.8	30.18	766.6	54.0	12.2	90	s.	6	2.7		0	8 s		w.	0.01	0.3	fair	
Hatteras, North Carolina	30.32	770.1	30.34	770.6	62	16.7	72	ne.	20	8.9		0	0			0	0	clear	
Helena, Montana	25.88	657.3	30.46	773.7	31	— 0.6	88	s.	2	0.9		0	0			0	0	clear	
Henrietta, Texas	29.06	738.1	29.97	761.2	63	17.2	84	s.	5	2.2			10 s			0	0	cloudy	
Huron, Dakota	28.83	732.3	30.29	769.4	28.2	— 2.1	70	n.	9	4.0		A	10 s			0	0	cloudy	
Indianapolis, Indiana	29.42	747.3	30.25	768.3	45	7.2	83	s.	1	0.4		0	hz.		calm	0	0	dense haze	
Indianola, Texas	29.99	761.7	30.02	762.5	73.3	22.9	90	s.	6	2.7		3 k	4s;ks	s.	calm	1.11	28.2	cloudy	
Jacksboro, Texas	28.87	733.3	29.99	761.7	60	15.6	93	e.	7	3.1			10 s		calm	0	0	cloudy	
Jacksonville, Florida	30.14	765.5	30.18	766.6	74	23.3	84	ne.	6	2.7		4 cs	1 s	w.		0	0	fair	
Keokuk, Iowa	29.46	748.3	30.14	765.5	48.0	8.9	84	s.	3	1.3		3 k	0	w.		0	0	fair	
Key West, Florida	30.08	764.0	30.11	764.8	79.0	26.1	82	e.	4	1.8		0	2 k		e.	0	0	clear	
Kittyhawk, North Carolina	30.36	771.1	30.38	771.6	61	16.1	60	e.	14	6.3		hz.	0			0	0	clear	
Knoxville, Tennessee	29.32	744.7	30.38	771.6	47	8.3	95	ne.	2	0.9		4 c	fg.	w.	calm	0	0	fair	
La Crosse, Wisconsin	29.32	744.7	30.12	765.0	53	11.7	86	nw.	2	0.9			10 n			0.92	23.4	light rain	
La Mesilla, New Mexico	26.08	662.4	30.23	767.8	49.3	9.6	93	calm	0	0		4 k	0			0	0	fair	
Laredo, Texas	29.50	749.3	29.84	757.9	72.0	22.2	97	e.	1	0.4		0	5 s		se.	0.33	8.4	fair	
Leavenworth, Kansas	29.19	741.4	30.12	765.0	53	11.7	72	s.	2	0.9		0	5 s		s.	0	0	fair	
Lewiston, Idaho	29.43	747.5	30.31	769.9	42	5.6	73	calm	0	0			10 s		calm	0	0	cloudy	
Little Rock, Arkansas	29.83	757.7	30.15	765.8	55	12.8	93	e.	2	0.9		0	6 ks		sw.	0	0	fair	
Los Angeles, California	29.60	751.8	29.98	761.5	47.1	8.4	77	s.	6	2.7		0	0			0	0	clear	
Louisville, Kentucky	29.68	753.9	30.26	768.6	48.0	8.9	86	calm	0	0		8 cs	fg.	calm	calm	0	0	cloudy	
Lynchburg, Virginia	29.67	753.6	30.38	771.6	45	7.2	83	calm	0	0		0	0			0	0	clear	
Madison, Wisconsin	29.09	738.9	30.16	766.1	50	10.0	93	sw.	7	3.1		6 cs	2 s	w.	w.	0.32	8.1	cloudy	
Marquette, Michigan	29.47	748.5	30.23	767.8	40	4.4	73	n.	6	2.7			10 s		n.	0.04	1.0	cloudy	
Mason, Texas	28.35	720.1	30.06	763.5	65	18.3	90	se.	4	1.8			10 s		se.	0.05	1.3	cloudy	
Memphis, Tennessee	29.86	758.4	30.21	767.3	54	12.2	93	calm	0	0		10 cs	hz.	calm	calm	0	0	cloudy	

OCTOBER 22, 1881.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10 Up'er	0—10 Lo'er	Upper. From.	Lower. From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.36	745.7	30.14	765.5	52	11.1	86	s.	2	0.9			10 s		w.	0.14	3.6	cloudy	
Mobile, Alabama	30.10	764.5	30.17	766.3	61.2	16.2	78	e.	5	2.2			10 s			0	0	cloudy	
Montgomery, Alabama	30.01	762.2	30.25	768.3	64.0	17.8	78	e.	6	2.7			10 s		sw.	0	0	cloudy	
Moorhead, Minnesota	29.31	744.5	30.37	771.4	18	— 7.8	84	n.	7	3.1		0	0			0	0	clear	
Morgantown, W. Virginia	29.31	744.5	30.35	770.9	39.5	4.2	89	calm	0	0			fg			0	0	dense fog	
Mt. Washington, N. H.	23.93	607.8	30.30	769.6	28.0	— 2.2	70	nw.	31	13.9		0	3 s		calm	0	0	clear	
Nashville, Tennessee	29.72	754.9	30.28	769.1	52.6	11.4	87	e.	1	0.4		7 ck	0	s.		0	0	fair	
New Haven, Connecticut	30.20	767.1	30.32	770.1	42	5.6	92	calm	0	0		6 c	fg			0	0	dense fog	
New London, Connecticut	30.29	769.4	30.34	770.6	45	7.2	83	nw.	3	1.3		0	fg			0	0	clear	
New Orleans, Louisiana	30.05	763.3	30.11	764.8	71.5	21.9	86	e.	6	2.7			10 n		e.	0.04	1.0	light rain	
Newport, Rhode Island	30.27	768.8	30.32	770.1	49.8	9.9	91	sw.	2	0.9		1 c	hz	calm		0	0	dense haze	
New River, N. Carolina					57	13.9	69	ne.			2	9 cs	0			0	0	cloudy	
New Shoreham, Rhode I'd.	30.29	769.4	30.32	770.1	51.8	11.0	80	calm	0	0		0	0			0	0	clear	
New York, New York	30.17	766.3	30.35	770.9	46	7.8	93	sw.	3	1.3			fg			0	0	dense fog	
Norfolk, Virginia	30.35	770.9	30.38	771.6	53	11.7	86	calm	0	0		0	sk			0	0	clear	
North Platte, Nebraska	27.13	689.1	30.19	766.8	38.5	3.6	92	ne.	10	4.5			10 n		ne.	0.06	1.5	light rain	
Olympia, Washington T'y	30.20	767.1	30.24	768.1	50.0	10.0	77	n.	5	2.2			10 s		calm	0	0	cloudy	
Omaha, Nebraska	28.88	733.5	30.12	765.0	55.5	13.1	77	s.	4	1.8			10 s			inap.	inap.	cloudy	
Oswego, New York	29.90	759.4	30.24	768.1	45.9	7.7	80	s.	6	2.7		0	8 s		w.	0	0	cloudy	
Pensacola, Florida	30.14	765.5	30.17	766.3	66	18.9	90	ne.	8	3.6			10 s		se.	0	0	cloudy	
Philadelphia, Pa.	30.31	769.9	30.37	771.4	50	10.0	86	w.	5	2.2			fg.			0	0	dense fog	
Phœnix, Arizona	28.83	732.3	30.66	778.7	50	10.0	44	calm	0	0		0	0			0	0	clear	
Pike's Peak, Colorado	17.66	448.6	29.87	758.7	12	—11.1	87	sw.	8	3.6		0	3 k		sw.	0.15	3.8	clear	
Pioche, Nevada	24.09	611.9	30.28	769.1	30	— 1.1	70	n.	2	0.9		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.50	749.3	30.35	770.9	43.7	6.5	83	ne.	3	1.3			fg		calm	0	0	dense fog	
Port Eads, Louisiana	30.10	764 5	30.10	764.5	75.4	24.1	94	se.	11	4.9		0	9 s		se.	0.30	7.6	cloudy	
Port Huron, Michigan	29.51	749.5	30.22	767.6	50.7	10.4	93	sw.	10	4.5		9ck,cs	0	w.		0.02	0.5	cloudy	
Portland, Maine	30.23	767.8	30.28	769.1	41.5	5.3	92	nw.	3	1.3		0	fg			0	0	clear	
Portland, Oregon	30.16	766.1	30.23	767.8	45.2	7.3	93	nw.	8	3.6			10 s		nw.	0	0	cloudy	
Portsmouth, N. Carolina					63	17.2	73	ne.	22	9.8		3 c	0	calm		0	0	clear	
Prescott, Arizona	24.73	628.2	30.04	763.0	29	— 1.7	61	s.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	30.09	764.3	30.10	764.5	73.5	23.1	94	ne.	10	4.5			fg		ne.	inap.	inap.	dense fog	
Red Bluff, California	29.67	753.6	30.02	762.5	52.5	11.4	71	n.	6	2.7		0	0			0	0	clear	
Rio Grande City, Texas	29.77	756.1	29.98	761.5	73	22.8	90	e.	5	2.2		3 c	0	calm		0	0	clear	
Rochester, New York	29.56	750.8	30.26	768.6	47	8.3	77	sw.	12	5.4		0	8 s; fg		sw.	0	0	cloudy	
Roseburg, Oregon	29.62	752.3	30.21	767.3	40.2	4.6	96	ne.	1	0.4			fg			0	0	dense fog	
Sacramento, California	29.95	760.7	30.03	762.7	47.7	8.7	63	se.	4	1.8		0	0			0	0	clear	
St. Louis, Missouri	29.59	751.6	30.22	767.6	48.4	9.1	86	s.	8	3.6		7 c; cs	0	w.		0	0	fair	
St. Paul, Minnesota	29.29	744.0	30.21	767.3	40.0	4.4	73	n.	6	2.7		7 cs	hz	w.		0	0	fair	
Salt Lake City, Utah	25.66	651.8	30.11	764.8	40	4.4	73	calm	0	0			10 s		calm	0.66	16.8	threatening.	
San Antonio, Texas	29.31	744.5	30.03	762.7	65.6	18.7	93	ne.	3	1.3			10 s		e.	0.08	2.0	cloudy	
San Diego, California	29.84	757.9	29.92	760.0	54.5	12.5	80	ne.	6	2.7		0	0			0	0	clear	
Sandusky, Ohio	29.56	750.8	30.26	768.6	50	10.0	72	se.	13	5.8		0	0			0	0	clear	
Sandy Hook, New Jersey	30.31	769.9	30.34	770.6	51.0	10.6	80	nw.	8	3.6		0	0			0	0	clear	
San Francisco, California	29.95	760.7	30.02	762.5	51	10.6	86	calm	0	0		0	0			0	0	clear	
Santa Fé, New Mexico	23.33	592.6	30.32	770.1	43	6.1	71	se.	2	0.9		0	5 s		calm	0	0	fair	
Savannah, Georgia	30.16	766.1	30.25	768.3	64	17.8	90	n.	8	3.6			10 s			0	0	cloudy	
Shreveport, Louisiana	29.88	758.9	30.11	764.8	62	16.7	96	se.	4	1.8			10 s		calm	0.60	15.2	cloudy	
Silver City, New Mexico	24.25	615.9	29.93	760.2	39	3.9	76	nw.	1	0.4		3 k	0			0	0	clear	
Sitka, Alaska	29.71	754.6	29.78	756.4	56.1	13.4	74	e.	33	14.8			10 ks		e.	0.27	6.9	cloudy	
Smithville, North Carolina	30.28	769.1	30.32	770.1	58	14.4	74	ne.	8	3.6		4 c	4 s	calm		0	0	cloudy	
Spokane Falls, Wash. Ter.	28.20	716.3	30.27	768.8	41	5.0	76	nw.	1	0.4			10 s		calm	0	0	cloudy	
Springfield, Illinois	29.50	749.3	30.21	767.3	48	8.9	86	s.	6	2.7		4 cs	0	sw.		0	0	fair	
Springfield, Massachusetts	30.19	766.8	30.33	770.4	38.6	3.7	92	calm	0	0		5 c	fg			0	0	fair	
Stockton, Texas	26.94	684.3	30.09	764.3	62.3	16.8	100	s.	12	5.4			10 s		s.	0	0	cloudy	
St. Vincent, Minnesota																0	0		
Thatcher's Island, Mass.	30.27	768.8	30.32	770.1	47.1	8.4	63	w.	8	3.6		0	0			0	0	clear	
Toledo, Ohio	29.52	749.8	30.24	768.1	50	10.0	77	w.	8	3.6			fg			0	0	dense fog	
Tucson, Arizona	27.50	698.5	29.94	760.5	49	9.4	58	se.	3	1.3		0	0			0	0	clear	
Umatilla, Oregon	29.95	760.7	30.38	771.6	38.5	3.6	87	s.	4	1.8		0	9 s		se.	0	0	cloudy	
Uvalde, Texas	29.01	736.8	29.81	757.2	66	18.9	100	e.	2	0.9			10 n		calm	0.16	4.1	light rain	
Vicksburg, Mississippi	29.93	760.2	30.19	766.8	63	17.2	93	e.	6	2.7			10 n		e.	0.39	9.9	light rain	
Visalia, California	29.60	751.8	29.97	761.2	43	6.1	93	se.	3	1.3		0	0			0	0	clear	
Washington, D. C.	30.26	768.6	30.38	771.6	45	7.2	100	calm	0	0			fg			0	0	dense fog	
West Los Animas, Colorado	26.03	661.2	30.11	764.8	44	6.7	86	ne.	6	2.7			10 s		ne.	0	0	cloudy	
Wickenburg, Arizona					40	4.4	50	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.25	768.3	30.31	769.9	53.0	11.7	44	ne.	3	1.3		2 c; hz	3 k	calm	calm	0	0	fair	
Winnemucca, Nevada	25.73	653.5	30.19	766.8	34	1.1	88	s.	2	0.9		0	5 ks		sw.	0	0	fair	
Wood's Holl, Mass.	30.29	769.4	30.32	770.1	54	12.2	80	w.	5	2.2		0	0			0	0	clear	
Yankton, Dakota	28.85	732.8	30.22	767.6	41	5.0	73	ne.	6	2.7			10 s			0.34	8.6	cloudy	
Yuma, Arizona	29.76	755.9	29.90	759.4	59.0	15.0	44	ne.	4	1.8		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.‡																			J. A. Racker.
Bogota, U. S. Columbia	22.00	558.8			54.0	12.2	85	calm	0	0		0	8 ks; s		nw.	0	0	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	30.04	763.0	30.06	763.5	75	23.9	90	e.					10			3.10	78.7	raining	J. B. Dougherty.
Guadeloupe, W. I.‡	29.93	760.2	29.93	760.2	80	26.7	83	e.				0	2 k		ne.	0.10	2.5		B. Bigar.
Havana, Cuba, W. I.	30.06	763.5	30.12	765.0	78	25.6	82	calm	0	0		0	2 ks		calm	0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	30.03	762.7	30.04	763.0	75.9	24.4	85	n.	1	0.4		0	0			0	0	fine	Robert Johnstone.
Navassa, W. I.	29.94	760.5	30.02	762.5	80	26.7	82	ne.	10.5	4.7		8 cs; k	2 k; ks	ne.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.97	761.2	29.97	761.2	80	26.7	82	e.			2	4 c	5 k	e.	e.	0.010	0.3	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.48	748.8	30.04	763.0	76	24.4	84	calm					10 ks		calm	0	0	raining	Francesco J. Cisneros.
Rivas, Nicaragua					75.2	24	98	ne.			1	7 ck	1 ks	ne.	ne.	0	0		Earl Flint.
Santiago de Cuba, W. I.	30.04	763.0	30.07	763.8	80	26.7	82	calm	0	0		1 c	0			0	0	clear	Robert Mason.
St. Thomas, W. I.‡	29.91	759.7	30.02	762.5	82	27.8	79	e.	4	1.8		6 c	1 ks	nw.	e.	0.32	8.1	fair	G. O. Gyllich.
York Factory, B. A.	29.96	761.0	30.01	762.2	10.0	—12.2	90	nw.	9	4.0		2 c	1 s	nw.	nw.	0.10	2.5	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross, N. 33° 33′, E. 135° 26′	30.21	767.3	62	16.7		n.			3		0					3	nw.	blue sky	
H. M. S. Alert, Port Darwin, Australia	29.90	759.4	81.5	27.5	62	nw.			1		0							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 39° 02′, E. 9° 47′	29.86	758.4	71	21.7	93	sse.			2		4	sse.				1	sse.	d. clouds	Capt. Lord Walter Kerr
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.95	760.7	65	18.3		var.			2		10	calm						showery	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 46° 28′, W. 31° 18′	29.62	752.3	52	11.1	100	nnw.			7		10					6	nnw.	squally	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.05	763.3	73	22.8	76	var.			1-2		2	sse.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao Bay, Peru	29.96	761.0	63	17.2	94	calm			0		8							d. clouds	Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 36° 45′, E. 11° 13′	29.88	758.9	74	23.3	81	sse.			3		5					2	sse.	d. clouds	Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	29.70	754.4	73	22.8		sse.			3		4	sw.				2	wnw.	raining	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, Suez Canal	29.95	760.7	79	26.1	66	nne.			2-3		1							blue sky	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 41′, E. 135° 11′	30.12	765.0	61	16.1	100	ne.			1		8	nw.						d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	30.00	762.0	67	19.4		sw.			1		4	calm						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 4° 24′, W. 14° 27′	29.96	761.0	76	24.4		ese.			3-4		6	ese.				4	se.	d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.08	764.0	70.5	21.4	79	nnw.			2-3		7	nnw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 47° 34′, W. 52° 41′	30.26	768.6	36.5	2.5	90	sw.			1		10	w.						overcast	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 29° 18′, E. 50° 10′	29.85	758.2	84	28.9		wnw.			1-3		3	nw.				1	nw.	d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 11° 12′, E. 77° 16′	29.85	758.2	80	26.7		sse.			4		5	se.				5	se.	d. clouds	Capt. E. St. J. Garforth
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.10	739.1	56	13.3	?	s.			3-5		10							raining	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.78	756.4	84	28.9	75	ne.			1		2	n.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 14° 50′, E. 41° 00′	29.96	761.0	80.5	26.9	70	ese.			2		1							blue sky	Capt. P. Aldrich.
H. M. S. Flamingo, N. 17° 30′, W. 88° 12′	29.90	759.4	82	27.8	91	ne.			1		3	ne.						d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 1° 58′, W. 157° 28′	29.95	760.7	78	25.6	77	se.			3		2					2	nw.	d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	30.03	762.7	68	20.0	90	nw.			2		0							blue sky	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris, Cagliari, Isd. of Sardinia	29.85	758.2	72	22.2	75	sse.			1-2		0							blue sky	Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′ E. 129° 50′	30.10	764.5	64	17.8		n.			1-2		3	n.				1	n.	d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.96	761.0	80	26.7		ne.			1		1	n.				1	e.	blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 29° 00′, E. 11° 00′	29.94	760.5	63	17.2		wnw.			3		9	w.				2	sw.	misty	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 44′, E. 17° 30′	29.83	757.7	75	23.9	72	e.			2-5		1					3	e.	blue sky	Lieut. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, Hong Kong, China	29.87	758.7	78.3	25.7	76	e.			4-5		10					1	cf'd	dense mist	Lieut. A. Balfour.
H. M. S. Malabar, Bombay, India	29.85	758.2	87	30.6	91	nw.			1-2		3	nw.						d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 36° 07′, W. 5° 21′	29.72	754.9	64	17.8	83	wnw.			4		10	wnw.						showery	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.96	761.0	78	25.6	86	ssw.			2		7	wsw.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili,	30.13	765.3	57	13.9	93	ne.			1		10							misty	Comm. F. Edwards.
H. M. S. Nelson,																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.11	764.8	50.5	10.3	90	calm			0									foggy	Capt. E. B. Drummond.
H. M. S. Orontes, Barbadoes, W. Indies	29.93	760.2	83	28.3	100	e.			2		10							raining	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 19° 25′, W. 74° 08′	30.02	762.5	82	27.8	87	ne.			3		2					1	ne.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	30.20	767.1	46	7.8	92	nne.			1		10							foggy	Capt. V. B. Orlebar.
H. M. S. Ruby																			Capt. C. E. Foot.
H. M. S. Salamis.																			Capt. A. Fitz George.
H. M. S. Sappho, N. 24° 07′, W. 21° 17′	30.17	766.3	76	24.4	90	nne.			4		3	nne.				3	w.	d. clouds	
H. M. S. Sea Gull, S. 15° 01′, E. 40° 47′	29.59	751.6	79	26.1	86	ne.			2–3		1							blue sky	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb, N. 36° 29′, W. 11° 20′	29.85	758.2	80	26.7	70	sse.			2		0					1	ssw.	blue sky	
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos, N. 32° 36′, W. 64° 55′	30.26	768.6	71.5	21.9	73	ene.			3		3					7	nne.	d. clouds	Capt. C. G. Fane.
H. M. S. Thetis, N. 17° 34′, W. 102° 40′	29.93	760.2	83	28.3	83	ene.			2		3					2	s.	d. clouds	Capt. P. W. Stephens.
H. M. S Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 29° 40′, W. 82° 38′	30.45	773.4	57	13.9	75	se.			6		10	se.				7	se.	squally	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne, N. 35° 16′, E. 19° 20′	29.95	760.7	73.5	23.1	98	wnw.			1		3	wnw.				sm'h		d. clouds	
H. M. S Urgent, Port Royal, Jamaica, W. I.	30.04	763.0	79	26.1		ne.			1		2							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.54	750.3	57	13.9	87	calm			0		1	s.						d. clouds	Com. J. C. Wilson, A. D.C.
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, Mossamedes, Benguela	29.95	760.6	74.1	23.4	69	nnw.			3		2					1		blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, N. 14° 48′, W. 24° 26′	30.09	764.2	82.4	28.0	92	ne.			3		2		ne.			2	ne.	blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.96	760.9	75.2	24.0	91	nne.			1		10							drizzling	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.14	765.5	76	24.4	86	se.	6	2.7			10		se.	0.50	12.7			cloudy	
N. Yard, Portsmouth, N. H.	30.12	765.0	53	11.7	86	s.	3	1.3		10 c	0	sw.		0	0			cloudy	
Naval Hospital, Yokohama, Japan	30.11	764.8	58.5	14.7	67	e.			1		10		w.	0	0			cloudy	
Adams, Callao, Peru	29.88	758.9	62	16.7	68	s.			0–1		8					sm'h		cloudy	
Alaska, Callao, Peru	30.02	762.5	61	16.1	94	sw.			1		8			0	0	sm'h		cloudy	
Alert, Kobe, Japan *.	30.09	764.3	62	16.7	61	e.			4		10		calm	0	0	sm'h		cloudy	
Alliance, N. 51° 35′, W. 41° 15′	29.66	753.4	47	8.3	85	nne.			3		8			light	light	sm'h		cloudy	
Ashuelot, Kobe, Japan	30.22	767.6	62	16.7	72	ne.			3		2		wsw.					overcast	
Colorado, New York, N. Y.	30.32	770.1	54	12.2	93	sw.	4	1.8			8							cloudy	
Constitution, Newport, R. I.	30.13	765.3	56	13.3	100	wsw.	6	2.7			2		sw.					clear	
Franklin, Elizabeth river, Va.	30.17	766.3	62	16.7	88	sse.	2	0.9			5		se.	0	0			fair	
Galena, Smyrna, Turkey in Asia.	29.87	758.7	74	23.3	90	nw.			2–3		2					sm'h		fair	
Independence, N. Yard, Mare I'd, Cal.	29.79	756.7	50	10.0	79	wsw.	4.8	2.1			8		wsw.					cloudy	
Kearsarge, Hampton Roads, Va.	30.26	768.6	63	17.2	89	sse.			2		2		ssw.			sm'h		hazy	
Lackawanna, San Francisco, Cal. †	30.19	766.8	57	13.9	100	nw.			1		0							clear	
Lancaster, N. 38° 55′ W. 49° 05′	29.58	751.3	64	17.8	89	n.			7		10		n.			r'gh	nw.	raining	
Marion, Montevideo, Uruguay	29.85	758.2	66	18.9		se.			4		10		se.			mod.		cloudy	
Michigan, Erie, Pa.	30.03	762.7	53	11.7	80	s.			2		5		s.					fair	
Monocacy, Yokohama, Japan	30.30	769.6	61	16.1	77	e.			2		10		e.					cloudy	
Nipsic, Genoa, Italy	29.60	751.8	60	15.6	82	n.			2		10					sm'h		d. clouds	
Onward, Callao, Peru †	30.05	763.3	61	16.1	88	sw.			1		10		ne.			long	w.	cloudy	
Palos, Hong Kong, China	29.94	760.5	77	25.0	82	ene.			4		8		n;e.					fair	
Passaic, Washington, D. C.	30.22	767.6	53	11.7	93	sw.			1		0							clear	
Pensacola, Callao, Peru,	30.10	764.5	61	16.1	82	calm			0		10							overcast	
Portsmouth, York Spit Light, Va.	30.25	768.3	62	16.7	100	sw.			2		2		sw.			sm'h		clear	
Powhatan, Boston, Mass.	30.04	763.0	61	16.1	55	sw.			1		8		sw.					hazy	
Quinnebaug, Marseilles, France	29.53	750.0	67	19.4	69	ssw.			3		2		wsw.			sm'h		fair	
Ranger, San Francisco, Cal. *.	29.95	760.7	57	13.9	75	wnw.			1		0							clear	
Saratoga, N. 37° 10′, W. 76° 15′	30.27	768.8	61	16.1	88	wsw.			1		2			0	0	sm'h		fair	
St. Louis, League Island, Pa.	29.96	761.0	49	9.4	100	calm	0	0			0			0	0			clear	
Swatara, Yokohama, Japan. †.	30.26	768.6	61	16.1	66	e.			3		10		calm			mod	e.	cloudy	
Tennessee, Yorktown, Va.	30.30	769.6	60	15.6	100	wsw.	2	0.9			2		ssw.	0.01	0.3			fair	
Vandalia, N. 36° 59′, W. 76° 20′	30.23	767.8	63	17.2	89	s.			2		5		calm					fair	
Wabash, Boston, Mass.	30.16	766.1	53	11.7	86	sw.	4	1.8			8		sw.	0	0			fair	
Wachusetts, Sitka, Alaska	29.75	755.6	52	11.1	100	se.			1		10							overcast	
Wyoming, Port Royal, S. C.	30.16	766.1	66	18.9	84	nne.	10	4.5			8		calm	0	0			cloudy	
Yantic, Yorktown, Va. *.	30.22	767.6	60	15.6	94	wsw.			1		2							hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, Quebec, Canada *†.	30.23	767.8				calm	0		2		ene.					clear	N. McLean.
S. S. Circassian, Capt. W. H. Smith, ‡ N. 49° 15′, W. 66° 30′	30.52	775.2	33	0.6	79	n.	4		6		ne.	0e	0	3	w.	d. clouds	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson																	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn. †	30.15	765.8	53	11.7	93	sw.	2		2		sw.					fine	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, St. George's Channel Eng. †	29.36	745.7	59	15.0	76	se.	6		8		ese.	light	light	r'gh	se.	cloudy	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, N. 51° 41′, W. 7° 52′ *†	29.55	750.6	53	11.7	93	nne.	8		10		nne.			r'gh	nne.	squally	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,																	
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,																	
S. British Merchant, E. J. Moloney,																	
Bk. Caldew, Capt. W. Petersen S. 56° 35′, W. 76° 50′	28.58	725.9	42	5.6		w.	10		9							misty	
S. S. Cipero, Capt. W. N. Lailey, Off Belize, Honduras, C. A.	30.03	762.7	81	27.2	100	ene.	4		2							d. clouds	
Bk. Commewyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton, ‡ N. 18° 48′, W. 119° 51′	30.03	762.7	70	21.1	70	nnw.	2		10							overcast	
S. S. Gordon Castle, Capt. W. Waring.																	
Bg. Hermine, Capt. S. G. Jones, S. 51° 44′, W. 67° 05′	29.24	742.7	43.2	6.2	83	w.	7		7							d. clouds	
Bkt. Hope, Capt. J. Campbell ‡																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, N. 6° 49′, E. 91° 35′	29.82	757.4	82.4	28.0	83	var.	1		3							misty	
Bk. Mertola, Capt. E. W. Turner,																	
Bk. Moorhill, Capt. J. Brown, S. 56° 53′, W. 77° 47′	28.62	726.9	42.2	5.7	83	ssw.	9		6							threatening	
Naiad, Capt. J. Smith,																	
S. Pielone, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry, S. 26° 02′, W. 41° 10′	30.17	766.3	74	23.3	59	se.	2		2							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estrella, Capt. P. Murdock,																	
Bk. Shun Lee, Capt. J. M. Gray,																	
S. S. Strathleven, Capt. C. W. Pearson, Off North Saddle Light, Japan	30.12	765.0	71.0	21.7	90	ene.	4		4							d. clouds	
S. S. Thames, Capt. Luckhurst. N. 51° 03′, W. 56° 48′	29.96	761.0	42	5.6	91	wsw.	3		6							d. clouds	R. Ladd, 1st Officer
S. S. Wyberton, Capt. R. J. Blacklin. N. 18° 12′, E. 39° 41′	29.76	755.9	90.5	32.5		ese.	4		3							d. clouds	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers																	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Galia, Capt. W. H. P. Hains																	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Brannschweig, Capt. C. Pohle, N. 38° 57′, W. 65° 02′	30.15	765.8	62.0	16.7	64	nne.	3		2		ne.			r'gh cross	ne.	fair	
S. S. Hermann, Capt. H. Baur, N. 49° 47′, W. 17° 57′	29.19	741.4	58.1	14.5		se.	5		10		nw.	o	o	long	n.	cloudy	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst, N. 53° 49′, E. 60 33′	29.79	756.7	44.0	6.7	92	e.	6		10		e.			cross	e.	cloudy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer																	
S. S. Strassburg, Capt. O. Heimbrouche N. 50° 31′, W. 30° 26′	29.42	747.3	51.0	10.6	79	w.	4		8		ene; w.	2 h'r	2 h'r	mod.	nnw. ene.	cloudy	Walter & Reschler. Englehart & von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 42° 11′, W. 147° 52′ †	29.66	753.4	65	18.3	63	sw.	5		5		sw.	shr's	sh'rs	r'gh	sw.	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, Hong Kong, China *†	30.12	765.0	78	25.6	73	nne.	3		4		nne.					clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 34° 44′, E. 166° 45′	29.96	761.0	69	20.6	70	nw.	5		3		nw.	o	o	mod.	wnw.	fine	
OREGON IMPROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes, N. 40° 18′, W. 124° 36′ †	30.17	766.3	52	11.1	93	sw.	1		0					h'vy	nw.	foggy	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann.																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles, Off San Francisco, Cal †	29.97	761.2	50.5	10.3	89	e.	2		5		e.			light	w.	foggy	
S. S. Oregon, Capt. E. Polemann. Portland, Oregon †	30.13	765.3	45	7.2	92	nne.	1		0							clear	C. W. Pohl, 2d Office

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, San Francisco, Cal.....†	29.93	760.2	50	10.0	93	calm	0	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ——— San Francisco, Cal.....†	29.97	761.2	51	10.6	93	var.	3	.....	4	.....	nw.	0	0	long	w.	clear.....	.....
S. S. Idaho, Capt. T. Huntington, N. 46° 53′, W. 124° 46′.....†	30.10	764.5	52	11.1	93	n.	3	.....	0	.....	.....	.....	.....	mod.	w.	clear	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 32° 40′, W. 117° 11′.....†	29.97	761.2	66	18.9	84	se.	2	.....	8	.....	se.	.....	.....	mod.	nw.	cloudy.....	G. H. Harrison.
S. S. Senator. Capt. Wallace, N. 36° 40′, W. 121° 55′.....†	29.98	761.5	51	10.6	86	nw.	1	.....	0	.....	.....	.....	.....	sm'h	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, San Francisco, Cal.....†	29.97	761.2	48	8.9	?	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, Departure Bay.....†	30.34	770.7	46	7.8	84	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——— N. 36° 53′, W. 124° 35′.....	29.97	761.2	53	11.7	100	nw.	3	.....	10	.....	.....	.....	.....	long	nw.	dense fog.....	A. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, N. 18° 50′, W. 159° 30′.....†	30.18	766.6	81	27.2	96	ne.	6	.....	10	.....	ne.	.....	.....	mod.	ne.	cloudy	W. H. Hawes, 2d Offl. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. City of Peking, Capt. G. G. Barry, Yokohama, Japan.....*†..	30.38	771.6	60	15.6	71	ene.	5	.....	0	.....	.....	0	0	.....	.....	clear.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt.——— Panama, Panama.....†.	30.03	762.7	79	26.1	86	ne.	2	.....	10	.....	ne.	0.3	8.	long	se.	clearing.....	.....
S. S. City of Sidney, Capt. H. C. Dearborn, Sydney, N. S. W.....*†..	29.92	760.0	54	12.2	61	sw.	3	.....	5	.....	sw.	0	0	sm'h	.....	fair	E. L. Saik. A. L. Richie, 2d Offl.
S. S. City of Tokio, Com. J. Maury, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Colima, Capt. R. R. Searle, N. 23° 12′, W. 106° 25′.....†	29.97	761.2	78	25.6	91	se.	2	.....	7	.....	e.	0.30	7.6	mod.	sw.	cloudy..	R. R. Searle. M. Connolly.
S. S. Grenada, Capt. M. Connolly, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. South Carolina, Capt. ——— N. 26° 19′, W. 114° 06′.....*†..	29.90	759.4	64	17.8	89	sse.	2	.....	5?	.....	sw.	.....	.....	light	w.	cloudy ?.....	.....
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	30.13	765.3	55	12.8	93	s.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Fedderson, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium.....†..	29.51	749.5	53	11.7	86	e.	2	.....	10	.....	ne.	0.05	1.3	.....	.....	dull.....	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings, N. 51° 05′, W. 10° 47′.....†..	28.85	732.8	54	12.2	.....	ese.	5	.....	10	.....	se.	24 h'r	shr's	mod.	e.	cloudy.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 50° 32′, W. 24° 13.....†..	29.26	743.2	55	12.8	80	nw.	5	.....	5	.....	nw.	.....	.....	r'gh	ne.	fair.....	B. Gleadell.
S. S. Germanic. Capt. C. W. Kennedy, N. 40° 33′, W. 69° 20′.....†..	30.36	771.1	56	13.3	94	s.	3	.....	10	.....	n.	0	0	mod.	sw.	overcast	W. A. Ward.
S. S. Republic. Capt. P. J. Irving.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MISCELLANEOUS.																	
Bk. Dom Pedro II, Capt. C. E. Coffin N. 37° 11′, W. 74° 15′.....†*..	30.10	764.5	.....	.....	.....	se.	.....	.....	.....	.....	se.	.....	.....	large	e.	pleasant.....	.....
U. S. F. C. S. Fish Hawk, Washington, D. C.....†..	30.29	769 4	54	12.2	100	sw.	2	0	2 8	.....	.....	0	0	.....	.....	clear.....	.....
Hassler, Lt. Com. Nichols, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
S. Iron Cross, Capt. Randall,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pawashick, Capt. E. Fry,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Lovaine, Capt. H. McCauley N. 43° 03′, W. 53° 45′.....*†..	30.80	782.3	.....	.....	.....	ene.	7	.....	.....	.....	sw.	.....	.....	high	cross	.....	.....
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 36° 25′, W. 45° 16′.....†...	29.87	758.7	68	20.0	.....	wnw.	9	.....	10	.....	w.	.....	.....	very h'vy	wnw.	threatening.	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam, Capt. Jos. Hand, N. 36° 06′, W. 45° 28′.....†.	29.52	749.8	.....	.....	.....	w.	9	.....	8	.....	w.	mod.	mod.	very h'vy	wnw.	cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Chief Signal Officer, U. S. A.

Heliotype Printing Co Boston

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 24, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.97	761.2	70.5	21.4	74	sw.			6		3			0.370	9.4	pretty fair	Moiroud.
Algiers ‡			29.88	758.9	67.3	19.6	61	w.			5		4			0.402	10.2	cloudy	Nicolas.
La Calle ‡			29.84	757.9	66.2	19.0	79	wnw.			6		7			0.492	12.5	very cloudy	Fonfréde.
Tunis ‡			29.84	757.8															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.97	761.2	59.4	15.2	66	nw.			3		3			0.051	1.3	pretty fair	Dumas.
Tebessa ‡			29.90	759.4	59.4	15.2	47	nw.			6		3			0	0	pretty fair	Derché.
Geriville ‡					58.3	14.6	53	n.			6		4			0	0	cloudy	Lonchamp.
Laghouat ‡			29.93	760.1	63.0	17.2	52	w.			3		4			0	0	cloudy	Herbin.
Biskra ‡			29.89	759.2	83.1	28.4	20	nw.			6		10			0	0	covered	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.06	763.5	30.15	765.8	53.0	11.7	79	s.	7	3.1			5			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	28.99	736.3	29.52	749.9	60.8	16.0	81	e.			2		10			1.083	27.5	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	28.83	732.3	29.60	751.9	44.2	6.8	94	ne.	3.1	1.4			10			0.280	7.1	raining	Dr. Wiersbicki.
Eperies	28.67	728.2	29.54	750.3	51.8	11.0	90	calm			0		10 k			0.307	7.8	drizzling	Julius Mikolik.
Gratz ‡	28.35	720.0	29.59	751.5	52.5	11.4	90	e.			2		10			0.024	0.6		Andreas Rospini.
Hermannstadt	28.26	717.7	29.65	753.2	59.4	15.2	78	s.			2		9			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.26	717.8	29.59	751.5	50.5	10.3	94	nw.			1		8			0.150	3.8	gloomy	The Staff.
Lemberg	28.62	727.0	29.61	752.2	45.0	7.2	94	s.			1		10			0.224	5.7		Dr. T. Stanecki.
Pola	29.43	747.5	29.54	750.3	59.2	15.1	97	nnw.			1		10			0.969	24.6		I. R. Hydrographic Office.
Szathmar	29.13	739.8	29.59	751.5	53.4	11.9	90	e.			2		10			0.709	18.0		Jozsef Midlinszky, S. J.
Szegedin	29.30	744.2	29.58	751.2	56.1	13.4	94	s.			1		10			0.197	5.0		Karl Stancel.
Trieste	29.46	748.2	29.56	750.8	59.7	15.4	93	calm			0		10			0.106	2.7		Rieder.
Vienna	28.90	734.0	29.61	752.1	52.2	11.2	74	nw.			2		5			0.028	0.7		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 24, 1882.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.93	760.2	30.03	762.7	46.0	7.6	76	e.	28	12.5			10			0.015	0.4	squally	W. Boswell.
Armagh, Observatory	29.45	748.0	29.68	753.9	48.7	9.3	73	e.	24	10.7			10					squally	S. Call.
Bidston, Liverpool Obs'y			29.70	754.4	47.0	8.3	83	e.	26	11.6			10					overcast	John Hartnup.
Bolton, Sharples	29.20	741.7	29.79	756.7	45.2	7.3	88	e.	12	5.4			10					overcast	Thomas Mackereth. [A.S.
Bradford, Yorkshire	29.35	745.5	29.75	755.6	45.7	7.6	88	se.			1		10			0.12	3.0	raining	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.70	754.4	46.2	7.9	99	e.			1.0		10					overcast	John McLaren.
Chatham, School M. E.	29.56	750.8	29.70	754.4	48.1	8.9	93	e.			1		10					gloomy	R. Craydon, R. E.
Falmouth, Observatory	29.32	744.7	29.55	750.6	58.6	14.8	83	ssw.			2		10					overcast	The Staff.
Fort Napier, Natál	27.57	700.3	29.78	756.4	70.0	21.1	81	e.			2		6						Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.65	753.1	29.88	758.9	87.0	30.6	61	sw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.51	749.5	50	10.0	86	e.			6		10					squally	J. O'Donaghue.
Gibraltar, Mediterranean	30.01	762.2	30.06	763.5	70.0	21.1	84	sw.			4		3					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.64	752.8	29.85	758.2	48.1	8.9	73	ene.			5		6					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.50	749.3	29.68	753.9	48.0	8.9	96	e.			1		10					drizzling	The Staff.
Guernsey	29.32	744.7	29.53	750.0	58.5	14.7	84	sw.			2		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.64	752.8	29.68	753.9	48.9	9.4	91	e.	18	8.0			10					drizzling	The Staff.
Leicester, Museum	29.51	749.5	29.78	756.4	45.0	7.2	96	se.			2		10					drizzling	J. C. Smith.
Malta, Mediterranean	29.62	752.3	29.69	754.1	76.0	24.4	72	nw.			3		8			0	0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.98	761.5	30.03	762.7	79.0	26.1	86	se.			1		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.19	741.4	29.72	754.9	44.2	6.8	99	ene.			2		10					raining	John Mac Email.
Oxford, Radcliffe Obs'y	29.44	747.8	29.67	753.6	48.1	8.9	89	ene.			3		9					overcast	The Staff.
Plymouth	29.45	748.0	29.52	749.8	57.4	14.1	97	sw.			1		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.10	764.5	46.9	8.3	76	se.	21	9.4			10					misty	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey																			Serg't W. H. Lyne.
Sheffield	29.49	749.0	29.78	756.4	43.9	6.6	99	ne.			1		10			0.04	1.0	overcast	W. F. Cooper.
Silloth Rectory	29.76	755.9	29.80	756.9	45.7	7.6	88	e.			4		10			0	0	overcast	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.36	745.7	45.8	7.7	80	e.	19	8.5			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	29.44	747.8	29.66	753.4	48.7	9.3	96	e.			2		10					foggy	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.52	749.8	29.55	750.6	61	16.1	77	sw.			4		8					gloomy	W. Newcombe.
Valencia, Observatory	29.40	746.7	29.42	747.3	56.6	13.7	89	e.	12	5.4			10					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.90	759.4	29.95	760.7	39	3.9	80	n.	10	4.5			10 n			0.125	3.2	threatening	H. J. Cundall, C. E.
Chatham, N. B. *	29.98	761.5	30.04	763.0	27	— 2.8	77	nw.	2	0.9		8 c	2 s	calm	calm	0.01	0.3	fair	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec *	30.05	763.3	30.07	763.8	26	— 3.3	88	n.	12	5.4		5 cs	2 s	nw.	e.	0	0	fair	J. McWilliams.
Fort Garry, Manitoba *	28.79	731.3	29.63	752.6	39	3.9	73	sw.	8	3.6		0	5 ks		sw.	0	0	fair	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S. *	29.79	756.7	29.92	760.0	45	7.2	100	n.	10	4.5			10 n		n.	0.353	9.0	light rain	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario *	29.54	750.3	29.88	758.9	38	3.3	96	ne.	15	6.7			10 s		ne.	0.35	8.9	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec *	29.78	756.4	29.99	761.7	27	— 2.8	84	ne.	12	5.4		8 c	0	nw.		0.15	3.8	fair	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario *	29.19	741.4	29.91	759.7	31	— 0.6	89	e.	3	1.3		2 cs	2 ks	sw.	sw.	0.05	1.3	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.13	739.9	29.83	757.7	47	8.3	100	ne.	8	3.6			10 n		ne.	0.02	0.5	threatening	H. Morgan.
Port Stanley, Ontario	29.17	740.9	29.81	757.2	50	10.0	96	e.	3	1.3			10 n		e.	0.08	2.0	cloudy	M. Payne.
Quebec, Quebec *	29.73	755.1	30.07	763.8	28	— 2.2	88	ne.			3	2 k	2 s	ne.	ne.	0	0	fair	Capt. Ashe, R. N.
Rockliffe, Ontario *	29.49	749.0	29.97	761.2	23	— 5.0	73	calm	0	0		2 ck	0	w.		0.08	2.0	fair	W. H. McIntyre.
Saugeen, Ontario *	29.12	739.6	29.84	757.9	43	6.1	96	e.	7	3.1			10 ks			0.22	5.6	cloudy	K. Stewart.
St. Andrews, N. B.	29.92	760.0	29.97	761.2	36	2.2	87	n.	3	1.3		5 k	5 ks	n.		0.27	6.9	fair	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B. *	29.78	756.4	29.84	757.9	47	8.3	93	sw.	2	0.9			10 s			0.14	3.6	cloudy	T. C. Hill, C. E.
Toronto, Ontario *	29.48	748.8	29.87	758.7	42	5.6	93	ne.	5	2.2			10 n			0.27	6.9	light rain	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S. *	29.84	757.9	29.91	759.7	47	8.3	93	ne.	4	1.8		8 k	2 s	w.	ne.	0.01	0.3	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.03	762.7	30.29	769.4	44	6.7	100	s.					10					light rain	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	29.96	761.0	29.99	761.7	65.0	18.3	83	sw.	10.6	4.7		0	1 s			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill
Worcester *†	29.09	738.9			75	23.9	38	nnw.			1	4	3			0	0	light clouds	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.19	766.9	30.22	767.5	64.4	18.0	92	ene.	4.9	2.2		0	2			0	0	clear	M. Marc Dechevrens, S. J.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.94	760.4	29.98	761.6	42.6	5.9	72	ene.	27	12			9						Oversergent Fischer.
Fanöe	29.93	760.1	29.95	760.6	42.1	5.6	86	ene.			4		9						Overloerer Lauridsen.
Godthaab, Greenland	29.88	759.0	29.93	760.1	37.0	2.8	69	ene.			4		10						S. Kleinschmidt.
Stykkisholm, Iceland	30.21	767.2	30.25	768.3	41.4	5.2	81	se.			2		8						A. O. Thorlacius.
Thorshavn	30.16	766.0	30.19	766.9	45.3	7.4	88	e.	11	5			5					raining	Overloerer Bergh.
Vestervig	29.95	760.7	30.04	763.0	41.0	5.0	75	ne.			6		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.14	740.2	29.80	756.8	54.0	12.2	98	sw.			1		8						M. Labroue, Director.
Alençon Normal School	29.10	739.1	29.71	754.5	52.9	11.6	97	se.			2		n			0.067	1.7		M. Nicot, Director.
Arras, Engineer School	29.36	745.8	29.62	752.4	52.0	11.2	97	sw.					fg					foggy	M. Klein, Commandant.
Avignon, Normal School	29.65	753.2	29.73	755.2	64.4	18	62	nw.			1		0			0.031	0.8	clear	M. Giraud, Director.
Bar-sur-Seine	29.12	739.7	29.67	753.5	59.4	15.2	69	s.			1		8		sw.	0.067	1.7	very cloudy	M. Saillard, Director.
Beauvais, Normal School	29.38	746.2	29.64	752.8	56.3	13.5	81	ssw.			1		5		sw.	0	0	cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.82	731.9	29.69	754.2	55.8	13.2	79	s.			1		5 cn		n.	0.020	0.5	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.48	748.8	29.74	755.4	57.0	13.9	93	nw.			1		10			0.898	22.8	covered	M. Rayet, Director.
Bourges, Normal School	29.10	739.0	29.65	753.0	55.4	13	88	sw.			3		kn		sw.	0.453	11.5		M. Postel, Director.
Brest, Naval Observatory	29.41	746.9	29.57	751.1	64.4	18.0	80	sw.			1		5		sw.	0.126	3.2		M. de Rermaree, Dir.
Caen, Normal School	29.52	749.7	29.59	751.6	56.5	13.6	98	sw.			1		8		sw.	0.047	1.2	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.28	743.7	29.60	751.7	58.5	14.7	76	s.			1		10			0	0	covered	M. Jadot, Director.
Charleville, Normal School	29.12	739.6	29.62	752.3	57.6	14.2	80	ssw.			1		1			0.098	2.5		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.33	719.6	29.65	753.2	60.3	15.7	65	se.			1		10			0.067	1.7	covered	M. Alluard, Director.
Cluny, Normal School	28.88	733.6	29.69	754.1	60.6	15.9	65	calm			0		3			0	0		M. de Villemontée, Dir.
Commercy, Normal School	28.80	731.4	29.66	753.3	52.7	11.5	87	w.			1		8 kn	w.	w.	0.398	10.1	very cloudy	Dr. Coulet, Director.
Gap, Normal School	27.10	688.4	29.59	751.6	54.5	12.5	81	s.			3		3 n		s.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.56	725.4	29.70	754.4	59.2	15.1	50	nw.			4		5		nw.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	28.93	734.7	29.68	753.9	58.3	14.6	84	nnw.			1		kn			0.75	19.		M. Ablard, Director.
Guéret, Normal School	28.12	714.3	29.70	754.4	53.1	11.7	90	sw.			1		10 k		ne.	0	0	covered	M. Rivoire, Director.
Lamballe, Normal School	29.35	745.4	29.61	752.2	58.6	14.8	76	w.			1		5 k		w.	0.04	1.	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.31	744.5	29.87	758.6	63.5	17.5	52	wsw.			1					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	29.56	750.7	29.66	753.3	62.6	17	80	wsw.			4		8		sw.	0.039	1.0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.66	727.9	29.70	754.3	57.4	14.1	73	ene.			1		kn		w.	0	0		M. André, Director.
Mans, Normal School	29.34	745.3	29.65	753.0	55.6	13.1	96	sw.			1		10			1.236	31.4	covered	M. Piboen, Director.
Marseille, Observatory	29.37	745.9	29.63	752.6	63.7	17.6	51	nw.			3.4		1		nw.	0	0		M. Stephan, Director.
Montlouis l'Instituteur	24.61	625.1	29.85	758.1	48.6	9.2	56	sw.	9.2	4.1			4		nw.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.61	752.1	29.72	754.9	64.8	18.2	88	wnw.			4		5		nw.	0	0	fair	M. Pourle, Director.
Nancy, Normal School	28.92	734.5	29.72	754.8	54.7	12.6	81	ene.			1		8 kn		ene.	0.083	2.1	very cloudy.	M. Hasse.
Nantes, Observatory	29.52	749.8	29.68	753.9	63.7	17.6	62	w.			2-3	2 c	9 kn	w.	w.	0.319	8.1		M. Larocque, Director.
Nice	29.53	750.1	29.57	751.0	60.8	16.0	85	ne.			1		5	ne.	ne.	1.764	44.8	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	29.63	752.6	29.74	755.3	64.8	18.2	42	n.	22.4	10.0			9	nw.	w.	0.24	6.0	raining	Dr. Fines.
Pic-du-Midi, Summit	21.03	534.1			24.3	—4.3		w.			2		10		w.	0.31	8.0	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.63	727.1	29.67	753.7	59.0	15	68	n.			1		5	n.	n.	0.59	15.	cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.85	631.2			39.2	4.0	100	wsw.			3		10			0.213	5.4	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.66	753.4	29.69	754.2	61.9	16.6	85	wsw.			1		8		wnw.	0.114	2.9	¾ covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.49	749.0	29.70	754.4	62.6	17	76	sw.			1		5		w.	0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School	27.67	702.8	29.80	756.9	50.0	10	97	nw.			1		10		sw.	0.157	4.0	raining	M. Richard, Director.
Rouen, Normal School	29.57	751.0	29.61	752.1	56.8	13.8	82	sse.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School	29.43	747.5	29.59	751.5	55.6	13.1	85	sw.			1		10		sw.	0	0	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.48	748.8	29.65	753.0	59.0	15.0	77	ssw.			1		4		wsw; ssw	0.008	0.2		M. Renou, Director.
Toulouse, Observatory	29.11	739.5	29.84	757.8	55.9	13.3	84	w.			4		10	w.		0.114	2.9	covered	M Bailland, Director.
Tours	29.45	748.0	29.65	753.0	59.0	15.0	89	wnw.			1		8	calm	wnw.	0.142	3.6	¾ covered	M. de Tastes.
Versailles, Observatory	29.15	740.4	29.64	752.9	57.6	14.2	80	sw.			1					0	0		Dr. A. Bérigny, Director.
Sub-Series. Paris, Montsouris Obs'y	29.36	745.7	29.65	753.1	59.0	15.0	80	s.			1		8		ssw.	inap.	inap.		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.81	731.7	29.66	753.3	46.8	8.2	88	s.			1		10 n			0.039	1.0	rain and fog.	Prof. Dr. Hoh.
Berlin	29.58	751.2	29.75	755.7	41.4	5.2	81	ne.			1		10			0.394	10.0		Prof. Dr. Arndt.
Breslau	29.16	740.6	29.68	753.9	39.6	4.2	93	ene.			2		10			0	0	raining	Royal University Obs'y.
Carlsruhe	29.24	742.6	29.65	753.2	54.7	12.6	89	w.			1		10	nw.		0.157	4.0	raining	Albert Senz.
Cassel	28.96	735.5	29.67	753.7	38.8	3.8	92	n.			4		10	n.		0.283	7.2		Dr. H. Möhl.
Frankfort on the Main	29.28	743.7	29.65	753.1	46.8	8.2	92	ene.			1		10			0.039	1.0		Physical Society.
Friedrichshafen	28.26	717.8	29.68	753.9	53.2	11.8	88	sw.			1		8	wsw.		0.429	10.9	raining	Wilhelm, Chief Tel.
Hamburg	29.74	755.5	29.84	757.9	45.5	7.5	68	e.			4		7			0	0		E. Preller.
Kiel	29.84	757.9	29.85	758.3	45.3	7.4	68	ene.			7		10			0.035	0.9		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.29	744.0	29.72	754.9	37.0	2.8	100	ene.			2		10			0.453	11.5	rain and fog.	H. Leppig, Asst.
Magdeburg	29.56	750.8	29.75	755.7	37.8	3.2	93	ne.			2		10		ene.	0.839	21.3		Dr. Assmann.
Memel	29.94	760.4	29.98	761.6	41.7	5.4	80	ne.			3-4	5 cs	0						Issermann.
Munich	27.83	706.8	29.67	753.5	50.5	10.3	88	nw.			1		9	sw.		0.201	5.1		Central Station.
Neufahrwasser	29.85	758.1	29.86	758.5	41.7	5.4	83	e.			3		10			0	0		A. Lothes.
Neustadt, Palatinate	29.11	739.4	29.63	752.6	50.0	10.0	95	calm			0		10			0.087	2.2		Dicknether.
Stuttgart	28.70	728.9	29.58	751.4	52.3	11.3	91	ne.			1		8	nw.		0.287	7.3	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.15	715.1	29.66	753.3	48.6	9.2	91	w.			2		10	e.		0.087	2.2		Fischer.
Wustrow	29.84	757.9	29.86	758.5	44.2	6.8	87	ene.			3		10 s			0.059	1.5		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.49	749.0	29.87	758.6	75.4	24.1		sw.			1.5		2			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.88	758.8	29.93	760.1	85.9	29.9	65	sw.	14.0	6.3			0			0	0	blue sky	
Deesa	29.44	747.6	29.90	759.5	90.6	32.6	36	ene.	7.4	3.3			6		ssw.	0	0	d. clouds	
Bombay	29.84	757.9	29.88	758.8	84.1	28.9	72	nnw.	16.0	7.2			0			0	0	blue sky	
Poona, Yarrowda	28.03	712.0	29.86	758.4	88.4	31.3	31	e.	3.0	1.3			5		w.	0	0	d. clouds	
Belgaum	27.34	694.4	29.85	758.1	83.0	28.3	38	ene.	8.0	3.6			0			0	0	blue sky	
Lahore	29.17	741.0	29.92	759.8	82.0	27.8	36	calm	1.8	0.8			0			0	0	blue sky	
Roorkee	28.98	736.0	29.88	758.9	78.8	26.0	32	sw.	3.4	1.5			0			0	0	misty	
Agra	29.41	747.0	29.97	761.2	85.2	29.6	36	w.	3.1	1.4			0			0	0		
Nagpur	28.88	733.4	29.91	759.8	84.7	29.3	27	calm	2.8	1.2			0			0	0	blue sky	
Jubbulpore	28.57	725.7	29.93	760.2	81.0	27.2	48	calm	2.4	1.1			0			0	0	blue sky	
Lucknow	29.52	749.7	29.89	759.2	83.2	28.4	29	wnw.	5.4	2.4			0			0	0	blue sky	
Allahabad	29.58	751.4	29.90	759.4	77.8	25.4	52	calm	2.0	0.9			0			0	0	blue sky	
Patna	29.72	754.9	29.90	759.6	77.5	25.3	59	calm	1.6	0.7			0			0	0	blue sky	
Hazaribagh	27.89	708.3	29.90	759.5	78.6	25.9	28	n.	8.2	3.7			0			0	0	blue sky	
Cuttack	29.81	757.2	29.90	759.3	81.4	27.4	65	nne.	0.3	0.1			0			0	0	blue sky	
Calcutta, Alipore	29.86	758.5	29.89	759.1	79.7	26.5	66	nne.	2.0	0.9			0			0	0	blue sky	
Dhubri	29.77	756.1	29.89	759.2	78.9	26.1	70	calm	2.7	1.2			0			0	0	blue sky	
Goalpara																			
Chittagong	29.79	756.6	29.88	758.8	79.3	26.3	72	nne.	1.7	0.8			0			0	0	blue sky	
Sibsagar	29.55	750.6	29.89	759.2	77.2	25.1	83	ne.	1.2	0.5			0			0	0	blue sky	
Jeypore	28.49	723.6	29.92	760.0	85.7	29.8	29	n.	3.5	1.6			2		n.	0	0	d. clouds	
Zanzibar, Africa			29.89	759.2	83.7	28.7	64	calm	3	1.3			2			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.15	740.5	29.56	750.9	57.4	14.1	88	calm	0	0			10			1.067	27.1		Prof. Giovanni Clodig.
Milan	29.08	738.7	29.60	751.9	53.1	11.7	82	sw.	4.3	1.9			10	ne.		0.024	0.6		Prof. Schiaparelli.
Padua	29.46	748.2	29.56	750.9	53.2	11.8	91	nw.					10			0.268	6.8		Prof. Dott. Lorenzoni.
Moncalieri	28.67	728.3	29.58	751.4	56.5	13.6	61	ssw.	1.3	0.6			5	s.		0	0		Prof. P. F. Denza.
Genoa	29.38	746.3	29.57	751.1	57.2	14.0	57	ne.	4.3	1.9			10	nw.		0.264	6.7		Prof. G. M. Garibaldi.
Mondovi	27.69	703.4	29.61	752.2	51.3	10.7	70	w.			4		7			0.012	0.3		Prof. D. C. Bruno.
Pesaro	29.50	749.4	29.55	750.6	52.5	11.4	95	n.			2		10			0.331	8.4		Prof. Luigi Guidi.
Florence	29.30	744.3	29.56	750.7	59.0	15.0	91	ne.			2		10			0.492	12.5		Prof. Costantino Pitter.
Leghorn	29.47	748.4	29.55	750.5	57.9	14.4	87	wnw.	8.1	3.6			10			0.268	6.8		Prof. P. Monte.
Rome	29.35	745.6	29.53	750.0	60.1	15.6	88	ssw.	5.6	2.5			10			0.823	20.9		Prof. P. S. Ferrari.
Lecce	29.39	746.6	29.64	752.9	71.6	22.0	81	sse.	32.2	14.4			10	s.		0	0		Prof. C. de Giorgi.
Cosenza	28.80	731.6	29.68	753.8	71.6	22.0	74	se.	3.1	1.4			9	e.		0.417	10.6		Prof. D. Conti.
Cagliari	29.44	747.7	29.63	752.6	65.1	18.4	59	nw.			4		5	w.		0.551	14.0		Prof. A. Pacinotti.
Palermo	29.48	748.7	29.72	754.9	65.7	18.7	61	wnw.	6.3	2.8			10			0.016	0.4		Prof. G. Ciacciatore.
Syracuse	29.61	752.0	29.65	753.1	76.3	24.6	67	wnw.	6.3	2.8			10	sw.		0	0		Prof. Vincenzo Gulliano.
Sub-Series.																			
Naples, S. R	29.14	740.1	29.57	751.0	61.2	16.2	92	sw.	12.5	5.6			10	w.		0.201	5.1		Prof. F. Brioschi.
Stelvio	21.84	554.6			31.6	— 0.2	76	e.			2	cs	10 k	n.		0	0	misty	Prof. P. F. Denza.
Valdobbia	21.89	556.1			33.3	0.7	73	n.			2		6 kn	w.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y	30.14	765.5	30.16	766.0	56.2	13.4	76	nne.	7.6	3.4		0	0			0	0	clear	K. Sasaki.
Kioto	30.03	762.7	30.21	767.3	49.9	9.9	90	nnw.	0.5	0.2		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.95	760.7	30.15	765.8	61.5	16.4	52	ne.	2.1	0.9		0	0			0	0	clear	S Takehayashi
Nemuro																			
Niigata	30.24	768.1	30.28	769.1	48.6	9.2	90	se.	1.2	0.5		2cs;ck	0			0	0	fair	
Nobiru	30.26	768.6	30.27	768.8	43.1	6.2	98	nnw.	7.5	3.3		0	2 s			0	0	fair	
Supporo	30.04	763.0	30.11	764.8	43.5	6.4	93	sse.	3.0	1.3			0			0.011	0.3		
Tokei Obs'y, Yeddo	30.18	766.6	30.25	768.3	54.0	12.2	99	n.	3.3	1.5			10 n			0.226	5.7	raining	The Staff.
Wakayama	30.12	765.0	30.17	766.3	60.3	15.7	65	nne.	4.3	1.9		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.87	758.7	30.06	763.5	75.3	24.1	56	ese.	15.0	6.7		2 c;ck	7 k;ks	n] nw.		0	0	fair	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.71	602.2	29.93	760.2	57.2	14.0	81	calm	0	0		0	2 s		se.	0	0	clear	Vicente Fernandez.
Leon	24.44	620.8	30.11	764.9	60.0	15.6	81	n.			1	0	0			0	0	fine	Prof. M. Leal.
Mazatlan	29.72	754.8	29.98	761.4	76.0	24.4	91	ne.	0.9	0.4		0	2 n		se.	0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.13	587.4	30.16	766.2	53.8	12.1	82	nw.	1.1	0.5		3 c	1 k			0	0		The Staff.
Morelia	24.21	615.0	30.22	767.6	58.3	14.6	58	sse.			3	1	4	s.	s.	0	0	½ cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.94	608.0	29.91	759.7	56.3	13.5	87	calm			0	1 c	0			0	0	clear	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.43	595.3	30.23	767.8	53.6	12.0	84	calm	0	0		0	9		n.	0.178	4.5	very cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.70	754.3	29.70	754.3	43.0	6.1		ene.			4					0.051	1.3		
Groningen	29.73	755.1	29.78	756.5	41.9	5.5		ene.								0	0		
Helder	29.76	755.9	29.76	755.9	41.7	5.4		ene.			5					0.008	0.2		
Hellevoetsluis	29.69	754.2	29.69	754.2	40.3	4.6	92	ene.			3					0.020	0.5		
Utrecht	29.68	753.9	29.73	755.1	40.8	4.9	84	ene.			3		8			0.067	1.7	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.08	764.0	30.14	765.6	47.5	8.6	60	nw.	1.1	0.5			0			0	0		
Christiania	30.09	764.3	30.24	768.2	39.6	4.2	55	nne.	7	3			10			0	0		
Gjæsvær	30.26	768.6	30.28	769.2	30.4	— 0.9		n.			6		10						
Lodingen	30.20	767.1	30.25	768.3	36.7	2.6	82	ene.			2		1			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.52	749.8	29.67	753.7	68.4	20.2	91	wnw.	7.4	3.3			6			0.295	7.5		Dr. J. A. Sampaio.
Campo Major	29.02	737.2	30.03	762.7	55.8	13.2	93	ssw.	6.3	2.8			10			0.272	6.9		Dr. A. M. R. dos Santos.
Funchal, Madeira	30.05	763.2	30.13	765.4	73.8	23.2	60	wsw.	7.4	3.3			3			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.65	753.2	30.01	762.3	62.6	17.0	97	ssw.	21.7	9.7			10			0.252	6.4	light rain	The Staff.
Ponta Delgada, Azores	29.71	754.7	29.78	756.5	66.9	19.4	96	sw.	15.0	6.7			10			0.909	23.1	raining	
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.52	724.3	29.59	751.6	46.0	7.8	73	ssw.	11	5			10 k						Capt. Lasarew.
Archangel	29.89	759.3	29.91	759.8	27.7	— 2.4	92	ssw.	18	8			10						Capt. Sseliwerstow.
Astrakhan	30.01	762.2	29.93	760.1	57.2	14.0	57	ese.	11	5		0	2 s						Capt. Wisganow.
Barnaul ‡	29.20	741.6	29.71	754.5	40.1	4.5	92	calm	0	0			10						Meteorological Obs'y.
Dorpat	29.89	759.3	30.15	765.8	33.1	0.6	89	e.	7	3			10 ks						Observatory.
Ekaterinburg	28.96	735.5	29.98	761.6	16.7	— 8.5	82	calm	0	0		10 ck	0						Meteorological Obs'y.
Kasan	29.83	757.6	30.11	764.8	26.2	— 3.2	59	nne.	2	1			2						Observatory.
Kertch	29.86	758.5	29.88	759.0	59.7	15.4	67	nw.	4	2		0	5 n			0	0		Lagorio & Sastyrex.
Kieff	29.14	740.1	29.79	756.6	39.0	3.9	95	nne.	2	1			10 n					light fog	Observatory.
Lugan	29.65	753.0	29.85	758.2	51.4	10.8	67	e.	13	6			10						Meteorological Obs'y.
Moscow	29.53	750.1	30.03	762.8	33.4	0.8	75	s.	4	2		0	0						Meteorological Obs'y.
Nikolaiev	29.77	756.1	29.84	757.9	55.6	13.1	87	s.	4	2			9 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.85	758.2	29.94	760.4	26.2	— 3.2	82	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	30.10	764.4	30.24	768.0	57.0	13.9	68	calm	0	0		2 cs	0			0	0		Physical Observatory.
St. Petersburg	30.13	765.3	30.15	765.7	31.6	— 0.2	85	sse.	2	1			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.49	723.6	30.04	763.1	61.9	16.6	61	calm	0	0			0			0	0		Teich, A. M.
Tiflis	28.50	723.9	29.90	759.5	58.6	14.8	63	nw.	4	2			10					light rain	Physical Observatory.
Warsaw	29.30	744.3	29.74	755.3	38.5	3.6	95	ne.	11	5			10 n					raining	Astronomical Obs'y.
Wilna	29.52	749.9	29.95	760.8	42.1	5.6	77	calm	0	0			10					heavy cl'ds	Berg, Assistant.
Yeniseisk	29.71	754.5	30.01	762.3	18.7	— 7.4	82	e.	4	2			4						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			29.92	760.0	46.0	7.8	92	e.			4		10 k			0.03	0.8	showery	Andrew Gibb.
Monach Lt. House, Hebrides			29.86	758.4	49	9.4	93	e.			4	5	0	e.		0	0	d. clouds	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.64	752.8	29.74	755.5	66.2	19.	50	w.	4.7	2.1		1 c	0			0	0	clear	Antonio Rave, Director
Bilbao, Met. Obs'y	29.80	756.8	29.85	758.2	69.1	20.6	53	w.	2.9	1.3		6	3	n.		0	0	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.98	685.2			48.2	9.0	86	sw.	10.3	4.6			10			0	0	covered	Domingo Martin.
Madrid, Royal Obs'y	27.78	705.6	30.02	762.4	54.1	12.3	81	sw.	17.4	7.8			10			0.008	0.2	covered	The Staff.
Murcia, Met. Obs'y ‡	29.83	757.7	29.98	761.5	68.7	20.4	54	nw.	4.3	1.9		0	1			0	0	almost clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.80	731.6	29.69	754.2	55.8	13.2	96	s.	15.4	6.9			10			0.197	5.0	raining	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.96	761.0	30.03	762.7	75.6	24.2	88	ese.	1.1	0.5		0	0			0	0	clear	Benito Vines, S. J.
Manilla, Philippine Islands	29.77	756.1	29.82	757.4	82.4	28.0	78	w.	24.2	11.0		8 cs	2 kn		w.	0	0	stormy	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.04	763.0	30.14	765.7	66.9	19.4	68	calm	0	0		0	6		sw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.90	759.5	29.99	761.8	87.1	30.6	68	se.	2.2	1.0		4 k	6 s	se.	se.	0.276	7.0	d. clouds	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.61	752.0	29.74	755.4	79.9	26.6	83	nw.	6.7	3.0			10 kn		nnw.	0.06	1.5	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.13	765.4	30.17	766.4	30.9	— 0.6	88	ne.			2		5			0	0		
Umea	30.12	765.0	30.17	766.3	35.6	2.0	68	n.			2		0			0.008	0.2		
Hernosand	30.19	766.7	30.24	768.0	37.9	3.3	71	sw.			2		0			0.031	0.8		
Stockholm	29.99	761.7	30.17	766.2	39.2	4.0	84	ne.			4		10			0.047	1.2		
Wisby	30.01	762.2	30.07	763.7	40.3	4.6	84	ene.			4		7			0.039	1.0		
Sub-Series.																			
Upsala	30.08	764.1	30.17	766.3	39.0	3.9	72	ne.	8.5	3.8			10		ene.	inap.	inap.		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.28	718.4	29.72	754.4	57.2	14.0	72	nw.			1		9			0.024	0.6	covered	The Observatory.
Zurich ‡	28.68	713.2	29.69	754.0	51.4	10.8	88	sw.			1		5			0	0	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.87	758.7	67.1	19.5	66	se.	8	3.5			8		sw.	0	0		The Observatory.
Valona			29.81	757.1	71.8	22.1		s.			1		5		sw.	0	0	cloudy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.92	759.9	79.3	26.3	64	wsw.			1	0	3 k		sw.	0.175	4.4		Prof. C. V. Van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	29.84	757.9	29.92	760.0	49	9.4	77	n.	6	2.7			10 s			0.01	0.3	cloudy	
Alpena, Michigan	29.22	742.2	29.91	759.7	33.8	1.0	88	nw.	5	2.2		2 c	2 s	nw.		0.09	2.3	fair	
Atlanta, Georgia	28.74	730.0	29.96	761.0	64.5	18.1	97	sw.	7	3.1			10 s		calm	0.08	2.0	cloudy	
Atlantic City, New Jersey	29.84	757.9	29.85	758.2	62.1	16.7	100	w.	1	0.4			10 n		calm	0.35	8.9	light rain	
Augusta, Georgia	29.74	755.4	29.94	760.5	69.8	21.0	90	calm	0	0			10 s			0.03	0.8	cloudy	
Baltimore, Maryland	29.78	756.4	29.84	757.9	59	15.0	93	e.	4	1.8			10 n		calm	0.70	17.8	light rain	
Barnegat, New Jersey	29.83	757.7	29.85	758.2	60.0	15.6	96	sw.	5	2.2			10 n		calm	0.01	0.3	light rain	
Bismarck, Dakota	28.11	714.0	30.03	762.7	32	0.0	81	calm	0	0		0	0			0	0	clear	
Boise City, Idaho	27.31	693.7	30.23	767.8	40.3	4.6	89	calm	0	0		0	0			0	0	clear	
Boston, Massachusetts	29.75	755.6	29.91	759.7	52.2	11.2	89	ne.	10	4.5			10s;fg			0	0	cloudy	
Brackettville, Texas	28.89	733.8	29.93	760.2	63	17.2	93	n.	8	3.6			10 s		calm	1.20	30.5	cloudy	
Brownsville, Texas	29.91	759.7	29.96	761.0	72	22.2	97	ne.	8	3.6			10 n		ne.	1.73	43.9	light rain	
Buffalo, New York	29.10	739.1	29.84	757.9	48	8.9	93	ne.	12	5.4			fg.			0.10	2.5	dense fog	
Burlington, Vermont	29.68	753.9	29.98	761.5	34.5	1.4	81	n.	7	3.1			10 s		n.	0.15	3.8	cloudy	
Cairo, Illinois	29.58	751.3	29.98	761.5	54.6	12.6	82	nw.	9	4.0			10 s		nw.	0.50	12.7	cloudy	
Campo, California	27.39	695.7	29.96	761.0	32	0.0	88	s.	1	0.4			fg.			0	0	dense fog	
Camp Thomas, Arizona	27.21	691.1			52	11.1	93	e.			1	4 cs	5 ks	w.	w.	0.09	2.3	cloudy	
Cape Henry, Virginia	29.86	758.4	29.88	758.9	68	20.0	90	s.	9	4.0			10 n		s.	0.08	2.0	light rain	
Cape May, New Jersey	29.80	756.9	29.83	757.7	63	17.2	100	s.	20	8.9			10 n		s.	0.70	17.8	light rain	
Castroville, Texas																0.02	0.5		
Cedar Keys, Florida	29.96	761.0	29.98	761.5	78	25.6	82	sw.	10	4.5		7 ck	3 ks		sw.	0.03	0.8	cloudy	
Champaign, Illinois	28.97	735.8	29.75	755.6	52.0	11.1	93	w.	14	6.3			10 n		sw.	0.13	3.3	light rain	
Charleston, S. Carolina	29.84	757.9	29.90	759.4	73	22.8	97	w.	12	5.4			10 s		w.	0.14	3.6	threatening.	
Charlotte, N. Carolina	29.00	736.6	29.92	760.0	61.0	16.1	100	ne.	2	0.9			fg.			0.07	1.8	dense fog	
Chattanooga, Tennessee	29.05	737.9	29.90	759.4	64.0	17.8	100	sw.	7	3.1			10 n		sw.	1.26	32.0	light rain	
Cheyenne, Wyoming	24.12	612.6	30.25	768.3	25.2	— 3.8	58	nw.	2	0.9		0	0			inap.	inap.	clear	
Chicago, Illinois	29.06	738.1	29.80	756.9	49.9	9.9	96	n.	8	3.6			10 s			0.89	22.6	cloudy	
Chincoteague, Virginia	29.86	758.4	29.88	758.9	65	18.3	100	sw.	24	10.7			10 n		calm	0.10	2.5	light rain	
Cincinnati, Ohio	29.13	739.9	29.81	757.2	62.5	16.9	93	sw.	2	0.9			10 ks		sw.	0.78	19.8	cloudy	
Cleveland, Ohio	29.07	738.4	29.84	757.9	54	12.2	90	se.	6	2.7		2 k	7 s	w.	sw.	inap.	inap.	cloudy	
Coleman City, Texas																			
Columbus, Ohio	28.92	734.6	29.81	757.2	55	12.8	93	se.	4	1.8			10 n			0.41	10.4	light rain	
Concho, Texas	28.23	717.0	30.23	767.8	55	12.8	57	ne.	16	7.2			10 s			0	0	cloudy	
Corsicana, Texas	29.71	754.6	30.19	766.8	52	11.1	80	n.	8	3.6		0	hz.			inap.	inap.	dense haze.	
Davenport, Iowa	29.23	742.4	29.91	759.7	46	7.8	93	nw.	8	3.6			10 n		nw.	1.06	27.4	light rain	
Dayton, Washington T'y	28.36	720.3	30.22	767.6	33.3	0.7	88	n.	2	0.9		0	0			0	0	clear	
Deadwood, Dakota	25.41	645.4	30.27	768.8	32	0.0	81	sw.	4	1.8		0	0			0	0	clear	
Decatur, Texas					53	11.7	66	nw.	6	2.7		5 ck	0	nw.		0	0	fair	
Delaware Breakwater, Del.	29.82	757.4	29.84	757.9	62	16.7	100	s.	16	7.2			10 n		s.	0.30	7.6	light rain	
Denison, Texas	29.36	745.7	30.20	767.1	45	7.2	76	n.	4	1.8		0	0			0	0	clear	
Denver, Colorado	24.89	632.2	30.26	768.6	31.8	— 0.1	74	s.	8	3.6		0	0			0	0	clear	
Des Moines, Iowa	29.11	739.4	30.06	763.5	42	5.6	93	n.	10	4.5			10 s		n.	0.47	11.9	threatening.	
Detroit, Michigan	29.08	738.6	29.82	757.4	51.6	10.9	86	n.	6	2.7			10 n		calm	0.13	3.3	light rain	
Dodge City, Kansas	27.61	701.3	30.30	769.6	31	— 0.6	88	nw.	12	5.4		0	0			0	0	clear	
Dubuque, Iowa	29.18	741.2	29.92	760.0	42.1	5.6	96	n.	6	2.7			10 n		n.	1.28	32.5	light rain	
Duluth, Minnesota	29.19	741.4	29.92	760.0	37	2.8	61	sw.	6	2.7		0	0			0	0	clear	
Eagle Pass, Texas	29.28	743.7	30.13	765.3	64.6	18.1	93	ne.	8	3.6			10 n		calm	0.29	7.4	light rain	
Eagle Rock, Idaho	25.40	645.1	30.39	771.9	25	— 3.9	88	n.	5	2.2		0	0			0	0	clear	
Eastport, Maine	29.91	759.7	29.98	761.5	37.5	3.1	77	n.	13	5.8			10 s		n.	0.17	4.3	cloudy	
El Paso, Texas	26.30	668.0	30.14	765.5	50.4	10.2	74	e.	3	1.3			10 s		e.	0	0	threatening.	
Erie, Pennsylvania	29.07	738.4	29.83	757.7	58	14.4	87	calm	0	0			10 ks			0.01	0.3	cloudy	
Escanaba, Michigan	29.24	742.7	29.92	760.0	28	— 2.2	88	nw.	3	1.3		3 c	0	nw.		0	0	clear	
Florence, Arizona	28.40	721.3	30.00	762.0	52.1	11.2	80	e.	3	1.3		8 k	0	sw.		0.01	0.3	cloudy	
Fort Apache, Arizona	24.97	634.2	30.01	762.2	46	7.8	86	se.	3	1.3			10 s		calm	0.03	0.8	cloudy	
Fort Assinnaboine, Montana	27.15	689.6	30.09	764.3	26	— 3.3	76	sw.	19	8.5		0	0			0	0	clear	
Fort Bennett, Dakota	28.45	722.6	30.06	763.5	32	0.0	88	calm	0	0		0	0			0.02	0.5	clear	
Fort Benton, Montana	27.21	691.1	30.19	766.8	33	0.6	71	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	27.99	710.9	30.10	764.5	28	— 2.2	77	s.	3	1.3		0	0			0	0	clear	
Fort Custer, Montana	26.88	682.7	30.27	768.8	32	0.0	51	s.	12	5.4		0	0			0	0	clear	
Fort Davis, Texas	25.00	635.0	29.96	761.0	46	7.8	100	n.	12	5.4			10 n			inap.	inap.	light rain	
Fort Elliott, Texas	27.46	697.5	30.76	781.3	33	0.6	45	calm	0	0		0	0			inap.	inap.	clear	
Fort Gibson, Indian T'y	29.59	751.6	30.16	766.1	41.2	5.1	82	w.	2	0.9			10 s		n.	0.04	1.0	cloudy	
Fort Grant, Arizona					50	10.0	86	s.	2	0.9			10 s			0.06	1.5	cloudy	
Fort Griffin, Texas	28.92	734.6	30.12	765.0	47.8	8.8	80	calm	0	0		0	0			0.01	0.3	clear	
Fort Keogh, Montana	27.52	699.0	30.19	766.8	30	— 1.1	88	calm	0	0		0	0			0	0	clear	
Fort Macon, North Carolina	29.92	760.0	29.93	760.2	72	22.2	90	sw.	8	3.6			10 n		sw.	0.10	2.5	light rain	
Fort McKavett, Texas																inap.	inap.		
Fort Missoula, Montana	26.89	683.0	30.54	775.7	31	— 0.6	100	nw.	2	0.9			10 s			0	0	cloudy	
Fort St. Michaels	29.08	738.6	29.12	739.6	40	4.4	91	ne.	5	2.2			10 s			0	0	cloudy	
Fort Shaw, Montana	26.39	670.3	30.13	765.3	42	5.6	59	s.	1	0.4		0	0			0	0	clear	
Fort Sill, Indian Territory	28.99	736.3	30.28	769.1	41	5.0	89	n.	6	2.7		0	0			0	0	clear	
Fort Stevenson, Dakota	28.08	713.2	30.04	763.0	31	— 0.6	88	nw.	4	1.8		0	0			0	0	clear	
Fort Verde, Arizona																			
Fredericksburg, Texas	28.37	720.6	29.94	760.5	57	13.9	83	ne.	5	2.2			10 s		ne.	0.15	3.8	cloudy	
Galveston, Texas	29.95	760.7	29.99	761.7	71	21.7	95	n.	15	6.7			10 ks		ne.	3.04	77.2	cloudy	
Grand Haven, Michigan	29.13	739.9	29.83	757.7	46.5	8.1	93	ne.	6	2.7			10 s		ne.	0.30	7.6	cloudy	
Hatteras, North Carolina	29.90	759.4	29.92	760.0	71	21.7	94	sw.	16	7.2			10 n			0.18	4.6	light rain	
Helena, Montana	25.88	657.3	30.47	773.9	35	1.7	82	s.	4	1.8		0	0			0	0	clear	
Henrietta, Texas	29.24	742.7	30.21	767.3	44	6.7	83	n.	7	3.1		0	0			0.05	1.3	clear	
Huron, Dakota	28.65	727.7	30.11	764.8	31	— 0.6	81	w.	2	0.9		0	0			0	0	clear	
Indianapolis, Indiana	28.96	735.6	29.79	756.7	60	15.6	93	w.	6	2.7			10 n		w.	0.07	1.8	light rain	
Indianola, Texas	29.99	761.7	30.02	762.5	72.5	22.5	97	n.	22	9.8		4 cs	4 s;ks	w.	calm	0.96	24.4	cloudy	
Jacksboro, Texas	29.04	737.6	30.20	767.1	45	7.2	83	n.	5	2.2		0	0			0.01	0.3	clear	
Jacksonville, Florida	29.92	760.0	29.96	761.0	74	23.3	84	s.	8	3.6		4 cs	4 s	w.		0.15	3.8	cloudy	
Keokuk, Iowa	29.26	743.2	29.94	760.5	45.0	7.2	93	w.	12	5.4			10 n		w.	0.27	6.9	light rain	
Key West, Florida	30.00	762.0	30.02	762.5	79.0	26.1	82	calm	0	0		5 c	1 k	calm	s.	0	0	fair	
Kittyhawk, North Carolina	29.89	759.2	29.91	759.7	68	20.0	100	sw.	11	4.9			10 n		w.	0.04	1.0	light rain	
Knoxville, Tennessee	28.86	733.0	29.93	760.2	58	14.4	100	e.	1	0.4			10 n		calm	0.98	24.9	light rain	
La Crosse, Wisconsin	29.18	741.2	29.98	761.5	41.5	5.3	73	n.	4	1.8		0	4 s			0.17	4.3	fair	
La Mesilla, New Mexico	26.16	664.5	30.31	769.9	50.5	10.3	86	se.	2	0.9			10 n			0.14	3.6	light rain	
Laredo, Texas	29.55	750.6	29.88	758.9	69.6	20.9	90	ne.	4	1.8			10 s		ne.	0.06	1.5	cloudy	
Leavenworth, Kansas	29.21	741.9	30.14	765.5	42	5.6	73	nw.	4	1.8			10 s		nw.	0	0	cloudy	
Lewiston, Idaho	29.36	745.7	30.24	768.1	35	1.7	89	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.72	754.9	30.04	763.0	51	10.6	86	nw.	6	2.7		0	0			0.07	1.8	clear	
Los Angeles, California	29.62	752.3	30.00	762.0	54.3	12.4	86	se.	1	0.4			10 s		calm	0	0	cloudy	
Louisville, Kentucky	29.22	742.2	29.80	756.9	64.0	17.8	90	sw.	6	2.7			10 n		w.	0.75	19.1	light rain	
Lynchburg, Virginia	29.14	740.1	29.85	758.2	62.3	16.8	86	calm	0	0			10 s		w.	0.45	11.4	cloudy	
Madison, Wisconsin	28.87	733.3	29.94	760.5	39	3.9	89	nw.	15	6.7			10 n		calm	0.62	15.7	light rain	
Marquette, Michigan	29.14	740.1	29.90	759.4	31	— 0.6	78	w.	5	2.2		0	0			0	0	clear	
Mason, Texas	28.49	723.6	30.26	768.6	55.8	13.2	96	n.	10	4.5		0	6 s		n.	0	0	fair	
Memphis, Tennessee	29.65	753.1	30.00	762.0	54	12.2	86	w.	3	1.3			10 s		nw.	0.10	2.5	cloudy	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.08	738.6	29.86	758.4	48	8.9	93	n.	14	6.3			10 n			0.32	8.1	light rain	
Mobile, Alabama	29.89	759.2	29.96	761.0	68.0	20.0	93	nw.	3	1.3			10 s			0.55	14.0	cloudy	
Montgomery, Alabama	29.73	755.1	29.97	761.2	66.3	19.1	89	w.	5	2.2			10 ks		nw.	0.43	10.9	threatening.	
Moorhead, Minnesota	28.93	734.8	29.99	761.7	31	— 0.6	88	sw.	10	4.5		0	0			0	0	clear.	
Morgantown, W. Virginia	28.73	729.7	29.69	754.1	57.5	14.2	82	calm	0	0			10 n			0.54	13.7	light rain	
Mt. Washington, N. H.	23.65	600.7	30.02	762.5	32.0	0.0	92	nw.	30	13.4			10n;fg		nw.	0.92	23.4	light snow	
Nashville, Tennessee	29.34	745.2	29.90	759.4	64.6	18.1	95	w.	2	0.9			10 ks		w.	0.83	21.1	cloudy	
New Haven, Connecticut	29.75	755.6	29.86	758.4	58	14.4	80	sw.	2	0.9			10s;fg		sw.	0	0	cloudy	
New London, Connecticut	29.83	757.7	29.88	758.9	60	15.6	81	w.	3	1.3			10 s		calm	0	0	cloudy	
New Orleans, Louisiana	29.91	759.7	29.97	761.2	73.5	23.1	86	w.	3	1.3			10 s		w.	1.43	36.3	cloudy	
Newport, Rhode Island	29.84	757.9	29.89	759.2	*59.3	15.2	89	sw.	5	2.2			10 s		sw.	0	0	cloudy	
New River, N. Carolina																			
New Shoreham, Rhode I'd	29.86	758.4	29.89	759.2	61.5	16.4	87	sw.	6	2.7			10 s		sw.	0	0	cloudy	
New York, New York	29.71	754.6	29.89	759.2	57	13.9	93	w.	7	3.1			10 n		w.	0.14	3.6	light rain	
Norfolk, Virginia	29.85	758.2	29.88	758.9	66	18.9	100	sw.	10	4.5			10 n		sw.	0.06	1.5	light rain	
North Platte, Nebraska	27.23	691.6	30.29	769.4	26.6	— 3.0	88	nw.	12	5.4		0	0			0	0	clear	
Olympia, Washington T'y	29.87	758.7	29.91	759.7	41.0	5.0	100	n.	1	0.4			fg		calm	0	0	dense fog	
Omaha, Nebraska	28.93	734.8	30.17	766.3	35	1.7	79	nw.	6	2.7		0	1 s			0.05	1.3	clear	
Oswego, New York	29.52	749.8	29.86	758.4	47.5	8.6	94	ne.	5	2.2			10 n			0.45	11.4	light rain	
Pensacola, Florida	29.94	760.5	29.97	761.2	68	20.0	94	nw.	4	1.8			10 s		w.	0.86	21.8	cloudy	
Philadelphia, Pa	29.79	756.7	29.85	758.2	57	13.9	100	e.	7	3.1			10s;n;fg			0.13	3.3	light rain	
Phœnix, Arizona	28.82	732.0	30.63	778.0	53	11.7	66	e.	1	0.4		3 k	2 s	s.		0	0	fair	
Pike's Peak, Colorado	17.79	451.9	30.00	762.0	15	— 9.4	44	calm	0	0		0	0			0	0	clear	
Pioche, Nevada	24.09	611.9	30.28	769.1	38	3.3	58	nw.	5	2.2			10 ks		s.	0	0	cloudy	
Pittsburg, Pennsylvania	29.00	736.6	29.85	758.2	57.3	14.1	80	e.	3	1.3			10 s		calm	inap.	inap.	cloudy	
Port Eads, Louisiana	29.98	761.5	30.00	762.0	72.0	22.2	94	w.	9	4.0			10 n		calm	1.51	38.4	light rain	
Port Huron, Michigan	29.10	739.1	29.81	757.2	50.5	10.3	100	ne.	4	1.8			10 s		calm	0.04	1.0	cloudy	
Portland, Maine	29.89	759.2	29.94	760.5	47	8.3	93	ne.	14	6.3			10 n		ne.	0.25	6.3	light rain	
Portland, Oregon	29.89	759.2	29.96	761.0	52.1	11.2	59	e.	5	2.2		0	0			0	0	clear	
Portsmouth, N. Carolina					72	22.2	90	sw.	9	4.0			10 ks		s.	0.29	7.4	cloudy	
Prescott, Arizona	24.73	628.1	30.04	763.0	44	6.7	86	s.	2	0.9		0	5 s		sw.	0.22	5.6	clearing	
Punta Rassa, Florida	29.98	761.5	29.99	761.7	78	25.6	79	sw.	6	2.7		8 c	1 ks	w.	sw.	0	0	cloudy	
Red Bluff, California	29.53	750.0	29.88	758.9	48.0	8.9	68	nw.	3	1.3		0	0			0	0	clear	
Rio Grande City, Texas	29.79	756.7	30.00	762.0	69	20.6	66	e.	10	4.5			10 s		e.	1.40	35.6	cloudy	
Rochester, New York	29.17	740.9	29.87	758.7	47	8.3	100	e.	7	3.1			10n;fg		e.	0.34	8.6	light rain	
Roseburg, Oregon	29.31	744.5	29.90	759.4	40	4.4	92	calm	0	0			fg			0	0	dense fog	
Sacramento, California	29.82	757.4	29.90	759.4	50.4	10.2	64	s.	5	2.2		0	0			0	0	clear	
St. Louis, Missouri	29.36	745.7	29.99	761.7	46.4	8.0	83	w.	16	7.2			10 s		w.	0.44	11.2	cloudy	
St. Paul, Minnesota	29.11	739.4	30.03	762.7	33.9	1.1	89	sw.	5	2.2		0	0			0.02	0.5	clear	
Salt Lake City, Utah	25.71	653.0	30.16	766.1	40	4.4	41	calm	0	0		0	0			0	0	clear	
San Antonio, Texas	29.38	746.2	30.10	764.5	61.1	16.2	78	ne.	12	5.4		0	5 s		calm	0.08	2.0	fair	
San Diego, California	29.85	758.2	29.92	760.0	60.8	16.0	78	se.	3	1.3			10 s			0	0	cloudy	
Sandusky, Ohio	29.10	739.1	29.80	756.9	57.5	14.2	86	s.	6	2.7			10 s			0.06	1.5	cloudy	
Sandy Hook, New Jersey	29.84	757.9	29.87	758.7	60.0	15.6	81	nw.	3	1.3			10 n		nw.	0.08	2.0	light rain	
San Francisco, California	29.88	758.9	29.95	760.7	50	10.0	89	sw.	10	4.5			fg		sw.	0	0	foggy	
Santa Fé, New Mexico	23.37	593.6	30.36	771.1	36	2.2	66	n.	1	0.4			10 s		calm	0	0	cloudy	
Savannah, Georgia	29.84	757.9	29.93	760.2	73.5	23.1	96	sw.	5	2.2			10 s			0.01	0.3	threatening.	
Shreveport, Louisiana	29.86	758.4	30.09	764.3	54.5	12.5	86	nw.	9	4.0		0	0			1.63	41.4	clear	
Silver City, New Mexico	24.28	616.7	29.96	761.0	49	9.4	86	s.	1	0.4			10 n		calm	0.18	4.6	light rain	
Sitka, Alaska	29.39	746.5	29.46	748.3	50	10.0	93	e.	11	4.9			10 n		calm	0.39	9.9	heavy rain	
Smithville, North Carolina	29.86	758.4	29.90	759.4	72	22.2	97	sw.	24	10.7			10 n		calm	0.16	4.1	light rain	
Spokane Falls, Wash. Ter.	28.13	714.5	30.20	767.1	32	0.0	88	calm	0	0		0	fg		calm	0	0	clear	
Springfield, Illinois	29.18	741.2	29.89	759.2	48.5	9.2	93	w.	16	7.2			10 s		w.	0.16	4.1	cloudy	
Springfield, Massachusetts	29.75	755.6	29.88	758.9	53.4	11.9	93	nw.	3	1.3		10 cs	fg	w.		0	0	cloudy	
Stockton, Texas	27.16	689.9	30.31	769.9	49.0	9.4	100	ne.	4	1.8			10 n		ne.	0.15	3.8	light rain	
St. Vincent, Minnesota	28.85	732.8	29.78	756.4	32	0.0	88	s.	8	3.6		0	0			0	0	clear	
Thatcher's Island, Mass	29.96	761.0	30.02	762.5	42.0	5.6	73	ne.	11	4.9			10 s		ne.	0	0	cloudy	
Toledo, Ohio	29.06	738.1	29.78	756.4	55	12.8	93	n.	10	4.5			10s;fg			0.22	5.6	threatening.	
Tucson, Arizona	27.48	698.0	29.92	760.0	55	12.8	64	se.	3	1.3		0	5 ks			0	0	fair	
Umatilla, Oregon	29.80	756.9	30.23	767.8	40.2	4.6	88	e.	6	2.7		0	0			0	0	clear	
Uvalde, Texas	29.09	738.9	29.90	759.4	66	18.9	84	ne.	8	3.6			10 s		ne.	0.16	4.1	cloudy	
Vicksburg, Mississippi	29.73	755.1	29.99	761.7	67	19.4	93	nw.	5	2.2			10 s		n.	1.37	34.8	cloudy	
Visalia, California	29.50	749.3	29.87	758.7	49	9.4	63	s.	3	1.3		0	0			0	0	clear	
Washington, D. C.	29.71	754.6	29.83	757.7	62	16.7	100	calm	0	0			10s;fg		s.	0.84	21.3	cloudy	
West Los Animas, Colorado	26.22	666.0	30.30	769.6	30	— 1.1	88	nw.	3	1.3		0	0			0	0	clear	
Wickenburg, Arizona					57	13.9	69	calm			0	0	8 s			0.01	0.3	cloudy	
Wilmington, N. Carolina	29.83	757.7	29.89	759.2	72	22.2	90	sw.	10	4.5			10 n		sw.	0.04	1.0	light rain	
Winnemucca, Nevada	25.63	651.0	30.09	764.3	33	0.6	88	ne.	12	5.4		0	0			0	0	clear	
Wood's Holl, Mass	29.85	758.2	29.88	758.9	60	15.6	93	w.	13	5.8		0	9 s		calm	0	0	cloudy	
Yankton, Dakota	28.79	731.3	30.16	766.1	32	0.0	88	calm	0	0		0	0			0.09	2.3	clear	
Yuma, Arizona	29.74	755.4	29.88	758.9	52.3	11.3	58	calm	0	0		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.†																			J. A. Racker.
Bogota, U. S. Columbia	22.06	560.3			53.0	11.7	88	calm	0	0			8 n; s			0.11	2.8	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	30.00	762.0	30.02	762.5	75	23.9	90	s.								0.05	1.3	clear	J. B. Dougherty.
Guadeloupe, W. I. ‡	29.86	758.4	29.86	758.4	81	27.2	83	e.				0	5 ks		e.	0.40	10.2		B. Bigar.
Havana, Cuba, W. I.	30.00	762.0	30.05	763.3	79	26.1	82	calm	0	0		2 cs	1 ks	calm	calm	inap.	inap.	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	30.01	762.2	30.02	762.5	74.0	23.3	92	calm	0	0		0	6 s		e.	0.10	2.5	fair	Robert Johnstone.
Navassa, W. I.	29.89	759.2	29.97	761.2	81	27.2	84	ne.	0	0		0	2 s		ne.	0	0	clear	F. M. Everett.
Paramaribo, S. A.	29.98	761.5	29.98	761.8	80	26.7	82	e.			2	4 c	4 k			0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mbia	29.51	749.5	30.07	763.8	77	25.0	94	s.					10 ks		n	0.01	0.3	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					73.4	23	96	e.			1		9 ks		e.	0.12	3.		Earl Flint.
Santiago de Cuba, W. I.	29.98	761.5	30.00	762.0	79	26.1	78	n.	1.2	0.5		0	0			0.21	5.3	clear	Robert Mason.
St. Thomas, W. I. ‡	29.87	758.7	29.98	761.5	80	26.7	79	e.	3	1.3		5 c	2 ks	sw.	e.	0.01	0.3	fair	G. O. Gyllich.
York Factory, B. A.	29.98	761.5	30.03	762.7	16.0	— 8.9	92	sw.	13	5.8		1 c	0	n.		0	0	fair	I. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross, Isumi Nada, Japan	30.22	767.6	65	18.3		var.			1		3					2	s.	d. clouds	
H. M. S. Alert, Port Darwin, Australia	29.91	759.7	82.5	28.1	81	w.			2-3		0							blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, N. 38° 08′, E. 15° 35′	29.68	753.9	73	22.8	85	sw.			3		9	sse.					s.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.89	759.2	68	20.0		var.			1-2		4	sw.						d. clouds	Capt. Hon. W. H. Joliffe
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 46° 42′, W. 26° 06′	29.54	750 3	56	13.3	93	nnw.			2		1					3	nnw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.09	764.3	71	21.7	71	ese.			2-4		2	ese.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Callao, Peru	29.96	761.0	61	16.1	100	sse.			2		7	se.				2	ssw.	d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette Gibraltar, Mediterranean	30.09	764.3	72	22.2		nw.			2		2	nnw.				1	wnw.	d. clouds	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 26° 06′, E. 34° 53′	29.90	759.4	81	27.2	74	n.			2		1					1	n.	blue sky	Capt. C. S. Cardell.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 41′, E. 135° 11′	30.02	762.5	62	16.7	94	calm			0		0							blue sky	Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.78	756.4	76	24.4		n.			1		1	nnw.						blue sky	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, S. 0° 35′, W. 14° 23′	29.96	761.0	77	25.0		sse.			3		5	nne.				3	nnw.	d. clouds.	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.17	766.3	72	22.2	65	nne.			1-2		8	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 45° 53′, W. 56° 35′	29.80	756.9	50	10.0	97	s.			3-4		10					3	s.	raining	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 30° 34′, E. 47° 49′	29.84	757.9	84	28.9		se.			1		4	se.						d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 14° 15′, E. 71° 13′	29.91	759.7	75	23.9		ese.			4-5		3	ese.				4	ese.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.32	744.7	48	8.9	100	s.			2-5		10							showery	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.83	757.7	84	28.9	79	nne.			2		2	n.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 14° 30′, E. 41° 00′	29.91	759.7	79.5	26.4	86	nne.			2		1					1	ene.	blue sky	Capt. P. Aldrich.
H. M. S. Flamingo, N. 17° 30, W. 86° 12′	29.96	761.0	84	28.9	87	ese.			2		2							d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Moskyn.
H. M. S. Gannet, N. 0° 45′, W. 158° 15′	29.96	761.0	79	26.1	76	ese.			3		4							showery	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	30.07	763.8	55	12.8	87	sse.			7		10							drizzling	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris, Off Cagliari, Sardinia	29.68	753.9	69	20.6	79	sse.			3		7					3	nnw.	gloomy	Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	30.13	765.3	64	17.8		n.			1-2		4	n.				1-2	n.	d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.99	761.7	78	25.6		n.			1		4	n.						d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 26° 00′, E. 8° 00′	30.03	762.7	68	20.0		ssw.			3		8	sse.				3	ssw.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 12′, E. 18° 26′	30.03	762.7	67	19.4	79	calm			0		1							blue sky	Lt. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, Hong Kong, China	29.95	760.7	78.5	25.8	85	calm			0		10							overcast	Lieut. A. Balfour.
H. M. S. Malabar, Bombay, India	29.89	759.2	88	31.1	96	nw.			1		2	nw.						d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 36° 07′, W. 5° 21′	30.04	763.0	64.5	18.1	83	wsw.			1		4	wsw.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead,
H. M. S Monarch, Sfax, Tunis	29.76	755.9	70	21.1	95	nw.			4		10	nnw.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.06	763.5	58.5	14.7	87	calm			0		0							misty	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S Northampton, Halifax, Nova Scotia	29.86	758.4	47.5	8.6	89	nne.			2									raining	Capt. E. B. Drummond.
H. M. S. Orontes, Barbadoes, West Indies	29.93	760.2	83	28.3	95	ne.			1		10							showery	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix, N. 18° 27′, W. 75° 21′	29.97	761.2	82	27.8	87	ne.			1–2		3					1	ne.	d. clouds	Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	29.90	759.4	43	6.1	91	calm			0		10							foggy	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.89	759.2	84.3	29.1	79	nw.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 22° 00′, W. 22° 30′	30.07	763.8	77	25.0	86	nne.			5		3	nne.				3	w.	d. clouds	
H. M. S. Sea Gull, S. 15° 01′. E. 40° 47′	29.56	750.8	80	26.7	78	e.			2–3		3	ese.						d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb, N. 34° 18′, E. 11° 18′	29.78	756.4	72	22.2	80	nw.			4–5		2	sse.				3	nnw.	gloomy	
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis, N. 17° 41′, W. 99° 57′	29.91	759.7	83	28.3	87	ene.			1		2					2	s.	d. clouds	Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 31° 12′ W. 84° 18′	30.47	773.9	55	12.8	68	se.			5		8	se.				5	se.	squally	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.98	761.5	78	25.6		n.			1		3							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	29.50	749.3	58	14.4	81	calm			0		4							d. clouds	Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
India																			Carlos Candid dos Reis.
Bengo, Mossamedes, Benguela	29.93	760.2	74.5	23.6	69	nw.			3		0					1		blue sky	A. M. da Sitra.
Quanza, N. 16° 40′, W. 24° 27′	30.10	764.4	83.3	28.5	92	nne.			2		3		nne.			1	nnw.	blue sky	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.97	761.2	77.0	25.0	87	calm			0		8							gloomy	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Cap. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore William D. Whiting, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.13	765.3	70	21.1	95	sw.	1	0.4			8		sw.	0.625	15.9			fair	
N. Yard, Portsmouth, N. H.	29.93	760.2	49	9.4	93	ne.	10	4.5		10 c	0	ne.						rainy	
Naval Hospital, Yokohama, Japan	30.07	763.8	54.5	12.5	93	nnw.			2		10		n.	0.12	3.0			misty	
Adams. Callao, Peru	29.85	758.2	61	16.1	94	sse.			1		10					sm'h		cloudy	
Alaska, Callao, Peru	29.97	761.2	60	15.6	100	calm			0		0			0	0	sm'h		clear	
Alert. Kobe, Japan *..	30.01	762.2	66	18.9	59	calm			0		1		calm	0	0	sm'h		clear.	
Alliance, N. 50° 10′, W. 44° 20′	29.85	758.2	46	7.8	69	n.			5		8		n.	light	light	sm'h		fair	
Ashuelot, Kobe, Japan	30.16	766.1	63	17.2	67	calm			0		0							clear	
Colorado, New York, N. Y	29.87	758.7	58	14.4	88	w.	2	0.9			10		s.	0.1	3.			raining	
Constitution. Newport, R. I	29.82	757.4	59	15.0	100	w.	2	0.9			8		sw.					cloudy	
Franklin. Norfolk, Va	29.82	757.4	67	19.4	95	s.	11	4.9			10		s.	0.11	2.8			cloudy	
Galena. Smyrna, Turkey in Asia.	29.89	759.2	72	22.2	62	n.			1		0					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal	29.72	754.9	59	15.0	49	e.	10.8	4.8			8		e.					cloudy.	
Kearsarge. Hampton Roads, Va	29.86	758.4	67	19.4	95	s.			4		10		s.			sm'h		drizzling	
Lackawanna. San Francisco, Cal †	30.11	764.8	54	12.2	93	s.			1		10							cloudy	
Lancaster, N. 37° 20′ W. 47° 55′	30.10	764.5	67	19.4	84	n.			4–5		8		n.			mod.	nw.	d. clouds	
Marion, Montevideo, Uruguay	29.90	759.4	56	13.3		sse.			8		10		s.	mod.	mod.	r'gh	sse.	gloomy	
Michigan, Erie, Pa	29.77	756.1	56	13.3	94	e.			2		10		e.					cloudy	
Monocacy, Yokohama, Japan	30.28	769.1	56	13.3	94	nnw.			2		10		n.					rainy	
Nipsic, Genoa, Italy	29.55	750.6	60	15.6	60	n.			4		10					sm'h		overcast	
Onward, Callao, Peru †	30.01	762.2	59	15.0	100	se.			2		8		nw.			long	w.	cloudy	
Palos, Hong Kong, China	29.95	760.7	80	26.7	70	calm			0		10		n;e.					cloudy	
Passaic, Washington, D. C	29.86	758.4	63	17.2	94	sw.			1		10		sw.					overcast	
Pensacola. Callao, Peru,	30.02	762.5	60	15.6	82	e.			1		10							cloudy	
Portsmouth, Hampton Roads, Va	29.87	758.7	66	18.9	94	s.			3		10					sm'h		overcast	
Powhatan. Boston, Mass	29.90	759.4	55	12.8	87	ne.			3		10							hazy	
Quinnebaug, Marseilles, France	29.60	751.8	64	17.8	58	nw.			4		2		nw.			sm'h		fair	
Ranger, San Francisco, Cal *..	29.88	758.9	53	11.7	80	sw.			4		fg							foggy	
Saratoga. Hampton Roads, V	29.87	758.7	65	18.3	94	ssw.			3		8		sw.	light	light	sm'h		cloudy	
St. Louis, League Island, Pa	29.65	753.1	59	15.0	88	calm	0	0			10			0.2	5.			cloudy	
Swatara. Yokohama, Japan †..	30.17	766.3	57	13.9	87	nnw.			2		10		calm			sm'h		cloudy	
Tennessee, Yorktown, Va	29.89	759.2	67	19.4	?	s.	13	5.8			10		w.	0.26	6.6			light rain	
Vandalia. Norfolk, Va	29.87	758.7	68	20.0	95	s.			3		10		ssw.					drizzling	
Wabash, Boston, Mass	29.90	759.4	54	12.2	87	ne.	5	2.2			10		e.	0	0			misty	
Wachusetts, N. 56° 16′, W. 134° 51′	29.47	748.5	48	8.9	100	ene.			7		10					mod.		rainy	
Wyoming. Port Royal, S. C	29.90	759.4	72	22.2	95	sw.	8	3.6			8		sw.	0.01	0.3			cloudy	
Yantic. Yorktown, Va *..	29.83	757.7	67	19.4	95	s.			3		10							rainy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 49° 12′ W. 66° 40′ *†..	30.14	765.5	.....	.....	.....	nne.	2	.....	5?	.....	n.	.....	.....	sm'h	.....	clear?.....	N. McLean.
S. S. Circassian, Capt. W. H. Smith.. N. 49° 40′, W. 59° 30′ ‡.	30.17	766.3	35	1.7	90	n.	4	.....	9	.....	ene.	1 h'r	1 h'r	3	n.	snowing.....	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Pa. †..	29.82	757.4	57	13.9	93	ne.	2	.....	10	.....	ne.	.....	.....	.....	.....	misty.....	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 45° 04′, W. 17° 41′ †.	29.40	746.7	56	13.3	93	se.	4	.....	5	.....	wsw.	light	light	mod.	se.	hazy.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Liverpool, Eng *†..	29.02?	737.1?	54	12.2	93	e.	8	.....	8	.....	e.	.....	.....	mod.	e.	rainy.....	.....
S. S. Pennsylvania, Capt. G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, S. 46° 15′, W. 31° 00′	29.65	753.1	46	7.8	100	n.	6	.....	10	.....	.....	.....	.....	.....	.....	overcast.....	.....
S. British Merchant, Capt. E. J. Moloney..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bq. Caldew, Capt. N. W. Petersen S. 56° 55′, W. 77° 42′	28.59	726.2	41.5	5.3	.....	w.	9	.....	4	.....	.....	.....	.....	.....	.....	showery.....	.....
S. S. Cipero, Capt. W. N. Lailey, Belize, Honduras, C. A.	30.03	762.7	82.5	28.1	98	e.	4	.....	5	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bk. Commeywyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Glaramara, Capt. R. Morton, N. 17° 50′, W. 119° 43′ ‡...	30.03	762.7	69	20.6	100	e.	1	.....	5	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Gordon Castle, Capt. W. Waring,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bg. Hermine, Capt. S. G. Jones, S. 53° 10′, W. 66° 14′	29.46	748.3	43.4	6.3	83	nnw.	4	.....	10	.....	.....	.....	.....	.....	.....	overcast.....	.....
Bkt. Hope, Capt. Jas. Campbelle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, N. 7° 35′, E. 91° 00′	29.82	757.4	83	28.3	79	nne.	2	.....	3	.....	.....	.....	.....	.....	.....	misty.....	.....
Bk. Mertola, Capt. E. W. Turner	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Moorhill, Capt. J. Brown, S. 57° 15′, W. 77° 49′	28.54	724.9	39.5	4.2	83	wsw.	8	.....	6	.....	.....	.....	.....	.....	.....	threatening.....	.....
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pleione, Capt. C. H. Renant, S. 41° 52′, E. 158° 55′	29.95	760.7	49	9.4	77	s.	5	.....	3	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Queen of Cambria, Capt. M. Parry S. 27° 03′, W. 42° 32′	30.20	767.1	74.2	23.4	63	ne.	4	.....	2	.....	.....	.....	.....	.....	.....	blue sky.....	.....
S. S. Rosetta, Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sierra Estralla, Capt. P. Murdoch,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. M. Gray,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Strathleven, Capt. C. W. Pearson N. 31° 15′, E. 121° 28′	30.14	765.5	63.5	17.5	88	ne.	3	.....	3	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Thames, Capt. Luckhurst N. 49° 03′, W. 61° 24′	29.86	758.4	32.8	0.4	79	nw.	4	.....	6	.....	.....	.....	.....	.....	.....	d. clouds.....	R. Ladd, 1st Officer.
S. S. Wyberton, Capt R. J. Blacklin N. 21° 23′, E. 37° 56′	29.69	754.1	80	26.7	.....	n.	1-5	.....	8	.....	.....	.....	.....	.....	.....	thnd'r storm	.....
CALIFORNIA, AND MEXICAN S.S. CO. *J. Birmingham, Agent San Francisco.*																	
S. S. Newbern. Capt. E. Rogers N. 25° 28′, W. 113° 04′ †..	29.82	757.4	72	22.2	71	n.	3	.....	5	.....	nw.	0	0	gentle	nw.	fair.....	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
Braunschweig, Capt. C. Pohle N. 40° 15′, W. 59° 10′	29.97	761.2	70.0	21.1	59	w.	6	.....	2	.....	w.	.....	.....	r'gh cross	ene.	fair.....	.....
S. S. Hermann, Capt. H. Baur N. 49° 35′, W. 24° 15′	29.42	747.3	54.5	12.5	.....	n.	5	.....	8	.....	wnw.	o	o	long	nw.	cloudy.....	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. Jüngst.
S. S. Leipsic, Cept. F. Pfeiffer.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 50° 43′, W. 24° 24′	29.37	746.0	54.5	12.5	71	sw.	4	.....	5	.....	ene. wsw.	6 h'r	6 h'r	mod.	ene.	fair.....	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 41° 13′, W. 141° 47′ †..	29.89	759.2	68	20.0	56	wsw.	4	.....	2	.....	w.	o	o	mod.	wsw.	clear.....	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, Hong Kong, China *†..	30.14	765.5	80	26.7	82	calm	o	.....	4	.....	ne.	.....	.....	.....	.....	clear.....	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 34° 38′, E. 162° 26′	30.22	767.6	66	18.9	54	wnw.	3	.....	7	.....	nw.	o	o	mod.	ne.	cloudy.....	.....
OREGON IMPROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes, N. 37° 52′, W. 122° 55 †.	30.12	765.0	52	11.1	93	s.	1	.....	10	.....	s.	.....	.....	h'vy	nnw.	cloudy.....	.....
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon, Capt. E. Polemann, Portland, Oregon †..	29.93	760.2	53	11.7	67	e.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	C. W. Pohl, 2d Officer

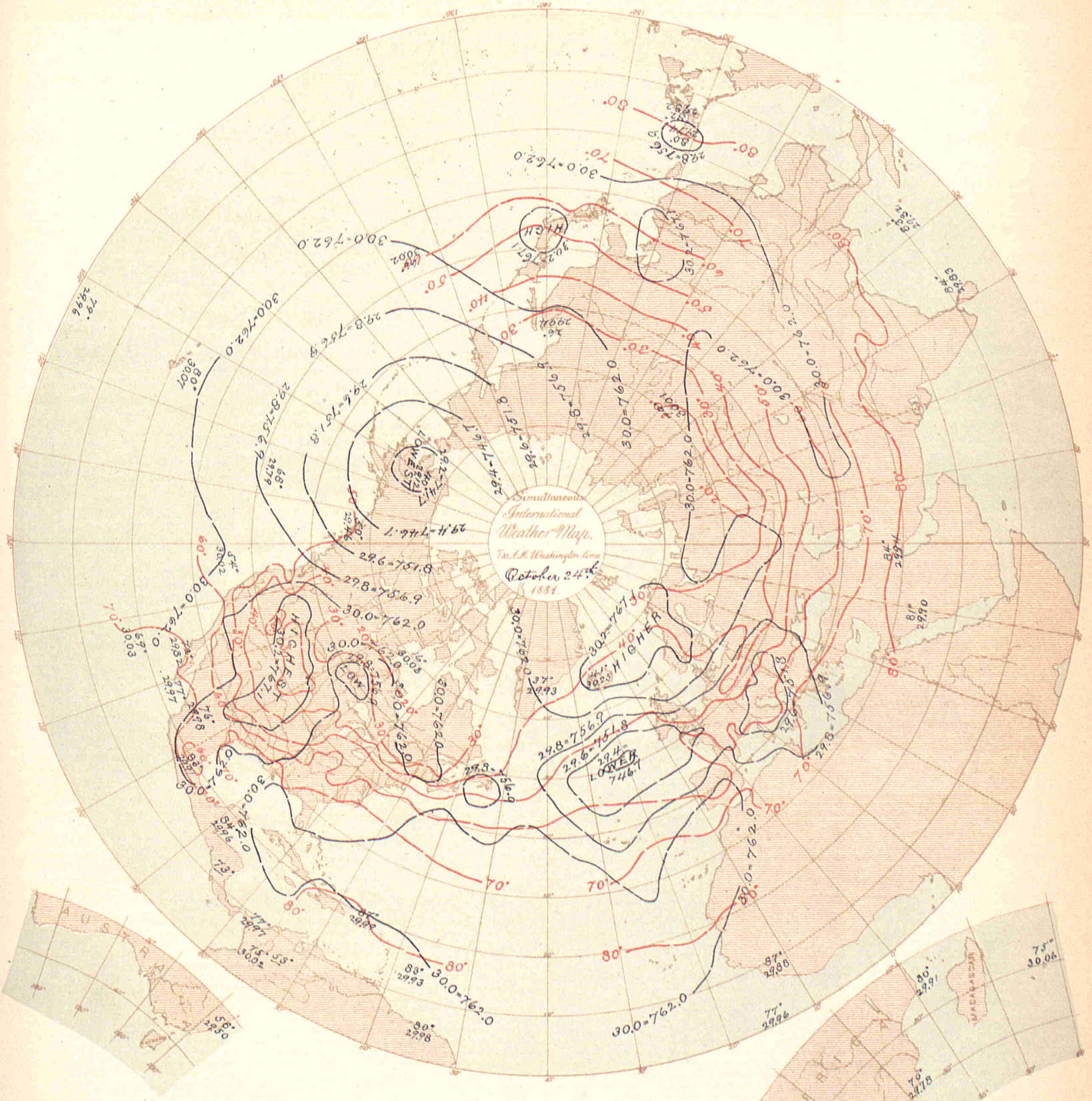
VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, San Francisco, Cal.....†	29.88	758.9	49	9.4	93	nw.	3	.....	10	.....	nw.	.....	.....	.....	.....	cloudy.....	J. W. Ingalls.
S. S. Dakota, Capt. ——,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Idaho, Capt. T. Huntington, Victoria, Vancouvers Id.....†	29.86	758.4	46	7.8	92	se.	4	.....	fog.	.....	.....	.....	.....	.....	.....	foggy.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 33° 42′, W. 118° 14′.....†.	29.97	761.2	64	17.8	68	wsw.	5	.....	8	.....	sw.	.....	.....	long	sw.	cloudy	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal.....†..	30.00	762.0	50	10.0	93	w.	2	.....	10	.....	.....	.....	.....	.....	.....	foggy	T. Wallace.
S. S. State of California, Capt. Debney, N. 40° 46′, W. 124° 20′.....†..	29.85	758.2	54	12.2	87	ne.	2	.....	0	.....	.....	.....	.....	long	w.	clear.....	G. Debney.
S. S. Victoria, H. M. Hayward, Departure Bay, British Columbia...†..	30.06	763.5	44	6.7	92	calm	0	.....	fog	.....	.....	.....	.....	.....	.....	foggy.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulkley, Supt. New York.*																	
S. S. Australia, Capt. ——, N. 34° 41′, W. 129° 52′.....	30.02	762.5	54	12.2	87	wsw.	3	.....	10	.....	wsw.	.....	.....	long	nw.	cloudy.....	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, N. 21° 19′, W. 158° 52′.....†	30.17	766.3	80	26.7	91	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	W. H. Hawes, 2d Off.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, Yokohama, Japan.....*†..	30.32	770.1	59	15.0	76	ene.	4	.....	1	.....	ne.	0	0	.....	.....	clear.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama.....†	29.97	761.2	77	25.0	91	ne.	1	.....	10	.....	ne.	0.1	3.	long	se.	hazy.....	.....
S. S. City of Sydney, Capt. H. C. Dearborn, Sydney, N. S. W.....*†..	30.01	762.2	57	13.9	75	sw.	3	.....	5	.....	sw.	0	0	sm'h	.....	fine.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle N. 22° 56′, W. 109° 10′.....†	29.97	761.2	77	25.0	69	wsw.	5	.....	5	.....	wsw.	0	0	mod.	wsw.	fair	R. R. Searle.
S. S. Grenada, Capt. M. Connolly.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. South Carolina, Capt. —— N. 23° 49′, W. 111° 15′.....*†...	29.96	761.0	70	21.1	?	n.	1	.....	10	.....	sw.	.....	.....	long	wsw.	cloudy	.....
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	30.21	767.3	54	12.2	87	w.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium.....†	29.70	754.4	47	8.3	77	ne.	2	.....	10	.....	n.	0	0	.....	.....	cloudy.....	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings Off Skerries' Isld. Ireland.....†..	29.57	751.1	50	10.0	.....	e.	6	.....	5	.....	e.	0	0	sm'h	.....	fair	A. Horsfall.
S. S. Britannic, Capt. H. Perry, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 49° 51′, W. 32° 10′.....†	29.51	749.5	56	13.3	81	w.	5	.....	2	.....	w.	.....	.....	mod.	w.	fair	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 40° 58′, W. 61° 38′.....†..	30.16	766.1	68	20.0	90	w.	2	.....	8	.....	w.	0	0	mod.	wsw.	d. clouds	W. A. Ward.
S. S. Republic, Capt. P. J. Irving.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MISCELLANEOUS.																	
Bk. Dom Pedro II, Capt C. E. Coffin, N. 36° 41′, W. 72° 05′.....*†..	29.70	754.4	.....	.....	.....	sw.	.....	.....	.....	.....	sw.	.....	.....	mod.	se.	heavy rain..	.....
U. S. F. C. S. Fish Hawk, Washington, D. C.....†...	29.96	761.0	65	18.3	?	sw.	2	.....	10 n	.....	.....	0.71	18.0	.....	.....	raining	.....
Golden Fleece.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Lovaine, Capt. H. McCauley N. 43° 52′, W. 45° 53′..... .....*†..	30.60	777.2	.....	.....	.....	sw.	3	.....	.....	.....	sw.	.....	.....	st'g	se.	clear.....	.....
S. Pawashick, Capt. E. Fry.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
Bk Peppina, Capt. Giov. S. d'Anconz N. 35° 43′, W. 32° 40′.....†...	30.26	768.6	67	19.4	.....	n.	7	.....	8	.....	nnw.	.....	.....	cross very h'vy	nw.	squally	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, N. 35° 38′, W. 46° 41′..... .....†....	30.22	767.6	68	20.0	79	n.	4	.....	8	.....	ne.	mod.	mod.	h'vy	nw.	cloudy.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,

Brig. & Bvt. Maj. Gen'l,

Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines, so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 25, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.93	760.3	72.5	22.5	86	w.			1		1			0	0	very fair	Moiroud.
Algiers ‡			29.88	758.9	73.4	23.0	71	wsw.			6		9			0	0	covered	Nicolas.
La Calle ‡			29.89	759.1	69.1	20.6	58	w.			4		7			0.146	3.7	very cloudy	Fonfrède.
Tunis ‡			29.88	759.0															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.97	761.2	71.2	21.8	44	wnw.			2		2			0	0	fair	Dumas.
Tebessa ‡			29.97	761.1	65.5	18.6	41	sw.			2		3			0	0	pretty fair	Derché.
Geriville ‡					69.4	20.8	31	n.			3		2			0	0	fair	Lonchamp.
Laghouat ‡			29.99	761.8	73.8	23.2	32	w.			3		1			0	0	very fair	Herbin.
Biskra ‡			29.97	761.1	73.4	23.0	35	nw.			3		5			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.18	766.6	30.27	768.8	52.4	11.3	83	s.	7	3.1			2			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	28.98	736.0	29.52	749.8	52.9	11.6	86	s.			2		10			0.110	2.8		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	28.71	729.1	29.48	748.7	41.9	5.5	93	nw.	4.3	1.9			10			1.095	27.8	raining	Dr. Wiersbicki.
Eperies	28.49	723.6	29.37	745.9	44.6	7.0	91	calm			0		10			0.878	22.3	drizzling	Julius Mikolik.
Gratz ‡	28.25	717.5	29.47	748.5	58.6	14.8	51	nw.			2		3			0	0		Andreas Rospini.
Hermannstadt	27.98	710.6	29.35	745.6	59.4	15.2	72	s.			1		10			0.154	3.9		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.17	715.6	29.49	749.1	52.9	11.6	79	wnw.			1		8			0	0		The Staff.
Lemberg	28.38	720.8	29.36	745.8	45.3	7.4	98	ne.			1		10			0.717	18.2		Dr. T. Stanecki.
Pola	29.44	747.8	29.55	750.6	59.2	15.1	74	wnw.			1		1			0.709	18.0		I. R. Hydrographic Office.
Szathmar	28.83	732.3	29.29	743.9	55.8	13.2	93	se.			3		9			0.346	8.8		Jozsef Midlinszky, S. J.
Szegedin	29.12	739.7	29.40	746.7	52.5	11.4	86	s.			1		10			0.992	25.2		Karl Stancel.
Trieste	29.45	748.0	29.55	750.6	58.6	14.8	83	calm			0		2			0.870	22.1		Rieder.
Vienna	28.80	731.5	29.51	749.6	50.7	10.4	69	nw.			3		7			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 25, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
Aberdeen	30.01	762.2	30.11	764.8	45.0	7.2	71	nne.	11	4.9			7			0.105	2.6	d. clouds	W. Boswell.
Armagh, Observatory	29.76	755.9	30.00	762.0	50.0	10.0	59	ese.	10	4.5			6					d. clouds	S. Oall.
Bidston, Liverpool Obs'y			29.94	760.5	47.1	8.4	77	ene.	21	9.4			9					misty	John Hartnup.
Bolton, Sharples	29.40	746.7	29.94	760.5	45.4	7.4	65	ene.	18	8.0			7					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29 55	750.6	29.95	760.7	45.5	7.5	73	ne.			3		9			0.01	0.3	overcast	[A.S. J.McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			29.82	757.4	48.4	9.1	74	ne.			1.0		5					d. clouds	John McLaren.
Chatham, School M. E.	29.66	753.4	29.80	756.9	49.0	9.4	82	n.			2		8					d. clouds	R. Craydon, R. E.
Falmouth, Observatory	29.57	751.1	29.79	756.7	49.6	9.8	66	ene.			5		7?					overcast ?	The Staff.
Fort Napier, Natal	27.30	693.4	29.52	749.8	92.3	33.5	63	w.			6		1					blue sky	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.64	752.8	29.88	758.9	87.0	30.6	72	w.			1		4					drizzling	Sergt. John Robinson.
Galway, Queen's College			29.87	758.7	52	11.1	74	e.			2		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.97	761.2	30.02	762.5	71.8	22.1	82	w.			3		4					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.86	758.4	30.06	763.5	44.6	7.0	80	ene.			4		7 k					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.63	752.6	29.81	757.2	49.8	9.9	71	ne.			4		6					d. clouds	The Staff.
Guernsey	29.48	748.8	29.70	754.4	51	10.6	59	ne.			5		4					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	29.79	756.7	29.82	757.4	49.0	9.4	75	ne.	18	8.0			6					d. clouds	The Staff.
Leicester, Museum	29.62	752.3	29.87	758.7	48.0	8.9	71	ne.			2		10					overcast	J. C. Smith.
Malta, Mediterranean	29.76	755.9	29.84	757.9	70.6	21.4	77	nw.			3		4			0	0	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.90	759.4	29.95	760.7	77.0	25.0	96	sw.			1		3					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.38	746.2	29.91	759.7	45.4	7.4	83	ne.			2		9					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.61	752.1	29.84	757.9	48.4	9.1	62	ne.			4		5					squally	The Staff.
Plymouth	29.71	754.6	29.78	756.4	49.6	9.8	68	ene.			5		0					blue sky	John Merrifield.
Sandwick Manse, Orkneys			30.15	765.8	46.2	7.9	74	nne.	9	4.0			10					misty	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.59	751.6	29.65	753.1	76.2	24.6	45	s.			1		2					d. clouds	Serg't W. H. Lyne.
Sheffield	29.65	753.1	29.94	760.5	45.0	7.2	76	ne.			2		10			0.01	0.3	overcast	W. F. Cooper.
Silloth Rectory	29.99	751.7	30.02	762.5	47.9	8.8	68	e.			1		4			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.56	750.8	46.2	7.9	80	ne.	13	5.8			10					overcast	Rev. S. J. Perry.
Straifield Turgiss	29.60	751.8	29.82	757.4	50.1	10.1	63	e.			3		3					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.82	757.4	29.85	758.2	55	12.8	62	ne.			6		4					d. clouds	W. Newcombe.
Valencia, Observatory	29.80	756.9	29.83	757.7	54.6	12.6	84	e.	20	8.9			7			blank	blank	d. clouds	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.64	752.8	29.68	753.9	41	5.0	92	e.	15	6.7			10 n			0	0	threatening	H. J. Cundall, C. E.
Chatham, N. B.*	29.58	751.3	29.65	753.1	36	2.2	92	ne.	1	0.4			10 n		calm	0.09	2.3	light rain	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.49	749.0	29.51	749.5	34	1.1	89	calm	0	0			10 n		calm	0.04	1.0	light rain	J. McWilliams.
Fort Garry, Manitoba*	29.17	740.9	30.03	762.7	30		88	ne.	15	6.7		5 k	5 n	ne.	ne.	inap.	inap.	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.52	749.8	29.65	753.1	47	8.3	96	e.	13	5.8			10 n			0.146	3.7	light rain	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.17	740.9	29.50	749.3	43	6.1	96	w.	2	0.9			10 s		calm	0.08	2.0	cloudy	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.27	743.4	29.47	748.5	36	2.2	100	w.	8	3.6			10 n			0.15	3.8	light rain	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	28.81	731.8	29.49	749.0	48	8.9	86	w.	13	5.8		2 k	8 ks	nw.	nw.	0	0	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	28.91	734.3	29.60	751.8	45	7.2	100	w.	9	4.0		5 ck	0	sw.		0.16	4.1	fair	H. Morgan.
Port Stanley, Ontario	28.99	736.3	29.63	752.6	43	6.1	93	w.	10	4.5		2 ck	0	w.		0.03	0.8	clear	M. Payne.
Quebec, Quebec*	29.15	740.4	29.47	748.5	36	2.2	100	ne.			3		fg.		e.	0.04	1.0	heavy rain	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.02	737.1	29.48	748.8	36	2.2	92	se.	1	0.4			10 s		se.	0.05	1.3	light rain	W. H. McIntyre.
Saugeen, Ontario*	28.83	732.3	29.54	750.3	47	8.3	89	w.	14	6.3			8 ks			inap.	inap.	cloudy	K. Stewart.
St. Andrews, N. B.	29.50	749.3	29.55	750.6	45	7.2	93	s.	8	3.6			fg.			0	0	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.75	755.6	29.82	757.4	33	0.6	89	e.	1	0.4		10 cs	0			0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.19	741.4	29.57	751.1	45	7.2	93	w.	6	2.7			10 ks		w.	0.02	0.5	threatening	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.46	748.3	29.52	749.8	51	10.6	96	e.	10	4.5			fg.			0.09	2.3	foggy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.02	762.5	30.28	769.1	33	0.6	89	w.	1	0.4			0			0.12	3.0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.	Weather.	Observers.
Cape St. Francis Lt. House‡	29.75	755.6	29.78	756.4	62.0	16.7	87	w.	9.2	4.1		0	1 s			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.08	738.6			65	18.3	47	nw.			2	4	4			0	0	cloudy	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	Up'er 0—10	Lo'er 0—10	Upper. From.	Lower. From.	Inch.	Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.17	766.2	30.19	766.8	61.7	16.5	90	ene.	2.2	1.0		0	0			0	0	clear	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		

COSTA RICA SERIES.

By authority of the Minister of Foreign Affairs.

Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.

San José																			

DANISH SERIES.

Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	29.86	758.5	29.91	759.7	42.6	5.9	78	ene.	29	13			7						Oversergent Fischer.
Fanöe	29.86	758.5	29.88	759.0	41.5	5.3	85	ne.			4		9						Overloerer Lauridsen.
Godthaab, Greenland	29.76	756.0	29.81	757.1	35.2	1.8	90	ene.			4		10						S. Kleinschmidt.
Stykkisholm, Iceland	30.16	766.1	30.21	767.2	39.6	4.2	90	e.			4		0						A. O. Thorlacius.
Thorshavn	30.23	767.9	30.27	768.8	45.0	7.2	82	ene.	13	6			10						Overloerer Bergh.
Vestervig	29.88	759.0	29.97	761.3	39.6	4.2	80	ne.			6		10						Loearer Oesterbol.

FRENCH SERIES.

Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.

Agen, Normal School	28.93	734.7	29.56	750.8	56.8	13.8	95	sse.			1		8					raining	M. Labroue, Director.
Alençon Normal School	29.14	740.2	29.75	755.6	42.4	5.8	94	ne.			2		n		s.	0.260	6.6		M. Nicot, Director.
Arras, Engineer School	29.43	747.4	29.69	754.1	46.2	7.9	61	ne.					kn		ne.				M. Klein, Commandant.
Avignon, Normal School	29.46	748.3	29.54	750.3	60.8	16	86	n.			1					0	0		M. Giraud, Director.
Bar-sur-Seine	29.03	737.3	29.58	751.4	44.8	7.1	93	nne.			1		10			0.220	5.6	raining	M. Saillard, Director.
Beauvais, Normal School	29.43	747.6	29.71	754.5	45.1	7.3	62	ne.			3		2		ne.	0.020	0.5	slightly cl'dy	M. Frère Eugène Marie.
Besançon, Normal School	28.61	726.6	29.48	748.7	57.2	14	78	s.			1		5 cn			0.24	6.	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.27	743.5	29.53	750.0	55.2	12.9	95	ene.			1		10			1.118	28.4	covered	M. Rayet, Director.
Bourges, Normal School	28.94	735.0	29.48	748.8	55.2	12.9	88	nw.			3		kn		nw.	0.205	5.2		M. Postel, Director.
Brest, Naval Observatory	29.49	749.0	29.73	755.1	53.6	12.0	74	ne.			2		10		ne.	0.079	2.0		M. de Kermaree, Dir.
Caen, Normal School	29.64	752.9	29.72	754.8	54.7	12.6	90	nne.			1		2		e.	0.189	4.8	slightly cl'dy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.20	741.7	29.52	749.8	41.9	5.5	78	n.			3		10			0.059	1.5	covered	M. Jadot, Director.
Charleville, Normal School	29.10	739.1	29.62	752.3	43.9	6.6	67	e.			4		4			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.21	716.4	29.54	750.2	55.8	13.2	71	nw.			1		10			0	0	covered	M. Alluard, Director.
Cluny, Normal School	28.82	731.9	29.66	753.3	59.0	15	96	w.			2		7			0.201	5.1		M. de Villemontée, Dir.
Commercy, Normal School	28.72	729.4	29.58	751.4	39.7	4.3	93	nne.			1		10 kn	nne.	nne.	0.492	12.5	covered	Dr. Coulet, Director.
Gap, Normal School	26.99	685.4	29.47	748.6	53.6	12	76	s.			4	4 c	0	e.		0.24	6.		M. Jeangirard, Director.
Gréasque, du. Rhone	28.47	723.0	29.61	752.0	60.3	15.7	50	nw.			2		5		sw.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	28.77	730.8	29.52	749.8	59.4	15.2	74	ssw.			1		skn			0	0		M. Ablard, Director.
Guéret, Normal School	27.97	710.3	29.53	750.1	54.5	12.5	76	sw.			2		n		ne.	0	0		M. Rivoire, Director.
Lamballe, Normal School	29.43	747.4	29.70	754.3	48.9	9.4	81	nne.			3		n		nne.	0	0	light fog	M. Ollitrault, Director.
Lescar, Normal School	29.13	740.0	29.70	754.3	58.3	14.6	82	wsw.			1		10			0.16	4.	raining	M. Chauvin, Director.
Lorient, Naval Observatory	29.58	751.4	29.69	754.0	55.4	13	82	ne.			2		8		calm	0.004	0.1	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.51	724.2	29.55	750.5	56.7	13.7	81	e.			1	10 c	k	nw.		0.008	0.2	covered	M. André, Director.
Mans, Normal School	29.37	745.9	29.68	753.8	46.2	7.9	90	ne.			4		10			0.287	7.3	covered	M. Piboen, Director.
Marseille, Observatory	29.29	743.9	29.56	750.7	64.2	17.9	71	sw.			1		8		w.	inap.	inap.		M. Stephan, Director.
Montlouis l'instituteur	24.47	621.4	29.70	754.4	50.4	10.2	69	s.	7.4	3.3			6			0.102	2.6	raining	M. Cave, for Dr. Fines.
Montpellier, Normal School	29.43	747.5	29.54	750.3	61.9	16.6	94	ssw.			3		5		nw.			sprinkling	M. Pourie, Director.
Nancy, Normal School	28.84	732.4	29.61	752.2	41.0	5	94	wnw.			1		10 n			0.063	1.6	raining	M. Hasse.
Nantes, Observatory	29.48	748.8	29.64	752.9	57.6	14.2	84	ne.			1-2		10 n		ne.	0	0		M. Larocque, Director.
Nice	29.46	748.3	29.49	749.1	61.5	16.4	79	e.			2		5	e.	e.	0	0	cloudy	Capt. Boissière, Director.
Perpignan, Observatory	29.45	748.1	29.56	750.8	59.5	15.3	73	ne.	1.8	0.8			8		w.	0.024	0.6	raining	Dr. Fines.
Pic-du-Midi, Summit	20.92	531.4			31.6	—0.2		nw.			2		10		nw.	0.807	20.5	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.51	724.2	29.56	750.8	57.6	14.2	76	n.			1		5	n.		0	0	cloudy	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.74	628.4			39.4	4.1	100	w.			1		10			0.098	2.5	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	29.54	750.4	29.58	751.2	58.6	14.8	82	e.			1		10		ene.	0.008	0.2	covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.40	746.8	29.61	752.1	59.7	15.4	70	nw.			1		5		nw.	0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School	27.52	698.9	29.65	753.2	50.7	10.4	86	sw.			1		10		n.	0.039	1.0	covered	M. Richard, Director.
Rouen, Normal School	29.66	753.4	29.71	754.5	44.1	6.7	60	ene.			2					0	0		M. Platrier, Director.
Saint Lô, Normal School	29.57	751.1	29.73	755.1	47.8	8.8	80	ne.			3		5		ne.	0.154	3.9	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.50	749.2	29.66	753.4	44.4	6.9	73	nne.			3		10		nw; ne	0	0		M. Renou, Director.
Toulouse, Observatory	28.92	734.6	29.63	752.7	54.3	12.4	99	ssw.			1		10	w.		0.457	11.6	raining	M. Baillard, Director.
Tours	29.45	748.1	29.65	753.1	47.3	8.5	83	ne.			2		10	calm		0.008	0.2	foggy	M. de Tastes.
Versailles, Observatory	29.18	741.1	29.67	753.6	42.4	5.8	73	ne.			3					0.063	1.6		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.38	746.3	29.67	753.7	43.9	6.6	72	nne.			3		8		ne.	inap.	inap.		M. Marié Davy, Director.

GERMAN SERIES.

Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.

Bamberg	28.73	729.7	29.58	751.2	39.9	4.4	82	nnw.			2		9 k	nw.		0.173	4.4		Prof. Dr. Hoh.
Berlin	29.47	748.6	29.65	753.1	43.2	6.2	82	ne.			1		10			0.102	2.6		Prof. Dr. Arndt.
Breslau	29.08	738.7	29.61	752.0	40.1	4.5	92	nne.			2		10					raining	Royal University Obs'y.
Carlsruhe	29.12	739.7	29.55	750.6	39.9	4.4	94	ne.			1		10			0.339	13.7	raining	Albert Senx.
Cassel	28.92	734.6	29.64	752.8	38.7	3.7	87	n.			4		8	n.		0.008	0.2		Dr. H. Möhl.
Frankfort on the Main	29.20	741.7	29.57	751.1	39.9	4.4	85	nne.			1		10			0.134	3.4		Physical Society.
Friedrichshafen	28.11	713.9	29.52	749.7	54.0	12.2	84	sw.			1		10	sw.		0.724	18.4	raining	Wilhelm, Chief Tel.
Hamburg	29.64	752.8	29.73	755.2	42.1	5.6	86	e.			3		10			0.059	1.5	foggy	E. Preller.
Kiel	29.74	755.3	29.75	755.7	44.8	7.1	77	e.			6		10			0.327	8.3		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.22	742.2	29.65	753.1	38.7	3.7	88	ne.			1		10	ne.		0.201	5.1	foggy	H. Leppig, Asst.
Magdeburg	29.46	748.2	29.65	753.1	39.7	4.3	92	ne.			1		10 n		ne.	0.110	2.8	dense fog	Dr. Assmann.
Meimel	29.82	757.4	29.87	758.6	35.6	2.0	78	ne.			4		10 ks						Issermann.
Munich	27.72	704.2	29.56	750.8	52.7	11.5	73	n.			1		8	sw.		0.079	2.0		Central Station.
Neufahrwasser	29.74	755.5	29.76	755.9	41.2	5.1	74	ne.			4		10	ene.		0	0		A. Lothes.
Neustadt, Palatinate	29.02	737.0	29.54	750.2	41.4	5.2	81	calm			0		10			0.098	2.5		Dicknether.
Stuttgart	28.58	725.9	29.47	748.6	47.7	8.7	77	n.			1		10			0.858	21.8	light rain	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.04	712.2	29.53	750.0	50.7	10.4	81	e.			2		9	w.		0.260	6.6		Fischer.
Wustrow	29.71	754.6	29.74	755.3	42.6	5.9	91	ene.			3		10			0.130	3.3		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.33	744.9	29.71	754.6	74.8	23.8		s.			4.0		10			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.92	760.1	29.98	761.4	83.6	28.7	83	sw.	22.0	9.8			0			0	0	blue sky	
Deesa	29.48	748.8	29.95	760.7	91.2	32.9	34	ssw.	6.0	2.7			4	nnw.		0	0	d. clouds	
Bombay	29.89	759.1	29.93	760.1	83.7	28.7	60	nnw.	16.0	7.2			6		e.	0	0	d. clouds	
Poona, Yarrowda.	28.08	713.1	29.90	759.6	88.0	31.1	22	ne.	7.0	3.1			3	sw.		0	0	d. clouds	
Belgaum	27.37	695.2	29.86	758.5	82.4	28.0	36	ene.	2.0	0.9			0			0	0	blue sky	
Lahore	29.24	742.6	29.98	761.6	79.9	26.6	37	calm	1.0	0.4			0			0	0	blue sky	
Roorkee	29.07	738.3	29.98	761.4	76.8	24.9	50	nw.	1.2	0.5			0			0	0		
Agra	29.40	746.9	29.97	761.2	85.2	29.6	36	w.	3.1	1.4			0			0	0		
Nagpur	28.91	734.4	29.95	760.7	85.7	29.8	31	calm	2.8	1.2			0			0	0	blue sky	
Jubbulpore	28.63	727.1	29.98	761.6	82.3	27.9	43	calm	1.5	0.7			0			0	0	blue sky	
Lucknow	29.59	751.5	29.98	761.5	84.2	29.0	25	wnw.	2.1	0.9			0			0	0	blue sky	
Allahabad	29.65	753.0	29.97	761.1	74.8	23.8	51	calm	1.1	0.5			0			0	0	blue sky	
Patna	29.78	756.5	29.97	761.2	77.3	25.2	65	calm	0.9	0.4			0			0	0	blue sky	
Hazaribagh	27.94	709.6	29.97	761.3	73.8	23.2	36	nnw.	7.7	3.4			0			0	0	blue sky	
Cuttack	29.88	758.9	29.96	761.0	88.9	31.6	35	calm	0.1	0.4			0			0	0	blue sky	
Calcutta, Alipore	29.91	759.7	29.93	760.2	78.9	26.1	66	calm	0	0			0			0	0	blue sky	
Dhubri	29.81	757.1	29.93	760.2	79.0	26.1	76	calm	3.5	1.6			0			0	0	blue sky	
Goalpara																			
Chittagong	29.83	757.7	29.92	760.0	78.2	25.7	81	wnw.	1.9	0.8			0			0	0	blue sky	
Sibsagar	29.61	752.0	29.95	760.7	77.1	25.1	90	ne.	1.1	0.5			0			0	0	blue sky	
Jeypore	28.54	724.9	29.97	761.3	86.4	30.2	28	nw.	2.8	1.2			0			0	0	blue sky	
Zanzibar, Africa			29.90	759.4	81.7	27.6	77	ssw.	4	1.8			8			0	0	threatening.	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.15	740.3	29.56	750.7	57.9	14.4	69	s.	0.7	0.3			7			0	0		Prof. Giovanni Clodig.
Milan	29.02	737.0	29.54	750.2	54.0	12.2	86	e.	1.3	0.6			6	wsw.		0.020	0.5		Prof. Schiaparelli.
Padua	29.43	747.4	29.53	750.1	51.1	10.6	96	n.	1.3	0.6			10			0	0		Prof. Dott. Lorenzoni.
Moncalieri	28.60	726.4	29.51	749.5	53.8	12.1	74	nnw.	1.3	0.6			7	nw.		0	0		Prof. P. F. Denza.
Genoa	29.35	745.6	29.54	750.4	62.1	16.7	62	se.	3.8	1.7			8	s.		0	0		Prof. G. M. Garibaldi.
Mondovi	27.61	701.3	29.54	750.3	54.5	12.5	53	w.			2		4	wnw.		0	0		Prof. D. C. Bruno.
Pesaro	29.49	749.0	29.54	750.2	62.6	17.0	61	sw.			1		3			0.583	14.8		Prof. Luigi Guidi.
Florence	29.32	744.8	29.58	751.2	60.8	16.0	92	ne.			2		10			0.154	3.9		Prof. Costantino Pitter.
Leghorn	29.48	748.9	29.57	751.0	55.9	13.3	95	s.	0.7	0.3			10			2.236	56.8		Prof. P. Monte.
Rome	29.44	747.8	29.62	752.3	63.1	17.3	61	se.	4.3	1.9			4			0.280	7.1		Prof. P. S. Ferrari.
Lecce	29.39	746.6	29.64	752.9	68.0	20.0	60	sw.	16.8	7.5			8	sw.		0.236	6.0		Prof. C. de Giorgi.
Cosenza	28.83	732.3	29.71	754.5	61.9	16.6	72	ese.	3.8	1.7			10	se.		1.417	36.0		Prof. D. Conti.
Cagliari	29.43	747.4	29.62	752.3	72.0	22.2	49	sw.			4		10	nw.		0.020	0.5		Prof. A. Pacinotti.
Palermo	29.51	749.5	29.75	755.7	69.1	20.6	49	wsw.	10.5	4.7			3			0.287	7.3		Prof. G. Ciacciatore.
Syracuse	29.71	754.7	29.76	755.8	70.9	21.6	58	wsw.	15.4	6.9			4	wsw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.20	741.6	29.64	752.8	61.9	16.6	78	wsw.	6.3	2.8			10	w.		0.866	22.0		Prof. F. Brioschi.
Stelvio	21.76	552.6			29.8	— 1.2	69	s.			1	4 cs	0	w.		0	0	misty	Prof. P. F. Denza.
Valdobbia	21.81	553.9			35.6	2.0	67	n.			2	0	9 kn	wnw.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y	30.10	764.5	30.11	764.8	59.4	15.2	71	nne.	7.2	3.2		0	0			0	0	clear	K. Sasaki.
Kioto	29.97	761.2	30.15	765.8	49.7	9.8	92	nw.	1.2	0.5		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.92	759.9	30.12	765.0	61.1	16.2	71	ne.	4.1	1.8		0	0			0	0	clear	S Takehayashi
Nemuro																			
Niigata	30.18	766.6	30.22	767.6	58.4	14.7	63	nne.	4.8	2.1		4 ck	0	n.		0	0	fair	
Nobiru	30.19	766.8	30.20	767.1	42.5	5.8	97	nnw.	5.2	2.3		0	0			0	0	clear	
Supporo	30.09	764.3	30.16	766.0	40.7	4.8	92	s.	3.0	1.3		1	0			0.030	0.8		
Tokei Obs'y, Yeddo	30.11	764.8	30.18	766.6	54.9	12.7	91	nne.	7.3	3.3			10 s			0.008	0.2	cloudy	The Staff.
Wakayama	30.10	764.5	30.15	765.8	58.4	14.7	68	ene.	1.6	0.7		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.90	759.4	30.09	764.3	77.0	25.0	71	ene.	11.5	5.1			10k;ks		ene.	0	0	cloudy	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.72	602.5	29.95	760.5	59.0	15.0	82	calm	0	0		0	8 k		s.	0.024	0.6	cloudy	Vicente Fernandez.
Leon	24.45	621.0	30.08	764.0	63.5	17.5	86	sw.			1	9 cs	0			0	0	very cloudy	Prof. M. Leal.
Mazatlan	29.71	754.7	29.97	761.2	74.0	23.3	86	n.	0.9	0.4		0	7 n		se.	0	0	cloudy	F. Quijano, C. E.
Mexico, Central Obs'y	23.14	587.9	30.19	766.8	54.5	12.5	87	w.	0.4	0.2		3 ck	5 ks	s.		0.433	11.0	cloudy	The Staff.
Morelia	24.18	614.2	30.24	768.2	59.0	15.0	45	sse.			2	4	2	s.	se	inap.	inap.	½ cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.95	608.6	29.95	760.4	60.6	15.9	86	calm			0	0	4 ks		s.	0	0		M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.7	30.20	767.0	53.6	12.0	81	calm	0	0		0	1		ne.	0.118	3.0	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	29.71	754.5	29.71	754.5	45.9	7.7		nne.			4					0	0		
Groningen	29.68	753.9	29.74	755.3	42.3	5.7		ne.			4					0.157	4.0		
Helder	29.74	755.4	29.74	755.4	42.6	5.9		ne.			4					0.244	6.2		
Hellevoetsluis	29.71	754.5	29.71	754.5	42.8	6.0	80	ne.			3					0	0		
Utrecht	29.66	753.3	29.71	754.5	41.5	5.3	87	nne.			3		8			0.110	2.8	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	29.98	761.5	30.04	763.1	43.5	6.4	65	calm	0	0			0			0	0		
Christiania	30.01	762.3	30.17	766.2	36.1	2.3	70	n.	18	8			10			0	0		
Gjæsvær	30.33	770.3	30.35	770.9	25.5	— 3.6		n.			6		10						
Lodingen	30.30	769.6	30.35	770.8	33.3	0.7	58	nne.			6		1			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.95	760.9	30.11	764.9	60.1	15.6	85	nnw.	11.2	5.0			3			0.118	3.0		Dr. J. A. Sampaio.
Campo Major	28.89	733.9	29.88	758.9	66.2	19.0	90	wnw.	17.4	7.8			10			0.118	3.0		Dr. A. M. R. dos Santos.
Funchal, Madeira	30.00	762.1	30.09	764.3	71.4	21.9	72	wsw.	9.8	4.4			6			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.60	751.9	29.96	760.9	64.2	17.9	97	sw.	21.0	9.4			10			0.382	9.7	raining	The Staff.
Ponta Delgada, Azores	29.98	761.6	30.06	763.4	65.8	18.8	53	nnw.	11.2	5.0			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.98	736.1	30.13	765.2	20.8	— 6.2	100	e.	7	3		3 c	0						Capt. Lasarew.
Archangel	29.80	756.9	29.82	757.4	27.7	— 2.4	71	nnw.	22	10		0	5 ks						Capt. Sseliwerstow.
Astrakhan	30.06	763.4	29.97	761.3	63.7	17.6	60	wsw.	7	3		cs	8 ks			blank	blank	light clouds	Capt. Wisganow.
Barnaul ‡	29.41	747.1	29.94	760.4	28.0	— 2.2	92	w.	7	3			10						Meteorological Obs'y.
Dorpat	29.72	754.8	29.97	761.2	32.4	0.2	80	ene.	7	3			10 ks						Observatory.
Ekaterinburg	29.08	738.7	30.11	764.9	17.4	— 8.1	71	sw.	4	2		2ck;cs	0					light clouds	Meteorological Obs'y.
Kasan	29.74	755.4	30.02	762.5	31.1	— 0.5	45	ssw.	7	3			2						Observatory.
Kertch	29.80	756.9	29.82	757.4	62.4	16.9	81	s.	11	5		0	6 n			0	0		Lagorio & Sastyren.
Kieff	28.83	732.2	29.46	748.2	51.1	10.6	100	e.	4	2			10 n					foggy	Observatory.
Lugan	29.55	750.5	29.75	755.6	55.6	13.1	87	s.	2	1			10			blank	blank		Meteorological Obs'y.
Moscow	29.38	746.3	29.89	759.1	26.8	— 2.9	76	calm	0	0		0	3 ks						Meteorological Obs'y.
Nikolaiev	29.52	749.7	29.59	751.5	61.7	16.5	77	s.	13	6		10 cs	0						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.79	756.6	29.87	758.8	36.3	2.4	87	calm			0	0	7 k			0	0		Lieut. Iwanow.
Pekin, China	30.03	762.7	30.17	766.3	60.3	15.7	85	calm	0	0			9 n			0.091	2.3	raining	Physical Observatory.
St. Petersburg	29.93	760.1	29.94	760.5	34.5	1.4	96	nw.	4	2			10 n						Central Physical Obs'y.
Tashkend, Laboratory	28.39	721.1	29.92	760.0	66.7	19.3	48	calm	0	0			10			0	0		Teich, A. M.
Tiflis	28.64	727.4	30.02	762.4	70.7	21.5	38	n.	2	1		0	2 s						Physical Observatory.
Warsaw	29.15	740.5	29.59	751.5	37.9	3.3	95	nne.	13	6			10 n					raining	Astronomical Obs'y.
Wilna	29.34	745.3	29.78	756.3	34.9	1.6	84	ene.	7	3			10					heavy cl'ds.	Berg, Assistant.
Yeniseisk	29.48	748.9	29.79	756.6	18.0	— 7.8	89	ne.	9	4			10					snowing	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.09	764.3	46.8	8.2	74	e.			4	0	8 k			0.12	3.0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.07	763.8	48	8.9	92	se.			3	0	0			0	0		J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.48	748.8	29.58	751.4	69.1	20.6	55	w.	4.3	1.9			1			0	0	clear	Antonio Rave, Director
Bilbao, Met. Obs'y	29.63	752.6	29.69	754.0	65.5	18.6	84	sw	4.3	1.9			10			0.035	0.9	covered	Prof. Manuel de Nevera
Burgos, Met. Obs'y	26.83	681.4			55.4	13.0	75	sw.	12.8	5.7		0	8			0.362	9.2	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.59	700.7	29.77	756.1	63.3	17.4	81	w.	22.4	10.0			10			0.280	7.1	covered	The Staff.
Murcia, Met. Obs'y ‡	29.62	752.4	29.77	756.1	80.8	27.1	51	sw.	4.7	2.1		5	5			0.071	1.8	raining	Olayo Dias, Director.
Santiago, Met. Obs'y	28.85	732.8	29.73	755.2	60.6	15.9	82	sw.	16.8	7.5			8			0.626	15.9	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.93	760.2	29.99	761.8	73.5	23.1	88	calm	0	0		0	0			0	0	clear	Benito Vines, S. J.
Manilla, Philippine Islands	29.75	755.6	29.80	756.9	82.4	28.0	73	w.	46.2	21.0		2 cs	8 kn		w.	0	0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.96	761.0	30.06	763.4	69.4	20.8	87	wsw.	12.4	5.6		3	6	w.	sw.	0.050	1.3		Capt. C. Fujazon, R. N.
San Juan de Porto Rico, W. I	29.87	758.8	29.97	761.1	79.5	26.4	82	calm	0	0		2 k	3 s			0	0		E. Cadea, Chief Engr'r.
Tuguegarao, Philippine Ids	29.26	743.0	29.39	746.4	73.9	23.3	96	s.	23.6	10.5			10 kh		s.	1.67	42.5	stormy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.24	768.0	30.28	769.0	26.6	— 3.0	53	ne.			4		10			0	0		
Umea	30.22	767.5	30.27	768.8	28.4	— 2.0	76	n.			4		10			0	0		
Hernosand	30.19	766.7	30.24	768.0	32.5	0.3	76	nne.			4		10			0	0		
Stockholm	29.85	758.2	30.03	762.7	36.3	2.4	96	nne.			4		10			0.020	0.5	raining	
Wisby	29.89	759.2	29.95	760.7	39.9	4.4	87	ne.			2		5			0.035	0.9	raining	
Sub-Series.																			
Upsala	29.95	760.8	30.04	763.0	37.8	3.2	75	nne.	15.2	6.8			8		nne.	0.908	0.2		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.24	714.8	29.55	750.5	61.5	16.4	53	sse.			2		9			0.102	2.6	covered	The Observatory.
Zurich ‡	27.93	709.4	29.57	751.0	53.6	12.0	83	se.			1		7			0	0	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.71	754.5	74.7	23.7	47	sw.	9	4.0			6			0	0		The Observatory.
Valona			29.76	755.8	64.8	18.2		w.			1		10			0.98	25.	covered	A. Bertland.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.01	762.2	76.1	24.5	67	n.			1	6	6			0	0		Prof. C. V. Van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	29.45	748.0	29.53	750.0	56	13.3	74	s.	4	1.8			10 s			0	0	cloudy	
Alpena, Michigan	28.92	734.6	29.61	752.1	42.8	6.0	83	w.	10	4.5		7 cs	0	w.		0	0	fair	
Atlanta, Georgia	28.77	730.7	29.99	761.7	49.8	9.9	71	nw.	18	8.0			10 s		calm	0	0	cloudy	
Atlantic City, New Jersey	29.54	750.3	29.56	750.8	57.8	14.3	100	nw.	7	3.1			10 n		calm	0.47	11.9	light rain	
Augusta, Georgia	29.70	754.4	29.90	759.4	59.2	15.1	75	nw.	7	3.1		0	0			0	0	clear	
Baltimore, Maryland	29.55	750.6	29.60	751.8	60	15.6	81	ne.	4	1.8			10 s		ne.	0.40	10.2	cloudy	
Barnegat, New Jersey	29.52	749.8	29.54	750.3	57.0	13.9	96	n.	8	3.6			10 s		n.	0.84	21.3	cloudy	
Bismarck, Dakota	28.10	713.7	30.02	762.5	34	1.1	88	calm	0	0		0	0			0	0	clear	
Boise City, Idaho	27.12	688.8	30.04	763.0	37	2.8	82	e.	2	0.9		5 cs	0	calm		0	0	fair	
Boston, Massachusetts	29.39	746.5	29.55	750.6	41.2	5.1	100	n.	7	3.1			fg.			0.23	5.8	dense fog	
Brackettville, Texas	28.91	734.3	29.96	761.0	61	16.1	100	calm	0	0			10 s		calm	0.04	1.0	cloudy	
Brownsville, Texas	30.01	762.2	30.06	763.5	71	21.7	94	n.	4	1.8			10 n		n.	0.75	19.1	light rain	
Buffalo, New York	28.86	733.0	29.60	751.8	50.3	10.2	89	sw.	7	3.1			10 s		sw.	0.07	1.8	cloudy	
Burlington, Vermont	29.18	741.2	29.48	748.8	50.7	10.4	91	sw.	9	4.0			10 n		w.	0.11	2.8	light rain	
Cairo, Illinois	29.67	753.6	30.08	764.0	44.8	7.1	85	sw.	4	1.8		0	fg.			0	0	clear	
Campo, California	27.40	695.9	29.97	761.2	44	6.7	93	calm	0	0			fg.		w.	0	0	dense fog	
Camp Thomas, Arizona	27.29	693.2			46.5	8.1	91	calm			0	7 c;cs	2 s			0.01	0.3	cloudy	
Cape Henry, Virginia	29.54	750.3	29.56	750.8	65	18.3	90	n.	11	4.9			10 s		nw.	0.39	9.9	cloudy	
Cape May, New Jersey	29.53	750.0	29.56	750.8	59	15.0	93	nw.	10	4.5			10 ks		nw.	0.65	16.5	cloudy	
Castroville, Texas	29.30	744.2	30.00	762.0	62	16.7	60	n.	4	1.8			10 s			0	0	cloudy	
Cedar Keys, Florida	29.90	759.4	29.92	760.0	71	21.7	82	nw.	12	5.4		0	0			0.05	1.3	clear	
Champaign, Illinois	29.03	737.3	29.83	757.7	41.0	5.0	82	nw.	14	6.3		0	0			0.02	0.5	clear	
Charleston, S. Carolina	29.73	755.1	29.79	756.7	65	18.3	84	w.	12	5.4		0	0			0	0	clear	
Charlotte, N. Carolina	28.93	734.8	29.84	757.9	55.0	12.8	62	nw.	9	4.0		0	sk.			0.08	2.0	clear	
Chattanooga, Tennessee	29.17	740.9	30.02	762.5	50.5	10.3	73	nw.	6	2.7			10 s		nw.	inap.	inap.	cloudy	
Cheyenne, Wyoming	24.01	609.8	30.14	765.5	32.4	0.2	74	nw.	2	0.9		0	7 s			0	0	fair	
Chicago, Illinois	29.04	737.6	29.78	756.4	44.8	7.1	84	w.	8	3.6		0	fg.			0.45	11.4	clear	
Chincoteague, Virginia	29.54	750.3	29.56	750.8	59	15.0	100	n.	6	2.7			10 s		calm	1.09	27.7	cloudy	
Cincinnati, Ohio	29.24	742.7	29.92	760.0	49	9.4	86	sw.	5	2.2		0	5 ks		w.	0.16	4.1	fair	
Cleveland, Ohio	28.99	736.3	29.76	755.9	46.1	7.8	77	sw.	11	4.9		0	2 k		w.	0.17	4.3	clear	
Coleman City, Texas																			
Columbus, Ohio	28.95	735.3	29.84	757.9	46	7.8	76	w.	8	3.6		0	0			0.03	0.8	clear	
Concho, Texas	28.20	716.3	30.20	767.1	53	11.7	86	calm	0	0			10 s			0.08	2.0	cloudy	
Corsicana, Texas	29.70	754.4	30.18	766.6	50	10.0	77	calm	0	0		3 cs	0			0	0	clear	
Davenport, Iowa	29.19	741.4	29.87	758.7	48	8.9	77	w.	8	3.6		3 cs	hz.	calm	calm	0.08	2.0	fair	
Dayton, Washington T'y	28.15	715.0	30.01	762.2	32	0.0	88	se.	2	0.9		0	0			0	0	clear	
Deadwood, Dakota	25.33	643.4	30.19	766.8	31	— 0.6	74	calm	0	0		0	0			0	0	clear	
Decatur, Texas					50	10.0	86	ne.	2	0.9			10 s			0.10	2.5	cloudy	
Delaware Breakwater, Del.	29.52	749.8	29.54	750.3	60	15.6	100	nw.	17	7.6			10 ks		sw.	0.16	4.1	cloudy	
Denison, Texas	29.31	744.5	30.14	765.5	51	10.6	86	nw.	4	1.8			10 n		calm	inap.	inap	light rain	
Denver, Colorado	24.74	628.4	30.11	764.9	43.0	6.1	51	n.	3	1.3		0	4 s		calm	0	0	fair	
Des Moines, Iowa	28.98	736.1	29.93	760.2	45	7.2	76	w.	4	1.8		0	1 s			0	0	clear	
Detroit, Michigan	28.97	735.8	29.71	754.6	45.3	7.4	83	w.	8	3.6		1 cs	0	w.		0.16	4.1	clear	
Dodge City, Kansas	27.37	695.2	30.06	763.5	48	8.9	83	s.	8	3.6		0	3 s			0	0	fair	
Dubuque, Iowa	29.15	740.4	29.89	759.2	43.8	6.6	80	w.	1	0.4		1 cs	fg.	nw.	calm	0.11	2.8	fair	
Duluth, Minnesota	29.10	739.1	29.83	757.7	44	6.7	76	w.	2	0.9			10 s		n.	0	0	cloudy	
Eagle Pass, Texas	29.33	745.0	30.18	766.6	61.2	16.2	87	nw.	4	1.8			10 s		calm	0.28	7.1	cloudy	
Eagle Rock, Idaho	25.29	642.4	30.28	769.1	26	— 3.3	80	n.	3	1.3		0	8 ks		w.	0	0	fair	
Eastport, Maine	29.48	748.8	29.55	750.6	46.5	8.1	88	e.	8	3.6			10 s		e.	inap.	inap.	cloudy	
El Paso, Texas	26.25	666.7	30.09	764.3	49.8	9.9	80	ne.	2	0.9			10 s		e.	0.33	8.4	cloudy	
Erie, Pennsylvania	28.90	734.0	29.66	753.4	53	11.7	66	w.	13	5.8		6 k	0	w.		0.58	14.7	fair	
Escanaba, Michigan	28.98	736.1	29.66	753.4	38	3.3	82	w.	6	2.7		0	3 s		calm	0	0	clear	
Florence, Arizona	28.44	722.4	30.04	763.0	55.0	12.8	74	w.	2	0.9		10 cs	0	sw.		0	0	cloudy	
Fort Apache, Arizona	25.05	636.3	30.09	764.3	37	2.8	92	e.	2	0.9		0	3 s		calm	0.77	19.6	fair	
Fort Assinnaboine, Montana	27.11	688.6	30.05	763.3	24	— 4.4	76	sw.	3	1.3		0	0			0	0	clear	
Fort Bennett, Dakota	28.31	719.1	29.92	760.0	35	1.7	89	calm	0	0		0	0			0	0	clear	
Fort Benton, Montana	27.14	689.3	30.12	765.0	25	— 3.9	64	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	27.97	710.4	30.08	764.0	28	— 2.2	77	nw.	2	0.9		0	0			0	0	clear	
Fort Custer, Montana	26.79	680.5	30.18	766.6	28	— 2.2	63	s.	6	2.7		0	0			0	0	clear	
Fort Davis, Texas	25.01	635.2	29.97	761.2	45	7.2	80	e.	2	0.9			10 s			inap.	inap.	cloudy	
Fort Elliott, Texas	27.27	692.6	30.57	776.5	47	8.3	71	calm	0	0			10 s			0	0	cloudy	
Fort Gibson, Indian T'y	29.53	750.0	30.10	764.5	38.9	3.3	89	calm	0	0		0	0			0	0	clear	
Fort Grant, Arizona					50	10.0	68	n.	4	1.8		0	0			0.35	8.9	clear	
Fort Griffin, Texas	28.85	732.8	30.13	765.3	53.1	11.7	86	calm	0	0			10 n			0.10	2.5	light rain	
Fort Keogh, Montana	27.44	697.0	30.11	764.8	28	— 2.2	77	calm	0	0		0	0			0	0	clear	
Fort Macon, North Carolina	29.61	752.1	29.62	752.3	68	20.0	93	nw.	10	4.5		0	3 k		nw.	0.44	11.2	clear	
Fort McKavett, Texas																			
Fort Missoula, Montana	26.75	679.4	30.40	772.1	30	— 1.1	100	w.	1	0.4			10 s			0	0	cloudy	
Fort St. Michaels	29.11	739.4	29.14	740.1	28	— 2.2	100	n.	20	8.9			10 n			0.08	2.0	light snow	
Fort Shaw, Montana	26.29	667.8	30.03	762.7	30	— 1.1	88	w.	2	0.9		0	0			0	0	clear	
Fort Sill, Indian Territory	28.87	733.3	30.16	766.1	49.3	9.6	91	calm	0	0			10 s			0	0	cloudy	
Fort Stevenson, Dakota	28.10	713.7	30.06	763.5	34	1.1	88	nw.	4	1.8		0	0			0	0	clear	
Fort Verde, Arizona					40	4.4	73	n.			1	3 k	4 s	w.	nw.	0	0	fair	
Fredericksburg, Texas	28.36	720.3	29.93	760.2	55	12.8	74	e.	3	1.3			10 ks		e.	0	0	cloudy	
Galveston, Texas	30.06	763.5	30.10	764.5	61.5	16.4	71	ne.	13	5.8		0	5 s		ne.	0	0	fair	
Grand Haven, Michigan	29.02	737.1	29.72	754.9	51.0	10.6	80	w.	12	5.4		0	0			0.03	0.8	clear	
Hatteras, North Carolina	29.56	750.8	29.58	751.3	68	20.0	93	w.	14	6.3		3 cs	3 ks		w.	1.65	41.9	fair	
Helena, Montana	25.76	654.3	30.35	770.9	32	0.0	88	s.	2	0.9		0	0			0	0	clear	
Henrietta, Texas	29.15	740.4	30.08	764.0	59	15.0	60	s.	4	1.8			10 s			0	0	cloudy	
Huron, Dakota	28.49	723.6	29.95	760.7	35	1.7	82	n.	1	0.4		0	0			0	0	clear	
Indianapolis, Indiana	29.06	738.1	29.88	758.9	45.5	7.5	87	sw.	4	1.8		3 k	fg.	sw.	calm	inap.	inap.	fair	
Indianola, Texas	30.05	763.3	30.08	764.0	62.1	16.7	78	ne.	24	10.7		7 cs	2 s	w.	calm	0	0	cloudy	
Jacksboro, Texas	28.97	735.8	30.12	765.0	52	11.1	93	sw.	2	0.9			10 s		calm	0.12	3.0	cloudy	
Jacksonville, Florida	29.85	758.2	29.89	759.2	71	21.7	84	sw.	8	3.6		0	0			0.14	3.6	clear	
Keokuk, Iowa	29.23	742.4	29.91	759.7	46.0	7.8	80	sw.	8	3.6		0	0			inap.	inap.	clear	
Key West, Florida	29.95	760.7	29.98	761.5	79.0	26.1	77	w.	6	2.7		0	3 s;k		calm;w	0	0	fair	
Kittyhawk, North Carolina	29.55	750.6	29.57	751.1	66	18.9	93	w.	12	5.4		2 c	4 s	w.	nw.	0.96	24.4	fair	
Knoxville, Tennessee	28.97	735.8	30.04	763.0	49.3	9.6	86	w.	4	1.8			10 s		nw.	0.04	1.0	cloudy	
La Crosse, Wisconsin	29.01	736.8	29.81	757.2	47.5	8.6	68	w.	4	1.8		0	0			0	0	clear	
La Mesilla, New Mexico	26.18	665.0	30.33	770.4	43.8	6.6	93	calm	0	0		0	0			0.35	8.9	clear	
Laredo, Texas	29.62	752.3	29.96	761.0	64	17.8	68	n.	4	1.8			10 s		n.	0.06	1.5	cloudy	
Leavenworth, Kansas	29.10	739.1	30.03	762.7	44	6.7	83	calm	0	0		0	0			0	0	clear	
Lewiston, Idaho	29.14	740.1	30.02	762.5	36	2.2	85	calm	0	0		0	0			0	0	clear	
Little Rock, Arkansas	29.78	756.4	30.10	764.5	45	7.2	83	nw.	5	2.2		0	hz.			0	0	clear	
Los Angeles, California	29.62	752.3	30.00	762.0	57.2	14.0	86	s.	6	2.7			10 s		calm	0	0	cloudy	
Louisville, Kentucky	29.35	745.5	29.93	760.2	49.5	9.7	86	sw.	10	4.5		0	5 ks		sw.	inap.	inap.	fair	
Lynchburg, Virginia	28.99	736.3	29.70	754.4	59	15.0	60	nw.	10	4.5		0	0			0.30	7.6	clear	
Madison, Wisconsin	28.73	729.7	29.80	756.9	46	7.8	77	w.	6	2.7		1 c	0	calm		0.07	1.8	clear	
Marquette, Michigan	28.92	734.6	29.68	753.9	46	7.8	68	nw.	7	3.1			10 s		nw.	0	0	cloudy	
Mason, Texas	28.48	723.4	30.24	768.1	57	13.9	69	ne.	2	0.9			10 s		ne.	0	0	cloudy	
Memphis, Tennessee	29.97	761.2	30.12	765.0	47	8.3	77	calm	0	0		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	28.98	736.1	29.76	755.9	44	6.7	83	w.	13	5.8		2 c	0			0.01	0.3	clear	
Mobile, Alabama	30.00	762.0	30.07	763.8	53.0	11.7	80	n.	8	3.6		0	0			0.02	0.5	clear	
Montgomery, Alabama	29.82	757.4	30.06	763.5	49.3	9.6	82	nw.	5	2.2		0	0			0	0	clear	
Moorhead, Minnesota	28.92	734.6	29.98	761.5	42	5.6	82	ne.	12	5.4			10 s		ne.	0	0	cloudy	
Morgantown, W. Virginia	28.73	729.7	29.70	754.4	54.0	12.2	83	w.	4	1.8			10 s		nw.	0.12	3.0	cloudy	
Mt. Washington, N. H.	23.36	593.3	29.73	755.1	36.0	2.2	100	nw.	34	15.2			fg		nw.	0.56	14.2	dense fog	
Nashville, Tennessee	29.49	749.0	30.05	763.3	50.7	10.4	83	w.	4	1.8			10 s		nw.	inap.	inap.	cloudy	
New Haven, Connecticut	29.43	747.5	29.54	750.3	45	7.2	100	n.	5	2.2			fg			0.03	0.8	dense fog	
New London, Connecticut	29.50	749.3	29.55	750.6	46	7.8	93	e.	5	2.2			10 s		e.	0.17	4.3	cloudy	
New Orleans, Louisiana	30.02	762.5	30.08	764.0	59.8	15.4	72	ne.	8	3.6		0	0			0.01	0.3	clear	
Newport, Rhode Island	29.50	749.3	29.54	750.3	45.0	7.2	93	n.	10	4.5			10 s		calm	0.05	1.3	cloudy	
New River, N. Carolina					67	19.4	90	nw.			2	7 cs	0			0.44	11.2	cloudy	
New Shoreham, Rhode I'd.	29.50	749.3	29.53	750.0	47.0	8.3	100	ne.	14	6.3			10 s		ne.	0.28	7.1	cloudy	
New York, New York	29.40	746.7	29.58	751.3	53	11.7	100	e.	3	1.3			fg			0.21	5.3	dense fog	
Norfolk, Virginia	29.54	750.3	29.56	750.8	65.5	18.6	93	nw.	5	2.2			1c ks		w.	0.07	1.8	cloudy	
North Platte, Nebraska	27.04	686.8	30.10	764.5	26.7	−2.9	96	w.	9	4.0		0	0			c	0	clear	
Olympia, Washington T'y	29.77	756.1	29.81	757.2	38.0	3.3	89	ne.	1	0.4		hz.	0	calm		0	0	clear	
Omaha, Nebraska	28.78	731.0	30.02	762.5	42.3	5.7	75	sw.	1	0.4		0	0			0	0	clear	
Oswego, New York	29.19	741.4	29.53	750.0	51.0	10.6	93	n.	6	2.7			10 n		n.	0.09	2.3	light rain	
Pensacola, Florida	30.01	762.2	30.04	763.0	52	11.1	86	nw.	10	4.5		0	0			0.03	0.8	clear	
Philadelphia, Pa.	29.53	750.0	29.59	751.6	59	15.0	87	n.	1	0.4			10s;fg		sw.	0.03	0.8	cloudy	
Phœnix, Arizona	28.84	732.5	30.67	779.0	49.2	9.6	56	calm	0	0		3 ck	4 s	s.	s.	0	0	cloudy	
Pike's Peak, Colorado	17.70	449.6	29.90	759.4	15	−9.4	100	nw.	14	6.3			fg		nw.	0.12	3.0	light fog	
Ploche, Nevada	24.07	611.4	30.26	768.6	32	0.0	65	s.	1	0.4		0	0			inap.	inap.	clear	
Pittsburg, Pennsylvania	28.91	734.3	29.76	755.9	53.5	11.9	82	w.	9	4.0			10 n		sw.	0.13	3.3	light rain	
Port Eads, Louisiana	30.02	762.5	30.03	762.7	66.8	19.3	78	n.	22	9.8		3 c	2 ks	w.		0.57	14.5	fair	
Port Huron, Michigan	28.96	735.6	29.66	753.4	42.5	5.8	90	sw.	8	3.6		2 c	0	w.		0.15	3.8	clear	
Portland, Maine	29.49	749.0	29.54	750.3	42.5	5.8	93	nw.	6	2.7			10s;fg		calm	0.04	1.0	cloudy	
Portland, Oregon	29.78	756.4	29.84	757.9	44.0	6.7	83	calm	0	0		0	0			0	0	clear	
Portsmouth, N. Carolina					67	19.4	73	w.	18	8.0		6 k	0	w.		0.51	13.0	fair	
Prescott, Arizona	24.76	628.9	30.07	763.8	34	1.1	82	s.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	29.91	759.7	29.92	760.0	79	26.1	76	w.	17	7.6		0	5 ks		w.	0	0	fair	
Red Bluff, California	29.51	749.5	29.86	758.4	53.5	11.9	73	sw.	2	0.9			10 s		s.	0	0	cloudy	
Rio Grande City, Texas	29.88	758.9	30.10	764.5	62	16.7	87	n.	4	1.8			10 s		n.	0.04	1.0	cloudy	
Rochester, New York	28.88	733.5	29.58	751.3	50	10.0	100	w.	9	4.0			10ks;fg		w.	0.15	3.8	threatening	
Roseburg, Oregon	29.27	743.4	29.86	758.4	46	7.8	83	calm	0	0			10 s			0	0	cloudy	
Sacramento, California	29.81	757.2	29.89	759.2	51.3	10.7	80	e.	3	1.3		0	0			0	0	clear	
St. Louis, Missouri	29.38	746.2	30.01	762.2	44.0	6.7	83	w.	13	5.8		0	0			inap.	inap.	clear	
St. Paul, Minnesota	28.95	735.3	29.87	758.7	43.9	6.6	80	nw.	4	1.8		0	0			0	0	clear	
Salt Lake City, Utah	25.66	651.8	30.11	764.8	46	7.8	56	calm	0	0		0	5 s		calm	0	0	fair	
San Antonio, Texas	29.41	747.0	30.13	765.3	58.6	14.8	60	ne.	9	4.0			10 s		calm	0	0	cloudy	
San Diego, California	29.88	758.9	29.95	760.7	60.5	15.8	70	e.	4	1.8			10 s			0	0	cloudy	
Sandusky, Ohio	29.05	737.9	29.76	755.9	46	7.8	83	sw.	12	5.4		0	0			0.20	5.1	clear	
Sandy Hook, New Jersey	29.54	750.3	29.57	751.1	55.0	12.8	93	se.	1	0.4			10 s		se.	0.14	3.6	cloudy	
San Francisco, California	29.77	756.1	29.84	757.9	56	13.3	74	sw.	6	2.7		0	5 s		s.	0	0	fair	
Santa Fé, New Mexico	23.29	591.6	30.28	769.1	35	1.7	82	nw.	1	0.4			10 s		calm	0.27	6.9	cloudy	
Savannah, Georgia	29.76	755.9	29.86	758.4	65	18.3	78	nw.	9	4.0		0	0			0.12	3.0	clear	
Shreveport, Louisiana	29.91	759.7	30.14	765.5	47	8.3	77	n.	2	0.9		0	1 s		calm	0	0	clear	
Silver City, New Mexico	24.33	618.0	30.01	762.2	46	7.8	80	calm	0	0		0	3 s		calm	0.24	6.1	clear	
Sitka, Alaska	29.53	750.0	29.59	751.6	49	9.4	93	se.	4	1.8			10 n		calm	1.14	29.0	light rain	
Smithville, North Carolina	29.65	753.1	29.69	754.1	65	18.3	90	nw.	10	4.5		0	hz			0.40	10.2	clear	
Spokane Falls, Wash. Ter.	27.93	709.4	30.00	762.0	36	2.2	82	ne.	8	3.6		0	0			0	0	clear	
Springfield, Illinois	29.22	742.2	29.93	760.2	44.5	6.9	80	w.	10	4.5		0	0			0.01	0.3	clear	
Springfield, Massachusetts	29.42	747.3	29.55	750.6	47.0	8.3	86	e.	2	0.9			10 s			0.02	0.5	cloudy	
Stockton, Texas	27.10	688.3	30.25	768.3	50.0	10.0	100	calm	0	0			10 s		calm	0.04	1.0	cloudy	
St. Vincent, Minnesota	29.12	739.6	30.05	763.3	32	0.0	88	nw.	12	5.4			10 s		nw.	0	0	cloudy	
Thatcher's Island, Mass.	29.51	749.5	29.56	750.8	45.4	7.4	100	ne.	14	6.3			10 s		ne.	0.73	18.5	cloudy	
Toledo, Ohio	29.02	737.1	29.74	755.4	46	7.8	83	w.	12	5.4		0	0			0.25	6.3	clear	
Tucson, Arizona	27.54	699.5	29.98	761.5	54	12.2	69	se.	2	0.9		0	0			0	0	clear	
Umatilla, Oregon	29.62	752.3	30.05	763.3	39.5	4.2	95	se.	2	0.9			fg		calm	0	0	dense fog	
Uvalde, Texas	29.13	739.9	29.95	760.7	62	16.7	73	calm	0	0			10 s		calm	0.02	0.5	cloudy	
Vicksburg, Mississippi	29.88	758.9	30.14	765.5	47	8.3	86	n.	5	2.2		2 k	0	calm		0	0	clear	
Visalia, California	29.51	749.5	29.88	758.9	48.5	9.2	84	se.	2	0.9		0	0			0	0	clear	
Washington, D. C.	29.52	749.8	29.64	752.8	55	12.8	93	nw.	9	4.0			10 n			0.42	10.7	light rain	
West Los Animas, Colorado	25.99	660.1	30.07	763.8	40	4.4	42	sw.	6	2.7		0	0			0	0	clear	
Wickenburg, Arizona					42	5.6	76	calm			0	0	5 s			0	0	fair	
Wilmington, N. Carolina	29.61	752.1	29.67	753.6	65	18.3	90	w.	6	2.7		0	0			0.18	4.6	clear	
Winnemucca, Nevada	25.54	648.7	30.00	762.0	36	2.2	69	ne.	10	4.5		0	0			0	0	clear	
Wood's Holl, Mass.	29.48	748.8	29.52	749.8	48	8.9	100	n.	17	7.6			10 s		calm	0.28	7.1	cloudy	
Yankton, Dakota	28.61	726.7	29.98	761.5	38	3.3	89	calm	0	0		0	0			0	0	clear	
Yuma, Arizona	29.75	755.6	29.89	759.2	58.3	14.6	77	s.	1	0.4		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡																			J. A. Racker.
Bogota, U. S. Columbia	22.06	560.3			53.0	11.7	91	calm	0	0			10 s; n			0.20	5.1	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	29.96	761.0	29.98	761.5	77	25.0	90	se.					0			0	0	clear	J. B. Dougherty.
Guadeloupe, W. I.‡	29.83	757.7	29.83	757.7	79	26.1	83	e.				2 c	0			0	0		B. Bigar.
Havana, Cuba, W. I.	29.98	761.5	30.02	762.5	77	25.0	85	calm	0	0		0	2 ks		calm	0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.96	761.0	29.97	761.2	75.0	23.9	90	calm	0	0		0	0			0	0		Robert Johnstone.
Navassa, W. I.	29.87	758.7	29.95	760.7	80	26.7	82	e.				5 k	2 s	se.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.99	761.7	30.00	762.0	81	27.2	78	e.			2	4 ck	4 k	e.	e.	0.060	1.5	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.37	746.0	29.93	760.2	78	25.6	84	calm				1 c	2 k	calm	calm	0.07	1.8	clear	Francesco J. Cisneros.
Rivas, Nicaragua					74.8	23.8	94	ne.			3	0	0			0.20	5.		Earl Flint.
Santiago de Cuba, W. I.	29.94	760.5	29.96	761.0	78	25.6	78	calm	0	0		1 ks	0			0	0	clear	Robert Mason.
St. Thomas, W. I.‡	29.86	758.4	29.96	761.0	79	26.1	82	e.	5	2.2			8 ks		e.	0.04	1.0	cloudy	G. O. Gyllich.
York Factory, B. A.	29.90	759.4	29.95	760.7	12.0	−11.1	90	n.	7	3.1		2 c	2 s	n.	n.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross																			
H. M. S. Alert, Port Darwin, Australia	29.93	760.2	83	28.3	67	w.			2		1							blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, Syracuse, Sicily	29.81	757.2	71.5	21.9	84	wsw.			1		2	wsw.				1	sw.	d. clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.72	754.9	65	18.3		sw.			1		1							blue sky	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche, N. 46° 50′, W. 24° 04′	29.84	757.9	57	13.9	100	nnw.			2		5					2	nnw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.03	762.7	72	22.2	67	ese.			1-4		3	ese.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Ancon, Peru	30.05	763.3	62	16.7	100	calm			0		10	calm						misty	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor, N. 35° 18′, E. 13° 19′	29.88	758.9	74	23.3	81	nnw.			3-4		6					4	var.	misty	Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.11	764.8	72	22.2		wnw.			3		4	wnw.				2	wnw.	d. clouds	Lt. Comm. J. L. Burr.
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 22° 33′, E. 37° 24′	29.89	759.2	85	29.4	75	ene.			1-2		0							blue sky	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 41′, E. 135° 11′	30.06	763.5	66	18.9	94	calm			0		0							blue sky	Capt. S. Long.
H. M. S Cygnet, N. 38° 14′, E. 21° 44′	29.67	753.6	73	22.8		sw.			1		1	wsw.						blue sky	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido, S. 1° 48′, W. 14° 05′	29.97	761.2	80	26.7		ssw.			4		4	ssw.				2	nnw.	d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	29.84	757.9	74.5	23.6	81	sse.			5-6		8	sse.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 45° 12′, W. 59° 33′	29.76	755.9	46.5	8.1	89	e.			4-5		10					2	e.	squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 30° 34′, E. 47° 49′	29.92	760.0	85	29.4		sse.			1		0							blue sky	Comm. John Hext.
H. M. S. Eclipse, S. 15° 59′, E. 68° 01′	30.00	762.0	74	23.3		se.			5		6	ese.				4	ese.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.77	756.1	48	8.9	92	sse.			3-4		5							showery	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.83	757 7	83	28.3	83	nnw.			2		3	w.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 12° 48′, E. 41° 04′	29.93	760.2	79.5	26.4	80	n.			3		2					2	n.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 17° 30′, W. 88° 12′	29.94	760.5	84	28.9	83	e.			1		3	e.						d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, N. 0° 25′, W. 159° 30′	29.96	761.0	77	25.0	82	ese.			3		2							d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	30.21	767.3	60	15.6	70	s.			1		0							blue sky	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 44′, E. 129° 50′	30.10	764.5	69	20.0		n.			1		2	n.				1	n.	d clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. N. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.97	761.2	81	27.2		calm			0		1	calm						blue sky	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 24° 00′, E. 6° 00′	30.07	763 8	66	18.9		sse.			2		7	sse.				1	ssw.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 12′, E. 18° 26′	29.99	761.7	75	23.9	59	w.			5-6		4					1-2	w.	squally	Lieut. Comm. C. Oldham.
H. M. S. Magpie, Hong Kong, China	29.90	759.4	82.1	27.8	68	wnw.			1-2		0							misty	Lieut. A. Balfour.
H. M. S. Malabar, Bombay, India	29.95	760.7	86	30.0	91	nw.			1		2							d. clouds	Capt. I. G. F. Grant.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 36° 07′, W. 5° 21′	29.95	760.7	67	19.4	90	sw.			3		9	wnw.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.89	759 2	79	26.1	90	ssw.			6		8	wsw.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.02	762.5	55	12.8	87	calm			0		10							misty	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	29.62	752.3	48	8.9	96	e.			3									raining	Capt. E. B. Drummond.
H. M. S. Orontes, Barbadoes, W. Indies	29.97	761.2	82	27.8	82	e.			1		6							showery	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	29.85	758.2	41	5.0	91	calm			0		6	nne.						foggy	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.98	761.5	86.3	30.2	91	nw.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 19° 27′, W. 24° 04′	30.07	763.8	77	25.0	86	nne.			5		3	nne.				2	wnw.	d. clouds	
H. M. S. Sea Gull, S. 14° 06′, E. 41° 17′	29.51	749.5	81	27.2	82	n.			4-5		2	ene.						d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb																			
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 30° 50′, W. 83° 25′	30.28	769.1	57	13.9	62	se.			1-2		10	calm				4	se.	overcast	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne, N. 34° 42′, E. 28° 50′	30.01	762.2	74	23.3	90	ese.			2		3	ese.				1	ese.	d. clouds	
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.98	761.5	79	26.1		n.			1		4							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	30.12	765.0	56	13.3	87	calm			0		0							blue sky	Com. J. C. Wilson, A. D.C
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, Mossamedes, Benguela	29.95	760.6	74.8	23.8	66	wnw.			3		0					1		blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, N. 16° 40′, W. 24° 50′	30.08	764.0	80.6	27.0	92	ne.			2		1		ne.					blue sky	Carlos M. de Silva Costa
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.94	760.5	80.6	27.0	63	n.			4		10								P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

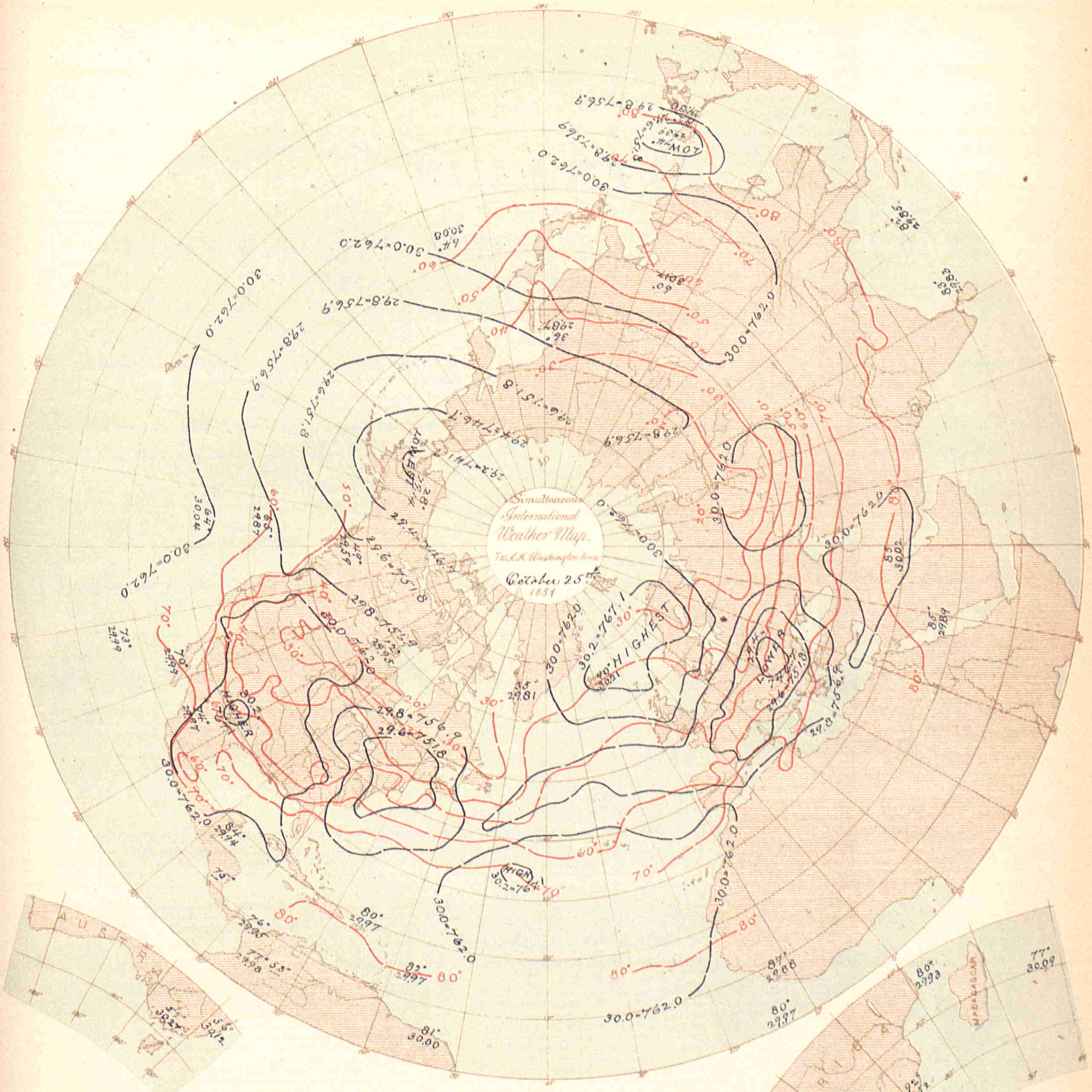
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore John G. Walker, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.09	764.3	56	13.3	81	n.	4	1.8			0			0.10	2.5			clear	
N. Yard, Portsmouth, N. H.	29.57	751.1	44	6.7	84	calm	0	0		10 c	0			0.1	3.			cloudy	
Naval Hospital, Yokohama, Japan	30.01	762.2	56	13.3	87	n.			3		8		n.	0.06	1.5			clearing	
Adams, Callao, Peru	29.86	758.4	63	17.2	89	s.			1		10					gr'd		overcast	
Alaska, Callao, Peru	29.92	760.0	61	16.1	100	calm			0		8			0	0	sm'h		cloudy	
Alert, Kobe, Japan *	30.01	762.2	66	18.9	54	calm			0		2		calm	0	0	sm'h		clear	
Alliance, N. 49° 00′, W. 46° 50′	29.80	756.9	38	3.3	72	n.			3-5		8		n.	0	0	sm'h		fair	
Ashuelot, Kobe, Japan	30.14	765.5	62	16.7	66	calm			0		0							clear	
Colorado, New York, N. Y.	29.56	750.8	53	11.7	93	e.	1	0.4			10							dense fog	
Constitution, Newport, R. I.	29.94	760.5	46	7.8	84	n.	2	0.9			10		n.					overcast	
Franklin, Norfolk, Va.	29.49	749.0	66	18.9	94	wnw.	10	4.5			10		wsw.	0	0			cloudy	
Galena, Smyrna, Turkey in Asia	29.80	756.9	80	26.7	55	sse.			5		2					mod.	s.	fair	
Independence, N. Yard, Mare I'd, Cal.	29.73	755.1	55	12.8	87	calm	0	0			0							clear	
Kearsarge, Hampton Roads, Va.	29.55	750.6	65	18.3	94	nw.			2		10		sw.			sm'h		misty	
Lackawanna, San Francisco, Cal. †	30.04	763.0	57	13.9	100	se.			1		2		se.					fair	
Lancaster, N. 37° 08′ W. 45° 05′	30.18	766.6	68	20.0	70	sse.			1-3		5		s.			sm'h		d. clouds	
Marion, Montevideo, Uruguay	30.02	762.5	60	15.6		sw.			3		0			0	0	sm'h		clear	
Michigan, Erie, Pa.	29.57	751.1	53	11.7	86	se.			2		8		se.					fair	
Monocacy, Yokohama, Japan	30.19	766.8	58	14.4	94	nne.			2		10		nne.					cloudy	
Nipsic, Genoa, Italy	29.53	750.0	63	17.2	72	ese.			3		5		se.			sm'h		d. clouds	
Onward, Callao, Peru †	30.02	762.5	60	15.6	94	wsw.			1		10					long	w.	cloudy	
Palos, Hong Kong, China	29.94	760.5	80	26.7	70	wnw.			1		5		n;w					fair	
Passaic, Washington, D. C.	29.62	752.3	57	13.9	87	w.			1		10		nw.					raining	
Pensacola, Callao, Peru	30.07	763.8	61	16.1	82	w.			0-1		10							cloudy	
Portsmouth, Hampton Roads, Va.	29.54	750.3	64	17.8	94	nw.			1		8					sm'h		cloudy	
Powhatan, Boston, Mass.	29.63	752.6	43	6.1	92	nne.			1		10							foggy	
Quinnebaug, Marseilles, France	29.54	750.3	62	16.7	77	w.			1		10		calm			sm'h		cloudy	
Ranger, N. 36° 56′, W. 122° 28′ *	29.78	756.4	57	13.9	81	se.			6							mod.		rainy	
Saratoga, Hampton Roads, V.	29.54	750.3	65	18.3	94	nnw.			1		8			h'vy	h'vy	sm'h		cloudy	
St. Louis, League Island, Pa.	29.26	743.2	58	14.4	94	calm	0	0			8			c	0			cloudy	
Swatara, Yokohama, Japan †	30.13	765.3	58	14.4	88	nne.			3		8		calm			sm'h		fair	
Tennessee, N. 38° 11′, W. 74° 31′	29.54	750.3	64	17.8	94	nne.	11	4.9			10			0.61	15.5	mod.	ssw.	drizzling	
Vandalia, Norfolk, Va.	29.55	750.6	66	18.9	94	wnw.			2		10		wnw.					cloudy	
Wabash, Boston, Mass.	29.57	751.1	43	6.1	92	n.	2	0.9			10		ne.	0.12	3.0			hazy	
Wachusetts, White Bay, Alaska	29.67	753.6	49	9.4	100	e.			3		10		e.					light rain	
Wyoming, Port Royal, S. C.	29.81	757.2	65	18.3	78	w.	14	6.3			2		w.	0	0			clear	
Yantic, N. 38° 45′, W. 74° 20′ *	29.51	749.5	63	17.2	83	n.			2-3		10					mod.	e.	rainy	

Vessels and Masters.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 49° 40′, W. 59° 55′ *†	29.96	761.0	.....	.....	.....	se.	2	.....	5	.....	ese.	.....	.....	sm'h	.....	fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith, ‡ N. 52° 30′, W. 53° 00′	30.12	765.0	27	—2.8	?	nnw.	3	.....	5	.....	ene.	0	0	4	nw.	d. clouds	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N 45° 34′, W. 59° 18′	29.81	757.2	41	5.0	.....	ene.	4	.....	10	.....	ene.	.....	.....	mod.	e.	cloudy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn †	29.46	748.3	56	13.3	93	nw.	1	.....	2	.....	nw.	.....	.....	.....	.....	fine	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 51° 49′, W. 25° 15′ †..	29.68	753.9	53	11.7	?	wsw.	5	.....	8	.....	w.	light	light	mod.	sw.	hazy	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Liverpool, Eng *†..	30.26	768.6	45	7.2	92	ene.	4	.....	5	.....	e.	.....	.....	.....	.....	fine	C. Rodman, 3d Off.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. British Merchant, E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Caldew, Capt. W. Petersen S. 57° 50′, W. 78° 27′	28.67	728.2	38.8	3.8	.....	wnw.	10	.....	5	.....	.....	.....	.....	.....	.....	squally	
S. S. Cipero, Capt. W. N. Lailey, Belize, Honduras, C. A.	30.00	762.0	80.5	26.9	98	ene.	2	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Commewyne, Capt. W. Scott,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Coppename, Capt. A. Buchan,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Glaramara, Capt. R. Morton, ‡ N. 16° 15′, W. 119° 33′	29.99	761.7	73	22.8	90	ne.	4	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Gordon Castle, Capt. W. Waring.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bg. Hermine, Capt. S. G. Jones, S. 54° 49′, W. 65° 02′	29.48	748.8	44.1	6.7	83	nw.	3	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
Bkt. Hope, Capt. J. Campbell ‡	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Lochee, Capt. J. Raeburn, N. 8° 10′, E. 91° 00′	29.85	768.2	82	27.8	83	wnw.	1	.....	7	.....	.....	.....	.....	.....	.....	showery	
Bk. Mertola, Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Moorhill, Capt. J. Brown, S. 58° 00′, W. 77° 45′	28.61	726.7	38.8	3.8	56	wsw.	8	.....	5	.....	.....	.....	.....	.....	.....	threatening	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Pleione, Capt. C. H. Renant, S. 41° 16′, E. 163° 15′	29.96	761.0	51	10.6	72	sse.	5	.....	8	.....	.....	.....	.....	.....	.....	squally	
Queen of Cambria, Capt. M. Parry, S. 28° 33′, W. 44° 45′	30.01	762.2	73	22.8	81	nw.	5	.....	10	.....	.....	.....	.....	.....	.....	overcast	
S. S. Rosetta, Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Shun Lee, Capt. J. M. Gray,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Strathleven, Capt. C. W. Pearson, N. 31° 15′, E. 121° 28′	30.13	765.3	57.5	14.2	93	nne.	3	.....	4	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer
S. S. Wyberton, Capt. R. J. Blacklin, N. 24° 37′, E. 34° 55′	29.73	755.1	80	26.7	.....	nnw.	3	.....	2	.....	.....	.....	.....	.....	.....	d. clouds	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent, San Francisco.*																	
S. S. Newbern, Capt. E. Rogers N. 28° 40′, W. 115° 36′ †..	29.92	760.0	66	18.9	59	nw.	3	.....	8	.....	nw.	0	0	small	wnw.	cloudy	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Galia, Capt. W. H. P. Hains	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 41° 45′, W. 53° 01′	29.79	756.7	65.0	18.3	89	sw.	3	.....	10	.....	sw.	.....	.....	r'gh cross	wsw.	rainy	
S. S. Hermann, Capt. H. Baur, N. 48° 59′, W. 30° 25′	29.82	757.4	54.5	12.5	.....	wnw.	6	.....	8	.....	wnw.	0	0	long	nw.	cloudy	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 50° 37′, W. 18° 04′	29.69	754.1	56.0	13.3	84	sse.	2	.....	5	.....	sse.	0	0	mod.	ene.	fair	Englehart & von Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 40° 18′, W. 136° 07′ †..	29.97	761.2	65	18.3	63	wnw.	4	.....	5	.....	wnw.	0	0	mod.	wnw.	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, Hong Kong, China *†..	30.12	765.0	81	27.2	95	ene.	2	.....	4	.....	ene.	.....	.....	.....	.....	clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 34° 43′, E. 157° 10′	30.28	769.1	64	17.8	58	ne.	3	.....	4	.....	ne.	0	0	light	ne.	fine	
OREGON IMPROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes, San Francisco, Cal †	30.00	762.0	57	13.9	?	sw.	2	.....	8	.....	s.	.....	.....	.....	.....	cloudy	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Oregon, Capt. E. Polemann, Portland, Oregon †	29.83	757.7	45	7.2	84	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, San Francisco, Cal.....†...	29.80	756.9	55	12.8	87	sw.	1	.....	10	.....	w.	.....	.....	.....	.....	cloudy.....	J. W. Ingalls.
S. S. Dakota, Capt. ——	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Idaho, Capt. T. Huntington, Seattle, Wash. Ter .....†..	29.76	755.9	44	6.7	92	se.	5	.....	fg	.....	.....	.....	.....	.....	.....	foggy.....	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, N. 34° 27′, W. 120° 25′.....†..	29.90	759.4	62	16.7	83	sw.	3	.....	8	.....	sw.	driz.	driz.	r'gh	sw.	cloudy	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal.....†..	29.86	758.4	55	12.8	80	se.	2	.....	4	.....	se.	.....	.....	.....	.....	fair	T. Wallace.
S. S. State of California, Capt. Debney, N. 45° 52′, W. 124° 00′.....†..	29.80	756.9	50	10.0	93	ene.	2	.....	5	.....	se.	.....	.....	long	w.	fair.....	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 49° 00′, W. 122° 05′.....†..	29.98	761.5	42	5.6	91	calm	0	.....	fg.	.....	.....	.....	.....	sm'h	.....	foggy.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. —— N. 32° 19′, W. 134° 56′.....	30.04	763.0	64	17.8	78	w.	4	.....	2	.....	w.	.....	.....	long	nw.	clear.....	A. Bannermann, 2d Offi.
S. S. City of New York, Capt. W. B. Cobb, N. 21° 19′, W. 157° 52′.....†	30.12	765.0	82	27.8	83	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	W. H. Hawes, 2d Offi.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, Yokohama, Japan.....*†..	30.32	770.1	55	12.8	93	n.	4	.....	10	.....	ne.	light	light	.....	.....	rainy.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt.—— Panama, Panama.....†.	29.95	760.7	76	24.4	95	n.	3	.....	8	.....	n.	0	0	sm'h	.....	fair	.....
S. S. City of Sidney, Capt. H. C. Dearborn, Sydney, N. S. W.....*†..	30.03	762.7	57	13.9	75	sw.	3	.....	5	.....	sw.	0	0	sm'h	.....	fair.....	E. L. Salk.
S. S. City of Tokio, Com. J. Maury, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Richie, 2d Offi.
S. S. Colima, Capt. R. R. Searle, N. 24° 53′, W. 112° 35′.....†	29.99	761.7	70	21.1	75	nw.	5	.....	7	.....	wnw.	0	0	mod.	nw.	cloudy..	R. R. Searle.
S. S. Grenada. Capt. M. Connolly, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. South Carolina, Capt. —— N. 23° 59′, W. 107° 39′.....*†..	29.92	760.0	77	25.0	95	e.	1	.....	5	.....	sw.	.....	.....	light	sw.	fair.....	.....
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.....	30.23	767.8	59	15.0	82	w.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Fedderson, 2d Offi.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium.....†..	29.75	755.6	45	7.2	84	n.	3	.....	9	.....	nne.	0	0	.....	.....	cloudy.....	C. H. Grant, 2d Offi.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings, Liverpool, Eng.....†..	29.87	758.7	50	10.0	.....	ene.	3	.....	0	.....	.....	0	0	.....	.....	fair.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 48° 24′, W. 40° 06.....†..	29.68	753.9	55	12.8	87	wsw.	6	.....	10	.....	sw.	.....	.....	mod.	wsw.	cloudy	B. Gleadell.
S. S. Germanic. Capt. C. W. Kennedy, N. 41° 35′, W. 53° 41′.....†..	29.97	761.2	66	18.9	94	sw.	4	.....	10	.....	sw.	shr's	sh'rs	mod.	wsw.	raining.....	.....
S. S. Republic. Capt. P. J. Irving.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. A. Ward.
MISCELLANEOUS.																	
Bk. Dom Pedro II, Capt. C. E. Coffin N. 37° 00′. W. 70° 27′.....†*..	29.20	741.7	.....	.....	.....	sw.	.....	.....	.....	.....	w.	.....	.....	large	sw.	heavy rain .	.....
U. S. F. C. S. Fish Hawk, Washington, D. C.....†..	29.74	755 4	60	15.6	88	nw.	4	.....	10 n	.....	.....	0.47	11.9	.....	.....	raining.....	.....
Hassler, Lt. Com. Nichols, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
S. Pawashick, Capt. E. Fry,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Lovaine, Capt. H. McCauley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 35° 23′, W. 41° 38′..... .....†...	30.44	773.2	66	18.9	.....	w.	2	.....	2	.....	nw.	.....	.....	mod.	nne.	fine	E. Fry.
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam. Capt. Jos. Hand, N. 35° 48′, W. 46° 56′.....†.	30.22	767.6	71	21.7	80	s.	3	.....	8	.....	se.	0	0	mod.	ne.	cloudy.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. Hazen

Brig. & Bvt. Maj. Gen'l.
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 26, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours		Weather	Observers.
												Up'er	Lo'er	Upper.	Lower				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.97	761.2	71.6	22.0	80	ne.			5		1			0	0	very fair	Moiroud.
Algiers ‡			29.93	760.3	74.1	23.4	69	wsw.			4		1			0	0	very fair	Nicolas.
La Calle ‡			29.91	759.8	73.8	23.2	77	nw.			4		6			0.079	2.0	very cloudy	Fonfréde.
Tunis ‡			29.89	759.2															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.00	762.0	77.9	25.5	38	nne.			1		0			0	0	clear	Dumas.
Tebessa ‡			30.00	762.0	70.2	21.2	53	nw.			5		2			0	0	fair	Derché.
Geriville ‡					77.7	25.4	26	w.			4		0			0	0	clear	Lonchamp.
Laghouat ‡			30.03	762.8	77.4	25.2	36	w.			1		2			0	0	fair	Herbin.
Biskra ‡			30.02	762.4	73.0	22.8	36	nw.			3		0			0	0	clear	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.18	766.6	30.27	768.8	53.7	12.1	77	se.	3	1.3			1			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.13	739.8	29.68	753.8	47.7	8.7	99	e.			2		10			0.583	14.8	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.04	737.7	29.82	757.8	36.5	2.5	87	nw.	1.8	0.8			10			0.390	9.9	raining	Dr. Wiersbicki.
Eperies	28.83	732.2	29.72	754.8	43.2	6.2	76	calm			0		10 s			0.236	6.0	drizzling	Julius Mikolik.
Gratz ‡	28.47	723.0	29.72	755.0	46.6	8.1	92	sw.			2		10			0.016	0.4		Andreas Rospini.
Hermannstadt	28.25	717.5	29.64	752.9	56.5	13.6	63	nnw.			2		10			0.213	5.4		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.39	721.0	29.74	755.5	43.2	6.2	91	ene.			2		10			0.205	5.2	raining	The Staff.
Lemberg	28.69	728.6	29.70	754.3	38.1	3.4	87	nw.			3		9			0.094	2.4		Dr. T. Stanecki.
Pola	29.48	748.7	29.59	751.5	56.5	13.6	85	e.			2		10			0.504	12.8		I. R. Hydrographic Office.
Szathmar	29.26	743.1	29.72	754.8	46.6	8.1	74	ne.			2		7			0.031	0.8		Jozsef Midlinszky, S. J.
Szegedin	29.39	746.6	29.67	753.7	54.6	12.0	79	nw.			2		6			0	0		Karl Stancel.
Trieste	29.50	749.4	29.61	752.0	58.6	14.8	70	e.			3		10			0.390	9.9		Rieder.
Vienna	29.07	738.3	29.80	756.8	42.6	5.9	70	n.			1		10			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.24	768.1	30.34	770.6	46.0	7.8	73	se.	10	4.5			4			0.040	1.0	blue sky	W. Boswell.
Armagh, Observatory	30.02	762.5	30.26	768.6	45.7	7.6	75	ne.	3	1.3			10					showery	S. Call.
Bidston, Liverpool Obs'y			30.21	767.3	45.3	7.4	75	ne.	11	4.9			9					overcast	John Hartnup.
Bolton, Sharples	29.66	753.4	30.20	767.1	44.0	6.7	70	ene.	12	5.4			9					overcast	Thomas Mackereth.
Bradford, Yorkshire	29.80	756.9	30.20	767.1	44.3	6.8	74	e.			3		6			0	0	d. clouds	[A.S. J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.10	764.5	48.0	8.9	81	ne.			1.0		8					overcast	John McLaren.
Chatham, School M. E.	29.96	761.0	30.09	764.3	46.1	7.8	91	ne.			2		7			blank	blank	gloomy	R. Craydon, R. E.
Falmouth, Observatory	29.84	757.9	30.07	763.8	48.6	9.2	74	ne.			4		9					overcast	The Staff.
Fort Napier, Natal	27.54	699.5	29.76	755.9	88.2	31.2	43	nw.			2		0					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.62	752.3	29.86	758.4	88.0	31.1	69	sw.			1		3					d clouds	Sergt. John Robinson.
Galway, Queen's College			30.16	766.1	48	8.9	71	e.			2		10					squally	J. O'Donaghue.
Gibraltar, Mediterranean	30.00	762.0	30.05	763.3	73.6	23.1	85	w.			3		4					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	30.09	764.3	30.29	769.4	45.0	7.2	84	ene.			2		10 k					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.92	760.0	30.09	764.3	51.0	10.6	75	ene.			2		7					d. clouds	The Staff.
Guernsey	29.74	755.4	29.96	761.0	52	11.1	61	ne.			3		5					d. clouds	Dr. S. E. Hoskins, F.R.S.
Kew, Observatory	30.06	763.5	30.10	764.5	47.9	8.8	66	ne.	14	6.3			8					threatening	The Staff.
Leicester, Museum	29.89	759.2	30.15	765.8	47.6	8.7	69	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.75	755.6	29.83	757.7	74.6	23.7	88	w.			3		3			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.88	758.9	29.93	760.2	76.5	24.7	76	ne.			1		8			blank	blank	overcast	C. S. Duncombe.
Oscott, St. Mary's College	29.64	752.8	30.17	766.3	45.1	7.3	84	nne.			2		9					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.89	759.2	30.12	765.0	46.7	8.2	73	nne			5		9					threatening	The Staff.
Plymouth	30.00	762.0	30.07	763.8	49.8	9.9	71	ene.			4		4					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.34	770.6	46.9	8.3	88	se.	13	5.8			9					d. clouds	Rev. C. Clouston, L.L.D.
Scutari Cemetery, Turkey	29.69	754.1	29.75	755.6	67.2	19.6	69	sw.			2		9			blank	blank	d. clouds	Serg't W. H. Lyne.
Sheffield	29.91	759.7	30.20	767.1	46.7	8.2	69	ne.			1		8			0.01	0.3	overcast	W. F. Cooper.
Silloth Rectory	30.22	767.6	30.25	768.3	45.7	7.6	87	e.			2		5			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.82	757.4	45.4	7.4	67	ene.	11	4.9			8					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.88	758.9	30.10	764.5	49.5	9.7	67	e.			4		6					squally	Rev. C.H. Griffiths, F.M.S.
Truro, Royal Institution	30.06	763.5	30.10	764.5	53	11.7	79	ne.			4		8					gloomy	W. Newcombe.
Valencia, Observatory	30.12	765.0	30.15	765.8	49.9	9.9	73	e.	22	9.8			6					misty	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.03	737.3	29.07	738.4	40	4.4	78	w.	17	7.6			10 s			0.760	19.3	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	29.04	737.6	29.10	739.1	35	1.7	78	w.	15	6.7		2 k	8 s	w.	w.	0.45	11.4	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.30	744.2	29.32	744.7	28	— 2.2	88	nw.	45	20.1			10 n		calm	0.04	1.0	threatening	J. McWilliams.
Fort Garry, Manitoba*	28.97	735.8	29.84	757.9	22	— 5.6	87	s.	7	3.1				s.	s.	0	0	hazy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.07	738.4	29.20	741.7	42	5.6	86	w.	10	4.5		2 k	8 k		nw.	0.166	4.2	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.63	752.6	29.98	761.5	25	— 3.9	80	n.	7	3.1		2 k	0	n.		0.06	1.5	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.62	752.3	29.83	757.7	23	— 5.0	66	w.	18	8.0		2 k	0	nw.		0.19	4.8	clear	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.29	744.0	30.03	762.7	23	— 5.0	87	calm	0	0		0	0			0	0	clear	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.29	744.0	30.01	762.2	34	1.1	100	nw.	3	1.3		0	0			0	0	clear	H. Morgan.
Port Stanley, Ontario	29.34	745.2	30.01	762.2	33	0.6	92	n.	5	2.2		5 k	0	nw.		0	0	fair	M. Payne.
Quebec, Quebec*	29.26	743.2	29.60	751.8	23	— 5.0	83	n.			5	0	2 s		nw.	0.32	8.1	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.49	749.0	29.98	761.5	21	— 6.1	80	nw.	5	2.2		0	0			0.04	1.0	clear	W. H. McIntyre.
Saugeen, Ontario*	29.26	743.2	30.01	762.2	30	— 1.1	77	ne.	8	3.6		0	0			0	0	clear	K. Stewart.
St. Andrews, N. B.	29.27	743.4	29.32	744.7	33	0.6	83	nw.	13	5.8			10 n			0.31	7.9	cloudy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	28.88	733.5	28.94	735.1	49	9.4	93	w.	12	5.4			10 ks		w.	0.19	4.8	clearing	T. C. Hill, C. E.
Toronto, Ontario*	29.63	752.6	30.04	763.0	30	— 1.1	68	n.	4	1.8		0	0			0.02	0.5	clear	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.29	744.0	29.36	745.7	42	5.6	93	nw.	39	17.4			10 s		nw.	0.26	6.6	cloudy	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.93	760.2	30.19	766.8	35	1.7	100	se.	4	1.8		fg.	fg.			1.00	25.4	raining	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	29.93	760.2	29.96	761.0	62.0	16.7	84	w.	17.3	7.7		5 cs	0			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.10	739.1			66	18.9	43	wnw.			2	0	2			0	0	fine	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.08	763.9	30.10	764.6	59.9	15.5	93	se.	0.9	0.4		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.14	765.5	30.19	766.7	39.0	3.9	61	ne.	27	12			3						Oversergent Fischer.
Fanöe	30.18	766.5	30.20	767.0	39.2	4.0	77	ne.			4		9						Overloerer Lauridsen.
Godthaab, Greenland	29.79	756.7	29.84	757.8	41.0	5.0	54	ene.			4		4						S. Kleinschmidt.
Stykkisholm, Iceland	30.35	771.0	30.40	772.1	36.7	2.6	93	e.			4		0						A. O. Thorlacius.
Thorshavn	30.39	771.9	30.43	772.8	45.0	7.2	70	ene.	11	5			10						Overloerer Bergh.
Vestervig	30.17	766.4	30.26	768.7	35.6	2.0	68	ne.			4		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.19	741.3	29.83	757.6	55.4	13	57	ne.			1	8 c	0					very cloudy	M. Labroue, Director.
Alençon Normal School	29.51	749.6	30.12	765.0	44.6	7	94	ne			3		n		ne.	0	0		M. Nicot, Director.
Arras, Engineer School	29.73	755.2	30.00	762.0	44.2	6.8	83	ne.					kn		ne.				M. Klein, Commandant.
Avignon, Normal School	29.75	755.6	29.83	757.6	51.8	11	58	n.			4		0			0	0	clear	M. Giraud, Director.
Bar-sur-Seine	29.38	746.3	29.95	760.8	41.9	5.5	80	nnw.			1		10		nw.	0.079	2.0	covered	M. Saillard, Director.
Beauvais, Normal School	29.74	755.4	30.01	762.3	44.4	6.9	75	n.			2		10		n.	0	0	covered	M. Frère Eugène Marie.
Besançon, Normal School	28.99	736.3	29.90	759.4	41.2	5.1	84	ssw.			1		n		n.	0.610	15.5		M. Gobin, Director.
Bordeaux, Observatory	29.58	751.4	29.85	758.1	52.0	11.1	58	ene.			1		8			0.118	3.0	very cloudy	M. Rayet, Director.
Bourges, Normal School	29.37	746.1	29.95	760.6	42.6	5.9	70	n.			3		sk		n.	0	0		M. Postel, Director.
Brest, Naval Observatory	29.72	755.0	29.97	761.1	52.2	11.2	65	ne.			2		4		ne.	0	0		M. de Rernaree, Dir.
Caen, Normal School	29.94	760.5	30.02	762.4	48.9	9.4	86	e.			1		8		e.	0.173	4.4	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.54	750.4	29.87	758.6	43.3	6.3	85	nw.			3		10		nw.	0.004	0.1	covered	M. Jadot, Director.
Charleville, Normal School	29.41	747.1	29.94	760.4	41.0	5	74	e.			1		4			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.55	725.2	29.94	760.4	43.9	6.6	79	n.			1		8			0.224	5.7	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.10	739.2	30.01	762.2	45.0	7.2	97	nw.			2		4		ne.	0.016	0.4		M. de Villemontée, Dir.
Commercy, Normal School	29.02	737.0	29.89	759.2	41.7	5.4	88	nw.			1		10 kn	nw.	nw.	0.04	1.	covered	Dr. Coulet, Director.
Gap, Normal School	27.18	690.4	29.71	754.5	50.0	10	74	s.			2	3 c	0	s.		0.04	1.		M. Jeangirard, Director.
Gréasque, du. Rhone	28.69	728.6	29.83	757.6	52.7	11.5	48	nw.			3		2		nw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.10	739.1	29.88	759.0	45.0	7.2	71	nw.			4		kn			0.075	1.9		M. Ablard, Director.
Guéret, Normal School	28.33	719.5	29.95	760.6	38.3	3.5	90	ese.			1		10		wsw.	0	0	covered	M. Rivoire, Director.
Lamballe, Normal School	29.71	754.7	29.98	761.6	50.9	10.5	77	nne			3		5 k		nne.	0	0	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.25	743.0	29.81	757.2	59.0	15	89	nw.			1					0.39	10.		M. Chauvin, Director.
Lorient, Naval Observatory	29.85	758.2	29.95	760.8	55.4	13	66	ene.			3		8		w.	0	0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.87	733.3	29.95	760.8	42.4	5.8	72	nnw.			1		5		nnw.	0.087	2.2	cloudy	M. André, Director.
Mans, Normal School	29.69	754.1	30.01	762.2	42.6	5.9	75	ene.			4		8		e.	0	0	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.49	749.0	29.76	755.8	55.6	13.1	43	nw.			3		1		nw.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.63	625.7	29.87	758.7	54.0	12.2	57	sw.	11.2	5.0			5		w.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.68	753.9	29.79	756.7	59.7	15.4	83	n.			3		0			0	0	clear	M. Pourle, Director.
Nancy, Normal School	29.12	739.6	29.91	759.6	39.6	4.2	93	w.			1		10 n			0.067	1.7	light rain	M. Hasse.
Nantes, Observatory	29.81	757.1	29.97	761.2	48.0	8.9	93	e.			1-2	c	9 kn		ene.	0	0		M. Larocque, Director.
Nice	29.54	750.4	29.58	751.3	62.6	17.0	80	s.			2	1	1	s.	s.	0	0	clear	Capt. Boissière, Director.
Perpignan, Observatory	29.61	754.1	29.80	756.8	62.4	16.9	65	se.	1.8	0.8			8	w.	sw.	0	0		Dr. Fines.
Pic-du-Midi, Summit	21.08	535.4			32.4	0.2		w.			2		10		w.	0.268	6.8	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.83	732.2	29.91	759.8	44.8	7.1	74	n.			1		10	n.		0	0	covered	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.93	633.3			25.9	—3.4	100	ene.			2		10			0.441	11.2	covered	M. Alluard, Director.
Rochefort, Naval Obs'y	29.90	759.5	29.94	760.3	50.0	10.0	97	ene.			4		2		w.	0	0	¼ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.72	754.8	29.94	760.5	51.1	10.6	65	ne.			4		5			0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School	27.73	704.3	29.90	759.4	47.1	8.4	78	nw.			2		8		nw.	0	0		M. Richard, Director.
Rouen, Normal School	29 97	761.1	30.01	762.2	45.7	7.6	74	ne.			2					0	0		M. Platrier, Director.
Saint Lô, Normal School	29.85	758.2	30.01	762.2	50.2	10.1	74	ne.			2		5		ne.	0.177	4.5	cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.81	757.2	29.98	761.4	43.7	6.5	79	nnw.			1		10		nne.	0	0		M. Renou, Director.
Toulouse, Observatory	29.15	740.5	29.87	758.8	53.6	12.0	92	nnw.			1		10	n.		0.445	11.3	covered	M Bailland, Director.
Tours	29.78	756.3	29.97	761.3	43.5	6.4	79	ne.			2		10	calm		0	0	covered	M. de Tastes.
Versailles, Observatory	29.49	749.0	29.98	761.5	42.8	6.0	79	n.			1					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.69	754.2	29.98	761.6	43.7	6.5	75	n.			2		10		ne.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	28.98	736.0	29.84	757.8	37.9	3.3	90	nw.			3		10 n	nw.		0.606	15.4	raining	Prof. Dr. Hoh.
Berlin	29.77	756.2	29.95	760.7	43.7	0.5	71	e.			1		7			0.087	2.2		Prof. Dr. Arndt.
Breslau	29.36	745.7	29.89	759.1	37.0	2.8	75	n.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.45	747.9	29.88	759.0	39.9	4.4	89	wsw.			1		10	sw.		0.075	1.9		Albert Senz.
Cassel	29.22	742.2	29.94	760.5	40.8	4.9	68	ne.			4		9	n.		0	0		Dr. H. Möll.
Frankfort on the Main	29.52	749.7	29.89	759.2	39.9	4.4	87	nne.			2		10			1.634	41.5		Physical Society.
Friedrichshafen	28.41	721.7	29.87	758.8	43.2	6.2	68	ssw.			2		9	sw.		0	0		Wilhelm, Chief Tel.
Hamburg	29.98	761.6	30.08	764.0	41.0	5.0	90	nne.			3		7			0.047	1.2		E. Preller.
Kiel	30.08	763.9	30.09	764.3	42.3	5.7	67	ne.			3		10			0.067	1.7		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.50	749.4	29.94	760 4	39.6	4.2	79	nne.			2		9	ne.		0.134	3.4		H. Leppig, Asst.
Magdeburg	29.77	756.2	29.97	761.2	41.9	5.5	72	ne.			3		10 ks		ne.	0.091	2.3		Dr. Assmann.
Memel	29.92	760.0	29.97	761.2	34.0	1.1	66	ne.			4	0	9 k						Issermann.
Munich	28.00	711.2	29.85	758.2	35.2	1.8	90	nw.			2		10			0.846	21.5		Central Station.
Neufahrwasser	29.97	761.2	29.98	761.6	39.9	4.4	76	ne.			4		10			0.008	0.2		A. Lothes.
Neustadt, Palatinate	29.32	744.6	29.84	757.9	39.2	4.0	87	w.			3		10			0.016	0.4		Dicknether.
Stuttgart	28.89	733.7	29.80	750.9	40.1	4.5	89	w.			1		10			0.008	0.2	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.34	719.8	29.89	759.2	37.4	3.0	90	w.			4		10	w.		0.303	7.7		Fischer.
Wustrow	30.02	762.6	30.05	763.2	41.9	5.5	88	ne.			3		10 s			0.197	5.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.44	747.8	29.83	757.6	70.3	21.3		s.			2.0		10			inap.	inap.		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.89	759.3	29.94	760.6	83.6	28.7	77	wsw.	20.0	8.9			0			0	0	blue sky	
Deesa	29.46	748.2	29.92	760.0	90.7	32.6	27	nw.	7.4	3.1			0			0	0	blue sky	
Bombay	29.89	759.1	29.93	760.1	82.4	28.0	66	nw.	11.0	4.9			0			0	0	blue sky	
Poona, Yarrowda	28.07	713.0	29.90	759.4	88.2	31.2	22	ne.	3.0	1.3			4	sw.		0	0	d. clouds	
Belgaum	27.37	695.3	29.88	758.9	83.8	28.8	30	e.	2.0	0.9			0			0	0	blue sky	
Lahore	29.19	741.4	29.93	760.3	78.9	26.1	51	calm	0.6	0.3			0			0	0	blue sky	
Roorkee	29.03	737.2	29.93	760.3	77.2	25.1	46	w.	1.1	0.5			0			0	0		
Agra	29.38	746.1	29.94	760.4	84.2	29.0	25	w.	3.6	1.6			0			0	0		
Nagpur	28.90	733.9	29.93	760.3	85.0	29.4	30	calm	3.6	1.6			0			0	0	blue sky	
Jubbulpore	28.63	727.1	29.99	761.7	79.8	26.6	42	calm	2.2	1.0			0			0	0	blue sky	
Lucknow	29.52	749.8	29.89	759.3	85.1	29.5	32	calm	2.6	1.2			0			0	0	blue sky	
Allahabad	29.62	752.2	29.94	760.4	72.8	22.7	55	calm	1.8	0.8			0			0	0	blue sky	
Patna	29.75	755.6	29.93	760.3	77.9	25.5	63	n.	1.2	0.5			2	n.	n.	0	0		
Hazaribagh	27.88	708.1	29.89	759.3	78.3	25.7	29	calm	4.8	2.2			0			0	0	blue sky	
Cuttack	29.84	758.0	29.93	760.1	77.3	25.2	66	calm	0.3	0.1			0			0	0	blue sky	
Calcutta, Alipore	29.86	758.5	29.89	759.1	81.5	27.5	63	calm	0	0			2		e.	0	0	d. clouds	
Dhubri	29.83	757.7	29.95	760.8	78.9	26.1	79	calm	2.8	1.2			0			0	0	blue sky	
Goalpara																			
Chittagong	29.79	756.7	29.88	759.0	78.7	25.9	70	nw.	2.7	1.2			0			0	0	blue sky	
Sibsagar	29.57	751.1	29.91	759.7	77.8	25.4	84	ne.	1.1	0.5			0			0	0	blue sky	
Jeypore	28.51	724.2	29.94	760.6	86.7	30.4	24	nw.	3.3	1.5			0			0	0	blue sky	
Zanzibar, Africa			29.94	760.5	82.6	28.1	74	sse.	3	1.3			7			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.21	742.0	29.62	752.4	57.7	14.3	60	calm	0	0			9			0.106	2.7		Prof. Giovanni Clodig.
Milan	29.12	739.6	29.64	752.8	55.9	13.3	80	ssw.	1.8	0.8			10	ssw.		0.331	8.4		Prof. Schiaparelli.
Padua	29.51	749.6	29.62	752.3	52.3	11.3	94	n.					10	ne.		0.209	5.3		Prof. Dott. Lorenzoni.
Moncalieri	28.70	728.9	29.61	752.0	54.9	12.7	79	nw.	1.3	0.6			5	se.		0	0		Prof. P. F. Denza.
Genoa	29.41	747.1	29.60	751.9	61.7	16.5	69	s.	1.3	0.6			2	w.		0.020	0.5		Prof. G. M. Garibaldi.
Mondovi	27.70	703.6	29.62	752.4	51.6	10.9	80	wnw.			4		1	sse.		0	0		Prof. D. C. Bruno.
Pesaro	29.56	750.8	29.61	752.0	57.6	14.2	85	sw.			4		9			0.047	1.2		Prof. Luigi Guidi.
Florence	29.37	745.9	29.62	752.3	61.2	16.2	88	s.			2		10			0.217	5.5		Prof. Costantino Pitter.
Leghorn	29.52	749.9	29.61	752.0	61.9	16.6	77	w.	2.5	1.1			10			0.657	16.7		Prof. P. Monte.
Rome	29.47	748.4	29.64	752.8	66.4	19.1	71	wsw.	3.8	1.7			8			0.425	10.8		Prof. P. S. Ferrari.
Lecce	29.39	746.6	29.64	752.9	69.4	20.8	72	sw.	11.2	5.0			4	w.		0.039	1.0		Prof. C. de Giorgi.
Cosenza	28.85	732.9	29.72	755.0	63.0	17.2	72	ssw.	4.9	2.2			10	sw.		0.457	11.6		Prof. D. Conti.
Cagliari	29.54	750.4	29.74	755.3	70.2	21.2	60	sse.			2		6	w.		0.748	19.0		Prof. A. Pacinotti.
Palermo	29.54	750.2	29.78	756.4	72.9	22.7	44	wsw.	4.3	1.9			1	w.		0.106	2.7		Prof. G. Ciacciatore.
Syracuse	29.70	754.3	29.74	755.4	72.0	22.2	64	w.	18.6	8.3			5	w.		0.484	12.3		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.21	741.9	29.64	752.9	64.4	18.0	75	w.	13.6	6.1			2	sw.		0.189	4.8		Prof. F. Brioschi.
Stelvio	21.78	553.3			32.7	0.4	79	e.			2	cs	10 k	s.		0.280	7.1	misty	Prof. P. F. Denza.
Valdobbia	21.83	554.5			25.7	— 3.5	72	nw.			6		2 k	wnw.		0	0	misty	
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y †	29.97	761.2	29.99	761.7	59.0	15.0	84	nne.	6.4	2.9		ck	8 s			0	0	very cloudy	K. Sasaki.
Kioto	29.85	758.2	30.03	762.7	55.3	12.9	85	nnw.	0.7	0.3		ck	9 s			0	0	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.85	758.2	30.05	763.3	61.1	16.2	80	n.	3.2	1.4		0	0			0	0	clear	S Takehayashi
Nemuro																			
Niigata	30.00	762.0	30.04	763.0	53.6	12.0	79	ne.	0.7	0.3		2 cs	0			0	0	fair	
Nobiru	30.04	763.0	30.06	763.5	49.4	9.7	97	nnw.	6.2	2.8		0	6 s			0.045	1.1	fair	
Supporo	29.95	760.7	30.02	762.5	40.0	4.4	90	calm	0	0			0			0	0		
Tokei Obs'y, Yeddo	29.96	761.0	30.03	762.7	54.9	12.7	87	ne.	4.0	1.8		1 ck	0			0	0	clear	The Staff.
Wakayama	29.98	761.5	30.03	762.7	55.7	13.2	83	calm	0	0		cs	3 s			0	0	fair	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.99	761.7	30.18	766.6	76.1	24.5	65	ene.	17.5	7.8		1 c;cs	4 k;ks		e.	1.26	32.0	fair	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.8	29.93	760.2	55.8	13.2	88	calm	0	0		2 k	s	sw.		0.741	18.8	clear	Vicente Fernandez
Leon	24.43	620.6	30.08	764.0	61.8	16.6	86	sw.			2	8 ck	0	se.		inap.	inap.	cloudy	Prof. M. Leal.
Mazatlan	29.69	754.1	29.95	760.6	76.0	24.4	82	nne.	0.9	0.4		0	6 k;n		ese.			raining	F. Quijano, C. E.
Mexico, Central Obs'y	23.10	586.8	30.12	765.2	55.2	12.9	75	calm	0	0		0	3 ks			0.004	0.1	fair	The Staff.
Morelia	24.15	613.5	30.21	767.4	58.5	14.7	22	sse.			4	6	2	se.	s.	0.103	2.6		M. Tena, M. D.
Pabellon, Aguascalientes	23.92	607.6	29.89	759.2	60.3	15.7	94	wsw.			1	0	9 ks		sw.	0.347	8.8	very cloudy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.45	595.7	30.19	766.8	57.2	14.0	89	calm	0	0		0	9		ne.	0.004	0.1	covered	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.05	763.3	30.05	763.3	43.7	6.5		ne.			4					0.028	0.7		
Groningen	30.04	762.9	30.09	764.3	42.6	5.9		ne.			4					0.028	0.7		
Helder	30.08	764.1	30.08	764.1	43.0	6.1		ne.			4					0.240	6.1		
Hellevoetsluis	30.03	762.8	30.03	762.8	43.0	6.1	80	ene.			5					0.031	0.8		
Utrecht	30.02	762.4	30.06	763.6	43.2	6.2	89	ene.			4		8			0.043	1.1	very cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.21	767.4	30.28	769.0	42.1	5.6	79	calm	0	0			6			0.020	0.5		
Christiania	30.18	766.5	30.33	770.4	34.0	1.1	52	e.	0	0			1			0	0		
Gjesvær	30.25	768.4	30.28	769.0	24.3	— 4.3		e.			2		10						
Lodingen	30.12	765.1	30.17	766.3	30.7	— 0.7	88	calm			0		10			0.122	3.1	snowing	
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.15	765.8	30.31	769.8	61.2	16.2	71	calm	0	0			2			0	0		Dr. J. A. Sampaio.
Campo Major	28.94	735.0	29.93	760.1	63.0	17.2	74	wsw.	12.5	5.6			10			0.161	4.1		Dr. A. M. R. dos Santos.
Funchal, Madeira	30.03	762.7	30.11	764.9	72.0	22.2	70	wsw.	1.8	0.8			10			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.61	752.0	29.97	761.1	63.5	17.5	77	sw.	23.0	10.3			5			0.146	3.7		The Staff.
Ponta Delgada, Azores	30.24	768.2	30.32	770.0	63.7	17.6	57	nne.	9.4	4.2			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.19	741.5	30.34	770.7	21.9	— 5.6	87	se.	7	3		0	0						Capt. Lasarew.
Archangel	29.82	757.3	29.84	757.8	25.2	— 3.8	69	n.	4	2			10						Capt. Sseliwerstow.
Astrakhan	29.97	761.1	29.88	759.0	62.6	17.0	79	s.	29	13			10 n;s						Capt. Wisganow.
Barnaul ‡	29.97	761.1	30.51	774.9	18.5	— 7.5	56	calm	0	0			7						Meteorological Obs'y.
Dorpat	29.74	755.3	29.99	761.8	27.9	— 2.3	71	nnw.	9	4			10 ks						Observatory.
Ekaterinburg	28.86	733.1	29.87	758.7	24.6	— 4.1	82	sse.	9	4			10					light snow	Meteorological Obs'y.
Kasan	29.12	739.6	29.39	746.6	30.0	— 1.1	97	e.	4	2			10					snowing	Observatory.
Kertch	29.70	754.4	29.72	754.9	64.8	18.2	80	sw.	11	5		0	7 n			0	0		Lagorio & Sastyres.
Kieff	28.75	730.2	29.39	746.5	39.6	4.2	90	w.	9	4			10n;ks					raining	Observatory.
Lugan	29.30	744.1	29.49	749.1	69.6	20.9	47	sw.	45	20			8						Meteorological Obs'y.
Moscow	28.88	733.6	29.37	746.1	26.2	— 3.2	87	nw.	13	6			10 s					light snow	Meteorological Obs'y.
Nikolaiev	29.52	749.7	29.59	751.5	63.5	17.5	52	sw.	9	4		0	1 k						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.65	753.1	29.74	755.3	36.3	2.4	91	calm			0	0	0			0	0		Lieut. Iwanow.
Pekin, China	29.82	757.3	29.96	760.9	58.3	14.6	81	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	29.94	760.4	29.95	760.8	27.5	— 2.5	89	nne.	4	2			9 n					snowing	Central Physical Obs'y.
Tashkend, Laboratory	28.71	729.3	30.30	769.6	55.8	13.2	87	calm	0	0			4			0.035	0.9		Teich, A. M.
Tiflis	28.65	727.8	30.03	762.7	72.9	22.7	37	sw.	2	1		0	0						Physical Observatory.
Warsaw	29.43	747.4	29.86	758.5	31.6	— 0.2	87	nnw.	13	6			10 ks						Astronomical Obs'y.
Wilna	29.39	746.5	29.83	757.6	32.4	0.2	69	nnw.	11	5			10					heavy cl'ds	Berg, Assistant.
Yeniseisk	30.09	764.2	30.40	772.1	14.5	— 9.7	80	w.	11	5			10						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.32	770.1	45.0	7.2	76	e.			1	0	6 k			0.01	0.3	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.31	769.9	48	8.9	92	s.			3	10	0	s.		0	0	overcast	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.69	754.1	29.80	756.8	66.6	19.2	78	ese.	4.0	1.8			6			0	0	cloudy	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.70	754.3	29.75	755.7	71 2	21.8	64	se.	3.6	1.6		5	2	w.		0	0	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.88	682.8			57.2	14.0	95	s	8.9	4.0			10			0.295	7.5	covered	Domingo Martin.
Madrid, Royal Obs'y	27.67	702.7	29.85	758.2	63.1	17.3	79	sw.	20.6	9.2			10			0	0	covered	The Staff.
Murcia, Met. Obs'y ‡	29.74	755.3	29.88	759.0	81.9	27.7	48	ese.	1.3	0.6		0	0			0	0	clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.76	730.5	29.64	752.9	60.1	15.6	84	s.	26.2	11.7			10			0.150	3.8	covered	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.92	759.9	29.98	761.6	79.1	26.2	66	n.	8.7	3.9		0	3 k		nw.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.74	755.4	29.79	756.7	81.1	27.3	80	sw.	20.5	9.3		5 cs	5 kn	nnw.	wsw.	0	0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.95	760.7	30.05	763.2	69.4	20.8	83	wsw.	10.6	4.7		0	8		w.	0.007	0.2		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.84	758.0	29.93	760.3	77.0	25.0	89	calm	0	0		2 cs	3 k			0.012	0.3		E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.34	745.1	29.47	748.5	76.0	24.4	79	sse.	38.2	16.9			10 kn		s.	0.39	10.0	stormy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.23	767.9	30.27	768.9	23.0	— 5.0	62	nne.			4		8			0	0		
Umea	30.23	767.8	30.28	769.1	26.6	— 3.0	49	n.			2		10			0.024	0.6		
Hernosand	30.28	769.0	30.33	770.3	28.6	— 1.9	50	n.			2		5			0	0		
Stockholm	30.03	762.8	30.21	767.3	31.3	— 0.4	55	ene.			6		10			0.039	1.0		
Wisby	30.06	763.5	30.12	765.0	33.4	0.8	71	ene.			6		10			0.071	1.8		
Sub-Series.																			
Upsala	30.14	765.5	30.22	767.7	28.6	— 1.9	100	nnw.	12.5	5.6			10			0.004	0.1	snowing	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.43	722.2	29.87	758.7	50.0	10.0	49	sse.			3		5			0	0	cloudy	The Observatory.
Zurich	28.25	717.5	29.93	760.3	39.9	4.4	75	w.			4		8			0	0	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.80	757.0	58.2	20.1	70	sw.	17	7.5			10		sw.	0.260	6.6		The Observatory.
Valona			29.74	755.4	65.8	18.8		sw.			1		2			0.55	14.	slightly cld.y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.99	761.7	80.1	26.7	61	ne.			1	0				0	0		Prof. C. V. Van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	29.76	755.9	29.84	757.9	43.5	6.4	48	nw.	6	2.7		0	3 k		w.	0.07	1.8	fair	
Alpena, Michigan	29.38	746.2	30.07	763.8	28	— 2.2	77	nw.	4	1.8		0.	0			0	0	clear	
Atlanta, Georgia	28.84	732.5	30.06	763.5	48.2	9.0	77	nw.	10	4.5		0	0			0	0	clear	
Atlantic City, New Jersey	29.84	757.9	29.85	758.2	47.8	8.8	86	nw.	3	1.3		0	0			0.03	0.8	clear	
Augusta, Georgia	29.83	757.7	30.03	762.7	50.8	10.4	86	calm	0	0		0	0			0	0	clear	
Baltimore, Maryland	29.85	758.2	29.90	759.4	52	11.1	80	w.	4	1.8		2 cs	hz.	calm		0	0	clear	
Barnegat, New Jersey	29.84	757.9	29.86	758.4	49.0	9.4	63	nw.	10	4.5		0	0			0	0	clear	
Bismarck, Dakota	27.99	710.9	29.91	759.7	25	— 3.9	88	e.	4	1.8		0	hz.			0	0	dense haze	
Boise City, Idaho	26.94	684.3	29.86	758.4	40.2	4.6	73	e.	4	1.8			10 s		calm	0	0	cloudy	
Boston, Massachusetts	29.54	750.3	29.70	754.4	39.3	4.1	65	nw.	14	6.3		0	1 s;hz.		nw.	0	0	clear	
Brackettville, Texas	28.78	731.0	29.82	757.4	61	16.1	100	e.	4	1.8			10 s		calm	0.02	0.5	cloudy	
Brownsville, Texas	29.87	758.7	29.92	760.0	69	20.6	90	calm	0	0		0	4 s			0.72	18.3	cloudy	
Buffalo, New York	29.26	743.2	30.00	762.0	35.4	1.9	68	nw.	3	1.3		0	1 ks		sw.	inap.	inap.	clear	
Burlington, Vermont	29.55	750.6	29.85	758.2	26.0	— 3.3	64	nw.	19	8.5		0	4 s		nw.	0.14	3.6	fair	
Cairo, Illinois	29.66	753.4	30.07	763.8	48.7	9.3	91	sw.	3	1.3		0	fg.			0	0	clear	
Campo, California	27.38	695.4	29.95	760.7	44	6.7	93	w.	1	0.4			10 s		w.	0.48	12.2	cloudy	
Camp Thomas, Arizona	27.11	688.6			48.5	9.2	91	e.			1	5 c;cs	4 k;ks			0	0	cloudy	
Cape Henry, Virginia	29.90	759.4	29.92	760.0	56	13.3	80	sw.	10	4.5		0	hz.			0.35	8.9	clear	
Cape May, New Jersey	29.83	757.7	29.86	758.4	57	13.9	57	nw.	24	10.7		0	0			0	0	clear	
Castroville, Texas	29.17	740.9	29.86	758.4	65	18.3	78	e.	3	1.3			10 s			0.03	0.8	threatening.	
Cedar Keys, Florida	30.01	762.2	30.03	762.7	58	14.4	75	n.	6	2.7		0	0			0	0	clear	
Champaign, Illinois	29.14	740.1	29.94	760.5	46.6	8.1	90	calm	0	0			fg.			0	0	dense fog	
Charleston, S. Carolina	29.95	760.7	30.01	762.2	57	13.9	74	n.	5	2.2		0	0			0	0	clear	
Charlotte, N. Carolina	29.12	739.6	30.03	762.7	51.4	10.8	72	n.	3	1.3		5 ck	sk.	nw.		0	0	fair	
Chattanooga, Tennessee	29.25	742.9	30.10	764.5	47.0	8.3	86	w.	5	2.2		1 cs	fg.	calm	calm	0	0	clear	
Cheyenne, Wyoming	23.93	607.8	30.06	763.5	30.2	— 1.0	74	nw.	6	2.7		0	0			0	0	clear	
Chicago, Illinois	29.29	744.0	30.03	762.7	46.9	8.3	77	e.	12	5.4		0	1 s			0	0	clear	
Chincoteague, Virginia	29.87	758.7	29.89	759.2	54	12.2	86	nw.	6	2.7		0	0			0.90	22.9	clear	
Cincinnati, Ohio	29.34	745.2	30.02	762.5	50.5	10.3	86	sw.	1	0.4			fg.			0	0	dense fog	
Cleveland, Ohio	29.24	742.7	30.01	762.2	49	9.4	68	ne.	7	3.1			10 k		n.	0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.11	739.4	30.00	762.0	47	8.3	77	w.	3	1.3		0	fg.			0	0	clear	
Concho, Texas	28.04	712.2	30.04	763.0	61	16.1	100	calm	0	0			10 s			0	0	cloudy	
Corsicana, Texas	29.59	751.6	30.07	763.8	59	15.0	100	s.	4	1.8			10 n		sw.	0.39	9.9	heavy rain	
Davenport, Iowa	29.31	744.5	29.99	761.7	46	7.8	83	e.	6	2.7		0	fg.		calm	0	0	light fog	
Dayton, Washington T'y	27.98	710.7	29.84	757.9	39.4	4.1	92	calm	0	0			10 s		w.	0	0	cloudy	
Deadwood, Dakota	25.14	638.5	30.00	762.0	38	3.3	66	se.	4	1.8		6 cs	0	calm		0	0	fair	
Decatur, Texas					58	14.4	80	se.	6	2.7			10 s		s.	0	0	cloudy	
Delaware Breakwater, Del.	29.84	757.9	29.86	758.4	56	13.3	80	w.	9	4.0		1 k	0			0	0	clear	
Denison, Texas	29.18	741.2	30.02	762.5	55	12.8	80	s.	4	1.8			10 s		s.	0.01	0.3	cloudy	
Denver, Colorado	24.65	626.1	30.02	762.5	37.3	2.9	55	s.	4	1.8		0	0			0	0	clear	
Des Moines, Iowa	29.03	737.3	29.98	761.5	42	5.6	93	calm	0	0		0	4 s			0	0	fair	
Detroit, Michigan	29.31	744.5	30.05	763.3	37.8	3.2	72	nw.	8	3.6		0	0			0	0	clear	
Dodge City, Kansas	27.31	693.7	30.00	762.0	42	5.6	89	nw.	4	1.8		0	4 s			0	0	fair	
Dubuque, Iowa	29.20	741.7	29.94	760.5	42.2	5.7	83	se.	1	0.4		0	4 s;fg		calm	0	0	fair	
Duluth, Minnesota	29.29	744.0	30.02	762.5	34	1.1	79	nw.	3	1.3			10 s		calm	0	0	cloudy	
Eagle Pass, Texas	29.18	741.2	30.02	762.5	61.5	16.4	87	ne.	3	1.3			10 s		calm	0.01	0.3	cloudy	
Eagle Rock, Idaho	25.22	640.6	30.21	767.3	27	— 2.8	80	n.	5	2.2		0	8 s		nw.	0	0	fair	
Eastport, Maine	29.27	743.4	29.34	745.2	35.5	1.9	58	nw.	20	8.9		0	5 ks		nw.	0.42	10.7	fair	
El Paso, Texas	26.14	663.9	29.98	761.5	48.9	9.4	71	ne.	4	1.8		0	2 s			0	0	clear	
Erie, Pennsylvania	29.24	742.7	30.00	762.0	45	7.2	76	n.	7	3.1		6 k	0	n.		0	0	fair	
Escanaba, Michigan	29.38	746.2	30.06	763.5	27	— 2.8	88	calm	0	0		0	0			0	0	clear	
Florence, Arizona	28.36	720.3	29.96	761.0	54.3	12.4	79	w.	1	0.4			10 s		sw.	0	0	cloudy	
Fort Apache, Arizona	24.90	632.4	29.94	760.5	37	2.8	92	s.	3	1.3			10 s		calm	0.03	0.8	cloudy	
Fort Assinnaboine, Montana	26.84	681.7	29.78	756.4	35	1.7	82	sw.	9	4.0		0	0			0	0	clear	
Fort Bennett, Dakota	28.22	716.8	29.83	757.7	31	— 0.6	88	se.	2	0.9		0	c			0	0	clear	
Fort Benton, Montana	26.88	682.7	29.86	758.4	31	— 0.6	71	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	27.72	704.1	29.82	757.4	29	— 1.7	80	e.	3	1.3		0	0			0	0	clear	
Fort Custer, Montana	26.60	675.6	29.99	761.7	41	5.0	51	sw.	3	1.3		0	0			0	0	clear	
Fort Davis, Texas	24.87	631.7	29.83	757.7	48	8.9	74	s.	1	0.4		0	0			0	0	clear	
Fort Elliott, Texas	27.18	690.4	30.48	774.2	45	7.2	56	sw.	5	2.2		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.40	746.7	29.97	761.2	55.6	13.1	74	e.	8	3.6		0	0			0	0	cloudy	
Fort Grant, Arizona					48	8.9	86	s.	6	2.7			10 s			0.01	0.3	cloudy	
Fort Griffin, Texas	28.67	728.2	29.91	759.7	61.0	16.1	90	e.	3	1.3			10 s			0	0	cloudy	
Fort Keogh, Montana	27.24	691.9	29.91	759.7	29	— 1.7	88	calm	0	0		0	0			0	0	clear	
Fort Macon, North Carolina	29.94	760.5	29.95	760.7	55	12.8	74	nw.	13	5.8		hz.	hz.	calm	calm	0	0	light haze	
Fort McKavett, Texas																			
Fort Missoula, Montana	26.52	673.6	30.17	766.3	29	— 1.7	88	ne.	1	0.4			10 s			0	0	cloudy	
Fort St. Michaels	29.24	742.7	29.28	743.7	22	— 5.6	100	n.	40	17.9			10 n			0.11	2.8	light snow	
Fort Shaw, Montana	26.08	662.4	29.82	757.4	44	6.7	56	sw.	16	7.2		0	0			0	0	clear	
Fort Sill, Indian Territory	28.70	729.0	29.99	761.7	49	9.4	100	s.	3	1.3			fg.			0	0	dense fog.	
Fort Stevenson, Dakota	27.93	709.4	29.89	759.2	26	— 3.3	76	e.	2	0.9		0	0			0	0	clear	
Fort Verde, Arizona					52.2	11.2	80	s.			1		10 s		s.	0	0	cloudy	
Fredericksburg, Texas	28.23	717.0	29.67	753.6	60	15.6	93	calm	0	0			10 s			0.05	1.3	cloudy	
Galveston, Texas	29.95	760.7	29.99	761.7	71	21.7	66	se.	8	3.6		0	5 s			0	0	fair	
Grand Haven, Michigan	29.38	746.2	30.08	764.0	41.0	5.0	73	e.	3	1.3		0	0			0	0	clear	
Hatteras, North Carolina	29.89	759.2	29.91	759.7	61	16.1	65	n.	13	5.8		0	0			0	0	clear	
Helena, Montana	25.58	649.7	30.17	766.3	35	1.7	82	s.	4	1.8		0	0			0	0	clear	
Henrietta, Texas	28.97	735.8	29.89	759.2	56	13.3	86	s.	5	2.2		0	0			0	0	clear	
Huron, Dakota	28.46	722.9	29.92	760.0	29	— 1.7	80	nw.	1	0.4		0	0			0	0	dense haze	
Indianapolis, Indiana	29.19	741.4	30.02	762.5	44	6.7	83	n.	3	1.3		0	hz.		calm	0	0	cloudy	
Indianola, Texas	29.92	760.0	29.95	760.7	74.2	23.4	90	se.	13	5.8		5 k	4 s	s.	s.	0.33	8.4	fair	
Jacksboro, Texas	28.82	732.0	29.92	760.0	57	13.9	86	sw.	4	1.8		5 cs	0	s.		0	0	clear	
Jacksonville, Florida	29.96	761.0	30.00	762.0	56	13.3	80	nw.	4	1.8		0	0			0	0	clear	
Keokuk, Iowa	29.29	744.0	29.97	761.2	49.5	9.7	91	w.	2	0.9		0	0			0	0	fair	
Key West, Florida	29.96	761.0	29.99	761.7	76.1	24.5	64	n.	10	4.5		0	3 k		n.	0.01	0.3	clear	
Kittyhawk, North Carolina	29.91	759.7	29.93	760.2	54	12.2	74	nw.	11	4.9		1 k	hz.			0.05	1.3	dense fog	
Knoxville, Tennessee	29.04	737.6	30.11	764.8	41.6	5.3	100	calm	0	0			fg.		calm	0	0	cloudy	
La Crosse, Wisconsin	29.17	740.9	29.97	761.2	45	7.2	83	calm	0	0			10 s			0	0	clear	
La Mesilla, New Mexico	26.04	661.4	30.19	766.8	46.8	8.2	86	calm	0	0		1 k	0			0	0	threatening.	
Laredo, Texas	29.51	749.5	29.83	757.7	62	16.7	93	n.	1	0.4			10 ks		calm	0.16	4.1	clear	
Leavenworth, Kansas	29.06	738.1	29.99	761.7	50	10.0	86	calm	0	0		2 cs	fg.			0	0	clear	
Lewiston, Idaho	28.94	735.1	29.82	757.4	38	3.3	72	calm	0	0		0	0			0	0	cloudy	
Little Rock, Arkansas	29.72	754.9	30.04	763.0	56	13.3	80	calm	0	0			10 ks			0	0	clear	
Los Angeles, California	29.60	751.8	29.98	761.5	51.3	10.7	80	se.	5	2.2		0	0			0.59	15.0	clear	
Louisville, Kentucky	29.40	746.7	29.98	761.5	52.0	11.1	80	sw.	4	1.8		0	fg.			0	0	clear	
Lynchburg, Virginia	29.24	742.7	29.96	761.0	52.8	11.6	69	calm	0	0		0	0			0	0	cloudy	
Madison, Wisconsin	28.96	735.6	30.04	763.0	45	7.3	86	e.	5	2.2			10 s		calm	0	0	clear	
Marquette, Michigan	29.29	744.0	30.05	763.3	29	— 1.7	88	w.	6	2.7		0	0			0.11	2.8	light rain	
Mason, Texas	28.33	719.6	30.05	763.3	62	16.7	90	se.	3	1.3			10 n		se.	0.60	15.2	clear	
Memphis, Tennessee	29.74	755.4	30.09	764.3	52	11.1	86	calm	0	0		0	0			0	0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.28	743.7	30.06	763.5	46	7.8	83	ne.	5	2.2			10 s			0	0	cloudy	
Mobile, Alabama	30.02	762.5	30.09	764.3	52.0	11.1	86	w.	4	1.8		0	0			0	0	clear	
Montgomery, Alabama	29.86	758.4	30.10	764.5	49	9.4	93	nw.	1	0.4		0	0			0	0	clear	
Moorhead, Minnesota	28.88	733.5	29.94	760.5	28	— 2.2	88	n.	4	1.8		0	0			0	0	clear	
Morgantown, W. Virginia	28.95	735.3	29.93	760.2	50.2	10.1	90	calm	0	0			10 s			inap.	nap.	cloudy	
Mt. Washington, N. H.	23.00	584.2	29.37	746.0	— 1.0	—18.3	100	nw.	78	34.9			10n;fg		nw.	1.02	25.9	light snow	
Nashville, Tennessee	29.50	749.3	30.06	763.5	47.0	8.3	94	calm	0	0		0	sk.			0	0	dense smoke	
New Haven, Connecticut	29.67	753.6	29.79	756.7	42	5.6	57	n.	5	2.2		0	0			0	0	clear	
New London, Connecticut	29.74	755.4	29.78	756.4	44	6.7	51	n.	10	4.5		0	0			0	0	clear	
New Orleans, Louisiana	30.02	762.5	30.08	764.0	59.5	15.3	70	ne.	7	3.1		0	0			0	0	clear	
Newport, Rhode Island	29.70	754.4	29.75	755.6	45.0	7.2	49	w.	17	7.6		0	0			0	0	clear	
New River, N. Carolina					55	12.8	69	nw.			1	0	0			0	0	clear	
New Shoreham, Rhode I'd.	29.72	754.9	29.75	755.6	44.5	6.9	51	nw.	34	15.2		0	0			0	0	clear	
New York, New York	29.66	753.4	29.84	757.4	46	7.8	60	w.	17	7.6		0	0			0	0	clear	
Norfolk, Virginia	29.90	759.4	29.93	760.2	54	12.2	66	nw.	5	2.2		0	hz.			0.07	1.8	clear	
North Platte, Nebraska	26.98	685.3	30.04	763.0	32	0.0	86	w.	6	2.7		0	0			0	0	clear	
Olympia, Washington T'y	29.59	751.6	29.63	752.6	44.0	6.7	93	n.	1	0.4			10 s		calm	0	0	cloudy	
Omaha, Nebraska	28.75	730.2	29.99	761.7	48	8.9	86	sw.	3	1.3		0	1 s			0	0	clear	
Oswego, New York	29.59	751.6	29.93	760.2	35.0	1.7	66	n.	12	5.4		4 k	0	n.		0.12	3.0	fair	
Pensacola, Florida	30.05	763.3	30.08	764.0	48	8.9	86	n.	5	2.2		0	0			0	0	clear	
Philadelphia, Pa.	29.81	757.2	29.87	758.7	51	10.6	86	n.	9	4.0		0	fg			0	0	clear	
Phœnix, Arizona	28.79	731.3	30.63	778.0	45.2	7.3	60	nw.	2	0.9			10 s			0	0	cloudy	
Pike's Peak, Colorado	17.64	448.0	29.86	758.4	14	—10.0	64	sw.	28	12.5		0	0			0	0	clear	
Pioche, Nevada	23.91	607.3	30.10	764.5	39	3.9	82	sw.	2	0.9			10 n		sw.	0.28	7.1	light rain	
Pittsburg, Pennsylvania	29.14	740.1	29.99	761.7	50.6	10.3	72	nw.	5	2.2		8 k	0	nw.		inap.	inap.	fair	
Port Eads, Louisiana	30.05	763.3	30.06	763.5	67.9	19.9	63	n.	12	5.4		0	hz		calm	0	0	dense haze.	
Port Huron, Michigan	29.36	745.7	30.07	763.8	37.1	2.8	82	nw.	10	4.5		0	5 ks		n.	0	0	fair	
Portland, Maine	29.57	751.1	29.62	752.3	37	2.8	61	nw.	20	8.9		2 k	0	nw.		0.01	0.3	clear	
Portland, Oregon	29.62	752.3	29.69	754.1	46.2	7.9	93	calm	0	0		9 cs	0	s.		0	0	cloudy	
Portsmouth, N. Carolina					60	15.6	70	n.	14	6.3		0	0			0	0	clear	
Prescott, Arizona	24.65	626.1	29.96	761.0	45	7.2	80	calm	0	0			10 s		s.	0	0	cloudy	
Punta Rassa, Florida	29.96	761.0	29.97	761.2	66.5	19.2	60	n.	8	3.6		6 ck	0	nw.		0	0	fair	
Red Bluff, California	29.52	749.8	29.87	758.7	54.0	12.2	90	se.	5	2.2			10 n		calm	0.01	0.3	light rain	
Rio Grande City, Texas	29.79	756.7	30.01	762.2	63	17.2	90	n.	2	0.9			10 s		n.	0	0	cloudy	
Rochester, New York	29.28	743.7	29.98	761.5	34	1.1	61	nw.	10	4.5		0	2 s		nw.	0.01	0.3	clear	
Roseburg, Oregon	29.13	739.9	29.72	754.9	44	6.7	93	calm	0	0			10 s			0	0	cloudy	
Sacramento, California	29.84	757.9	29.92	760.0	55.0	12.8	80	se.	5	2.2			10 s			0.02	0.5	cloudy	
St. Louis, Missouri	29.42	747.3	30.06	763.5	49.8	9.9	86	w.	6	2.7		0	0			0	0	clear	
St. Paul, Minnesota	29.05	737.9	29.97	761.2	38.0	3.3	82	ne.	2	0.9		0	0			0	0	clear	
Salt Lake City, Utah	25.46	646.7	29.91	759.7	46	7.8	36	se.	4	1.8		0	5 s		calm	0	0	fair	
San Antonio, Texas	29.27	743.4	29.99	761.7	61.1	16.2	100	n.	4	1.8			10 n		calm	0.16	4.1	light rain	
San Diego, California	29.86	758.4	29.93	760.2	56.5	13.6	74	ne.	4	1.8			8 s			0.21	5.3	cloudy	
Sandusky, Ohio	29.31	744.5	30.02	762.5	47.8	8.8	77	nw.	16	7.2		0	5 s		n.	0	0	fair	
Sandy Hook, New Jersey	29.79	756.7	29.82	757.4	49.3	9.6	53	n.	22	9.8		3 k	0	n.		0	0	clear	
San Francisco, California	29.82	757.4	29.89	759.2	56	13.3	83	s.	2	0.9			10 s		se.	0	0	cloudy	
Santa Fé, New Mexico	23.17	588.5	30.16	766.1	35.3	1.8	78	calm	0	0		0	7 s		calm	0	0	fair	
Savannah, Georgia	29.90	759.4	29.99	761.7	54	12.2	74	nw.	5	2.2		0	0			0	0	clear	
Shreveport, Louisiana	29.82	757.4	30.05	763.3	53	11.7	93	se.	3	1.3		4 ck	2 s	calm	calm	0	0	fair	
Silver City, New Mexico	24.16	613.7	29.84	757.9	43	6.1	63	calm	0	0		0	6 ks			0.08	2.0	fair	
Sitka, Alaska																0.07	1.8		
Smithville, North Carolina	29.92	760.0	29.96	761.0	53	11.7	72	n.	5	2.2		0	0			0	0	clear	
Spokane Falls, Wash. Ter.	27.72	704.1	29.79	756.7	34	1.1	81	ne.	5	2.2		0	0			0	0	clear	
Springfield, Illinois	29.29	744.0	30.00	762.0	51	10.6	80	w.	5	2.2		0	0			0	0	clear	
Springfield, Massachusetts	29.64	752.8	29.77	756.1	42.4	5.8	57	nw.	14	6.3		3 k	0	w.		0	0	clear	
Stockton, Texas	26.94	684.3	30.09	764.3	48.0	8.9	100	calm	0	0		0	0			0	0	clear	
St. Vincent, Minnesota	28.96	735.6	29.89	759.2	24	— 4.4	100	s.	6	2.7		0	0			0	0	clear	
Thatcher's Island, Mass.	29.66	753.4	29.71	754.6	37.2	2.9	61	nw.	25	11.2		3 k	0	nw.		0.12	3.0	clear	
Toledo, Ohio	29.32	744.7	30.04	763.0	42	5.6	74	n.	7	3.1		5 k	0	w		0	0	fair	
Tucson, Arizona	27.46	697.5	29.90	759.4	53	11.7	80	calm	0	0		0	1 ks		se.	0	0	clear	
Umatilla, Oregon	29.43	747.5	29.86	758.4	43.0	6.1	93	e.	1	0.4		0	7 s		calm	0	0	cloudy	
Uvalde, Texas	29.00	736.6	29.81	757.2	62	16.7	90	calm	0	0			10 s		calm	0.15	3.8	cloudy	
Vicksburg, Mississippi	29.84	757.9	30.10	764.5	52	11.1	86	e.	1	0.4		2 k	fg	calm	calm	0	0	fair	
Visalia, California	29.54	750.3	29.92	760.0	47.5	8.6	89	se.	3	1.3		0	5 s			0.13	3.3	fair	
Washington, D. C.	29.79	756.7	29.91	759.7	53	11.7	72	w.	2	0.9		0	3 ks		nw.	inap.	inap.	fair	
West Los Animas, Colorado	25.96	659.4	30.04	763.0	37	2.8	51	w.	2	0.9		0	1 s		sw.	0	0	clear	
Wickenburg, Arizona					53	11.7	86	calm			0	0	5 s			0	0	fair	
Wilmington, N. Carolina	29.91	759.7	29.97	761.2	55	12.8	69	n.	4	1.8		0	0			0	0	clear	
Winnemucca, Nevada	25.43	645.9	29.89	759.2	40	4.4	89	sw.	10	4.5		0	5 ks		sw.	0	0	fair	
Wood's Holl, Mass.	29.66	753.4	29.70	754.4	47	8.3	63	nw.	28	12.5		1 k	0	nw.		0	0	clear	
Yankton, Dakota	28.56	725.4	29.93	760.2	32	0.0	88	calm	0	0			fg			0	0	dense fog	
Yuma, Arizona	29.76	755.9	29.90	759.4	60.2	15.7	65	w.	3	1.3			10 s		w.	inap.	inap.	cloudy	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡																			J. A. Racker.
Bogota, U. S. Columbia	22.04	559.8			54.8	12.7	88	ne.	1	0.4			8 s			0.01	0.3	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	29.98	761.5	30.00	762.0	75	23.9	90	sw.					10			3.05	77.5	raining	J. B. Dougherty.
Guadeloupe, W. I. ‡	29.83	757.7	29.84	757.9	79	26.1	87	e.				5 k	0			0	0		B. Bigar.
Havana, Cuba, W. I.	29.95	760.7	30.00	762.0	79	26.1	69	n.	7.2	3.2		0	8 ks		n.	0	0	cloudy	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.96	761.0	29.97	761.2	75.2	24.0	88	calm	0	0		0	0			0	0		Robert Johnstone.
Navassa, W. I.	29.85	758.2	29.93	760.2	79	26.1	78	e.	0	0		2 ck	5 s	se.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.99	761.7	29.99	761.7	81	27.2	78	e.			2	4 c	5 k		e.	0	0	fair	Dr. O. J. Hering.
Puerto Berrio, U. S. Col'mba	29.43	747.5	29.99	761.7	79	26.1	85	calm					10 ks		s.	0	0	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					73.8	23.2	98	e.			1	0	0			0.98	25.		Earl Flint.
Santiago de Cuba, W. I.	29.91	759.7	29.94	760.5	80	26.7	78	calm	0	0		3 s	0			0	0	fair	Robert Mason.
St. Thomas, W. I. ‡	29.83	757.7	29.94	760.5	81	27.2	82	ne.	5	2.2		0	3 ks		ne.	0	0	clear	G. O. Gyllich.
York Factory, B. A.	29.78	756.4	29.83	757.7	14.0	—10.0	91	n.	3	1.3		0	0			0	0	clear	J. Fortescue & W. Wood.

BRITISH NAVAL SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
H. M. S. Albatross																			
H. M. S. Alert, Port Darwin, Australia.	29.95	760.7	83	28.3	80	w.			2		1							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Syracuse, Sicily	29.76	755.9	74	23.3	63	w.			2		2	wnw.						d. clouds	Capt. Lord Walter Kerr
H. M. S. Antelope, N. 40° 45′, E. 29° 56′	29.84	757.9	69	20.6		ssw.			3-5		10	ssw.						squally	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 47° 03′, W. 22° 09′	30.11	764.8	61	16.1	94	nw.			1-2		3					2	nnw.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.05	763.3	70	21.1	75	se.			2-4		5	sse.						squally	Capt. F. W. Richards.
H. M. S. Champion, Ancon, Peru	29.97	761.2	62	16.7	100	s.			2		10					2	s.	d. clouds	Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.13	765.3	74	23.3		w.			2		3	nw.				2	nw.	d. clouds	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 18° 45′, E. 39° 22′	29.91	759.7	90	32.2	73	sse.			2		0					1	s.	blue sky	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 41′, E. 135° 11′	29.94	760.5	62	16.7	100	n.			1		2	n.						d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.74	755.4	65	18.3		ssw.			1		5	calm						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, S. 4° 28′, W. 14° 28′	29.97	761.2	75	23.9		sw.			1							2	nnw.	raining	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	29.76	755.9	73.5	23.1	67	wnw.			1-2		3	wnw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 44° 28′, W. 62° 34′	29.12	739.6	45.5	7.5	89	w.			6		7	w.				5	w.	squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 30° 34′, E. 47° 49′	30.01	762.2	87	30.6		nw.			1		5	nw.						d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 17° 19′, E. 65° 20′	30.11	764.8	72	22.2		e.			3-4		9	ese.				4	ese.	squally	Capt. E. St. J. Garforth
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.92	760.0	56	13.3	100	s.			1		10							d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.86	758.4	84	28.9	75	nne.			3		5	e.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 12° 00′, E. 41° 02′	29.99	761.7	79.5	26.4	78	n.			2		2					1	n.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 16° 57′, W. 88° 12′	29.98	761.5	83	28.3	83	nw.			2		4							d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, S. 1° 00′, W. 159° 00′	29.92	760.0	78.5	25.8	80	ne.			2-3		1							blue sky	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	30.19	766.8	60	15.6	82	nw.			1		0							blue sky	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 32° 24′ E. 128° 22′	30.02	762.5	70	21.1		nw.			2-3							3	w.	blue sky	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.91	759.7	82	27.8		nnw.			1		4	calm						d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 23° 00′, E. 4° 00′	30.09	764.3	66	18.9		ese.			3		6	se.				1	se.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 12′, E. 18° 26′	30.08	764.0	61	16.1	94	wnw.			3		5							d. clouds	Lieut. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, Hong Kong, China	29.87	758.7	79.5	26.4	65	wnw.			2		0							blue sky	Lieut. A. Balfour.
H. M. S. Malabar, Bombay, India	29.95	760.7	86	30.0	91	nw.			1		1	nw.						blue sky	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 36° 07′, W. 5° 21′	29.95	760.7	68	20.0	87	wsw.			1		7	wnw.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead,
H. M. S Monarch, Sfax, Tunis	29.90	759.4	76	24.4	100	ssw.			2		1							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.15	765.8	55	12.8	93	wsw.			1		10							misty	Comm. F. Edwards. Capt. J. E. Erskine.
H. M. S. Nelson																			
H. M. S Northampton, Halifax, Nova Scotia	29.12	739.5	43.5	6.4	79	wnw.			4-5		4	wnw.						d. clouds	Capt. E. B. Drummond.
H. M. S. Orontes, Barbadoes, West Indies	29.97	761.2	84	28.9	96	e.			2		8							showery	Capt. R. P. Kinahan. Capt. T. G. Jones.
H. M. S. Pegasus																			Capt. F. R. Dicken.
H. M. S Pelican																			Capt. A. C. Paget.
H. M. S. Penguin																			Capt. H. H. Grenfel.
H. M. S. Phœnix																			Capt. Hon. A.C. Littleton
H. M. S. Rambler																			Comm. W. H. Edwards.
H. M. S. Ready																			
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	29.63	752.6	44	6.7	100	calm			0		10							foggy	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.97	761.2	86.3	30.2	69	nw.			1		0							blue sky	Capt. C. E. Foot. Capt. A. Fitz George.
H. M. S. Salamis																			
H. M. S. Sappho, N. 17° 00′, W. 25° 00′	30.02	762.5	82	27.8	74	e.			3		3	ene.				2	nne.	d. clouds	
H. M. S. Sea Gull, S. 13° 00′, E. 42° 16′	29.62	752.3	82	27.8	78	nnw.			4		2					3	ese.	d. clouds	Comm. W. Byles. Capt. G. O. Twiss.
H. M. S. Serapis																			Capt. J. D'Arcy.
H. M. S. Shannon																			
H. M. S. Superb, N. 34° 25′, E. 12° 25′	29.94	760.5	82	27.8	70	wnw.			4-5		0					2	wnw.	blue sky	
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 30° 20′ W. 81° 38′	30.24	768.1	59	15.0	70	wsw.			1		8	calm				3	ssw.	d. clouds	Capt. A. H. Markham. Capt. M. B. Medlycott.
H. M. S. Turquoise																			
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne																			
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.92	760.0	77	25.0		nnw.			1		4							d. clouds	Com. W. T. Brown. Capt. S. H. P. Dacres.
H. M. S. Wild Swan																			
H. M. S. Wolverene, Sydney, N. S. W.	30.33	770.4	58	14.4	81	calm			0		0							blue sky	Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark, N. 26° 00′, E. 54° 00′	30.00	762.0	87.5	30.8	80	nnw.			3-4		3	ne.				3	nw.	squally	Capt. T. P. Nesham.
H. M. S. Wrangler																			
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PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
India																			Carlos Candid dos Reis.
Bengo, Mossamedes, Benguela	29.96	760.9	74.5	23.6	69	nw.			3		0					1		blue sky	A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.08	764.0	84.2	29.0	92	e.			1		4		e.			1	nnw.	d. clouds	Carlos M. de Silva Costa. C. da Silva Costa.
Rio Lima																			G. A. de Brito Capello.
Sado																			
Tamega, Macao, China	29.97	761.1	77.0	25.0	61	n.			4									blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore John G. Walker, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.18	766.6	54	12.2	87	n.	3	1.3			0			0	0			clear	
N. Yard, Portsmouth, N. H.	29.65	753.1	37	2.8	53	nw.	31	13.9		2 c	0	nw.		0	0			fair	
Naval Hospital, Yokohama, Japan	29.93	760.2	56.5	13.6	84	n.			1		0			0	0			clear	
Adams. Callao, Peru	29.87	758.7	62	16.7	88	s.			1-2		10					sm'h		cloudy	
Alaska. Callao, Peru	29.98	761.5	61	16.1	100	se.			1		10			0	0	sm'h		cloudy	
Alert, Kobe, Japan *..	29.88	758.9	66	18.9	64	wnw.			1		8		nne.	0	0	sm'h		cloudy	
Alliance. N. 47° 30′, W. 49° 45′	29.17	740.9	44	6.7	92	s.			6		10			rain	rain	mod.		squally	
Ashuelot. Kobe, Japan	30.02	762.5	64	17.8	68	nw.			1		2		calm					clear	
Colorado, New York, N. Y.	29.82	757.4	48	8.9	70	nw.	26	11.6			0							clear	
Constitution. Newport, R. I.	29.66	753.4	44	6.7	68	wnw.	14	6.3			0							clear	
Franklin. Norfolk, Va.	29.85	758.2	53	11.7	73	wnw.	2	0.9			0			0	0			clear	
Galena. Smyrna, Turkey in Asia.	29.87	758.7	64	17.8	?	ese.			1		8					sm'h		cloudy	
Independence, N. Yard, Mare I'd, Cal.	29.91	759.7	58	14.4	82	calm	0	0			8			0.12	3.0			cloudy	
Kearsarge. Hampton Roads, Va.	30.04	763.0	58	14.4	76	wnw.			3		0					sm'h		clear	
Lackawanna. San Francisco, Cal. †	30.08	764.0	58	14.4	100	se.			2		10							cloudy	
Lancaster, N. 37° 29′ W. 41° 37′	30.16	766.1	70	21.1	75	s.			4-5		8		s.			sm'h		d. clouds	
Marion, Montevideo, Uruguay	29.99	761.7	63	17.2		n.			1		2		calm			sm'h		clear	
Michigan, Erie, Pa.	29.93	760.2	43	6.1	75	n.			2		10		n.					cloudy	
Monocacy, Yokohama, Japan	30.05	763.3	60	15.6	82	nnw.			2		1		nw.					clear	
Nipsic, Genoa, Italy	29.59	751.6	64	17.8	73	sse.			2		2					sm'h		d. clouds	
Onward, Callao, Peru †	30.03	762.7	61	16.1	94	se.			3		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.86	758.4	80	26.7	66	wnw.			1		2		calm					fair	
Passaic, Washington, D. C.	29.91	759.7	55	12.8	100	sw.			2		8		ne.					cloudy	
Pensacola, Callao, Peru	30.08	764.0	61	16.1	77	sse.			1		10							cloudy	
Portsmouth, Hampton Roads, Va.	29.91	759.7	57	13.9	81	wnw.			3		0					sm'h		clear	
Powhatan. Boston, Mass.	29.66	753.4	40	4.4	73	nw.			2		2							hazy	
Quinnebaug, Marseilles, France	29.76	755.9	58	14.4	53	nnw.			4		2		calm			sm'h		clear	
Ranger, N. 36° 37′, W. 121° 57′..*..	29.85	758.2	58	14.4	88	ssw.			1		fg.			0.04	1.0	sm'h		rain & fog	
Saratoga, Hampton Roads, Va.	29.88	758.9	57	13.9	81	wnw.			2-3		2			h'vy	h'vy	sm'h		fair	
St. Louis, League Island, Pa.	29.51	749.5	49	9.4	71	nnw.	7	3.1			0			0	0			clear	
Swatara. Yokohama, Japan †..	29.99	761.7	61	16.1	77	nnw.			3		2		calm			sm'h		fair	
Tennessee, N. 40° 25′, W. 74° 00′	29.82	757.4	50	10.0	?	nnw.	38	17.0			0			0	0	mod	nnw.	clear	
Vandalia. Norfolk, Va.	29.88	758.9	51	10.6	79	wnw.			1		0							clear	
Wabash, Boston, Mass.	29.70	754.4	42	5.6	53	nw.	7	3.1			2		nw.	0	0			clear	
Wachusetts. Kootznahoo, Alaska	29.45	748.0	49	9.4	100	n.			1		10							overcast	
Wyoming, Port Royal, S. C.	29.97	761.2	63	17.2	72	nnw.	8	3.6			0			0	0			clear	
Yantic, New York, N. Y. *..	29.78	756.4	49	9.4	57	nw.			4		0							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 52° 03′ W. 54° 21′ *†	29.47	748.5				ese.	6		8		ese.			r'gh	ese.	cloudy	N. McLean.
S. S. Circassian, Capt. W. H. Smith. N. 53° 40′, W. 46° 15′ †	30.00	762.0	42	5.6	91	ne.	2		7		ne.	½ h'r	½ h'r	5	ne; nw.	showery	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, N. 46° 21′, W. 54° 04′	28.94	735.1	45	7.2		sse.	2		10		sse.			mod.	s.	foggy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Pa †	29.72	754.9	51	10.6	93	nw.	1		1		nw.					very fine	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 50° 58′, W. 31° 54′ †	29.80	756.9	50	10.0	50	w.	6		5?		sw.	o	o	r'gh	w.	cloudy?	C. W. Walker, 2d Offi.
S. S. Ohio, Capt. H. Morrison, Liverpool, Eng *†	30.29	769.4	51	10.6	93	ene.	2		8		e.					cloudy	
S. S. Pennsylvania, Capt. G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, S. 45° 46′, W. 38° 40′	29.37	746.0	46	7.8	100	wnw.	6		4							blue sky	
S. British Merchant, Capt. E. J. Moloney																	
Bq. Caldew, Capt. N. W. Petersen S. 58° 18′, W. 77° 48′	29.23	742.4	38	3.3		w.	5		7							overcast	
S. S. Cipero, Capt. W. N. Lailey, Belize, Honduras, C. A.	29.99	761.7	80	26.7	91	calm	0		2							d. clouds	
Bk. Commeywyne, Capt. W. Scott,																	
Bk. Coppename, Capt. A. Buchan,																	
Bk. Glaramara, Capt. R. Morton, N. 14° 15′, W. 119° 15′ ‡	29.95	760.7	67	19.4	95	ene.	3		3							d. clouds	
S. S. Gordon Castle, Capt. W. Waring, N. 4° 31′, E. 106° 16′	29.88	758.9	83.5	28.6	75	calm	0		1							blue sky	
Bg. Hermine, Capt. S. G. Jones, S. 55° 39′, W. 65° 55′	29.51	749.5	43.4	6.3	92	nnw.	1		3							d. clouds	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, N. 9° 00′, E. 91° 12′	29.86	758.4	80	26.7	86	e.	2		8							d. clouds	
Bk. Mertola, Capt. E. W. Turner																	
Bk. Moorhill, Capt. J. Brown, S. 58° 08′, W. 76° 34′	29.21	741.9	39.2	4.0	71	sw.	5		4							d. clouds	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant, S. 40° 46′, E. 168° 18′	29.98	761.5	54	12.2	79	s.	5		10							overcast	
Queen of Cambria, Capt. M. Parry																	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estralla, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. M. Gray,																	
S. S. Strathleven, Capt. C. W. Pearson N. 31° 15′, E. 121° 28′	30.15	765.8	58.5	14.7	87	ne.	3		4							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin N. 27° 30′, E. 33° 59′	29.77	756.1	80	26.7		nnw.	1		3							d. clouds	
CALIFORNIA, AND MEXICAN S.S. CO. *J. Birmingham, Agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers N. 32° 26′, W. 117° 30′ †	29.97	761.2	62	16.7	77	nw.	3		9		nw.	o	o	gentle	wnw.	fair	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents. New York.*																	
S. S. Gallia, Capt. W. H. P. Hains,																	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
Braunschweig, Capt. C. Pohle N. 43° 45′, W. 46° 52′	29.48	748.8	60.0	15.6	88	ssw.	6		10		s.			r'gh	sw.	rainy	
S. S. Hermann, Capt. H. Baur N. 48° 19′, W. 35° 40′	29.93	760.2	53.6	12.0		wnw.	4		5		sw.	o	o	long	nw.		E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst,																	T. Jüngst.
S. S. Leipsic, Capt. F. Pfeiffer.																	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 50° 09′, W. 12° 18′	29.93	760.2	56.0	13.3	65	e.	5		10		e.	4 h'r	4 h'r	r'gh	ese.	cloudy	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 39° 22′, W. 130° 11′ †	29.64	752.8	68	20.0	69	s.	6		8		sw.	rain	rain	mod.	s.	cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, Hong Kong, China *†	30.05	763.3	80	26.7	74	n.	2		5?		ene.					cloudy?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 34° 45′, E. 151° 41′	30.08	764.0	70	21.1	61	ene.	5		5		ene.	o	o	sm'h	ene.	fair	
OREGON IMPROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes,																	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann																	
S. S. Columbia, Capt. F. Bolles.																	G. Reichmann.
S. S. Oregon, Capt. E. Polemann, Astoria, Oregon †	29.73	755.1	43	6.1	92	se.	4									squally	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 36° 00′, W. 121° 41′ †..	29.89	759.2	55	12.8	93	s.	5	.....	10	.....	s.	.....	.....	mod.	w.	cloudy	J. W. Ingalls.
S. S. Dakota, Capt. ——,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Idaho, Capt. T. Huntington, Seattle, Wash. Ter †.	29.66	753.4	48	8.9	85	nw.	3	.....	3	.....	nw.	.....	.....	.....	.....	clear	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson, N. 37° 12′, W. 122° 25′ †.	29.94	760.5	62	16.7	83	se.	6	.....	10	.....	se.	driz	driz	r'gh	ssw.	cloudy	G. H. Harrison.
S. S. Senator, Capt. Wallace, San Francisco, Cal †..	29.94	760.5	55	12.8	87	se.	1	.....	10	.....	se.	.....	.....	.....	.....	cloudy	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †...	29.65	753.1	45	7.2	100	calm	0	.....	10	.....	sw.	.....	.....	.....	.....	cloudy	G. Debney.
S. S. Victoria, H. M. Hayward, N. 48° 12′, W. 124° 48′ †..	29.63	752.5	51	10.6	93	e.	4	.....	10	.....	se.	.....	.....	mod.	se.	rainy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——, N. 30° 05′, W. 140° 02′	30.11	764.8	68	20.0	79	wsw.	3	.....	10	.....	wsw.	.....	.....	long	nw.	hazy	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, N. 23°—′, W. 155° —′ †	30.09	764.3	78	25.6	91	ene.	3	.....	1	.....	ene.	.....	.....	mod.	ene.	clear	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 35° 08′, E. 141° 24′ *†....	29.98	761.5	66	18.9	89	ne.	6	.....	8	.....	ne.	light	light	r'gh	ne.	cloudy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama †	29.96	761.0	77	25.0	91	nw.	1	.....	8	.....	nw.	o	o	sm'h	.....	fair	.....
S. S. City of Sydney, Capt. H. C. Dearborn, Sydney, N. S. W *†..	30.04	763.0	57	13.9	81	s.	4	.....	2	.....	s.	o	o	sm'h	.....	clear	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 36° 56′, W. 125° 07′ †..	29.96	761.0	58	14.4	88	w.	2	.....	10	.....	sw.	.....	.....	h'vy	nw.	cloudy	A. L. Ritchie, 2d Offl.
S. S. Colima, R. R. Searle N. 28° 00′, W. 115° 34′ †	30.03	762.7	65	18.3	78	wnw.	4	.....	2	.....	nw.	o	o	mod.	wnw.	clear	R. R. Searle.
S. S. Grenada, Capt. M. Connolly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. South Carolina, Capt. —— Mazatlan, Mexico *†..	29.91	759.7	77	25.0	91	ne.	1	.....	1	.....	w.	.....	.....	light	sw.	clear	.....
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W	30.32	770.1	60	15.6	76	w.	1	.....	0	.....	.....	.....	.....	.....	.....	clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †	30.11	764.8	45	7.2	84	nne.	3	.....	9	.....	nne.	o	o	.....	.....	cloudy	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, England †..	30.06	763.5	49	9.4	.....	ne.	2	.....	5	.....	ne.	o	o	.....	.....	fair	A. Horsfall.
S. S. Britannic, Capt. H. Perry,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 46° 42′, W. 47° 38′ †	29.36	745.7	52	11.1	93	se.	6	.....	10	.....	ssw.	.....	.....	h'vy	s.	cloudy	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 43° 05′, W. 46° 29′ †..	29.87	758.7	65	18.3	100	ssw.	6	.....	10	.....	wsw.	shr's	shr's	r'gh	wsw.	raining	W. A. Ward.
S. S. Republic, Capt. P. J. Irving	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MISCELLANEOUS.																	
Bk. Dom Pedro II, Capt C. E. Coffin, N. 35° 29′, W. 67° 00′ *†..	29.20	741.7	.....	.....	.....	nw.	.....	.....	.....	.....	nw.	.....	.....	large	sw.	clear	.....
U. S. F. C. S. Fish Hawk, Washington, D. C †...	29.99	761.7	55	12.8	94	sw.	3	.....	3 k	.....	.....	0.17	4.3	.....	.....	fair	.....
Golden Fleece	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Lovaine, Capt. H. McCauley N. 45° 16′, W. 41° 02′ *†...	30.80	782.3	.....	.....	.....	ssw.	2	.....	.....	.....	sw.	rain	rain	st'g	sw.	rain & fog	.....
S. Pawashick, Capt. E. Fry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz N. 35° 28′, W. 39° 49′ †..	30.46	773.7	73	22.8	.....	sse.	4	.....	0	.....	.....	.....	.....	mod.	nnw.	clear	E. Fry.
S. S. Proteus, Capt. Pike	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, N. 36° 16′, W. 50° 05′ †....	29.97	761.2	76	24.4	91	ssw.	8	.....	8	.....	ssw.	o	o	h'vy	ssw.	cloudy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer. U. S. A.

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BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 27, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.98	761.5	69.1	20.6	85	w.			1		5			0	0	cloudy	Moiroud.
Algiers ‡			29.98	761.5	74.8	23.8	67	sw.			4		1			0	0	very fair	Nicolas.
La Calle ‡			29.95	760.6	76.6	24.8	83	nnw.			2		2			0	0	fair	Fonfréde.
Tunis ‡			29.95	760.8															Jacques.
Sfax ‡																			Gau.
Saida ‡			30.01	762.3	73.6	23.1	47	nne.			1		2			0	0	fair	Dumas.
Tebessa ‡			30.02	762.6	75.6	24.2	41	w.			1		0			0	0	clear	Derché.
Geriville ‡					77.4	25.2	14	w.			5		3			0	0	pretty fair	Lonchamp.
Laghouat ‡			30.05	763.3	79.2	26.2	31	s.			3		1			0	0	very fair	Herbin.
Biskra ‡			30.03	762.7	82.4	28.0	40	se.			3		3			0	0	pretty fair	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.14	765.5	30.23	767.8	58.6	14.8	77	e.	2	0.9			0			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.47	748.4	30.03	762.7	45.3	7.4	78	e.			2		10			0.008	0.2		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.34	745.1	30.14	765.5	32.0	0.0	78	ne.	6.9	3.1			10			0.004	0.1	raining	Dr. Wiersbicki.
Eperies	29.12	739.6	30.04	763.1	30.9	— 0.6	68	n.			4		10 s			0.346	8.8	drizzling	Julius Mikolik.
Gratz ‡	28.75	730 3	30.03	762.7	44.6	7.0	76	s.			2		10			0.413	10.5		Andreas Rospini.
Hermannstadt	28.41	721.6	29.87	758.6	40.8	4.9	94	ese.			2		10			0.382	9.7	raining	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.64	727.5	30.02	762.4	41.4	5.2	87	nne.			2		10			0	0	gloomy	The Staff.
Lemberg	29.02	737.1	30.06	763.6	27.9	— 2.3	89	ne.			1		10			0	0		Dr. T. Stanecki.
Pola	29.83	757.6	29.94	760.5	54.0	12.2	61	e.			3		2			0.551	14.0		I. R. Hydrographic Office.
Szathmar	29.41	747.0	29.87	758.8	43.7	6.5	60	nw.			3		2			0	0		Joxsef Midlinszky, S. J.
Szegedin	29.68	753.9	29.97	761.2	44.1	6.7	67	n.			2		3			0.110	2.8		Karl Stancel.
Trieste	29.86	758.5	29.96	761.0	53.6	12.0	56	e.			2		1			0	0		Rieder.
Vienna	29.38	746.2	30.13	765.2	35.8	2.1	73	n.			1		10			0.035	0.9		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
BRITISH SERIES. Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.27	768.8	30.37	771.4	44.0	6.7	71	wnw.	16	7.2			6			0.060	1.5	d. clouds	W. Boswell.
Armagh, Observatory	30.18	766.6	30.41	772.4	46.0	7.8	71	ne.	5	2.2			9					overcast	S. Call.
Bidston, Liverpool Obs'y			30.34	770.6	44.3	6.8	75	ne.	15	6.7			7					misty	John Hartnup.
Bolton, Sharples	29.78	756.4	30.33	770.4	43.2	6.2	67	ene.	12	5.4			5					d. clouds	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.95	760.7	30.34	770.6	42.1	5.6	88	ne.			3		5			0.03	0.8	raining	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.16	766.1	44.6	7.0	89	ne.			1.0		8					overcast	John McLaren.
Chatham, School M. E.	30.10	764.5	30.23	767.8	44.1	6.7	85	ne.			1		9			blank	blank	gloomy	R. Craydon, R. E.
Falmouth, Observatory	29.98	761.5	30.21	767.3	47.5	8.6	54	nne.			5		2					d. clouds	The Staff.
Fort Napier, Natal	27.56	700.0	29.78	756.4	74.3	23.5	85	sw.			2		0					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.65	753.1	29.88	758.9	89.0	31.7	66	nw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			30.32	770.1	49	9.4	64	e.			2		4					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	30.04	763.0	30.09	764.3	67.6	19.8	78	w.			2		2					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	30.20	767.1	30.40	772.1	44.0	6.7	87	ene.			2		10 k					overcast	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.05	763.3	30.22	767.6	44.2	6.8	75	ne.			2		10					overcast	The Staff.
Guernsey	29.86	758.4	30.08	764.0	47.5	8.6	62	ne.			5		5					d. clouds	Dr. S. E. Hoskins, F.R.S.
Kew, Observatory	30.20	767.1	30.23	767.8	44.8	7.1	65	nne.					10					misty	The Staff.
Leicester, Museum	30.02	762.5	30.29	769.4	45.0	7.2	67	ne.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.91	759.7	29.98	761.5	76.8	24.9	83	sw.			2		1			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.96	761.0	30.00	762.0	76.2	24.6	64	ne.			2		5					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.77	756.1	30.31	769.9	43.4	6.3	81	ene.			2		9					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	30.02	762.5	30.25	768.3	45.0	7.2	71	n.			2		9					d. clouds	The Staff.
Plymouth	30.12	765.0	30.20	767.1	48.0	8.9	60	ne.			4		0					blue sky	John Merrifield.
Sandwick Manse, Orkneys			30.35	770.9	47	8.3	69	wnw.	15	6.7			9					d. clouds	Rev. C. Clouston, L.L.D.
Scutari Cemetery, Turkey	29.59	751.6	29.65	753.1	64.0	17.8	48	sw.			3		8					d. clouds	Serg't W. H. Lyne.
Sheffield	30.03	762.7	30.32	770.1	45.5	7.5	60	ne.			1		10			0.04	1.0	overcast	W. F. Cooper.
Silloth Rectory	30.35	770.9	30.38	771.6	45.8	7.7	78	n.			1		4			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.95	760.7	44.0	6.7	70	ne.	5	2.2			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	30.01	762.2	30.24	768.1	46.7	8.2	65	ne.			3		10					d. clouds	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	30.17	766.3	30.22	767.6	53	11.7	66	ne.			4		6					d. clouds	W. Newcombe.
Valencia, Observatory	30.31	769.9	30.33	770.4	49.2	9.6	56	e.	18	8.0			10					d. clouds	The Met'g'l Office.
CANADIAN SERIES. Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.36	745.7	29.40	746.7	29	— 1.7	61	w.	20	8.9			10 s			0.055	1.4	fair	H. J. Cundall, C. E.
Chatham, N. B.*	29.36	745.7	29.42	747.3	28	— 2.2	88	sw.	20	8.9			10 s		sw.	inap.	inap.	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.52	749.8	29.55	750.6	30	— 1.1	88	nw.	60	26.8			10 k		nw.	0	0	cloudy	J. McWilliams.
Fort Garry, Manitoba*	28.77	730.7	29.61	752.1	32	0.0	96	sw.	8	3.6	0		sk.		sw.	0	0	smoky	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.50	749.3	29.64	752.8	28	— 2.2	80	w.	21	9.4		5 k	0	nw.		inap.	inap.	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.79	756.7	30.15	765.8	26	— 3.3	96	calm	0	0		0	sk.			0	0	clear	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.89	759.2	30.09	764.3	28	— 2.2	77	w.	10	4.5			10 s		n.	0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.37	746.0	30.10	764.5	32	0.0	88	se.	7	3.1		2 k	5 ks	w.	w.	0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.40	746.7	30.13	765.3	31	— 0.6	100	n.	5	2.2		0	0			0	0	clear	H. Morgan.
Port Stanley, Ontario	29.43	747.5	30.10	764.5	32	0.0	92	nw.	4	1.8		0	5 k		w.	0	0	fair	M. Payne.
Quebec, Quebec*	29.62	752.3	29.96	761.0	21	— 6.1	73	nw.			5	0	2 s		n.	0	0	clear	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.64	752.8	30.12	765.0	24	— 4.4	73	sw.	2	0.9			10 s		sw.	0	0	cloudy	W. H. McIntyre.
Saugeen, Ontario*	29.34	745.2	30.08	764.0	32	0.0	85	s.	7	3.1		0	0			0	0	clear	K. Stewart.
St. Andrews, N. B.	29.70	754.4	29.75	755.6	27	— 2.8	71	nw.	11	4.9		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.30	744.2	29.36	745.7	31	— 0.6	81	sw.	27	12.1			10 n		w.	0.06	1.5	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.73	755.1	30.13	765.3	31	— 0.6	74	n.	5	2.2		2 cs	0	w.		0	0	clear	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.75	755.6	29.81	757.2	34	1.1	89	nw.	40	17.9		0	0			0	0	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.89	759.2	30.15	765.8	38	3.3	81	sw.	4	1.8		5 c	5 s			0	0	fair	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
CAPE COLONY SERIES. Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	30.02	762.5	30.05	763.3	62.0	16.7	82	w.	17.4	7.8		7 cs	0			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.14	740.1			67.1	19.5	42	nw.			1	5	5			0	0	cloudy	C. Stokes.
CHINESE SERIES. Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.03	762.8	30.06	763.4	60.8	16.0	96	e.	3.6	1.6		0	0			0	0	clear	M. Marc Dechevrens, S.J.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.17	766.2	30.21	767.4	34.9	1.6	64	w.	9	4			8						Oversergent Fischer.
Fanöe	30.16	766.1	30.18	766.6	39.4	4.1	74	w.			4		10						Overloerer Lauridsen.
Godthaab, Greenland	29.72	755.0	29.77	756.1	33.8	1.0	72	calm			0		0						S. Kleinschmidt.
Stykkisholm, Iceland	30.41	772.5	30.46	773.6	37.4	3.0	90	e.			4		8						A. O. Thorlacius.
Thorshavn	30.34	770.6	30.37	771.5	43.7	6.5	81	ne.	7	3			7						Overloerer Bergh.
Vestervig	29.98	761.6	30.08	763.9	44.4	6.9	88	wsw.			4		9						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.21	741.8	29.86	758.4	52.9	11.6	61	se.			1		8 n		w.			very cloudy	M. Labroue, Director.
Alençon Normal School	29.53	750.1	30.14	765.5	41.4	5.2	97	ne.			2		n		sw.	0	0		M. Nicot, Director.
Arras, Engineer School	29.86	758.5	30.13	765.3	41.7	5.4	81	ne.					kn		ne.				M. Klein, Commandant.
Avignon, Normal School	29.81	757.2	29.89	759.2	52.2	11.2	63	n.			1		5		sw.	0	0	cloudy	M. Giraud, Director.
Bar-sur-Seine	29.45	748.1	30.02	762.6	43.0	6.1	75	e.			1		10		ene.	0	0	covered	M. Sailiard, Director.
Beauvais, Normal School	29.85	758.2	30.13	765.2	42.1	5.6	66	e.			3		10		ene.	0	0	covered	M. Frère Eugène Marie.
Besançon, Normal School	29.01	736.9	29.93	760.2	44.4	6.9	71	ene.			2		5 cn		n.	0.020	0.5	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.57	751.1	29.84	757.8	48.9	9.4	64	ene.			1		10			0	0	covered	M. Rayet, Director.
Bourges, Normal School	29.38	746.3	29.95	760.6	43.7	6.5	70	ne.			2		kn		ne.	0	0		M. Postel, Director.
Brest, Naval Observatory	29.84	758.0	30.09	764.2	50.0	10.0	62	ne.			1		8		ne.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.03	762.8	30.11	764.8	44.6	7	71	n.			1		8		e.	0	0	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.68	753.8	30.00	762.0	41.9	5.5	78	ne.			3		10			0	0	covered	M. Jadot, Director.
Charleville, Normal School	29.57	751.1	30.10	764.5	41.0	5	71	e.			4		3			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.52	724.5	29.91	759.8	42.1	5.6	80	n.			1		5 ck	0		0	0	½ covered	M. Alluard, Director.
Cluny, Normal School	29.11	739.4	29.97	761.2	38.7	3.7	85	n.			1		7		ne.	0	0		M. de Villemontée, Dir.
Commercy, Normal School	29.16	740.7	30.05	763.3	39.0	3.9	97	e.			3		10 kn	e.	e.	0.020	0.5	covered	Dr. Coulet, Director.
Gap, Normal School	27.31	693.7	29.83	757.7	51.8	11	63	se.			2	2 c	0	e.		0.335	8.5		M. Jeangirard, Director.
Gréasque, du. Rhone	28.79	731.2	29.93	760.2	56.3	13.5	50	se.			1		10		se.	0	0	covered	M. Kina, Director.
Grenoble, Normal School	29.15	740.5	29.93	760.3	46.8	8.2	78	e.			1		k			0.12	3.		M. Ablard, Director.
Guéret, Normal School	28.30	718.8	29.92	759.9	41.9	5.5	84	e.			2	2 ck	0	w.		0	0	slightly cl'dy	M. Rivoire, Director.
Lamballe, Normal School	29.81	757.1	30.08	764.1	50.9	10.5	72	n.			2		5 k		n.	0	0	cloudy	M. Ollitrault, Director.
Lescar, Normal School	29.37	746.1	29.93	760.3	61.7	16.5	74	wnw.			1					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	29.96	761.0	30.06	763.6	48.2	9	73	ne.			3		10			0	0	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.89	733.9	29.98	761.6	39.0	3.9	87	ne.			1		10			0	0	covered	M. André, Director.
Mans, Normal School	29.75	755.6	30.07	763.7	41.7	5.4	76	ene.			4		8		ne.	0	0	very cloudy	M. Piboen, Director.
Marseille, Observatory	29.60	751.7	29.86	758.5	59.7	15.4	64	ssw.			1.2		10		w; ese	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.65	626.1	29.89	759.1	58.4	10.2	56	w.	13.0	5.8			3		nw.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.77	756.2	29.88	759.0	56.1	13.4	80	n.			3		2		sw.			light rain	M. Pourle, Director.
Nancy, Normal School	29.19	741.5	29.98	761.5	39.2	4	83	w.			1		10 n			0.020	0.5	covered	M. Hasse.
Nantes, Observatory	29.86	758.5	30.02	762.6	44.4	6.9	70	nne.			2–4		10 n	ne.	ne.	0	0	covered	M. Larocque, Director.
Nice	29.81	757.1	29.84	757.9	60.4	15.8	73	e.			2		10	e.	e.	0	0	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.76	756.0	29.87	758.7	54.3	12.4	65	se.	3.8	1.7			10			0	0		Dr. Fines.
Pic-du-Midi, Summit	21.05	534.8			28.8	—1.8		sw.			1		10		sw.	0.031	0.8	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.91	734.4	30.00	762.0	45.0	7.2	71	n.			1		10	e.		0	0	covered	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.93	633.3			35.8	2.1	59	wsw.			2		8			0.031	0.8	¾ covered	M. Alluard, Director.
Rochefort, Naval Obs'y	29.89	759.2	29.92	760.0	48.2	9.0	95	ne.			3		5		nne.	0	0	½ covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.76	755.8	29.98	761.4	44.6	7	71	nne.			4		8		ne.	0	0	very cloudy	M. Mouillot, Director.
Rodez, Normal School	27.66	702.5	29.80	756.8	51.1	10.6	90	w.			2		10		w.	0	0	covered	M. Richard, Director.
Rouen, Normal School	30.04	763.0	30.08	764.1	43.5	6.4	58	ne.			2					0	0		M. Platrier, Director.
Saint Lô, Normal School																			M. Delaplanche, Dir.
Saint Maur, Observatory	29.90	759.5	30.07	763.7	43.0	6.1	66	ne.			2		10		ne.	0	0		M. Renou, Director.
Toulouse, Observatory	29.13	739.9	29.85	758.2	58.5	14.7	81	sse.			3		8	w.		0	0	very cloudy	M Bailland, Director.
Tours	29.81	757.1	30.00	762.1	45.0	7.2	71	e.			3		10	calm	e.	0	0	covered	M. de Tastes.
Versailles, Observatory	29.57	751.1	30.06	763.6	41.7	5.4	63	e.			3					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.78	756.5	30.08	763.9	43.2	6.2	63	ene.			2		10		ne.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.24	742.7	30.10	764.6	37.4	3.0	55	e.			3	0	7 s			0.024	0.6		Prof. Dr. Hoh.
Berlin	30.01	762.2	30.19	766.7	41.0	5.0	72	ne.			1		10			0	0		Prof. Dr. Arndt.
Breslau	29.65	753.1	30.19	766.7	32.4	0.2	89	ne.			2		10					snowy	Royal University Obs'y.
Carlsruhe	29.63	752.6	30.07	763.8	41.0	5.0	72	ne.			3		10	ne.		0	0		Albert Senz.
Cassel	29.42	747.2	30.13	765.4	38.8	3.8	57	ne.			4		8	ne.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.75	755.7	30.13	765.3	40.5	4.7	52	ne.			2		10			0.028	0.7		Physical Society.
Friedrichshafen	28.52	724.4	29.97	761.2	40.3	4.6	72	ne.			4		9	ne.		0	0		Wilhelm, Chief Tel.
Hamburg	30.15	765.9	30.25	768.3	38.3	3.5	63	n.			2		7	ssw.		0	0		E. Preller.
Kiel	30.21	767.2	30.22	767.6	38.8	3.8	60	calm			0		5			0	0		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.76	756.0	30.20	767.1	36.3	2.4	61	ne.			1		10			0	0		H. Leppig, Asst.
Magdeburg	30.01	762.2	30.21	767.2	39.7	4.3	70	ne.			2		10k;ks		ne.	0	0		Dr. Assmann.
Memel	30.13	765.4	30.18	766.6	34.0	1.1	81	ese.			2	0	7 s						Issermann.
Munich	28.15	715.0	30.01	762.3	37.9	3.3	75	se.			1		10			0.157	4.0		Central Station.
Neufahrwasser	30.14	765.5	30.15	765.9	38.1	3.4	73	nw.			2		9			0.016	0.4		A. Lothes.
Neustadt, Palatinate	29.53	750.0	30.08	763.9	40.6	4.8	87	n.			3		10	n.		0	0		Dicknether.
Stuttgart	29.06	738.2	29.99	761.7	38.3	3.5	85	ne.			1		10			0	0	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.53	724.7	30.10	764.5	36.1	2.3	79	ne.			2		10	e.		0.039	1.0		Fischer.
Wustrow	30.19	766.9	30.22	767.5	36.3	2.4	89	wnw.			3		10 s			0.079	2.0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.48	748.7	29.86	758.4	75.6	24.2		sw.			4.0		2			0.008	0.2		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.81	757.2	29.86	758.5	81.7	27.6	85	wsw.	27.0	12.0			0			0	0	blue sky	
Deesa	29.39	746.4	29.85	758.2	91.3	32.9	28	w.	6.6	3.0			6	wnw.	wnw.	0	0	d. clouds	
Bombay	29.83	757.8	29.87	758.7	83.6	28.7	75	nw.	7.0	3.1			0			0	0	blue sky	
Poona, Yarrowda.	28.00	711.3	29.83	757.6	88.0	31.1	25	ne.	3.0	1.3			3	w.		0	0	d. clouds	
Belgaum	27.33	694.1	29.82	757.5	84.6	29.2	31	ene.	2.0	0.9			0			0	0	blue sky	
Lahore	29.12	739.7	29.86	758.6	82.0	27.8	36	e.	1.1	0.5			0			0	0	blue sky	
Roorkee	28.98	736.1	29.89	759.1	77.8	25.4	46	w.	0.8	0.4			4			0	0		
Agra	29.33	745.0	29.89	759.2	83.7	28.7	33	w.	2.5	1.1			0			0	0		
Nagpur	28.84	732.4	29.87	758.7	84.0	28.9	24	calm	2.2	1.0			0			0	0	blue sky	
Jubbulpore	28.50	723.9	29.86	758.5	77.6	25.3	49	calm	1.2	0.5			0			0	0	blue sky	
Lucknow	29.59	749.4	29.88	758.9	84.2	29.0	25	wnw.	1.2	0.5			0			0	0	blue sky	
Allahabad	29.56	750.9	29.88	758.9	75.3	24.1	58	calm	0.9	0.4			0			0	0	blue sky	
Patna	29.71	754.6	29.89	759.3	77.5	25.3	61	calm	1.5	0.7			2			0	0		
Hazaribagh	27.88	708.0	29.89	759.3	77.6	25.3	42	s.	2.8	1.2			0			0	0	blue sky	
Cuttack	29.80	756.8	29.88	758.9	78.0	25.6	71	ne.	0.2	0.1			0			0	0	blue sky	
Calcutta, Alipore	29.83	757.6	29.85	758.2	79.6	26.4	68	calm	0	0			0			0	0	blue sky	
Dhubri	29.75	755.7	29.87	758.8	79.4	26.3	77	calm	1.0	0.4			3			0	0	d. clouds	
Goalpara																			
Chittagong	29.77	756.1	29.86	758.4	78.2	25.7	69	nw.	2.3	1.0			0			0	0	blue sky	
Sibsagar	29.54	750.2	29.87	758.8	78.4	25.8	84	ne.	0.8	0.4			2			0	0	blue sky	
Jeypore	28.45	722.6	29.89	759.1	83.2	28.4	31	nnw.	2.7	1.2			2		w.	0	0	d. clouds	
Zanzibar, Africa			29.90	759.4	83.5	28.6	68	ese.					9			0	0	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.56	750.9	29.97	761.3	54.3	12.4	47	e.	3.8	1.7			8			0.043	1.1		Prof. Giovanni Clodig.
Milan	29.46	748.3	29.98	761.5	54.3	12.4	63	n.	3.8	1.7			8	ese.		0.008	0.2		Prof. Schiaparelli.
Padua	29.85	758.2	29.96	760.9	55.8	13.2	51	ne.	7.4	3.3			0			0.244	6.2		Prof. Dott. Lorenzoni.
Moncalieri	29.04	737.6	29.95	760.7	54.0	12.2	61	e.	1.8	0.8			9	ene.		0	0		Prof. P. F. Denza.
Genoa	29.74	755.3	29.93	760.1	55.9	13.3	46	ne.	4.9	2.2			10	nw.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.04	712.2	29.96	761.0	48.7	9.3	51	nw.			2		1			0	0		Prof. D. C. Bruno.
Pesaro	29.92	759.9	29.97	761.1	57.0	13.9	92	n.			4		10			0	0		Prof. Luigi Guidi.
Florence	29.65	753.1	29.90	759.5	62.6	17.0	54	n.			2		10	nw.		0	0		Prof. Costantino Pitter.
Leghorn	29.80	757.0	29.89	759.1	60.1	15.6	69	ene.	7.4	3.3			10			0.028	0.7		Prof. P. Monte.
Rome	29.72	755.0	29.90	759.4	65.5	18.6	50	nne.					4			0	0		Prof. P. S. Ferrari.
Lecce	29.67	753.6	29.92	759.9	70.5	21.4	54	e.	7.4	3.3			3			0	0		Prof. C. de Giorgi.
Cosenza	29.07	738.3	29.94	760.5	65.3	18.5	70	ssw.	3.1	1.4			4	sw.		0.028	0.7		Prof. D. Conti.
Cagliari	29.68	753.8	29.87	758.7	71.2	21.8	69	se.			2		2	w.		0	0		Prof. A. Pacinotti.
Palermo	29.71	754.5	29.95	760.7	74.7	23.7	52	ese.	3.1	1.4			2	w.		0	0		Prof. G. Ciacciatore.
Syracuse	29.85	758.2	29.89	759.3	70.3	21.3	67	sse.	3.8	1.7			1	w.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.47	748.5	29.91	759.7	65.8	18.8	79	wsw.	3.8	1.7			5	sw.		0.039	1.0		Prof. F. Brioschi.
Stelvio	22.03	559.6			24.8	— 4.0	84	wsw.			6	6 cs	0	sw.		0	0	misty	Prof. P. F. Denza.
Valdobbia	22.05	560.0			25.7	— 3.5	45	e.			2	0	4 k	w.		0	0	misty	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y. †	29.93	760.2	29.94	760.5	57.6	14.2	73	nne.	8.6	3.8		ck	3 s			0	0	fair	K. Sasaki.
Kioto	29.81	757.9	30.02	762.5	49.5	9.7	86	nw.	1.2	0.5		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.81	757.2	30.01	762.2	57.8	14.3	86	calm	0	0		0	0			0	0	clear	S Takehayashi
Nemuro																			
Niigata	29.97	761.2	30.01	762.2	50.6	10.3	89	n.	0.9	0.4		ck	0			0	0	clear	
Nobiru	29.94	760.5	29.96	761.0	47.6	8.7	86	n.	9.3	4.2		0	0			0.020	0.5	clear	
Supporo	29.85	758.2	29.92	759.9	40.0	4.4	84	wsw.	1.8	0.8			0			0	0		
Tokei Obs'y, Yeddo	29.91	759.7	29.98	761.5	57.3	14.1	90	e.	1.8	0.8			10ks;s		ene.	0.007	0.2	overcast	The Staff.
Wakayama	29.92	759.9	29.98	761.5	56.1	13.4	76	e.	5.2	2.3		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.92	760.0	30.11	764.8	76.3	24.6	64	e.	19.0	8.5		2 c; cs	6 k; n	nw.	ese.	0	0	cloudy	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.62	599.8	29.84	757.8	58.1	14.5	81	calm	0	0		0	8 k		s.	inap.	inap.	cloudy	Vicente Fernandez
Leon	24.43	620.5	29.96	760.9	61.8	16.6	90	nw.			1		10 kn			0.295	7.5	covered	Prof. M. Leal.
Mazatlan	29.60	751.9	29.86	758.4	73.0	22.8	83	ne.	0.9	0.4		9 cs	1 ks	sw.		0.039	1.0	covered	F. Quijano, C. E.
Mexico, Central Obs'y	23.06	585.9	30.09	764.3	53.9	12.2	87	calm	0	0		4 k	0			0	0		The Staff.
Morelia	24.13	613.0	30.20	767.1	57.7	14.3	14	ne.			2	3	0			0	0	fine	M. Tena, M. D.
Pabellon, Aguascalientes	23.87	606.2	29.82	757.4	58.5	14.7	92	nw.			1		10 n		s.	0.362	9.2	covered	M. V. de Leon, M. E
Puebla, Catholic Institute	23.45	595.6	30.17	766.2	57.5	14.3	89	calm	0	0		0	3		ne.	inap.	inap.	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.22	767.6	30.22	767.6	43.7	6.5		ene.			4					0	0		
Groningen	30.22	767.5	30.27	768.9	40.6	4.8		e.			1					0	0		
Helder	30.26	768.5	30.26	768.5	41.5	5.3		ene.			2					0	0		
Hellevoetsluis	30.21	767.4	30.21	767.4	43.2	6.2	70	ene.			2					0	0		
Utrecht	30.19	766.7	30.23	767.9	44.4	6.9	49	ene.			2		5			0	0	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.03	762.7	30.09	764.3	42.8	6.0	79	nnw.	13.6	6.1			9			0.087	2.2	raining	
Christiania	29.78	756.4	29.93	760.3	32.7	0.4	89	sw.	0	0			4			0	0		
Gjæsvær	30.40	772.1	30.42	772.7	27.3	— 2.6		ne.			6		10						
Lodingen	30.32	770.1	30.37	771.3	25.0	— 3.9	46	ene.			7		1			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.26	768.6	30.42	772.6	61.2	16.2	81	w.	1.8	0.8			2			0	0		Dr. J. A. Sampaio.
Campo Major	28.99	736.4	29.99	761.7	60.4	15.8	77	w.	12.5	5.6			8			0	0		Dr. A. M. R. dos Santos.
Funchal, Madeira	30.15	765.9	30.24	768.1	69.8	21.0	42	se.	3.1	1.4			4			0.177	4.5		Capt. D. A. de Cunha.
Lisbon, Observatory	29.72	755.0	30.09	764.2	61.7	16.5	75	wnw.	16.8	7.5			6	nw.		0.047	1.2		The Staff.
Ponta Delgada, Azores	30.37	771.5	30.45	773.3	62.6	17.0	80	calm	0	0			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.89	733.7	29.98	761.5	42.4	5.8	57	sw.	22	10		8 cs	0						Capt. Lasarew.
Archangel	29.97	761.2	29.99	761.7	17.6	— 8.0	68	nw.	4	2			10						Capt. Sseliwerstow.
Astrakhan	29.81	757.1	29.72	755.0	66.6	19.2	56	nnw.	2	1			9 s						Capt. Wisganow.
Barnaul ‡	29.73	755.2	30.27	768.8	21.4	— 5.9	77	sw.	7	3			10						Meteorological Obs'y.
Dorpat	29.87	758.8	30.13	765.3	25.9	— 3.4	63	nnw.	2	1			10 ks						Observatory.
Ekaterinburg	28.10	713.8	29.03	737.4	50.2?	10.1?	76	sw.	27	12			10 n						Meteorological Obs'y.
Kasan	29.38	746.2	29.66	753.4	18.5	— 7.5	74	nw.	11	5			2						Observatory.
Kertch	29.74	755.5	29.76	756.0	48.4	9.1	91	ne.	7	3			10 n			1.516	38.5		Lagorio & Sastyrea.
Kieff	29.32	744.7	29.99	761.8	26.8	— 2.9	72	n.	2	1		c;cs	10ks;n						Observatory.
Lugan	29.64	752.9	29.85	758.3	34.9	1.6	66	nne.	22	10			10						Meteorological Obs'y.
Moscow	29.38	746.3	29.89	759.1	25.2	— 3.8	64	n.	4	2		0	8 ks						Meteorological Obs'y.
Nikolaiev	29.84	757.9	29.91	759.7	36.1	2.3	77	n.	31	14			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	29.76	756.0	29.85	758.2	31.3	— 0.4	92	e.			4		10 n			0	0		Lieut. Iwanow.
Pekin, China	29.68	753.8	29.82	757.4	59.7	15.4	52	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.06	763.5	30.08	763.9	26.1	— 3.3	70	n.	9	4		0	8 kn						Central Physical Obs'y.
Tashkend, Laboratory	28.57	725.6	30.14	765.5	57.6	14.2	77	calm	0	0			0			0.126	3.2		Teich, A. M.
Tiflis	28.44	722.3	29.80	756.9	72.5	22.5	35	n.	2	1		0	4 k						Physical Observatory.
Warsaw	29.72	755.0	30.17	766.3	33.4	0.8	96	nne.	2	1			10ks;n					light snow	Astronomical Obs'y.
Wilna	29.71	754.6	30.15	765.8	31.1	— 0.5	50	wsw.	2	1			7						Berg, Assistant.
Yeniseisk	30.04	762.9	30.35	770.8	14.5	— 9.7	79	s.	2	1			2						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.36	771.1	45.0	7.2	80	w.			1		10 ks			0	0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.39	771.9	48	8.9	92	sse.			3		10			0	0	overcast	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.75	755.6	29.85	758.3	63.0	17.2	76	ese.	2.9	1.3			6			0	0	hazy	Antonio Rave, Director.
Bilbao, Met. Obs'y	29.79	756.0	29.82	757.4	67.1	19.5	57	w.	3.1	1.4			10			0.008	0.2	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.91	683.5			50.0	10.0	89	s.	14.1	6.3			10			0	0	covered	Domingo Martin.
Madrid, Royal Obs'y	27.72	704.2	29.95	760.6	57.0	13.9	69	sw.	19.9	8.9		0	9			0	0	very cloudy	The Staff.
Murcia, Met. Obs'y ‡	29.79	756.7	29.94	760.4	76.3	24.6	43	nw.	2.9	1.3		0	2			0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	28.87	733.3	29.76	755.8	58.5	14.7	85	nnw.	19.9	8.9			9			0.138	3.5	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.93	760.2	30.00	761.9	67.6	19.8	81	e.	1.8	0.8		0	0			0	0	clear	Benito Vines, S. J.
Manilla, Philippine Islands	29.79	756.8	29.85	758.1	81.3	27.4	75	wsw.	15.4	7.0		5 cs	5 kn	nnw.	wsw.	0	0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.04	762.9	30.13	765.4	65.3	18.5	63	w.	11.7	5.3		2	3	nw.	nw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.84	757.9	29.93	760.2	79.9	26.6	88	calm	0	0		2 k	3 k			0	0		E. Cadea, Chief Engr.
Tuguegarao, Philippine Ids	29.54	750.4	29.68	753.8	76.4	24.7	88	sw.	2.8	1.2			10 kn		s.	0.18	4.5	covered	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.27	768.9	30.31	769.9	20.1	— 6.6	89	n.			2		0			0	0		
Umea	30.15	765.8	30.20	767.1	22.6	— 5.2	96	n.			2		10			0.197	5.0		
Hernosand	30.13	765.4	30.19	766.7	27.1	— 2.7	85	e.			7		10			0.248	6.3		
Stockholm	29.76	755.8	29.93	760.3	32.9	0.5	66	ssw.			2		10			0	0		
Wisby	30.04	762.9	30.10	764.4	34.2	1.2	75	sw.			2		10			0.110	2.8		
Sub-Series.																			
Upsala	29.84	757.9	29.93	760.1	32.2	0.1	75	ssw.	11.0	4.9			10		nw.	0.087	2.2	snowing	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.51	724.1	29.97	761.2	42.1	5.6	62	nne.			2		7			0.016	0.4	cloudy	The Observatory.
Zurich ‡	28.33	719.5	30.01	762.2	40.5	4.7	78	ne.			3		6			0	0	cloudy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.69	754.0	68.7	20.4	77	sw.	14	6.5			6		sw.	0	0		The Observatory.
Valona			30.02	762.6	67.5	19.7		w.			1		2			0.20	5.	slightly cl'dy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.93	760.2	81.1	27.3	64	w.			2	1 c	0			0	0		Prof. C. V. Van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.10	764.5	30.18	766.6	35	1.7	79	w.	1	0.4		0	sk.			0	0	clear	
Alpena, Michigan	29.37	746.0	30.06	763.5	31	— 0.6	88	nw.	2	0.9		0	sk.			0	0	clear	
Atlanta, Georgia	28.91	734.3	30.13	765.3	49.0	9.4	86	ne.	9	4.0			10 s		calm	0	0	cloudy	
Atlantic City, New Jersey	30.19	766.8	30.20	767.1	43	6.1	51	n.	7	3.1		0	0			0	0	clear	
Augusta, Georgia	29.96	761.0	30.16	766.1	51.0	10.6	93	calm	0	0		8 cs	fg.			0	0	cloudy	
Baltimore, Maryland	30.16	766.1	30.21	767.3	45	7.2	60	n.	4	1.8		0	9 ks		nw.	0	0	cloudy	
Barnegat, New Jersey	30.17	766.3	30.19	766.8	41.2	5.1	48	nw.	9	4.0		0	0			0	0	clear	
Bismarck, Dakota	27.86	707.6	29.78	756.4	29	— 1.7	88	calm	0	0		0	hz.			0	0	clear	
Boise City, Idaho	27.14	689.3	30.06	763.5	45	7.2	93	w.	1	0.4			10 s		w.	0.15	3.8	cloudy	
Boston, Massachusetts	29.95	760.7	30.11	764.8	32.6	0.3	72	w.	6	2.7		0	hz.			0	0	clear	
Brackettville, Texas	28.58	725.9	29.59	751.6	65	18.3	100	calm	0	0			10 s		calm	0.05	1.3	cloudy	
Brownsville, Texas	29.69	754.1	29.74	755.4	77	25.0	90	s.	18	8.0		10 ck	0			0.06	1.5	cloudy	
Buffalo, New York	29.40	746.7	30.14	765.5	34.2	1.2	68	se.	4	1.8		1 cs	sk.			0	0	dense smoke	
Burlington, Vermont	29.83	757.7	30.13	765.3	33.2	0.7	67	n.	5	2.2			10 s		nw.	0	0	cloudy	
Cairo, Illinois	29.61	752.1	30.02	762.5	54.6	12.6	82	s.	4	1.8			10 s		s.	0	0	cloudy	
Campo, California	27.42	696.5	29.99	761.7	48	8.9	100	w.	8	3.6			10 n		w.	0.23	5.8	light rain	
Camp Thomas, Arizona	27.14	689.3			45	7.2	93	calm			0		10 ks			0.27	6.9	cloudy	
Cape Henry, Virginia	30.14	765.5	30.16	766.1	59	15.0	70	s.	4	1.8		0	0			0	0	clear	
Cape May, New Jersey	30.15	765.8	30.18	766.6	45	7.2	60	ne.	11	4.9		0	0			0	0	clear	
Castroville, Texas	28.93	734.8	29.60	751.8	72	22.2	90	se.	6	2.7			10 n		s.	0.11	2.8	light rain	
Cedar Keys, Florida	30.04	763.0	30.06	763.5	62	16.7	87	ne.	6	2.7		0	0			0	0	clear	
Champaign, Illinois	29.15	740.4	29.95	760.7	47.0	8.3	93	se.	4	1.8		0	2 s		se.	0	0	clear	
Charleston, S. Carolina	30.05	763.3	30.11	764.8	60	15.6	81	ne.	4	1.8		0	0			0	0	clear	
Charlotte, N. Carolina	29.25	742.9	30.16	766.1	51.0	10.6	86	nw.	5	2.2		0	fg.			0	0	clear	
Chattanooga, Tennessee	29.28	743.7	30.13	765.3	46.5	8.1	91	calm	0	0			fg.		calm	0	0	dense fog	
Cheyenne, Wyoming	23.72	602.5	29.85	758.2	39.2	4.0	59	n.	12	5.4			10 n			0.05	1.3	light rain	
Chicago, Illinois	29.24	742.7	29.98	761.5	53.1	11.7	80	s.	3	1.3		0	0			0	0	clear	
Chincoteague, Virginia	30.15	765.8	30.17	766.3	59	15.0	75	e.	3	1.3		0	1 s		calm	0	0	clear	
Cincinnati, Ohio	29.42	747.3	30.10	764.5	51	10.6	86	calm	0	0		3 k	fg.	w.		0	0	clear	
Cleveland, Ohio	29.37	746.0	30.14	765.5	38.8	3.8	84	se.	11	4.9		1 k	0			0	0	clear	
Coleman City, Texas																			
Columbus, Ohio	29.24	742.7	30.13	765.3	44	6.7	83	ne.	1	0.4		3 cs	fg.			0	0	fair	
Concho, Texas	27.82	706.6	29.82	757.4	61	16.1	93	calm	0	0		0	3 s			0	0	fair	
Corsicana, Texas	29.28	743.7	29.76	755.9	67	19.4	100	s.	12	5.4			10 n			1.31	33.3	heavy rain	
Davenport, Iowa	29.23	742.4	29.91	759.7	56	13.3	80	se.	2	0.9		4 k	0	s.		0	0	fair	
Dayton, Washington T'y	28.07	713.0	29.93	760.2	47.7	8.7	83	sw.	10	4.5			10 n		w.	0.09	2.3	light rain	
Deadwood, Dakota	25.06	636.5	29.92	760.0	42	5.6	86	s.	3	1.3			10 ks		calm	0	0	cloudy	
Decatur, Texas					60	15.6	70	sw.	11	4.9			10 s		sw.	0.75	19.1	cloudy	
Delaware Breakwater, Del.	30.16	766.1	30.18	766.6	54	12.2	86	ne.	19	8.5		1 k	1 s			0	0	clear	
Denison, Texas	28.93	734.8	29.76	755.9	60	15.6	93	se.	4	1.8			10 n		calm	0.36	9.1	light rain	
Denver, Colorado	24.42	620.3	29.79	756.7	45.0	7.2	65	nw.	12	5.4		0	7 s		calm	0	0	fair	
Des Moines, Iowa	28.89	733.8	29.84	757.9	54	12.2	86	s.	3	1.3			10 s		s.	0	0	cloudy	
Detroit, Michigan	29.36	745.7	30.10	764.5	47.2	8.4	77	calm	0	0		0	fg.			0	0	dense fog	
Dodge City, Kansas	26.97	685.0	29.66	753.4	54	12.2	100	se.	11	4.9			9 s			0.20	5.1	cloudy	
Dubuque, Iowa	29.15	740.4	29.89	759.2	48.8	9.3	77	s.	1	0.4		0	5 s		calm	0	0	fair	
Duluth, Minnesota	29.00	738.1	29.78	756.4	44	6.7	93	n.	2	0.9		0	2 s		calm	0	0	clear	
Eagle Pass, Texas	28.98	736.1	29.83	757.7	65.5	18.6	93	s.	1	0.4			10 s		calm	0.04	1.0	cloudy	
Eagle Rock, Idaho	25.11	637.8	30.10	764.5	37	2.8	82	s.	6	2.7			10 n			0.24	6.1	light rain	
Eastport, Maine	29.70	754.4	29.77	756.1	26.5	— 3.1	70	w.	18	8.0		1 c	0	w.		inap.	inap.	clear	
El Paso, Texas	26.07	662.2	29.91	759.7	44.2	6.8	63	nw.	3	1.3		0	4 s		w.	0.07	1.8	fair	
Erie, Pennsylvania	29.38	746.2	30.14	765.5	39	3.9	82	s.	4	1.8		0	2 s			0	0	clear	
Escanaba, Michigan	29.26	743.2	29.94	760.5	43	6.1	83	calm	0	0		3 k	3 s	w.	sw.	0	0	fair	
Florence, Arizona	28.38	720.8	29.98	761.5	50.9	10.5	90	se.	1	0.4			10 s		sw.	0.14	3.6	cloudy	
Fort Apache, Arizona	24.90	632.4	29.94	760.5	39	3.9	100	e.	3	1.3			10 n		calm	0.37	9.4	light rain	
Fort Assinnaboine, Montana	26.87	682.5	29.81	757.2	32	0.0	62	sw.	11	4.9		0	0			0	0	clear	
Fort Bennett, Dakota																			
Fort Benton, Montana	26.91	683.5	29.89	759.2	32	0.0	71	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	27.72	704.1	29.83	757.7	27	— 2.8	77	sw.	4	1.8		0	0			0	0	clear	
Fort Custer, Montana	26.53	673.8	29.92	760.0	35	1.7	62	sw.	8	3.6		0	7 s		calm	0	0	fair	
Fort Davis, Texas	24.79	629.7	29.75	755.6	48	8.9	80	s.	5	2.2		0	0			0	0	clear	
Fort Elliott, Texas	26.90	683.2	30.20	767.1	53	11.7	61	se.	12	5.4		4 k	0	se.		0	0	fair	
Fort Gibson, Indian T'y	29.20	741.7	29.78	756.4	59.5	15.3	93	se.	8	3.6			10 n		calm	0.02	0.5	light rain	
Fort Grant, Arizona					45	7.2	71	calm	0	0			10 s			0.08	2.0	cloudy	
Fort Griffin, Texas	28.42	721.9	29.64	752.8	63.8	17.7	90	calm	0	0			10 s			0.11	2.8	cloudy	
Fort Keogh, Montana	27.19	690.6	29.86	758.4	35	1.7	71	calm	0	0		1 c	0			0	0	clear	
Fort Macon, North Carolina	30.14	765.5	30.15	765.8	59	15.0	78	ne.	12	5.4		hz.	hz.	calm	calm	0	0	light haze	
Fort McKavett, Texas																			
Fort Missoula, Montana	26.50	673.1	30.15	765.8	34	1.1	100	sw.	1	0.4			9 ks			0	0	cloudy	
Fort St. Michaels	29.26	743.2	29.30	744.2	23	— 5.0	86	n.	25	11.2		0	5 s		n.	0.09	2.3	fair	
Fort Shaw, Montana	26.09	662.7	29.83	757.7	32	0.0	88	w.	4	1.8		0	0			0	0	clear	
Fort Sill, Indian Territory	28.46	722.9	29.75	755.6	60.5	15.8	94	se.	8	3.6			10 s			0.10	2.5	cloudy	
Fort Stevenson, Dakota	27.83	706.9	29.79	756.7	28	— 2.2	88	s.	4	1.8		0	0			0	0	clear	
Fort Verde, Arizona					51.8	11.0	69	se.			2		10 s		se.	0.03	0.8	cloudy	
Fredericksburg, Texas	28.00	711.2	29.48	748.8	68	20.0	100	sw.	4	1.8			10 ks		sw.	0.08	2.0	threatening.	
Galveston, Texas	29.77	756.1	29.81	757.2	75	23.9	90	se.	30	13.4			10 ks		se.	0.93	23.6	threatening.	
Grand Haven, Michigan	29.32	744.7	30.02	762.5	40.0	4.4	89	e.	3	1.3		0	0			0	0	clear	
Hatteras, North Carolina	30.12	765.0	30.14	765.5	61	16.1	78	n.	6	2.7		0	0			0	0	clear	
Helena, Montana	25.53	648.5	30.12	765.0	35	1.7	89	se.	4	1.8		0	0			0	0	clear	
Henrietta, Texas	28.76	730.5	29.64	752.8	64	17.8	90	calm	0	0			10 s			0.05	1.3	cloudy	
Huron, Dakota	28.30	718.8	29.76	755.9	39	3.9	89	se.	5	2.2		1 cs	0			0	0	clear	
Indianapolis, Indiana	29.22	742.2	30.05	763.3	51	10.6	83	se.	2	0.9		3 c	hz.	sw.	calm	0	0	fair	
Indianola, Texas	29.73	755.1	29.76	755.9	77.0	25.0	90	s.	15	6.7		2 c	6 k;ks	n.	s;calm	0.55	14.0	cloudy	
Jacksboro, Texas	28.58	725.9	29.66	753.4	63	17.2	100	w.	2	0.9			10 n		calm	0.11	2.8	light rain	
Jacksonville, Florida	30.03	762.7	30.07	763.8	58	14.4	80	n.	1	0.4		1 cs	0			0	0	clear	
Keokuk, Iowa	29.21	741.9	29.89	759.2	54.0	12.2	86	se.	6	2.7		0	0			0	0	clear	
Key West, Florida	29.96	761.0	29.99	761.7	76.0	24.4	82	ne.	5	2.2		0	2 ks		calm	0	0	clear	
Kittyhawk, North Carolina	30.16	766.1	30.18	766.6	63	17.2	68	e.	10	4.5		0	2 k			0	0	clear	
Knoxville, Tennessee	29.10	739.1	30.18	766.6	42.3	5.7	98	n.	1	0.4		3 c	fg.	calm	calm	0	0	dense fog	
La Crosse, Wisconsin	29.06	738.1	29.86	758.4	50	10.0	71	s.	8	3.6		0	0			0	0	clear	
La Mesilla, New Mexico	25.98	659.9	30.13	765.3	43.8	6.6	76	calm	0	0		0	6 s			0	0	fair	
Laredo, Texas	29.29	744.0	29.62	752.3	69.0	20.6	97	sw.	2	0.9			10 s		s.	0.10	2.5	cloudy	
Leavenworth, Kansas	28.88	733.5	29.81	757.2	59	15.0	87	se.	4	1.8			10 s		s.	inap.	inap.	cloudy	
Lewiston, Idaho	28.98	736.1	29.86	758.4	47	8.3	93	calm	0	0			10 s		calm	0.20	5.1	cloudy	
Little Rock, Arkansas	29.59	751.6	29.91	759.7	59	15.0	87	w.	4	1.8			10 n			0.06	1.5	light rain	
Los Angeles, California	29.62	752.3	30.00	762.0	54.0	12.2	86	sw.	3	1.3			10 n		sw.	0.12	3.0	light rain	
Louisville, Kentucky	29.46	748.3	30.04	763.0	50.0	10.0	93	calm	0	0			fg.		calm	0	0	dense fog	
Lynchburg, Virginia	29.45	748.0	30.16	766.1	47	8.3	86	calm	0	0			fg.			0	0	dense fog	
Madison, Wisconsin	28.90	734.0	29.97	761.2	47	8.3	86	se.	5	2.2		0	0			0	0	clear	
Marquette, Michigan	29.13	739.9	29.89	759.2	45	7.2	93	s.	6	2.7		0	8 s		s.	0.02	0.5	cloudy	
Mason, Texas	28.10	713.7	29.79	756.7	66	18.9	93	nw.	6	2.7			10 s		nw.	0.13	3.3	cloudy	
Memphis, Tennessee	29.63	752.6	29.98	761.5	60	15.6	70	se.	1	0.4			10 s		se.	0	0	cloudy	

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.19	741.4	29.97	761.2	46	7.8	93	s.	5	2.2			fg			0	0	dense fog	
Mobile, Alabama	29.97	761.2	30.04	763.0	59.0	15.0	87	w.	2	0.9			10 s			0	0	cloudy	
Montgomery, Alabama	29.84	757.9	30.08	764.0	55	12.8	80	e.	2	0.9			10 ks		w.	0	0	cloudy	
Moorhead, Minnesota	28.70	729.0	29.76	755.9	29	— 1.7	88	s.	6	2.7		0	0			0	0	clear	
Morgantown, W. Virginia	29.11	739.4	30.14	765.5	38.0	3.3	96	calm	0	0			fg			0	0	dense fog	
Mt. Washington, N. H	23.20	589.3	29.58	751.3	1.0	—17.2	100	nw.	120	53.7			fg		nw.	0.15	3.8	dense fog	
Nashville, Tennessee	29.51	749.5	30.07	763.8	49.0	9.4	89	e.	1	0.4		10 ck	0	nw.		0	0	cloudy	
New Haven, Connecticut	30.05	763.3	30.18	766.6	32	0.0	60	nw.	5	2.2		0	0			0	0	clear	
New London, Connecticut	30.13	765.3	30.18	766.6	37	2.8	61	n.	2	0.9		0	0			0	0	clear	
New Orleans, Louisiana	29.92	760.0	29.98	761.5	67.0	19.4	84	se.	3	1.3			10 s		se.	inap.	inap.	cloudy	
Newport, Rhode Island	30.11	764.8	30.16	766.1	37.5	3.1	63	w.	14	6.3		0	0			0	0	clear	
New River, N. Carolina					61	16.1	65	ne.			1	0	0			0	0	clear	
New Shoreham, Rhode I'd	30.14	765.5	30.17	766.3	40.2	4.6	48	nw.	16	7.2		0	0			0	0	clear	
New York, New York	30.03	762.7	30.21	767.3	37.5	3.1	60	w.	5	2.2		0	0			0	0	clear	
Norfolk, Virginia	30.13	765.3	30.16	766.1	54	12.2	93	calm	0	0		0	0			0	0	clear	
North Platte, Nebraska	26.72	678.7	29.78	756.4	47	8.3	94	s.	6	2.7			fg			0	0	dense fog	
Olympia, Washington T'y	29.70	754.4	29.74	755.4	49.0	9.4	93	s.	1	0.4			10 n		calm	0.50	12.7	light rain	
Omaha, Nebraska	28.58	725.9	29.82	757.4	51.5	10.8	92	s.	2	0.9			fg			0	0	dense fog	
Oswego, New York	29.81	757.2	30.15	765.8	35.5	1.9	67	sw.	4	1.8		0	1 k		w.	0	0	clear	
Pensacola, Florida	30.01	762.2	30.04	763.0	54	12.2	81	ne.	6	2.7		cs	7 s	calm	calm	0	0	cloudy	
Philadelphia, Pa	30.17	766.3	30.23	767.8	44	6.7	68	e.	4	1.8			fg.			0	0	dense fog	
Phœnix, Arizona	28.82	732.0	30.67	779.0	43	6.1	51	e.	4	1.8			10 s		se.	0.09	2.3	cloudy	
Pike's Peak, Colorado	17.36	440.9	29.57	751.1	13	—10.6	100	n.	5	2.2			10 n			0.09	2.3	light snow	
Pioche, Nevada	23.92	607.6	30.11	764.8	36	2.2	92	nw.	4	1.8		7 k	0			0.27	6.9	fair	
Pittsburg, Pennsylvania	29.32	744.7	30.17	766.3	40.7	4.8	82	ne.	3	1.3			fg.		calm	0	0	dense fog	
Port Eads, Louisiana	30.00	762.0	30.01	762.2	71.5	21.9	82	se.	8	3.6		0	hz		calm	0	0	dense haze	
Port Huron, Michigan	29.39	746.5	30.10	764.5	38.5	3.6	86	se.	6	2.7		0	sk		calm	0	0	clear	
Portland, Maine	29.96	761.0	30.01	762.2	32	0.0	68	sw.	8	3.6		0	hz			0	0	clear	
Portland, Oregon	29.76	755.9	29.83	757.7	51.2	10.7	86	s.	7	3.1		1 c	0			0.53	13.5	clear	
Portsmouth, N. Carolina					64	17.8	73	ne.	8	3.6		0	hz		calm	0	0	clear	
Prescott, Arizona	24.59	624.6	29.90	759.4	42	5.6	76	sw.	8	3.6			10 s		s.	0.05	1.3	threatening.	
Punta Rassa, Florida	30.00	762.0	30.00	762.0	68	20.0	73	ne.	10	4.5		1 c	0	calm		0	0	clear	
Red Bluff, California	29.64	752.8	29.99	761.7	50.5	10.3	98	calm	0	0		0	4 s		s.	0.14	3.6	fair	
Rio Grande City, Texas	29.54	750.3	29.76	755.9	71	21.7	90	s.	3	1.3			10 s		calm	0	0	cloudy	
Rochester, New York	29.45	748.0	30.15	765.8	31	— 0.6	78	sw.	12	5.4		0	sk			0	0	clear	
Roseburg, Oregon	29.32	744.7	29.91	759.7	41.7	5.4	93	se.	1	0.4			10 ks			0.09	2.3	cloudy	
Sacramento, California	29.94	760.5	30.02	762.5	50.6	10.3	93	s.	2	0.9		0	0			0.18	4.6	clear	
St. Louis, Missouri	29.36	745.7	29.99	761.7	52.3	11.3	86	se.	10	4.5		7 c; ck	0	sw.		0	0	fair	
St. Paul, Minnesota	28.90	734.0	29.82	757.4	46.2	7.9	93	se.	6	2.7		3 c	0			0	0	clear	
Salt Lake City, Utah	25.47	646.9	29.92	760.0	40	4.4	82	ne.	8	3.6			10 n		calm	0.51	13.0	heavy rain	
San Antonio, Texas	29.05	737.9	29.77	756.1	72.0	22.2	97	s.	6	2.7			10 s		s.	0.10	2.5	cloudy	
San Diego, California	29.91	759.7	29.98	761.5	57.0	13.9	86	w.	6	2.7		0	8 s			0.03	0.8	cloudy	
Sandusky, Ohio	29.39	746.5	30.10	764.5	44.5	6.9	83	s.	13	5.8		0	0			0	0	clear	
Sandy Hook, New Jersey	30.17	766.3	30.20	767.1	42.0	5.6	42	nw.	10	4.5		0	0			0	0	clear	
San Francisco, California	29.95	760.7	30.02	762.5	56	13.3	90	sw.	2	0.9		0	8 s		sw.	0.21	5.3	cloudy	
Santa Fé, New Mexico	22.96	583.2	29.95	760.7	33	0.6	92	calm	0	0			10 s		calm	0.78	19.8	threatening.	
Savannah, Georgia	30.01	762.2	30.10	764.5	59	15.0	87	n.	2	0.9		8 cs	2 k			0	0	cloudy	
Shreveport, Louisiana	29.59	751.6	29.82	757.4	61	16.1	100	se.	6	2.7			10 n		calm	2.43	61.7	light rain	
Silver City, New Mexico	24.18	614.2	29.86	758.4	38	3.3	76	s.	2	0.9		7 k	0	calm		0.27	6.9	fair	
Sitka, Alaska	29.24	742.7	29.31	744.5	48.1	8.9	86	e.	9	4.0			10 ks		se.	0.06	1.5	cloudy	
Smithville, North Carolina	30.09	764.3	30.13	765.3	57	13.9	80	n.	5	2.2		0	0			0	0	clear	
Spokane Falls, Wash. Ter.	27.73	704.3	29.80	756.9	44	6.7	93	s.	7	3.1			10 n		calm	0.02	0.5	light rain	
Springfield, Illinois	29.26	743.2	29.97	761.2	54.5	12.5	80	s.	6	2.7		0	1 s		n.	0	0	clear	
Springfield, Massachusetts	30.01	762.2	30.14	765.5	32.7	0.4	78	s.	2	0.9		0	0			0	0	clear	
Stockton, Texas	26.81	681.0	29.96	761.0	46.8	8.2	86	sw.	4	1.8		0	0			0	0	clear	
St. Vincent, Minnesota	28.76	730.5	29.69	754.1	31	— 0.6	85	s.	3	1.3		0	0			0	0	clear	
Thatcher's Island, Mass	30.04	763.0	30.10	764.5	34.0	1.1	60	nw.	13	5.8		0	0			0	0	clear	
Toledo, Ohio	29.36	745.7	30.08	764.0	45	7.2	83	sw.	4	1.8		0	0			0	0	clear	
Tucson, Arizona	27.49	698.2	29.93	760.2	45	7.2	86	s.	3	1.3			9 s			0.17	4.3	cloudy	
Umatilla, Oregon	29.49	749.0	29.92	760.0	49.0	9.4	83	sw.	3	1.3		0	9 s		w.	0	0	cloudy	
Uvalde, Texas	28.76	730.5	29.54	750.3	68	20.0	93	calm	0	0			10 s		calm	0.16	4.1	cloudy	
Vicksburg, Mississippi	29.71	754.6	29.97	761.2	60	15.6	81	se.	6	2.7			10 s		se.	0.01	0.3	cloudy	
Visalia, California	29.61	752.1	29.98	761.5	50	10.0	92	e.	2	0.9		0	5 s			0.06	1.5	fair	
Washington, D. C	30.08	764.0	30.20	767.1	45	7.2	60	n.	2	0.9		8 ck	hz	w.		0	0	fair	
West Los Animas, Colorado	25.64	651.2	29.72	754.9	38	3.3	47	s.	2	0.9			10 ks		sw.	0	0	cloudy	
Wickenburg, Arizona					51	10.6	93	calm			0		10 n			0.01	0.3	light rain	
Wilmington, N. Carolina	30.08	764.0	30.14	765.5	55	12.8	80	e.	2	0.9		0	hz		calm	0	0	dense haze	
Winnemucca, Nevada	25.52	648.2	29.98	761.5	40	4.4	100	sw.	6	2.7		0	5 ks		sw.	0.18	4.6	fair	
Wood's Holl, Mass	30.09	764.3	30.13	765.3	39	3.9	65	nw.	16	7.2		0	0			0	0	clear	
Yankton, Dakota	28.43	722 1	29.80	756.9	45	7.2	100	e.	5	2.2			fg			0	0	dense fog	
Yuma, Arizona	29.76	755.9	29.90	759.4	59.4	15.2	70	nw.	2	0.9		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I‡																			J. A. Racker.
Bogota, U. S. Columbia	22.05	560.1			53.5	11.9	88	calm	0	0			10 n; s			1.98	50.3	cloudy	Joaquin Gomez.
Buenaventura, U. S. C	29.96	761.0	29.98	761.5	76	24.4	90	s.					0			0.80	20.3	clear	J. B. Dougherty.
Guadeloupe, W. I.‡	29.83	757.7	29.83	757.7	78	25.6	87	e.				0	0			0	0	clear	B. Bigar.
Havana, Cuba, W. I	29.98	761.5	30.03	762.7	73	22.8	76	calm	0	0		0	2 ks		calm	0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I	29.96	761.0	29.97	761.2	74.5	23.6	91	calm	0	0		0	0			0	0		Robert Johnstone.
Navassa, W. I	29.87	758.7	29.95	760.7	79	26.1	78	e.				5 ck	5 s	se.	e.	0	0	fair	F. M. Everett.
Paramaribo, S. A	29.96	761.0	29.97	761.2	79	26.1	87	e.			2	4 c	5 k	e.		0	0	fair	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.37	746.0	29.93	760.2	76	24.4	94	calm					10 ks		calm	1.09	27.7	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					74.8	23.8	96	se.			1	0	5 ks		se.	0	0		Earl Flint.
Santiago de Cuba, W I	29.92	760.0	29.95	760.7	80	26.7	78	calm	0	0		0	2 ks		sw.	0	0	fair	Robert Mason.
St. Thomas, W. I.‡	29.83	757.7	29.94	760.5	81	27.2	79	ne.	4	1.8		0	3 ks		ne.	0	0	clear	G. O. Gyllich.
York Factory, B. A	29.81	757.2	29.86	758.4	16.0	— 8.9	92	e.	5	2.2		2 c	3 s	e.	e.	0	0	fair	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross																			
H. M. S. Alert, Port Darwin, Australia	29.91	759.7	83.2	28.4	73	nw.			1–2		0							blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, Syracuse, Sicily	29.96	761.0	72	22.2	73	ene.			1		1							blue sky	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.74	755.4	70	21.1		w.			2–3		8	w.						d. clouds	Capt. Hon. W. H. Joliffe
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 47° 40′, W. 19° 15′	30.16	766.1	61	16.1	94	sse.			3		5					2	sse.	showery	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.07	763.8	70	21.1	73	ese.			2–4		6	se.						squally	Capt. F. W. Richards.
H. M. S. Champion, Ancon, Peru	30.00	762.0	62	16.7	100	calm			0		4							d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette Gibraltar, Mediterranean	30.11	764.8	66	18.9		wnw.			2		4	wsw.				3	wnw.	d. clouds	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 15° 23′, E. 41° 50′	29.88	758.9	88	31.1	69	sse.			4		0					1	s.	blue sky	Capt. C. S. Cardell.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 41′, E. 135° 11′	29.96	761.0	64	17.8	89	calm			0		3	ne.						d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′			72	22.2		ssw.			1		3	calm						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Eliott.
H. M. S. Dido, N. 6° 17′, W. 14° 23′	29.91	759.7	80	26.7		sse.			1		3	nne.				2	sse.	d. clouds.	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	29.96	761.0	71.5	21.9	78	wnw.			1–2		3	wnw.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid, N. 44° 28′, W. 62° 34′	29.55	750.6	35	1.7	85	w.			6–8		8	w.				6	w.	squally	Capt. W. R. Kennedy.
H. M. S. Dryad, N. 30° 34′, E. 47° 49′	29.88	758.9	89	31.7		nw.			1		3	nw.						d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 18° 08′, E. 62° 41′	30.00	762.0	73.5	23.1		ese.			3–4		5	sse.				3	ese.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.66	753.4	51	10.6	100	n.			1		2	n.						showery	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.82	757.4	84	28.9	71	n.			2		8	n.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 43° 57′, W. 62° 05′	29.57	751.1	36	2.2		wsw.			8–9		8	wsw.				8	wsw.	squally	Capt. W. C. Karslake.
H. M. S. Fawn, S. 11° 43′, E. 41° 00′	29.95	760.7	79.5	26.4	78	n.			2		2	n.				1	n.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 16° 42, W. 88° 17′	29.93	760.2	84	28.9	75	ne.			1		3							d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, S. 2° 05′, W. 157° 10′	29.96	761.0	78	25.6	77	ene.			3–4		3							d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	30.06	763.5	60	15.6	76	ne.			2		2							d. clouds	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 31° 50′, E. 125° 56′	30.02	762.5	65	18.3		nnw.			2		2	w.				4	w.	d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 54′, W. 79° 30′	29.95	760.7	82	27.8		calm			0		2	calm						d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 22° 00′, E. 2° 30′	30.01	762.2	65	18.3		ese.			3		10					1		showery	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 12′, E. 18° 26′	30.14	765.5	67	19.4	37	wsw.			3		7							d. clouds	Lt. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, Hong Kong, China	29.83	757.7	78.5	25.8	67	wnw.			2		0							blue sky	Lieut. A. Balfour.
H. M. S. Malabar, Bombay, India	29.89	759.2	86	30.0	91	nnw.			2		3	nw.						d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotaur, N. 36° 00′, W. 5° 25′	30.03	762.7	66.5	19.2	73	wsw.			5		4	wsw.						d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.98	761.5	75	23.9	95	s.			1		1							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.15	765.8	56	13.3	87	calm			0		10							misty	Comm. F. Edwards.
H. M. S. Nelson,																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	29.57	751.1	32	0.0	89	w.			6		7	w.						d. clouds	Capt. E. H. Drummond.
H. M. S. Orontes, N. 17° 02′, W. 59° 20′	29.95	760.7	83	28.3	79	calm			0		2	se.				3	n.	d. clouds	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	29.69	754.1	46	7.8	92	nne.			1		4							d. clouds	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.92	760.0	84.3	29.1	79	nw.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 16° 50′, W. 25° 01′	30.05	763.3	78	25.6	90	nne.			3		6	ene.						squally	
H. M. S. Sea Gull, S. 11° 26′, E. 41° 56′	29.56	750.8	83	28.3	79	n.			3		2							d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb, N. 35° 53′, E. 14° 31′	30.03	762.7	75	23.9	59	w.			4		0							blue sky	
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. O. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 31° 20′, W. 78° 34′	30.30	769.6	55	12.8	68	sse.			5		7	s.				5	s.	squally	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne																			
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.96	761.0	77	25.0		n.			1		2							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	30.37	771.4	57	13.9	81	se.			1–2		1							blue sky	Com. J. C. Wilson, A. D.C
H. M. S. Woodlark, N. 25° 31′, E. 52° 20′	29.92	760.0	86.5	30.3	69	nw.			2–3		3	ne.				2	nw.	d. clouds	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, Mossamedes, Benguela	30.00	762.0	75.2	24.0	66	nw.			3		0					1		blue sky	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.13	765.2	82.4	28.0	96	ne.			7		6	ne.				2	ne.	foggy	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.87	758.7	77.0	25.0	64	nnw.			2									blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore John G. Walker, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.10	764.5	64	17.8	73	nne.	2	0.9			8		ne.	0	0			fair	
N. Yard, Portsmouth, N. H.	30.04	763.0	30	— 1.1	?	sw.	12	5.4			0			0	0			clear	
Naval Hospital, Yokohama, Japan	29.78	756.4	59	15.0	82	calm			0		8		w.	0.16	4.1			clearing	
Adams, Callao, Peru	29.85	758.2	62	16.7	94	sse.			2		2					sm'h		fair	
Alaska, Callao, Peru	30.00	762.0	62	16.7	100	sse.			2		5		s.	0	0	sm'h		fair	
Alert, Kobe, Japan *	29.85	758.2	63	17.2	67	calm			0		2		calm	0	0			hazy	
Alliance, N. 47° 38′, W. 52° 03′	29.33	745.0	38	3.3	72	wsw.			6		2			light	light	mod.		squally	
Ashuelot, N. 34° 25′, E. 134° 02′	29.98	761.5	66	18.9	74	w.			2		2		calm					clear	
Colorado, New York, N. Y.	30.17	766.3	40	4.4	56	wnw.	4	1.8			1		calm					clear	
Constitution, Newport, R. I.	30.06	763.5	36	2.2	100	w.	2	0.9			0							clear	
Franklin, Norfolk, Va	30.07	763.8	53	11.7	86	calm	0	0			0			0	0			clear	
Galena, Smyrna, Turkey in Asia	29.82	757.4	72	22.2	76	wsw.			3		5					sm'h		fair	
Independence, N. Yard, Mare I'd, Cal	29.85	758.2	55	12.8	87	s.	6.0	2.7			10		s.	0.06	1.5			overcast	
Kearsarge, Hampton Roads, Va	30.16	766.1	62	16.7	77	se.			2		0					sm'h		hazy	
Lackawanna, San Francisco, Cal †	30.17	766.3	58	14.4	100	sw.			0-1		2		sw.					fair	
Lancaster, N. 38° 10′ W. 37° 17′	30.25	768.3	69	20.6	95	ssw.			4		8		sw.			sm'h		d. clouds	
Marion, Montevideo, Uruguay	29.89	759.2	61	16.1		ne.			3		1		n.			sm'h		clear	
Michigan, Erie, Pa	30.03	762.7	38	3.3	90	s.			2		0							clear	
Monocacy, Yokohama, Japan	29.96	761.0	62	16.7	88	ene.			1		10		calm					cloudy	
Nipsic, Genoa, Italy	29.90	759.4	58	14.4	53	nne.			3		8					sm'h		d. clouds	
Onward, Callao, Peru †	30.01	762.2	61	16.1	94	sse.			3		2		n.			long	w.	clear	
Palos, Hong Kong, China	29.84	757.9	78	25.6	69	wnw.			1		2		calm					fair	
Passaic, Washington, D. C.	30.20	767.1	43	6.1	92	ne.			1		5		ne.					fair	
Pensacola, Callao, Peru	30.05	763.3	64	17.8	78	se.			1-2		0							fair	
Portsmouth, Hampton Roads, Va	30.15	765.8	60	15.6	82	se.			2		2					sm'h		clear	
Powhatan, Boston, Mass	30.07	763.8	32	0.0	79	nw.			1		0							clear	
Quinnebaug, Marseilles, France	29.84	757.9	57	13.9	75	w.			1		10		calm			sm'h		overcast	
Ranger, N. 34° 24′, W. 121° 21′ *	29.98	761.5	59	15.0	88	nw.			1		fg.					long	nw.	foggy	
Saratoga, Cape Henry, Va	30.14	765.5	61	16.1	77	sse.			1		2		se.	0	0	sm'h		fair	
St. Louis, League Island, Pa	29.90	759.4	39	3.9	82	ene.	4	1.8			0			0	0			clear	
Swatara, Yokohama, Japan †	29.97	761.2	61	16.1	82	ene.			2		10		calm			sm'h		cloudy	
Tennessee, New York, N. Y	30.22	767.6	39	3.9	100	nnw.	8	3.6			0			0	0			fair	
Vandalia, Norfolk, Va	30.14	765.5	53	11.7	86	calm			0		0							clear	
Wabash, Boston, Mass	30.10	764.5	33	0.6	70	w.	3	1.3						0	0			hazy	
Wachusetts, Hoonyah, Alaska	29.37	746.0	46	7.8	100	s.			1		5		e.					fair	
Wyoming, Port Royal, S. C.	30.08	764.0	63	17.2	78	nne.	6	2.7			2		nw.	0	0			fair	
Yantic, New York, N. Y. *	30.16	766.1	42	5.6	83	w.			1		0							clear	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.				Character.	Direction.		
								Up'er	Lo'er	Upper.	Lower.						
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumaker & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 53° 19′, W. 50° 04′ *†	29.12	739.6	...	...	...	sw.	6	...	8	...	ssw.	...	...	h'vy	ssw.	squally	N. McLean
S. S. Circassian, Capt. W. H. Smith, ‡ N. 54° 45′, W. 39° 00′	29.79	756.7	47	8.3	100	se.	7	...	10	...	s.	½ h'r	½ h'r	5	se.	misty	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N 47° 44′, W. 52° 01′	29.34	745.2	37	2.8	...	sw.	7	...	2	...	sw.	...	...	h'vy	ssw.	clear	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn †	30.05	763.3	39	3.9	91	n.	1	...	1	...	n.	...	...	...	...	very fine	Douffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 50° 05′, W. 38° 09′ †	29.73	755.1	51	10.6	86	wsw.	6	...	2	...	sw.	0	0	h'vy	sw.	clear	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Liverpool, Eng *†	30.28	769.1	48	8.9	100	ne.	1	...	8	...	ne.	...	...	...	...	fine	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
S. British Merchant, E. J. Moloney,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Bk. Caldew, Capt. W. Petersen S. 57° 50′, W. 78° 32′	29.01	736.8	36.8	2.7	...	sw.	9	...	10	...	...	...	...	...	...	snowing	
S. S. Cipero, Capt. W. N. Lailey, Belize, Honduras, C. A.	29.95	760.7	81	27.2	87	ese.	1	...	2	...	...	...	...	...	...	d. clouds	
Bk. Commewyne, Capt. W. Scott,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Bk. Coppename, Capt. A. Buchan, N. 48° 30′, W. 10° 08′	30.18	766.6	53	11.7	66	ne.	6	...	3	...	...	...	...	...	...	blue sky	
Bk. Glaramara, Capt. R. Morton, ‡ N. 11° 47′, W. 119° 02′	29.98	761.5	76	24.4	100	ne.	5	...	10	...	...	...	...	...	...	overcast	
S. S. Gordon Castle, Capt. W. Waring. N. 6° 35′, E. 107° 47′	29.86	758.4	82.5	28.1	78	ne.	1	...	1	...	...	...	...	...	...	blue sky	
Bg. Hermine, Capt. S. G. Jones, S. 55° 39′, W. 65° 23′	29.53	750.0	43	6.1	83	nnw.	3	...	2	...	...	...	...	...	...	d. clouds	
Bkt. Hope, Capt. J. Campbell ‡	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Island Belle, Capt. A. McBride,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
S. Lochee, Capt. J. Raeburn, N. 9° 44′, E. 91° 12′	29.83	757.7	80.8	27.1	82	s.	2	...	5	...	...	...	...	...	...	d. clouds	
Bk. Mertola, Capt. E. W. Turner,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Bk. Moorhill, Capt. J. Brown,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Naiad, Capt. J. Smith,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
S. Pleione, Capt. C. H. Rennant,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Queen of Cambria, Capt. M. Parry, S. 29° 34′, W. 46° 44′	30.00	762.0	69	20.6	65	sw.	3	...	6	...	...	...	...	...	...	d. clouds	
S. S. Rosetta, Capt. A. E. Barlow,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Sierra Estrella, Capt. P. Murdock,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Bk. Shun Lee, Capt. J. M. Gray,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
S. S. Strathleven, Capt. C. W. Pearson, N. 31° 15′, E. 121° 28′	30.17	766.3	60.5	15.8	88	ne.	4	...	6	...	...	...	...	...	...	d. clouds	
S. S. Thames, Capt. Luckhurst	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	R. Ladd, 1st Officer
S. S. Wyberton, Capt. R. J. Blacklin. Suez Bay, Egypt	29.77	756.1	85	29.4	...	nnw.	3	...	1	...	...	...	...	...	...	blue sky	
CALIFORNIA AND MEXICAN S. S. CO. *J. Birmingham, Agent. San Francisco.*																	
S. S. Newbern, Capt. E. Rogers N. 34° 44′, W. 120° 52′ †	30.02	762.5	57	13.9	94	nw.	2	...	10?	...	...	0	0	gentle	wnw.	clear?	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Galia, Capt. W. H. P. Hains N. 40° 36′, W. 65° 50′	30.08	764.0	48	8.9	78	w.	6		5		wnw.	0	0	mod.	wnw.	fine	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD. *A. Schumaker & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
S. S. Braunschweig, Capt. C. Pohle, N. 46° 18′, W. 41° 00′	29.66	753.4	61.0	16.1	82	w.	2	...	2	...	w.	...	...	long high	w.	fair	
S. S. Hermann, Capt. H. Baur, N. 47° 08′, W. 41° 14′	29.78	756.4	53.6	12.0	...	nw.	4	...	2	...	wsw.	0	0	long	w.	fine	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 49° 49′, W. 8° 08′	30.13	765.3	51.0	10.6	72	ene.	5	...	8	...	ene.	0	0	mod.	ene.	cloudy	Englehart & von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 38° 28′, W. 124° 43′ †	29.95	760.7	59	15.0	82	se.	1	...	5	...	nw.	0	0	light	wnw.	fair	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, Hong Kong, China *†	30.12	765.0	79	26.1	66	nne.	2	...	4	...	ene.	...	...	...	...	clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 34° 50′, E. 146° 37′	29.80	756.9	68	20.0	79	nw.	6	...	3	...	nw.	0.58	14.7	sm'l	e.	fine	
OREGON IMPROVEMENT CO. *John L. Howard, Agent. San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Oterendorp, Agent. San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	G. Reichmann.
S. S. Columbia, Capt. F. Bolles,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
S. S. Oregon, Capt. E. Polemann. N. 43° 44′, W. 124° 27′ †	29.78	756.4	54	12.2	87	sse.	6	...	8	...	...	...	...	mod.	w.	...	C. W. Pohl, 2d Officer
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
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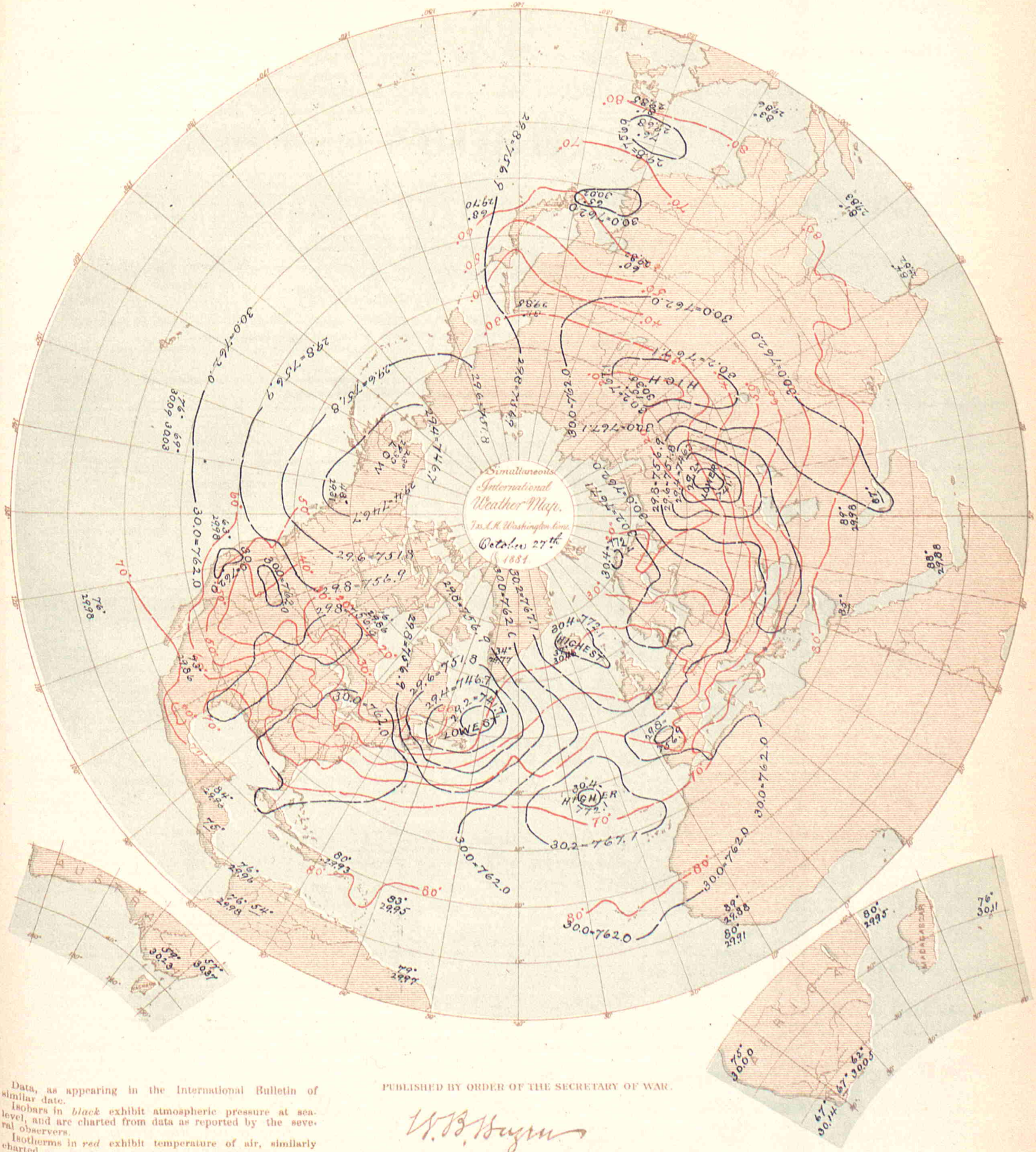
VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill				
MERCHANT'-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO.																	
Goodall, Perkins & Co., Agents, San Francisco.																	
S. S. Ancon, Capt. J. W. Ingalls, N. 34° 20′, W. 120° 12 †	29.98	761.5	57	13.9	87	nw.	2		5		w.			sm'h		fine	J. W. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, Seattle, Wash. Ter †	29.65	753.1	51	10.6	93	sw.	6		10		sw.					rainy	T. Huntington. G. H. Harrison.
S. S. Orizaba, Capt. C. B. Johnson,																	
S. S. Senator, Capt. Wallace, N. 35° 45′, W. 121° 35′ †	30.03	762.7	56	13.3	81	se.	1		10					sm'h		foggy	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †	29.79	756.7	50	10.0	?	se.	2		5		s.					fair	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 45° 42′, W. 124° 48′ †	29.78	756.5	54	12.2	100	se.	4		10		se.			hv'y	se.	cloudy	J. C. Hunter.
PACIFIC MAIL S. S. CO.																	
Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.																	
S. S. Australia, Capt. —— N. 27° 41′, W. 144° 59′	30.13	765.3	69	20.6	85	wsw.	2		2		sw.			long	nw.	clear	A. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, N. 25° —′, W. 150° —′ †	30.19	766.8	76	24.4	95	var.	2		1		var.			mod.	ne.	clear	W. H. Hawes, 2d Off. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,																	
S. S. City of Peking, Capt. G. G. Barry, N. 35° 53′, E. 145° 43′ *†	29.90	759.4	62	16.7	88	nnw.	5		5		nnw.	0	0	mod.	nnw.	fair	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama †	29.96	761.0	76	24.4	95	nw.	1		5		nw.	0	0	sm'h		fair	
S. S. City of Sidney, Capt. H. C. Dearborn, Sydney, N. S. W. *†	30.12	765.0	53	11.7	80	s.	3		2		s.	0	0	sm'h		clear	E. L. Salk.
S. S. City of Tokio, Com. J. Maury, N. 34° 56′, W. 128° 42′ †	30.13	765.3	63	17.2	89	wsw.	3		2		sw.			hv'y	nw.	clear	A. L. Richie, 2d Off.
S. S. Colima, Capt. R. R. Searle, N. 31° 27′, W. 117° 44′ †	30.05	763.3	63	17.2	83	wsw.	4		8		nw.	0	0	mod.	wsw.	gloomy	R. R. Searle. M. Connolly.
S. S. Grenada, Capt. M. Connolly,																	
S. S. South Carolina, Capt. —— San Blas, Mexico *†	29.79	756.7	79	26.1	91	ne.	2		5		se.			h'vy long	sw.		
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.37	771.4	64	17.8	78	calm	0		0							clear	H. Webber.
RED STAR LINE.																	
Peter Wright & Sons, Agents, New York and Philadelphia.																	
S. S. Nederland, Capt. Ueberweg,																	A. Fedderson, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †	30.29	769.4	42	5.6	74	ne.	3		10		sw.	0	0			cloudy	C. H. Grant, 2d Off.
WHITE STAR LINE.																	
R. J. Cortis, Agent, New York.																	
S. S. Adriatic, Capt. J. W. Jennings, Liverpool, Eng. †	30.23	767.8	48	8.9		nne.	2		2		nne.	0	0			fair	R. Horsfall.
S. S. Britannic, Capt. H. Perry,																	
S. S. Celtic, Capt. B. Gleadell, N. 44° 53′, W. 52° 21 †	29.48	748.8	45	7.2	84	wsw.	7		8		w.			con.	w.	fair	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, N. 46° 04′, W. 38° 09′ †	29.98	761.5	56	13.3	75	sse.	2		8		se.	sh'rs	sh'rs	mod.	sw.	misty	W. A. Ward.
S. S. Republic, Capt. P. J. Irving																	
MISCELLANEOUS.																	
Bk. Dom Pedro II, Capt. C. E. Coffin N. 34° 16′, W. 63° 24′ †*	29.80	756.9				nne.					ne.			mod.	s.		
U. S. F. C. S. Fish Hawk, Washington, D. C. †	30.22	767.6	47	8.3	94	nne.	3	3 c	3 k			0	0			fair	
Schr. Henry Denison, Capt. J. Fehring. N. 35° 43′, W. 73° 50′ †	30.36	771.1				nne.	3		1		ne.			light	ne.	clear	
Hassler, Lt. Com. Nichols,																	W. Randall. E. Fry.
S. Iron Cross, Capt. Randall,																	
S. Pawashick, Capt. E. Fry,																	
S. S. Lovaine, Capt. H. McCauley																	
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 35° 49′, W. 36° 24′ †	30.53	775.4	72	22.2		sse.	5		2		nw.			mod.	nnw.	clear	
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, N. 36° 48′, W. 51° 03′ †	29.97	761.2	72	22.2	90	ssw.	5		10		sw.	h'vy	h'vy	r'gh	ssw.	rainy	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 28, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.89	759.2	62.2	16.8	94	w.			1		3			0	0	pretty fair	Moiroud.
Algiers ‡			29.90	759.4	67.3	19.6	65	w.			4		10			0.047	1.2	covered	Nicolas.
La Calle ‡			29.85	758.2	74.5	23.6	83	nnw.			1		4			0	0	cloudy	Fonfrède.
Tunis ‡			29.85	758.3															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.94	760.5	69.8	21.0	57	nne.			1		2			0.138	3.5	fair	Dumas.
Tebessa ‡			29.88	759.0	68.4	20.2	48	sw.			5		0			0	0	clear	Derché.
Geriville ‡					68.7	20.4	34	nw.			6		2			0	0	fair	Lonchamp.
Laghouat ‡			29.94	760.5	76.3	24.6	25	ne.			2		2			0	0	fair	Herbin.
Biskra ‡			29.90	759.4	86.0	30.0	27	se.			1		4			0	0	cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.12	765.0	30.21	767.3	62.5	16.9	69	ne.	3	1.3			2			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.45	748.1	30.02	762.6	38.8	3.8	97	e.			1		10			0.087	2.2		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.29	743.9	30.10	764.4	31.1	— 0.5	94	ene.	6.3	2.8			10			0	0		Dr. Wiersbicki.
Eperies	29.14	740.2	30.06	763.5	33.1	0.6	77	n.			1		10 s					drizzling	Julius Mikolik.
Gratz ‡	28.74	730.1	30.04	763.0	37.4	3.0	78	s.			2		10			0.394	10.0		Andreas Rospini.
Hermannstadt	28.59	726.1	30.05	763.2	45.3	7.4	77	nw.			2		10			0	0		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.62	727.0	30.02	762.5	34.2	1.2	85	ene.			2		10			0	0	gloomy	The Staff.
Lemberg	29.07	738.3	30.11	764.7	30.0	— 1.1	94	s.			1		10			0.008	0.2		Dr. T. Stanecki.
Pola	29.79	756.6	29.90	759.5	54.3	12.4	73	n.			1		10			0	0		I. R. Hydrographic Office.
Szathmar	29.58	751.4	30.05	763.3	36.1	2.3	77	ne.			2		10			0	0		Josef Midlinszky, S. J.
Szegedin					42.3	5.7	83									0	0		Karl Stancel.
Trieste	29.84	757.9	29.94	760.5	52.5	11.4	66	e.			1		10			0	0		Rieder.
Vienna	29.33	745.0	30.08	764.0	33.4	0.8	65	nne.			1		10			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 28, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Aberdeen	30.14	765.5	30.25	768.3	42.0	5.6	70	nnw.	12	5.4			6			0.150	3.8	d. clouds	W. Boswell.
Armagh, Observatory	30.08	764.0	30.31	769.9	46.0	7.8	76	wnw.	4	1.8			10					overcast	S. Call.
Bidston, Liverpool Obs'y			30.22	767.6	44.8	7.1	83	wnw.	14	6.3			10					overcast	John Hartnup.
Bolton, Sharples	29.59	751.6	30.14	765.5	44.9	7.2	67	nnw.					6					d. clouds	Thomas Mackereth, A.S.
Bradford, Yorkshire	29.78	756.4	30.18	766.6	44.5	6.9	70	nw.			1		8			0.01	0.3	overcast	J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.17	766.3	46.0	7.8	63	n.			0.4		8					overcast	John McLaren.
Chatham, School M. E.	30.03	762.7	30.17	766.3	46.1	7.8	76	n.			1		6					d. clouds	R. Craydon, R. E.
Falmouth, Observatory	30.05	763.3	30.28	769.1	46.4	8.0	51	ene.			1		1					d. clouds	The Staff.
Fort Napier, Natal	27.63	701.8	29.85	758.2	58.2	14.6	93	se.			1		10					overcast	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.56	750.8	29.79	756.7	76.0	24.4		sw.			1		4					drizzling	Sergt. John Robinson.
Galway, Queen's College			30.34	770.6	44	6.7	67	n.			2		9					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	29.91	759.7	29.96	761.0	67.2	19.6	84	nw.			2		3					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	30.04	763.0	30.25	768.3	47.3	8.5	56	nne.			3		5					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.99	761.7	30.17	766.3	46.7	8.2	57	n.			2		2					blue sky	The Staff.
Guernsey	29.89	759.2	30.11	764.8	47	8.3	65	nne			2		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.15	765.8	30.18	766.6	44.6	7.0	57	n.	13	5.8			7					d. clouds	The Staff.
Leicester, Museum	29.93	760.2	30.19	766.8	45.5	7.5	60	n.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.87	758.7	29.94	760.5	78.0	25.6	83	se.			3		1			0	0	blue sky	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.00	762.0	30.04	763.0	77.8	25.4	66	ne.			2		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.68	753.9	30.22	767.6	43.9	6.6	75	nnw.			1		10					overcast	John Mac Emall.
Oxford, Radcliffe Obs'y	29.96	761.0	30.19	766.8	43.8	6.6	53	nnw.			3		9					overcast	The Staff.
Plymouth	30.18	766.6	30.26	768.6	46.7	8.2	57	ne.			2		10					overcast	John Merrifield.
Sandwick Manse, Orkneys			30.32	770.1	40.1	4.5	90	ne.	20	8.9			5					showery	Rev. C. Clouston, L. L.D.
Scutari Cemetery, Turkey	30.04	763.0	30.11	764.8	57.8	14.3	57	ene.			1		6					d. clouds	Serg't W. H. Lyne.
Sheffield	29.93	760.2	30.22	767.6	46.2	7.9	67	n.			1		9			0.02	0.5	overcast	W. F. Cooper.
Silloth Rectory	30.16	766.1	30.19	766.8	46.0	7.8	74	n.			1		8			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.80	756.9	45.8	7.7	63	nw.	8	3.6			10					overcast	Rev. S. J. Perry.
Stratfield Turgiss	29.98	761.5	30.20	767.1	45.4	7.4	76	nw.			3		4					d. clouds	Rev. C. H. Griffiths, F.M.S.
Truro, Royal Institution	30.22	767.6	30.27	768.8	52	11.1	72	ne.			4		8					gloomy	W. Newcombe.
Valencia, Observatory	30.35	770.9	30.37	771.4	46.2	7.9	57	ne.	19	8.5			3					misty	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.87	758.7	29.92	760.0	33	0.6	69	w.	7	3.1			10 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	29.89	759.2	29.96	761.0	29	— 1.7	92	sw.	5	2.2		0	0			0	0	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.05	763.3	30.08	764.0	31	— 0.6	84	w.	25	11.2		0	5 s		nw.	0	0		J. McWilliams.
Fort Garry, Manitoba*	28.91	734.3	29.75	755.6	33	0.6	85	ne.	4	1.8		5 k	sk.	ne.	ne.	0	0	smoky	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.87	758.7	30.00	762.0	31	— 0.6	74	w.	4	1.8		0	0			0	0	clear	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.89	759.2	30.23	767.8	36	2.2	96	nw.	5	2.2		10 c	0	w.		0	0	fair	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	30.05	763.3	30.25	768.3	35	1.7	66	e.	6	2.7		10 k	0	n.		0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.43	747.5	30.14	765.5	44	6.7	83	se.	7	3.1		2 cs	2 ks	w.	w.	0	0	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.42	747.3	30.12	765.0	46	7.8	100	n.	4	1.8			10 n			0	0	cloudy	H. Morgan.
Port Stanley, Ontario	29.43	747.5	30.08	764.0	49	9.4	100	e.	10	4.5			10 n		e.	0	0	cloudy	M. Payne.
Quebec, Quebec*	29.86	758.4	30.20	767.1	25	— 3.9	64	w.			1	0	0			0	0	clear	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.75	755.6	30.22	767.6	35	1.7	89	se.	12	5.4			10 s		se.	0	0	threatening	W. H. McIntyre.
Saugeen, Ontario*	29.36	745.7	30.08	764.0	46	7.8	89	se.	10	4.5			10 ks			0	0	cloudy	K. Stewart.
St. Andrews, N. B.	30.02	762.5	30.07	763.8	33	0.6	70	nw.	3	1.3		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.79	756.7	29.85	758.2	38	3.3	76	w.	9	4.0		5 ck	5 ks		nw.	0.01	0.3	fair	T. C. Hill, C. E.
Toronto, Ontario*	29.77	756.1	30.16	766.1	42	6.1	89	e.	7	3.1		5 cs	5 s	w.	w.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.05	763.3	30.11	764.8	37	2.8	89	nw.	8	3.6		0	0			0	0	clear	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	29.93	760.2	30.19	766.8	42	5.6	83	sw.	3	1.3		0	0			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Cape St. Francis Lt. House‡	29.97	761.2	30.00	762.0	66.0	18.9	78	se.	10.4	4.6		1 c	0			0	0	light haze	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.14	740.1			77.4	25.2	29	nw.			1	0	1			0	0	fine	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.04	762.9	30.06	763.5	59.0	15.0	91	ene.	1.3	0.6		0	0			0	0	clear	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	29.87	758.8	29.92	760.0	38.1	3.4	75	ne.	9	4			9						Oversergent Fischer.
Fanöe	29.97	761.3	29.99	761.8	36.3	2.4	77	ne.			4		10						Overloerer Lauridsen.
Godthaab, Greenland	29.63	752.6	29.67	753.7	35.4	1.9	88	sw.			2		7						S. Kleinschmidt.
Stykkisholm, Iceland	30.43	772.8	30.47	773.9	39.2	4.0	90	e.			2		0						A. O. Thorlacius.
Thorshavn,	30.47	774.0	30.51	774.9	41.5	5.3	63	ne.	11	5			7						Overloerer Bergh.
Vestervig	29.96	760.9	30.05	763.2	33.1	0.6	68	nne.			4		10						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.34	745.3	30.01	762.3	42.1	5.6	85	nw.			1		8 n					very cloudy	M. Labroue, Director.
Alençon Normal School	29.60	751.7	30.20	767.1	40.3	4.6	74	ne.			2		n		s.	0	0		M. Nicot, Director.
Arras, Engineer School	29.84	757.9	30.11	764.7	45.0	7.2	66	ne					k		ne.				M. Klein, Commandant.
Avignon, Normal School	29.84	758.0	29.92	760.0	48.2	9	86	n.			1		10			0.43	11.	covered	M. Giraud, Director.
Bar-sur-Seine	29.50	749.2	30.07	763.8	39.9	4.4	79	e.			1		10			0	0	covered	M. Saillard, Director.
Beauvais, Normal School	29.87	758.8	30.15	765.8	43.0	6.1	61	n.			1		10		ne.	0	0	covered	M. Frère Eugène Marie.
Besançon, Normal School	29.04	737.7	29.92	760.0	41.4	5.2	81	ne.			1		10 n			0	0	covered	M. Gobin, Director.
Bordeaux, Observatory	29.76	755.9	30.03	762.7	42.6	5.9	74	n.			2		10		n.	0	0	covered	M. Rayet, Director.
Bourges, Normal School	29.48	748.9	30.06	763.4	39.2	4	77	n.			3		sn		n.	0	0		M. Postel, Director.
Brest, Naval Observatory	29.96	760.9	30.20	767.1	46.0	7.8	85	ne.			1		10		ne.	0.031	0.8		M. de Rermarec, Dir.
Caen, Normal School	30.10	764.6	30.18	766.6	45.3	7.4	80	ne.			1		5		n.	0	0	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.72	754.8	30.08	764.1	39.7	4.3	60	nw.			3		8		n.	0	0	very cloudy	M. Jadot, Director.
Charleville, Normal School	29.56	750.8	30.09	764.2	44.6	7	66	ese.			3		0			0	0		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.60	726.5	30.01	762.2	38.1	3.4	87	nnw.			1		10			0.126	3.2	covered	M. Alluard, Director.
Cluny, Normal School	29.14	740.2	29.97	761.3	34.9	1.6	96	n.			2		8		ne.	0	0		M. de Villemontée, Dir
Commercy, Normal School	29.19	741.3	30.08	763.9	37.2	2.9	97	n.			3		2 kn	n.	n.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.42	696.4	30.00	761.9	43.7	6.5	77	e.			2	ck	0			1.61	41.		M. Jeangirard, Director.
Gréasque, du. Rhone	28.83	732.2	29.97	761.2	52.7	11.5	90	sw.			2		10		s.	0.024	0.6	covered	M. Kina, Director.
Grenoble, Normal School	29.18	741.1	29.97	761.1	41.7	5.4	94	nnw.			1		n			0.31	8.		M. Ablard, Director.
Guéret, Normal School	28.41	721.7	30.07	763.8	35.6	2	89	wsw.			2		5		ene.	0	0	cloudy	M. Rivoire, Director.
Lamballe, Normal School	29.92	759.9	30.21	767.3	43.7	6.5	79	ne.			1		10		ne.			sprinkling	M. Ollitrault, Director.
Lescar, Normal School	29.49	749.1	30.08	763.9	41.4	5.2	81	wnw.			1					0.169	4.3		M. Chauvin, Director.
Lorient, Naval Observatory	30.13	765.4	30.24	768.0	47.3	8.5	72	ne.			1		2		ne.	0	0	¼ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.94	735.1	30.04	763.1	35.4	1.9	100	n.			1		10			0.335	8.5	raining	M. André, Director.
Mans, Normal School	29.85	758.1	30.17	766.3	39.9	4.4	60	ne.			4		5			0	0	cloudy	M. Piboen, Director.
Marseille, Observatory	29.62	752.3	29.89	759.1	56.1	13.4	77	wnw.			1		10		w;ne	0.063	1.6		M. Stephan, Director.
Montlouis l'instituteur	24.67	626.6	29.91	759.6	40.6	4.8	100	e.	5.6	2.5			10			0.150	3.8	raining	M. Cave, for Dr. Fines.
Montpellier, Normal School	29.79	756.7	29.90	759.5	54.7	12.6	95	ene.			2		5			0.311	7.9	light rain	M. Pourie, Director.
Nancy, Normal School	29.29	743.9	30.08	764.1	37.0	2.8	69	nw.			1		10 n			0	0	covered	M. Hasse.
Nantes, Observatory	30.00	762.0	30.16	766.1	45.0	7.2	54	ne.			2-3		8 k;kn	ne.	nne.	0	0		M. Larocque, Director.
Nice	29.85	758.3	29.88	759.0	60.8	16.0	69	w.			2		10	w.	w.	0	0	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.81	757.2	29.92	759.9	52.7	11.5	65	nw.	13.0	5.8			10		w.	0	0		Dr. Fines.
Pic-du-Midi, Summit	21.04	534.3			26.1	—3.3		calm			0		10		w.	0.130	3.3	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.92	734.6	30.02	762.6	40.3	4.6	93	e.			1		10	n.		0	0	covered	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.99	634.7			32.7	0.4	100	ese.			1		10			0.102	2.6	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.07	763.8	30.10	764.6	43.7	6.5	76	ne.			1		10		nne.	0	0	covered	Lt. E. Decante, Director.
Roche-sur-Yon, N. School	29.89	759.1	30.11	764.7	45.0	7.2	64	ne.			4		5			0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School	27.80	706.0	29.98	761.5	42.4	5.8	91	nw.			1		10			0.465	11.8	covered	M. Richard, Director.
Rouen, Normal School	30.11	764.8	30.15	765.9	41.7	5.4	81	ne.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School	30.00	762.1	30.16	766.1	43.7	6.5	68	e.			1		10		ne.	0	0	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.95	760.8	30.12	765.0	41.5	5.3	57	ne.			2		3		ne.	0	0		M. Renou, Director.
Toulouse, Observatory	29.30	744.3	30.03	762.7	45.1	7.3	85	nw.			3		10	w.		0.472	12.0	covered	M Bailland, Director.
Tours	29.91	759.6	30.10	764.6	42.8	6.0	67	ene.			2		5	calm	e.	0	0	½ covered	M. de Tastes.
Versailles, Observatory	29.62	752.4	30.11	764.9	42.4	5.8	53	e.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.83	757.7	30.12	765.1	41.0	5.0	52	nne			2		5		ene.	0	0		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.21	741.8	30.07	763.7	36.5	2.5	60	e.			2	0	1 s			0	0		Prof. Dr. Hoh.
Berlin	29.80	756.9	29.98	761.4	42.8	6.0	65	sw.			1		10					raining	Prof. Dr. Arndt.
Breslau	29.54	750.2	30.07	763.7	32.9	0.5	87	se.			2		2			0	0		Royal University Obs'y.
Carlsruhe	29.61	752.1	30.05	763.3	38.8	3.8	67	nnw.			1		10	ne.		0	0		Albert Senz.
Cassel	29.27	743.4	29.98	761.6	41.4	5.2	65	s.			2		3	n.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.69	754.2	30.07	763.8	39.0	3.9	56	nnw.			1		1			0	0		Physical Society.
Friedrichshafen	28.53	724.6	29.98	761.4	39.9	4.4	80	ne.			5		10	ne.		0	0		Wilhelm, Chief Tel.
Hamburg	29.84	758.0	29.94	760.4	41.4	5.2	95	w.			3		10			0.008	0.2	rain & fog	E. Preller.
Kiel	29.90	759.5	29.92	759.9	42.4	5.8	78	nne.			2		9			0.102	2.6		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.61	752.0	30.04	763.1	36.5	2.5	60	sw.			2		3	wsw.		0	0		H. Leppig, Asst.
Magdeburg	29.80	756.8	29.99	761.8	40.6	4.8	70	ssw.			3		10 ks			0	0		Dr. Assmann.
Memel	30.00	762.1	30.05	763.3	31.8	—0.1	100	s.			5		10 n					snowing	Issermann.
Munich	28.14	714.7	30.00	761.9	35.1	1.7	82	ne.			2		10	n.		0.020	0.5		Central Station.
Neufahrwasser	29.94	760.4	29.95	760.8	36.7	2.6	60	ssw.			5		10	ssw.		0.008	0.2		A. Lothes.
Neustadt, Palatinate	29.52	749.7	30.04	763.1	38.5	3.6	70	nw.			4		10			0	0		Dicknether.
Stuttgart	29.05	737.8	29.97	761.3	38.3	3.5	83	n.			1		10			0	0	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.50	723.9	30.07	763.7	36.1	2.3	64	calm			0		10	nw.		0.004	0.1		Fischer.
Wustrow	29.87	758.7	29.89	759.3	40.8	4.9	82	n.			2		10 s			0.110	2.8		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.66	753.3	30.04	763.0	73.8	23.2		sw.			1.5		0			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.82	757.5	29.87	758.8	82.0	27.8	89	sw.	19.0	8.5			0			0	0	blue sky	
Deesa	29.42	747.1	29.88	759.1	87.0	30.6	47	wnw.	6.6	3.0			1		wnw.	0	0	d. clouds	
Bombay	29.80	757.0	29.84	758.0	82.7	28.2	73	nnw.	14.0	6.3			0			0	0	blue sky	
Poona, Yarrowda.	28.00	711.1	29.82	757.5	87.0	30.6	26	ene.	1.0	0.4			2	w.		0	0	d. clouds	
Belgaum	27.32	694.0	29.83	757.6	82.8	28.2	31	ene.	4.0	1.8			0			0	0	blue sky	
Lahore	29.15	740.4	29.90	759.4	78.9	26.1	41	calm	1.0	0.4			0			0	0	blue sky	
Roorkee	28.99	736.3	29.89	759.3	76.8	24.9	57	calm	1.0	0.4			2			0	0		
Agra	29.32	744.7	29.88	758.9	87.7	30.9	32	w.	2.2	1.0			0			0	0		
Nagpur	28.83	732.2	29.86	758.6	84.2	29.0	26	e.	2.6	1.2			0			0	0	blue sky	
Jubbulpore	28.53	724.8	29.89	759.2	79.8	26.6	30	calm	1.0	0.4			0			0	0	blue sky	
Lucknow	29.54	750.4	29.92	759.9	80.2	26.8	31	calm	0.7	0.3			0			0	0	blue sky	
Allahabad	29.58	751.4	29.90	759.4	72.8	22.7	60	calm	0.6	0.3			0			0	0	blue sky	
Patna	29.72	755.0	29.91	759.6	77.5	25.3	65	e.	1.2	0.5			2	e.	e.	0	0		
Hazaribagh	27.89	708.4	29.94	760.4	70.6	21.4	67	sse.	3.0	1.3			0			0	0	blue sky	
Cuttack	29.80	757.0	29.89	759.1	80.8	27.1	67	calm	0.1	0.04			7			0	0	d. clouds	
Calcutta, Alipore	29.85	758.1	29.87	758.7	80.1	26.7	72	e.	1.0	0.4			2			0	0	d. clouds	
Dhubri	29.76	756.0	29.89	759.1	78.5	25.8	79	n.	2.4	1.1			0			0	0	blue sky	
Goalpara																			
Chittagong	29.78	756.3	29.87	758.6	79.5	26.4	80	nw.	2.3	1.0			1			0	0	blue sky	
Sibsagar	29.55	750.6	29.89	759.2	77.1	25.1	91	se.	1.1	0.5			0			0	0	blue sky	
Jeypore	28.45	722.6	29.88	759.0	84.2	29.0	35	wnw.	3.1	1.4			3		w.	0	0	d. clouds	
Zanzibar, Africa			29.87	758.7	82.9	28.3	75	s.	7	3.1			8		se.	0.27	6.9	threatening.	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.53	750.0	29.94	760.4	51 8	11.0	49	e.	1.8	0.8			8			0	0		Prof. Giovanni Clodig.
Milan	29.44	747.7	29.96	760.9	52.0	11.1	75	se.	1.3	0.6			10			0	0		Prof. Schiaparelli.
Padua	29.83	757.6	29.93	760.3	53.8	12.1	58	e.	0.7	0.3			9	wsw.		0	0		Prof. Dott. Lorenzoni.
Moncalieri	29.05	737.8	29.96	760.9	53.1	11.7	70	wnw.	2.5	1.1			9			0	0		Prof. P. F. Denza.
Genoa	29.72	754.9	29.91	759.7	57.6	14.2	57	n.	4.9	2.2			4	s.		0	0		Prof. G. M. Garibaldi.
Mondovi	28.00	711.2	29.92	760.0	49.3	9.6	65	e.			2		2			0	0		Prof. D. C. Bruno.
Pesaro	29.86	758.4	29.91	759.6	54.9	12.7	94	e.			4		10			0	0		Prof. Luigi Guidi.
Florence	29.65	753.0	29.90	759.4	59.9	15.5	64	n.			2		7			0.063	1.6		Prof. Costantino Pitter.
Leghorn	29.80	757 0	29.89	759.1	61.3	16.3	69	nne.	8.7	3.9			4			0.173	4.4		Prof. P. Monte.
Rome	29.72	755.0	29.90	759.4	66.7	19.3	70	sw.					10			0.693	17.6		Prof. P. S. Ferrari.
Lecce	29.69	754.0	29.93	760.3	70.0	21.1	72	sse.	7.4	3.3			6	sw.		0	0		Prof. C. de Giorgi.
Cosenza	29.09	738.8	29.96	761.0	67.6	19.8	69	wsw.	2.5	1.1			5	s.		0	0		Prof. D. Conti.
Cagliari	29.70	754.4	29.89	759.3	72.0	22.2	58	calm	0	0			8	sw.		0	0		Prof. A. Pacinotti.
Palermo	29.73	755.2	29.98	761.4	70.9	21.6	68	ne.	0.7	0.3			9			0	0		Prof. G. Ciacciatore.
Syracuse	29.90	759.5	29.95	760.6	74.5	23.6	82	se.	6.3	2.8			9	sw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.47	748.4	29.89	759.3	66.9	19.4	87	sw.	9.4	4.2			8	s.		0.055	1.4		Prof. F. Brioschi.
Stelvio	22.00	558.8			29.1	— 1.6	79	wsw.			4		10			0	0	covered	Prof. P. F. Denza.
Valdobbia	22.02	559.3			29.8	— 1.2	62	e.			2		10 n			0.472	12.0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y.....†	29.90	759.4	29.92	759.9	59.1	15.1	77	nne.	8.2	3.7		ck	10 s			0	0	overcast	K. Sasaki.
Kioto	29.81	757.2	29.99	761.7	53.7	12.1	88	nw.	1.7	0.8		cs	4 s			0.097	2.5	fair	M. Tojima.
Nagasaki, I. M. Obs'y	29.75	755.6	29.96	761.0	60.6	15.9	75	ene.	1.9	0.8			10 s			0	0	overcast	S Takehayashi.
Nemuro																			
Niigata	29.95	760.7	29.98	761.5	52.9	11.6	75	se.	3.9	1.7		ck	s			0	0	clear	
Nobiru	29.99	761.7	30.00	762.0	47.1	8.4	93	wsw.	3.0	1.3		0	0			0	0	clear	
Sapporo	29.77	756.1	29.83	757.7	46.7	8.2	83	se.	6.6	2.9			0			0	0		
Tokei Obs'y, Yeddo	29.96	761.0	30.02	762.5	58.0	14.4	81	sse.	3.5	1.6		0	0			0	0	clear	The Staff.
Wakayama	29.92	759.9	29.97	761.2	59.5	15.3	75	ene.	5.5	2.5		cs	10 s	wsw.	wsw.	0.077	2.0	cloudy	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.88	758.9	30.07	763.8	76.0	24.4	61	e.	15.5	6.9		0	4k;ks;n		s.	0.04	1.0	fair	A. N. Figot.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.67	601.3	29.89	759.3	50.9	10.5	84	calm	0	0		0	2 s		se.	0.099	2.5	clear	Vicente Fernandez.
Leon	24.45	621.0	30.21	767.2	53.9	12.2	86	n.			3	5 ck	0	sw.		0.244	6.2	½ cloudy	Prof. M. Leal.
Mazatlan	29.71	754.7	29.97	761.3	71.5	21.9	90	e.	1.6	0.8		0	1 k			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.07	586.1	30.13	765.3	50.2	10.1	75	s.	0	0		1 c	0			inap.	inap.		The Staff.
Morelia	24.15	613.6	30.17	766.4	54.7	12.6	28	ne.			1	1	2	s.		0	0	clear	M. Tena, M. D.
Pabellon, Aguascalientes	23.91	607.4	29.94	760.4	52.2	11.2	93	calm			0	0	8		s.	1.013	25.7	hazy	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.41	594.7	30.15	765.9	56.3	13.5	80	calm	0	0		0	9		sw.	inap.	inap.	very cloudy	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.10	764.5	30.10	764.5	46.4	8.0		wsw.			4					0	0		
Groningen	29.93	760.2	29.98	761.6	45.0	7.2		nnw.			2					0.031	0.8		
Helder	30.02	762.5	30.02	762.5	46.4	8.0		nw.			4					0.201	5.1		
Hellevoetsluis	30.07	763.7	30.07	763.7	48.2	9.0	82	wnw.			1					0	0		
Utrecht	30.01	762.2	30.06	763.4	49.5	9.7	79	nnw.			2		5			0.063	1.6	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.11	764.8	30.17	766.4	35.6	2.0	54	e.	19.7	8.8			0			0	0		
Christiania	30.10	764.6	30.26	768.6	28.0	— 2.2	57	ne.	25	11			9			0	0		
Gjæsvær	30.19	766.9	30.22	767.5	28.4	— 2.0		nnw.			6		10						
Lodingen	30.43	772.9	30.48	774.1	34.9	— 1.6	75	w.			2		10			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.21	767.3	30.36	771.2	65.1	18.4	73	nw.	13.6	6.1			3			0	0		Dr. J. A. Sampaio.
Campo Major	28.94	735.0	29.95	760.7	54.0	12.2	72	wnw.	6.3	2.8			10			0	0		Dr. A. M. R. dos Santos.
Funchal, Madeira	30.11	764.9	30.20	767.1	70.9	21.6	46	sw.	6.3	2.8			4			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.58	753.8	30.04	762.9	58.5	14.7	47	nnw.	18.1	8.1			7			0.024	0.6		The Staff.
Ponta Delgada, Azores	30.32	770.1	30.39	771.9	67.3	19.6	67	nw.	5.6	2.5			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.64	727.4	29.73	755.1	39.9	4.4	100	ssw.	9	4		0	4 s						Capt. Lasarew.
Archangel	29.96	761.0	29.98	761.5	19.8	— 6.8	86	ssw.	2	1			10						Capt. Sseliwerstow.
Astrakhan	29.80	756.9	29.72	754.8	31.8	— 0.1	90	ne.	25	11			10 n			blank	blank	heavy cl'ds.	Capt. Wisganow.
Barnaul ‡	29.42	747.2	29.93	760.2	39.9	4.4	45	sw.	9	4			5					light clouds	Meteorological Obs'y.
Dorpat	29.98	761.6	30.24	768.2	26.4	— 3.1	72	ene.	7	3		0	6 k						Observatory.
Ekaterinburg	28.88	733.6	29.91	759.8	15.6	— 9.1	69	wsw.	13	6			9 n						Meteorological Obs'y.
Kasan	29.78	756.4	30.07	763.8	15.4	— 9.2	70	calm	0	0			10						Observatory.
Kertch	30.10	764.5	30.12	765.0	36.1	2.3	82	nw.	13	6		0	5 n			0.067	1.7		Lagorio & Sastyrea.
Kieff	29.52	749.8	30.19	766.9	27.3	— 2.6	58	ene.	4	2		c;cs	10 ks						Observatory.
Lugan	29.87	758.8	30.09	764.3	27.3	— 2.6	60	nne.	34	15			3						Meteorological Obs'y.
Moscow	29.65	753.2	30.17	766.3	24.1	— 4.4	73	s.	7.8	3.5			10 s						Meteorological Obs'y.
Nikolaiev	30.13	765.3	30.20	767.1	37.0	2.8	65	calm	0	0		0	3 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.41	746.9	29.49	749.1	41.5	5.3	85	e.			4		10 n			0.012	0.3		Lieut. Iwanow.
Pekin, China	30.21	767.4	30.35	771.0	46.0	7.8	14	nw.	13	6		0	1 s			0	0		Physical Observatory.
St. Petersburg	30.22	767.6	30.24	768.0	25.2	— 3.8	82	ene.	4	2		0	6 kn						Central Physical Obs'y.
Tashkend, Laboratory	28.37	720.6	29.93	760.2	58.6	14.8	71	calm	0	0			0			0	0		Teich, A. M.
Tiflis	28.45	722.8	29.87	758.7	54.7	12.6	54	n.	45	20		0	6 ks						Physical Observatory.
Warsaw	29.68	753.9	30.12	765.1	33.3	0.7	60	se.	9	4		c	8 ks						Astronomical Obs'y.
Wilna	29.76	755.8	30.20	767.1	30.2	— 1.0	51	sse.	4	2			4						Berg, Assistant.
Yeniseisk	29.38	746.2	29.67	753.6	35.6	2.0	93	sw.	7	3			10					raining	M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.26	768.6	45.2	7.3	72	n.			2	0	8 k			0.05	1.3	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.35	770.9	46	7.8	92	ne.			4		10			0.1	3.	overcast	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.78	756.4	29.89	759.1	60.8	16.	73	e.	4.7	2.1			7			0	0	hazy	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.01	762.3	30.07	763.8	51.8	11.0	86	ne.	1.8	0.8		2	8	n.		0.291	7.4	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.03	686.6			45.5	7.5	69	ne.	8.9	4.0		2	3	sw.		0.492	12.5	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.67	702.7	29.90	759.4	54.0	12.2	81	sw	15.0	6.7		0	7			0.063	1.6	cloudy	The Staff.
Murcia, Met. Obs'y ‡	29.75	755.0	29.90	759.4	68.0	20.0	56	ssw.	0.9	0.4		5	4	e.		0	0	almost cov'd	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.13	739.9	30.03	762.8	51.6	10.9	72	nne.	18.6	8.3			8			0	0	almost cov'd	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.92	760.0	29.99	761.7	73.0	22.8	77	e.	2.0	0.9		0	0			0	0	clear	Benito Vines, S. J.
Manilla, Philippine Islands	29.85	757.9	29.89	759.2	80.6	27.0	77	wnw.	11.0	5.0		6 cs	4	nnw.	w.	0	0	cloudy	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.92	759.8	30.02	762.3	63.3	17.4	67	wnw.	7.3	3.3			10		w.	0.081	2.1		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W.I	29.87	758.7	29.96	761.0	78.1	25.6	89	calm	0	0		3 k	4 kn			0.780	19.8	cloudy	E. Cadea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.73	755.1	29.86	758.5	78.0	25.6	86	n.	1.6	0.7		1 cs	1 ks	e.	nw.	inap.	inap.	clear	José L. Pastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.26	768.6	30.30	769.6	25.2	— 3.8	78	nw.			4		10			0	0		
Umea	30.38	771.6	30.43	772.9	20.8	— 6.2	95	n.			2		5			0	0		
Hernosand	30.43	772.8	30.48	774.1	23.5	— 4.7	69	n.			4		1			0.228	5.8		
Stockholm	29.89	759.2	30.07	763.7	32.4	0.2	96	ene.			8		10			0.185	4.7	snow	
Wisby	29.72?	754.9?	29.71?	754.6?	37.8	3.2	93	sw.			4		10			0.398	10.1	snow & rain	
Sub-Series.																			
Upsala	30.06	763.4	30.14	765.6	28.2	— 2.1	88	ne.	19.9	8.9			10			0.004	0.1	snowing	S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.53	724.7	30.00	762.1	39.9	4.4	93	ne.			1		10			0.413	10.5	raining	The Observatory.
Zurich ‡	28.33	719.6	30.02	762.6	37.9	3.3	92	ne.			3		10			0	0	foggy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.17	766.3	54.3	12.4	63	ne.	8	3.5			7		n.	0	0		The Observatory.
Valona			30.01	762.2	70.2	21.2		sw.			1		2			0	0	slightly cld'y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.96	761.1	79.0	26.1	64	sw.			2	0	2 k		sw.	0.01	0.3		Prof. C. V. Van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.20	767.1	30.28	769.1	37	2.8	72	e.	3	1.3		7 c	0			0	0	fair	
Alpena, Michigan	29.37	746.0	30.06	763.5	48.8	9.3	93	se.	7	3.1		2 k	5 s	nw.		0	0	fair	
Atlanta, Georgia	28.89	733.8	30.11	764.8	59.5	15.3	87	e.	12	5.4		2 k	8 s	calm	calm	0.03	0.8	cloudy	
Atlantic City, New Jersey	30.21	767.3	30.22	767.6	56.2	13.4	93	sw.	3	1.3		9 ck	0	sw.		0	0	cloudy	
Augusta, Georgia	29.94	760.5	30.14	765.5	64.3	17.9	84	se.	1	0.4			10 s			0	0	cloudy	
Baltimore, Maryland	30.17	766.3	30.22	767.6	51	10.6	93	calm	0	0			fg.			0	0	dense fog	
Barnegat, New Jersey	30.20	767.1	30.22	767.6	52.0	11.1	93	sw.	4	1.8			10 k;s		s.	0	0	cloudy	
Bismarck, Dakota	27.87	707.9	29.79	756.7	38	3.3	72	nw.	4	1.8			10 s		calm	0	0	cloudy	
Boise City, Idaho	26.96	684.8	29.88	758.9	47	8.3	77	ne.	4	1.8			10 n		calm	0.23	5.8	light rain	
Boston, Massachusetts	30.08	764.0	30.24	768.1	36.2	2.3	80	w.	8	3.6		0	hz			0	0	dense haze	
Brackettville, Texas	28.75	730.2	29.80	756.9	56	13.3	80	e.	4	1.8		0	0			0	0	clear	
Brownsville, Texas	29.72	754.9	29.77	756.1	73	22.8	90	ne.			1		10 ks		ne.	0.19	4.8	cloudy	
Buffalo, New York	29.40	746.7	30.14	765.5	44.8	7.1	75	ne.	10	4.5			10 s;sk			0	0	cloudy	
Burlington, Vermont	29.98	761.5	30.28	769.1	35.7	2.1	76	s.	5	2.2		0	0			0	0	clear	
Cairo, Illinois	29.39	746.5	29.80	756.9	56.6	13.7	82	se.	6	2.7			10 s		calm	0.25	6.3	cloudy	
Campo, California	27.47	697.7	30.04	763.0	44.6	7.0	86	w.	1	0.4		0	6 s		w.	0.02	0.5	fair	
Camp Thomas, Arizona	27.28	692.9			35	1.7	96	calm			0	0	0			0.03	0.8	clear	
Cape Henry, Virginia	30.18	766.6	30.20	767.1	62	16.7	87	s.	5	2.2		4 cs	0			0	0	fair	
Cape May, New Jersey	30.18	766.6	30.20	767.1	61	16.1	84	sw.	10	4.5		0	2 ks		sw.	0	0	clear	
Castroville, Texas	28.99	736.3	29.68	753.9	63	17.2	52	nw.	4	1.8		0	5 s		w.	0.01	0.3	fair	
Cedar Keys, Florida	30.01	762.2	30.03	762.7	70	21.1	78	se.	19	8.5		0	0			0	0	clear	
Champaign, Illinois	28.98	736.1	29.75	755.6	56.5	13.6	91	se.	12	5.4			10 s		se.	0.06	1.5	cloudy	
Charleston, S. Carolina	30.06	763.5	30.12	765.0	67	19.4	90	ne.	5	2.2		5 ck	3 s	w.	ne.	0	0	cloudy	
Charlotte, N. Carolina	29.28	743.7	30.19	766.8	56.0	13.3	86	se.	3	1.3		8 ok	2 s	w.		0	0	cloudy	
Chattanooga, Tennessee	29.19	741.4	30.04	763.0	57.0	13.9	93	ne.	5	2.2			10s;fg		s;calm	0.20	5.1	cloudy	
Cheyenne, Wyoming	23.80	604.5	29.93	760.2	33.5	0.8	63	nw.	14	6.3		0	0			0.47	11.9	clear	
Chicago, Illinois	29.11	739.4	29.85	758.2	57.2	14.0	89	se.	9	4.0			10 s			0.15	3.8	cloudy	
Chincoteague, Virginia	30.18	766.6	30.20	767.1	64	17.8	90	s.	9	4.0		0	hz.			0	0	clear	
Cincinnati, Ohio	29.37	746.0	30.05	763.3	58	14.4	86	se.	8	3.6			10 n		se.	0.19	4.8	light rain	
Cleveland, Ohio	29.33	745.0	30.10	764.5	51	10.6	74	se.	8	3.6			10 s		sw.	0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.20	741.7	30.09	764.3	54	12.2	86	s.	6	2.7			10 n			0.06	1.5	light rain	
Concho, Texas	27.87	707.9	29.87	758.7	51	10.6	66	nw.	18	8.0		0	0			0	0	clear	
Corsicana, Texas	29.28	743.7	29.76	755.9	63	17.2	63	sw.	16	7.2			10 s			2.45	62.2	cloudy	
Davenport, Iowa	29.02	737.1	29.70	754.4	57	13.9	93	se.	14	6.3			10 n		se.	0.03	0.8	light rain	
Dayton, Washington T'y	27.88	708.1	29.74	755.4	46.7	8.2	93	sw.	6	2.7			10 n		calm	0.20	5.1	heavy rain	
Deadwood, Dakota	25.14	638.5	30.00	762.0	39	3.9	76	calm	0	0		2 cs	0	w.		0	0	clear	
Decatur, Texas					55	12.8	69	sw.	12	5.4		0	2 s			inap.	inap.	fair	
Delaware Breakwater, Del.	30.19	766.8	30.21	767.3	57	13.9	93	s.	8	3.6		7 c;ck	fg.	sw.		0	0	fair	
Denison, Texas	28.91	734.3	29.74	755.4	58	14.4	81	s.	8	3.6		0	0			0.53	13.5	clear	
Denver, Colorado	24.53	623.1	29.90	759.4	34.5	1.4	65	se.	8	3.6		0	0			0	0	clear	
Des Moines, Iowa	28.64	727.4	29.59	751.6	56	13.3	93	s.	9	4.0			10 n		s.	0.60	15.2	light rain	
Detroit, Michigan	29.32	744.7	30.06	763.5	57.6	14.2	74	e.	6	2.7		0	5 s		s.	0	0	fair	
Dodge City, Kansas	26.93	684.0	29.62	752.3	48.3	9.1	88	nw.	32	14.3			10 s			0	0	cloudy	
Dubuque, Iowa	28.95	735.3	29.69	754.1	54.8	12.7	93	se.	7	3.1			10 n		calm	0.03	0.8	light rain	
Duluth, Minnesota	29.04	737.6	29.77	756.1	50	10.0	93	ne.	9	4.0			10 n		ne.	0.01	0.3	light rain	
Eagle Pass, Texas	29.06	738.1	29.91	759.7	60.1	15.6	70	ne.	4	1.8		0	0			0	0	clear	
Eagle Rock, Idaho	25.07	636.8	30.06	763.5	35	1.7	92	sw.	20	8.9			10 ks		sw.	0.14	3.6	threatening.	
Eastport, Maine	30.02	762.5	30.09	764.3	32	0.0	60	nw.	11	4.9		0	0			0	0	clear	
El Paso, Texas	26.23	666.2	30.07	763.8	42.1	5.6	59	nw.	12	5.4		0	3 s		w.	0	0	clear	
Erie, Pennsylvania	29.36	745.7	30.12	765.0	52	11.1	72	se.	9	4.0			10 s			0	0	cloudy	
Escanaba, Michigan	29.22	742.2	29.90	759.4	51	10.6	93	e.	2	0.9		4 c	3 s	w.	calm	0.02	0.5	fair	
Florence, Arizona	28.49	723.6	30.09	764.3	48.0	8.9	83	ne.	2	0.9		9 cs	0	nw.		inap.	inap	cloudy	
Fort Apache, Arizona	25.03	635.8	30.07	763.8	33	0.6	100	ne.	4	1.8			fg.		calm	0.37	9.4	dense fog	
Fort Assinnaboine, Montana	26.96	684.8	29.90	759.4	32	0.0	81	s.	3	1.3		0	1 s		calm	0	0	clear	
Fort Bennett, Dakota																			
Fort Benton, Montana	26.88	682.7	29.86	758.4	29	— 1.7	80	calm	0	0			10 s		calm	0	0	cloudy	
Fort Buford, Dakota	27.76	705.1	29.87	758.7	32	0.0	81	s.	1	0.4		0	0			0	0	clear	
Fort Custer, Montana	26.57	674.9	29.96	761.0	33	0.6	62	s.	9	4.0		0	0			0	0	clear	
Fort Davis, Texas	24.81	630.2	29.77	756.1	44	6.7	71	w.	10	4.5		0	0			0	0	clear	
Fort Elliott, Texas	27.02	686.2	30.32	770.1	47	8.3	71	w.	16	7.2		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.00	736.6	29.57	751.1	58.4	14.7	93	s.	8	3.6		0	0			0.16	4.1	clear	
Fort Grant, Arizona	25.25	641.3	30.05	763.3	33	0.6	81	n.	4	1.8		0	0			0.02	0.5	clear	
Fort Griffin, Texas	28.42	721.9	29.66	753.4	54.2	12.3	64	sw.	12	5.4		0	0			0	0	clear	
Fort Keogh, Montana	27.24	691.9	29.90	759.4	32	0.0	71	sw.	1	0.4		0	0			0	0	clear	
Fort Macon, North Carolina	30.15	765.8	30.16	766.1	66	18.9	93	se.	6	2.7			10 ks		se.	0	0	cloudy	
Fort McKavett, Texas	27.61	701.3	29.50	749.3	53.2	11.8	86	sw.	9	4.0		6 k	0	sw.		0.39	9.9	fair	
Fort Missoula, Montana	26.48	672.6	30.13	765.3	35	1.7	89	calm	0	0			8 s			0	0	cloudy	
Fort St. Michaels	29.24	742.7	29.27	743.4	31	— 0.6	89	ne.	7	3.1		0	8 s		ne.	0	0	fair	
Fort Shaw, Montana	26.03	661.2	29.77	756.1	42	5.6	67	sw.	14	6.3			10 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.41	721.6	29.70	754.4	50	10.0	83	sw.	10	4.5		0	0			0	0	clear	
Fort Stevenson, Dakota	27.89	708.4	29.85	758.2	35	1.7	82	s.	4	1.8		0	4 s;hz			0	0	fair	
Fort Verde, Arizona					40	4.4	82	s.			1	0	6 s		se.	0	0	fair	
Fredericksburg, Texas	28.05	712.5	29.57	751.1	58	14.4	72	nw.	5	2.2			0			0.03	0.8	clear	
Galveston, Texas	29.68	753.9	29.72	754.9	71.5	21.9	95	sw.	6	2.7			10 n		sw.	1.59	40.4	light rain	
Grand Haven, Michigan	29.23	742.4	29.93	760.2	54.0	12.2	86	e.	4	1.8			10 s		calm	0	0	cloudy	
Hatteras, North Carolina	30.18	766.6	30.20	767.1	69	20.6	47	se.	16	7.2		6 cs	2 ks	se.		0	0	cloudy	
Helena, Montana	25.49	647.4	30.08	764.0	38	3.3	22	nw.	2	0.9		0	7 s		calm	0	0	fair	
Henrietta, Texas	28.72	729.5	29.62	752.3	52	11.1	86	sw.	10	4.5		0	0			0	0	clear	
Huron, Dakota	28.11	714.0	29.57	751.1	53	11.7	100	ne.	6	2.7			10 n			0.48	12.2	light rain	
Indianapolis, Indiana	29.11	739.4	29.94	760.5	58	14.4	93	se.	10	4.5			10 s		se.	0.04	1.0	cloudy	
Indianola, Texas	29.70	754.4	29.73	755.1	73.8	23.2	90	n.	25	11.2		5 k	5 ks	nw.	calm	1.16	29.5	cloudy	
Jacksboro, Texas	28.54	724.9	29.64	752.8	54	12.2	66	w.	11	4.9		0	2 s		calm	0.01	0.3	clear	
Jacksonville, Florida	30.03	762.7	30.07	763.8	66	18.9	90	e.	3	1.3		2 cs	0			0	0	clear	
Keokuk, Iowa	28.94	735.1	29.62	752.3	56.3	13.5	93	se.	14	6.3			10 n		se.	0.05	1.3	light rain	
Key West, Florida	29.98	761.5	30.01	762.2	77.5	25.3	74	se.	6	2.7		0	3 k		se.	0	0	fair	
Kittyhawk, North Carolina	30.19	766.8	30.21	767.3	67	19.4	73	se.	12	5.4		5 ck	2 s			0	0	fair	
Knoxville, Tennessee	29.05	737.9	30.12	765.0	56.3	13.5	91	calm	0	0			10 s		w.	0	0	cloudy	
La Crosse, Wisconsin	28.88	733.5	29.68	753.9	58	14.4	80	se.	16	7.2			10 s			0.51	13.0	cloudy	
La Mesilla, New Mexico	26.06	661.9	30.21	767.3	38.2	3.4	92	calm	0	0		0	0			0	0	clear	
Laredo, Texas	29.37	746.0	29.70	754.4	66.0	18.9	78	n.	1	0.4		6 ck	0	w.		0	0	fair	
Leavenworth, Kansas	28.61	726.7	29.54	750.3	59	15.0	87	se.	12	5.4			10 s		s.	0.37	9.4	cloudy	
Lewiston, Idaho	28.82	732.0	29.70	754.4	48	8.9	93	w.	2	0.9			10 n		calm	0.25	6.3	light rain	
Little Rock, Arkansas	29.36	745.7	29.68	753.9	63	17.2	100	s.	7	3.1			10 s			2.01	51.1	cloudy	
Los Angeles, California	29.72	754.9	30.10	764.5	54.2	12.3	86	sw.	5	2.2			10 s		calm	0.11	2.8	cloudy	
Louisville, Kentucky	29.36	745.7	29.94	760.5	59.0	15.0	81	e.	10	4.5			10 s		calm	0.01	0.3	cloudy	
Lynchburg, Virginia	29.49	749.0	30.20	767.1	50.8	10.4	86	calm	0	0			10 s		w.	0	0	cloudy	
Madison, Wisconsin	28.72	729.5	29.80	756.9	56	13.3	93	se.	17	7.6			10 s		calm	0.09	2.3	cloudy	
Marquette, Michigan	29.15	740.4	29.91	759.7	49	9.4	86	e.	3	1.3			10 s		e.	0	0	cloudy	
Mason, Texas	28.15	715.0	29.88	758.9	58	14.4	60	w.	12	5.4		0	1 s		calm	0	0	clear	
Memphis, Tennessee	29.43	747.5	29.80	756.9	63	17.2	84	se.	8	3.6			10 s		calm	1.04	26.4	cloudy	

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.06	738.1	29.84	757.9	53	11.7	93	se.	13	5.8	.....	.....	10 n	.....	.....	0.05	1.3	light rain	
Mobile, Alabama	29.83	757.7	29.90	759.4	72.0	22.2	90	s.	8	3.6	.....	8 ck	0	sw.	.....	0	0	fair	
Montgomery, Alabama	29.76	755.9	30.00	762.0	64.1	17.8	78	se.	6	2.7	.....	4 k	5 ks	sw.	sw.	inap.	inap.	cloudy	
Moorhead, Minnesota	28.63	727.2	29.69	754.1	45	7.2	93	ne.	7	3.1	.....	.....	10 s	.....	n.	c	0	cloudy	
Morgantown, W. Virginia	29.10	739.1	30.10	764.5	46.0	7.8	89	calm	0	0	.....	.....	fg	.....	.....	0	0	dense fog	
Mt. Washington, N. H.	23.71	602.2	30.08	764.0	17.0	— 8.3	87	nw.	70	31.3	.....	.....	fg	.....	nw.	0	0	light fog	
Nashville, Tennessee	29.32	744.7	29.88	758.9	62.7	17.1	80	se.	6	2.7	.....	10 cs	0	s.	.....	0.27	6.9	cloudy	
New Haven, Connecticut	30.15	765.8	30.27	768.8	36	2.2	69	n.	5	2.2	.....	9 c	sk	.....	.....	0	0	cloudy	
New London, Connecticut	30.23	767.8	30.28	769.1	40	4.4	65	n.	2	0.9	.....	0	0	.....	.....	0	0	clear	
New Orleans, Louisiana	29.82	757.4	29.88	758.9	71.3	21.8	83	sw.	2	0.9	.....	.....	9 s	.....	sw.	0.02	0.5	cloudy	
Newport, Rhode Island	30.21	767.3	30.26	768.6	45.0	7.2	65	n.	2	0.9	.....	3 ck	hz	nw.	.....	0	0	fair	
New River, N. Carolina	.....	.....	.....	.....	63	17.2	84	ne.	.....	.....	1	.....	10 s	.....	.....	0	0	cloudy	
New Shoreham, Rhode I'd.	30.21	767.3	30.24	768.1	48.0	8.9	63	ne.	7	3.1	.....	0	0	.....	.....	0	0	clear	
New York, New York	30.07	763.8	30.25	768.3	48	8.9	71	ne.	8	3.6	.....	0	8 s; fg	.....	n.	0	0	fair	
Norfolk, Virginia	30.17	766.3	30.20	767.1	58	14.4	93	s.	3	1.3	.....	9 ck	sk	w.	.....	0	0	cloudy	
North Platte, Nebraska	26.62	676.1	29.68	753.9	47.6	8.7	93	n.	24	10.7	.....	.....	10 s	.....	n.	1.17	29.7	cloudy	
Olympia, Washington T'y	29.41	747.0	29.45	748.0	50.0	10.0	93	s.	8	3.6	.....	.....	10 n	.....	calm	1.17	29.7	light rain	
Omaha, Nebraska	28.29	718.6	29.53	750.0	58.5	14.7	88	se.	11	4.9	.....	.....	10 s	.....	se.	1.61	40.9	cloudy	
Oswego, New York	29.89	759.2	30.23	767.8	40.7	4.8	72	se.	6	2.7	.....	9 cs	0	w.	.....	0	0	cloudy	
Pensacola, Florida	29.88	758.9	29.91	759.7	69	20.6	82	se.	17	7.6	.....	.....	10 s	.....	se.	0.09	2.3	cloudy	
Philadelphia, Pa.	30.17	766.3	30.23	767.8	47	8.3	86	e.	4	1.8	.....	10 cs	fg	.....	.....	0	0	cloudy	
Phœnix, Arizona	28.93	734.8	30.82	782.8	39.4	4.1	35	e.	4	1.8	.....	.....	10 s	.....	s.	0	0	cloudy	
Pike's Peak, Colorado	17.46	443.5	29.67	753.6	6	—14.4	83	ne.	24	10.7	.....	0	0	.....	.....	0.10	2.5	clear	
Pioche, Nevada	23.98	609.1	30.17	766.3	39	3.9	67	s.	5	2.2	.....	10 k	0	s.	.....	0	0	cloudy	
Pittsburg, Pennsylvania	29.29	744.0	30.14	765.5	49	9.4	86	ne.	3	1.3	.....	.....	10 s	.....	calm	0	0	cloudy	
Port Eads, Louisiana	29.89	759.2	29.90	759.4	74.9	23.8	82	s.	18	8.0	.....	hz.	5 ks	calm	s.	0	0	fair	
Port Huron, Michigan	29.36	745.7	30.07	763.8	52.0	11.1	96	e.	6	2.7	.....	10 cs	0	calm	.....	0	0	cloudy	
Portland, Maine	30.15	765.8	30.20	767.1	38	3.3	73	w.	10	4.5	.....	0	fg	.....	.....	0	0	clear	
Portland, Oregon	29.51	749.5	29.58	751.3	51.2	10.7	94	s.	16	7.2	.....	.....	10 n	.....	s.	1.05	26.7	light rain	
Portsmouth, N. Carolina	.....	.....	.....	.....	68	20.0	70	se.	20	8.9	.....	.....	10 ks	.....	calm	0	0	cloudy	
Prescott, Arizona	24.72	627.9	30.03	762.7	35	1.7	82	s.	4	1.8	.....	0	0	.....	.....	0	0	clear	
Punta Rassa, Florida	29.99	761.7	30.00	762.0	70	21.1	78	e.	8	3.6	.....	3 ck	0	se.	.....	0	0	fair	
Red Bluff, California	29.56	750.8	29.91	759.7	53.0	11.7	86	s.	3	1.3	.....	.....	10 s	.....	calm	0.25	6.3	cloudy	
Rio Grande City, Texas	29.59	751.6	29.80	756.9	70	21.1	94	n.	3	1.3	.....	4 c	0	n	.....	0	0	fair	
Rochester, New York	29.50	749.3	30.20	767.1	40	4.4	82	se.	7	3.1	.....	10 cs	0	nw.	.....	0	0	cloudy	
Roseburg, Oregon	29.23	742.4	29.82	757.4	49	9.4	89	se.	4	1.8	.....	.....	10 n	.....	.....	0.77	19.6	light rain	
Sacramento, California	29.93	760.2	30.01	762.2	54.8	12.7	93	se.	14	6.3	.....	.....	10 n	.....	.....	0.27	6.9	light rain	
St. Louis, Missouri	29.13	739.9	29.76	755.9	57.0	13.9	86	se.	19	8.5	.....	.....	10 s	.....	se.	inap.	inap.	cloudy	
St. Paul, Minnesota	28.76	730.5	29.68	753.9	55.2	12.9	93	se.	12	5.4	.....	.....	10 n	.....	se.	0.37	9.4	light rain	
Salt Lake City, Utah	25.48	647.2	29.93	760.2	43	6.1	60	se.	3	1.3	.....	.....	10 s	.....	calm	0.10	2.5	cloudy	
San Antonio, Texas	29.08	738.6	29.80	756.9	62.6	17.0	75	nw.	4	1.8	.....	.....	10 ks	.....	calm	0.01	0.3	cloudy	
San Diego, California	29.97	761.2	30.04	763.0	57.5	14.2	86	ne.	1	0.4	.....	.....	10 s	.....	.....	0	0	cloudy	
Sandusky, Ohio	29.35	745.5	30.06	763.5	57	13.9	80	se.	10	4.5	.....	.....	10 s	.....	.....	0	0	cloudy	
Sandy Hook, New Jersey	30.21	767.3	30.24	768.1	52.0	11.1	65	ne.	13	5.8	.....	10 k	0	ne.	.....	0	0	cloudy	
San Francisco, California	29.92	760.0	29.99	761.7	57	13.9	90	sw.	8	3.6	.....	0	6 s	.....	sw.	0.12	3.0	fair	
Santa Fé, New Mexico	23.10	586.7	30.09	764.3	32	0.0	81	nw.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Savannah, Georgia	30.01	762.2	30.10	764.5	68.5	20.3	92	e.	4	1.8	.....	.....	10 ks	.....	se.	0.05	1.3	threatening	
Shreveport, Louisiana	29.48	748.8	29.71	754.6	64	17.8	100	s.	2	0.9	.....	.....	fg	.....	calm	1.57	39.9	dense fog	
Silver City, New Mexico	24.23	615.4	29.91	759.7	35	1.7	69	calm	0	0	.....	0	0	.....	.....	0.08	2.0	clear	
Sitka, Alaska	29.16	740.7	29.23	742.4	43.2	6.2	74	ne.	4	1.8	.....	0	3 s	.....	se.	0	0	clear	
Smithville, North Carolina	30.09	764.3	30.13	765.3	64	17.8	90	ne.	5	2.2	.....	4 k	5 ks	w.	calm	0	0	cloudy	
Spokane Falls, Wash. Ter.	27.59	700.8	29.66	753.4	44	6.7	93	s.	4	1.8	.....	.....	10 n	.....	calm	0.33	8.4	heavy rain	
Springfield, Illinois	29.07	738.4	29.78	756.4	58	14.4	86	s.	16	7.2	.....	.....	10 s	.....	s.	0.06	1.5	cloudy	
Springfield, Massachusetts	30.15	765.8	30.29	769.4	35.4	1.9	79	calm	0	0	.....	8 c	fg	.....	.....	0	0	cloudy	
Stockton, Texas	26.87	682.5	30.02	762.5	49.0	9.4	58	sw.	12	5.4	.....	0	0	.....	.....	0.01	0.3	clear	
St. Vincent, Minnesota	28.85	732.8	29.78	756.4	31	— 0.6	96	nw.	1	0.4	.....	0	3 s	.....	calm	0	0	fair	
Thatcher's Island, Mass.	30.17	766.3	30.23	767.8	40.0	4.4	57	nw.	11	4.9	.....	0	0	.....	.....	0	0	clear	
Toledo, Ohio	29.32	744.7	30.04	763.0	57	13.9	80	se.	6	2.7	.....	.....	10 n	.....	se.	inap.	inap.	light rain	
Tucson, Arizona	27.58	700.5	30.02	762.5	44	6.7	86	se.	4	1.8	.....	0	0	.....	.....	0.04	1.0	clear	
Umatilla, Oregon	29.32	744.7	29.75	755.6	48.6	9.2	91	w.	2	0.9	.....	.....	10 s	.....	calm	0.18	4.6	cloudy	
Uvalde, Texas	28.84	732.5	29.64	752.8	60	15.6	60	n.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Vicksburg, Mississippi	29.59	751.6	29.85	758.2	65	18.3	100	se.	8	3.6	.....	.....	10 n	.....	se.	5.46	138.7	light rain	
Visalia, California	29.68	753.9	30.05	763.3	53.5	11.9	84	e.	8	3.6	.....	.....	10 n	.....	calm	0.09	2.3	light rain	
Washington, D. C.	30.09	764.3	30.21	767.3	48	8.9	100	calm	0	0	.....	.....	fg	.....	.....	0	0	dense fog	
West Los Animas, Colorado	25.76	654.3	29.84	757.9	43	6.1	76	nw.	10	4.5	.....	0	2 s	.....	.....	0	0	clear	
Wickenburg, Arizona	.....	.....	.....	.....	40	4.4	92	calm	.....	.....	0	.....	10 s	.....	.....	inap.	inap.	cloudy	
Wilmington, N. Carolina	30.09	764.3	30.15	765.8	63	17.2	84	ne.	6	2.7	.....	8 ck; k	sk	calm	calm	0	0	fair	
Winnemucca, Nevada	25.40	645.1	29.86	758.4	46	7.8	58	sw.	14	6.3	.....	0	8 ks	.....	sw.	0	0	cloudy	
Wood's Holl, Mass.	30.20	767.1	30.24	768.1	44	6.7	68	n.	3	1.3	.....	0	0	.....	.....	0	0	clear	
Yankton, Dakota	28.13	714.5	29.50	749.3	54	12.2	100	ne.	5	2.2	.....	.....	10 n	.....	.....	0.50	12.7	heavy rain	
Yuma, Arizona	29.83	757.7	29.97	761.2	51.8	11.0	74	calm	0	0	.....	0	1 s	.....	calm	0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. A. Racker.
Bogota, U. S. Columbia	22.05	560.1	.....	.....	52.0	11.1	88	calm	0	0	.....	2 k	8 s	e.	.....	0.21	5.3	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	29.94	760.5	29.96	761.0	76	24.4	86	s.	.....	.....	.....	.....	5	.....	.....	0.40	10.2	cloudy	J. B. Dougherty.
Guadeloupe, W. I. ‡	29.83	757.7	29.84	757.9	79	26.1	83	e.	.....	.....	.....	0	0	.....	.....	0	0	.....	B. Bigar.
Havana, Cuba, W. I.	29.97	761.2	30.02	762.5	75	23.9	85	calm	0	0	.....	1 cs	0	calm	.....	0	0	clear	A. Van Caneghem, Ass't
Kingston, Jamaica, W. I.	29.97	761.2	29.98	761.5	76.0	24.4	85	calm	0	0	.....	0	0	.....	.....	0	0	.....	Robert Johnstone.
Navassa, W. I.	29.88	758.9	29.96	761.0	79	26.1	74	ne.	6	2.7	.....	5 ck	5 s	e.	ne.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.95	760.7	29.95	760.7	80	26.7	82	e.	.....	.....	2	2 c	3 k	.....	.....	0	0	.....	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.47	748.5	30.03	762.7	77	25.0	94	calm	.....	.....	.....	.....	10 ks	.....	calm	0.27	6.9	raining	Francesco J. Cisneros.
Rivas, Nicaragua	.....	.....	.....	.....	73.0	22.8	98	w.	.....	.....	1	0	3 ks	.....	e.	0.453	11.5	.....	Earl Flint.
Santiago de Cuba, W. I.	29.95	760.7	29.97	761.2	79	26.1	82	nw.	3.6	1.6	.....	0	0	.....	.....	0	0	clear	Robert Mason.
St. Thomas, W. I. ‡	29.84	757.9	29.95	760.7	81	27.2	82	ne.	3	1.3	.....	0	4 ks	.....	.....	0.16	4.1	clear	G. O. Gyllich.
York Factory, B. A.	29.76	755.9	29.81	757.2	27.0	— 2.8	94	e.	10	4.5	.....	5 k	5 s	ne.	e.	0	0	cloudy	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross																			
H. M. S. Alert, Port Darwin, Australia.	29.91	759.7	84.2	29.0	75	w.			2-3		0							blue sky	Capt. J. P. Maclear.
H. M. S. Alexandra, Syracuse, Sicily	29.97	761.2	75	23.9	81	s.			4		7							d. clouds	Capt. Lord Walter Kerr
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	30.21	767.3	52	11.1		ne.			1		8	ne.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 48° 40′, W. 17° 15′	30.15	765.8	60	15.6	100	ese.			4		4					3	ese.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.01	762.2	73	22.8	72	sse.			1-2		4	sse.						d. clouds	Capt. F. W. Richards.
H. M. S. Champion, Ancon, Peru	30.04	763.0	62	16.7	100	calm			0		8							d. clouds	Capt. G. E. Hope.
H. M. S. Ocekatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	29.90	759.4	65	18.3		wnw.			3		5	wnw.				4	wnw.	squally	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 12° 26′, E. 44° 20′	29.89	759.2	84	28.9	71	se.			2		0							blue sky	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 41′, E. 135° 11′	29.95	760.7	62	16.7	94	calm			0		4	se.						d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.95	760.7	75	23.9		wsw.			1		3	calm						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, N. 8° 24′, W. 13° 38′	29.87	758.7	82	27.8		wnw.			3		2	nne.				2		d. clouds	Capt. C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.10	764.5	69.5	20.8	65	n.			2-3		2	n.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid																			Capt. W. R. Kennedy.
H. M. S. Dryad, N. 30° 34′, E. 47° 49′	29.78	756.4	82	27.8		nw.			1		3	nw.						d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 19° 19′, E. 59° 42′	30.01	762.2	72	22.2		sse.			2		3	ese.				3	ese.	d. clouds	Capt. E. St. J. Garforth
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.72	754.9	51.5	10.8	?	s.			1		10	s.						d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.83	757.7	84	28.9	71	n.			2		8	n.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome, N. 43° 42′, W. 61° 37′	29.94	760.5	43	6.1		wsw.			5-6		6	wsw.				5	wsw.	d. clouds	Capt. W. C. Karslake.
H. M. S. Fawn, S. 10° 15′, E. 40° 56′	29.91	759.7	78.5	25.8	80	ne.			1		4	nne.				1	nne.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 15° 47′, W. 88° 04′	29.88	758.9	85	29.4	75	calm			0		2							d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, S. 4° 00′, W. 155° 20′	29.98	761.5	78.5	25.8	77	ene.			4		2							d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	29.93	760.2	61	16.1	44	sw.			4		2							d. clouds	Capt. L. F. Jones.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 31° 18′ E. 123° 50′	29.95	760.7	68	20.0		nnw.			2-3		3	n.				4	nw.	d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 48′, W. 79° 32′	29.92	760.0	78	25.6		calm			0		6	calm						d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 21° 00′, E. 1° 00′	30.03	762.7	65	18.3		se.			2		10					1		overcast	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 12′, E. 18° 26′	30.10	764.5	70	21.1	75	ssw.			1		3					1-2	se.	d. clouds	Lieut. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, Hong Kong, China	29.90	759.4	77.5	25.3	64	calm			0		0							blue sky	Lieut. A. Balfour.
H. M. S. Malabar, N. 18° 35′, E. 71° 43′	29.88	758.9	84	28.9	87	nnw.			3		3	n.				3	n.	d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 36° 27′, W. 8° 33′	29.95	760.7	63	17.2	78	nw.			2		8	nw.				1	nw.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S Monarch, Sfax, Tunis	29.99	761.7	73	22.8	95	sse.			2		1							blue sky	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili	30.01	762.2	53	11.7	93	calm			0		8							misty	Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H. M. S Northampton, Halifax, Nova Scotia	29.93	760.2	35.5	1.9	70	wnw.			3–4		0							blue sky	Capt. E. B. Drummond.
H. M. S. Orontes, N. 21° 16′, W. 59° 17′	29.89	759.2	82	27.8	83	nnw.			3		3	se.				4	nw.	d. clouds	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	29.34	745.2	47	8.3	85	sse.			4		9							d. clouds	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.89	759.2	86.3	30.2	91	nw.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 16° 50′, W. 25° 01′	30.07	763.8	78	25.6	90	nne.			3		7	ene.						squally	
H. M. S. Sea Gull, S. 9° 54′, E. 40° 20′	29.51	749.5	86	30.0	65	ne.			2–3		2	e.				3	ese.	d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb, N. 35° 53′, E. 14° 31′	30.00	762.0	82	27.8	67	ssw.			3		0							blue sky	
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 30° 33′ W. 76° 05′	30.19	766.8	56	13.3	62	s.			6		10	s.				5	s.	squally	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			
H. M. S. Tyne																			Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.96	761.0	79	26.1		nnw.			1		4							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	30.39	771.9	60	15.6	88	calm			0		0							blue sky	Com. J. C. Wilson, A.D.C.
H. M. S. Woodlark																			
H. M. S. Wrangler																			Capt. T. P. Nesham.
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
India																			*Carlos Candid dos Reis.
Bengo, Mossamedes, Benguela	29.91	759.8	74.5	23.6	68	nnw.			2		5					1		d. clouds	A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.16	766.0	82.4	28.0	92	ne.			7		7		ne.	1 h'r	1 h'r	2	ne.	drizzling	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.93	760.2	77.0	25.0	72	nw.			1									blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore John G. Walker, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	29.98	761.5	76	24.4	82	se.	12	5.4			10		se.	0.55	14.0			cloudy	
N. Yard, Portsmouth, N. H.	30.19	766.8	38	3.3	72	nw.	7	3.1			0			0	0			clear	
Naval Hospital, Yokohama, Japan	29.84	757.9	58	14.4	82	calm			0		0			0	0			hazy	
Adams, Callao, Peru	29.88	758.9	62	16.7	88	sse.			1		10					sm'h		cloudy	
Alaska, Callao, Peru	30.00	762.6	61	16.1	94	calm			0		0			0	0	sm'h		clear	
Alert, Kobe, Japan *.	29.83	757.7	65	18.3	68	ne.			1		5		calm	0	0	sm'h		hazy	
Alliance. N. 46° 55′, W. 51° 52′	29.73	755.1	42	5.6	74	wsw.			5		5		w.	0	0	mod.	w.	squally	
Ashuelot, N. 33° 55′, E. 130° 23′	29.97	761.2	72	22.2	62	w.			1		8		calm					cloudy	
Colorado, New York, N. Y	30.24	768.1	49	9.4	71	ne.	4	1.8			8							fair	
Constitution, Newport, R. I	30.21	767.3	45	7.2	76	calm	0	0			8?							clear?	
Franklin, Norfolk, Va	30.12	765.0	58	14.4	88	sse.	2	0.9			8		wsw.	0	0			cloudy	
Galena, Smyrna, Turkey in Asia	30.05	763.3	71	21.7	71	wnw.			1		2					sm'h		fair	
Independence, N. Yard, Mare I'd, Cal	30.03	762.7	55	12.8	87	wsw.	3.6	1.6			8		wsw.	0.01	0.3			cloudy	
Kearsarge, Hampton Roads, Va	30.18	766.6	63	17.2	83	se.			3		5		calm			sm'h		hazy	
Lackawanna, San Francisco, Cal †	30.15	765.8	59	15.0	94	s.			1		2		s.					fair	
Lancaster, N. 38° 34′ W. 33° 46′	30.31	769.9	70	21.1	85	ssw.			4		8		sw.			sm'h	w.	d. clouds	
Marion, Montevideo, Uruguay	29.78	756.4	62	16.7		ssw.			4		2		calm			mod.	ssw.	clear	
Michigan, Erie, Pa	29.81	757.2	49	9.4	85	s.			4		10		s.					cloudy	
Monocacy, Yokohama, Japan	30.08	764.0	58	14.4	88	calm			0		0							clear	
Nipsic, Genoa, Italy	29.89	759.2	59	15.0	65	n.			3		2					sm'h		d. clouds	
Onward, Callao, Peru †	30.03	762.7	61	16.1	94	sse.			2		10		n.			long	w.	cloudy	
Palos, Hong Kong, China	29.91	759.7	76	24.4	68	calm			0		0							clear	
Passaic, Washington, D. C	30.18	766.6	46	7.8	77	ne			1									foggy	
Pensacola, Callao, Peru,	30.08	764.0	61	16.1	82	sse.			1		10							cloudy	
Portsmouth, N. 38° 07′, W. 74° 52′	30.22	767.6	63	17.2	89	s.			2		2		s.			sm'h	e.	clear	
Powhatan, Boston, Mass	30.20	767.1	37	2.8	81	wnw.			2		0							clear	
Quinnebaug, Marseilles, France	29.87	758.7	56	13.3	87	nw.			2		10		calm			sm'h		overcast	
Ranger, N. 31° 45′, W. 119° 55′ *	30.07	763.8	60	15.6	88	wsw.			2–3		5?		w.	0	0	sm'h		cloudy?	
Saratoga, N. 38° 12′, W. 73° 57′	30.19	766.8	60	15.6	94	sse.			1–2		5?		se.	0	0	sm'h		cloudy?	
St. Louis, League Island, Pa	29.86	758.4	46	7.8	92	nne.	3	1.3			2			0	0			clear	
Swatara, Yokohama, Japan †.	29.64?	752.8?	60	15.6	82	calm			0		0					sm'h		clear	
Tennessee, New York, N. Y	30.35	770.9	50	10.0	93	n.	4	1.8			2		n.	0	0			hazy	
Vandalia, Norfolk, Va	30.17	766 3	57	13.9	87	s.			1		5		w.					fair	
Wabash, Boston, Mass	30.24	768.1	38	3.3	63	wnw.	5	2.2			0			0	0			clear	
Wachusetts, Hoonyah, Alaska	29.43	747.5	39	3.9	90	calm			0		2							fair	
Wyoming, Port Royal, S. C	30.09	764.3	67	19.4	89	ne.	6	2.7			10		nne.	0	0			cloudy	
Yantic, New York, N. Y. *.	30.19	766.8	50	10.0	79	nne.			2		8							hazy	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 54° 58′ W. 43° 55′ *†..	29.54	750.3	.....	.....	.....	ssw.	6	.....	5	.....	sw.	.....	.....	r'gh	sw.	showery.....	N. McLean.
S. S. Circassian, Capt. W. H. Smith.. N. 55° 30′, W. 31° 15′ ..‡.	30.13	765.3	51	10.6	100	sse.	5	.....	10	.....	se.	5 h'r	5 h'r	4	se.	drizzling.....	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, N. 49° 20′, W. 45° 20′	29.72	754.9	41	5.0	.....	sw.	6	.....	8	.....	sw.	.....	.....	he'vy	sw.	fair.....	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Pa ..†..	30.11	764.8	48	8.9	93	n.	1	.....	8	.....	n.	.....	.....	.....	.....	fair.....	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 49° 16′, W. 43° 55′ ..†..	29.71	754.6	44	6.7	75	sw.	6	.....	2	.....	sw.	0	0	he'vy	sw.	clear.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt. H. Morrison, Liverpool, Eng ..*†..	30.34	770.6	50	10.0	93	ne.	2	.....	2	.....	ne.	.....	.....	.....	.....	fair.....	.....
S. S. Pennsylvania, Capt. G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, S. 44° 20′, W. 50° 00′	29.53	750.0	43	6.1	100	w.	5	.....	6	.....	.....	.....	.....	.....	.....	blue sky.....	.....
S. British Merchant, Capt. E. J. Moloney...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bq. Caldew, Capt. N. W. Petersen S. 54° 59′, W. 80° 51′	29.52	749.8	38	3.3	.....	sw.	9	.....	10	.....	.....	.....	.....	.....	.....	snowing.....	.....
S. S. Cipero, Capt. W. N. Lailey, Belize, Honduras, C. A.	29.89	759.2	81.1	27.3	82	ese.	4	.....	3	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bk. Commeywyne, Capt. W. Scott, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Coppename, Capt. A. Buchan, N. 46° 47′, W. 12° 33′	30.25	768.3	56	13.3	68	ene.	4	.....	9	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bk. Glaramara, Capt. R. Morton, N. 9° 21′, W. 118° 35′ ‡...	29.99	761.7	76	24.4	100	ene.	5	.....	9	.....	.....	.....	.....	.....	.....	raining.....	.....
S. S. Gordon Castle, Capt. W. Waring, N. 10° 10′, E. 109° 33′	29.85	758.2	81.5	27.5	78	ne.	4	.....	2	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bg. Hermine, Capt. S. G. Jones, S. 56° 10′, W. 68° 34′	29.48	748.8	36	2.2	70	sw.	7	.....	7	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bkt. Hope, Capt. Jas. Campbelle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Lochee, Capt. J. Raeburn, N. 11° 05′, E. 91° 33′	29.83	757.7	83.8	28.8	83	s.	3	.....	3	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
Bk. Mertola, Capt. E. W. Turner	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Moorhill, Capt. J. Brown, S. 55° 57′, W. 80° 06′	29.94	760.5	39.5	4.2	63	sw.	6	.....	9	.....	.....	.....	.....	.....	.....	threatening.....	.....
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pleione, Capt. C. H. Renant,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Queen of Cambria, Capt. M. Parry S. 29° 23′, W. 47° 03′	29.93	760.2	66	18.9	84	ne.	3	.....	5	.....	.....	.....	.....	.....	.....	d. clouds.....	.....
S. S. Rosetta, Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sierra Estralla, Capt. P. Murdoch,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Shun Lee, Capt. J. M. Gray,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Strathleven, Capt. C. W. Pearson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
S. S. Wyberton, Capt R. J. Blucklin Suez Bay, Egypt	29.77	756.1	80	26.7	.....	nnw.	1	.....	1	.....	.....	.....	.....	.....	.....	blue sky.....	.....
CALIFORNIA, AND MEXICAN S. S. CO. *J. Birmingham, Agent San Francisco.*																	
S. S. Newbern. Capt. E. Rogers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia. Capt. W. H. P. Hains, N. 41° 06′, W. 58° 57′	30.12	765.0	56	13.3	?	w.	5	.....	5	.....	w.	0	0	mod.	w.	fine.....	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
Braunschweig, Capt. C. Pohle N. 47° 45′, W. 34° 45′	29.93	760.2	61.0	16.1	85	ne.	2	.....	8	.....	n.	.....	.....	mod.	sw.	cloudy.....	.....
S. S. Hermann, Capt. H. Baur N. 46° 06′, W. 46° 37′	29.89	759.2	48.2	9.0	.....	sw.	6	.....	10	.....	w.	0	0	long	w.	cloudy.....	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, N. 52° 20′, E. 3° 20′	30.08	764.0	48.0	8.9	?	nnw.	6	.....	10	.....	nnw.	12 h'r	12 h'r	mod.	nnw.	cloudy.....	T. Jüngst.
S. S. Leipsic, Capt. F. Pfeiffer.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 50° 17′, W. 3° 02′	30.26	768.6	47.5	8.6	62	nne.	4	.....	8	.....	ne.	0	0	sm'h	ne.	cloudy.....	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, N. 38° 11′, W. 123° 04′ ..†..	29.97	761.2	58	14.4	88	sw.	2	.....	8	.....	sw.	0	0	light	nw.	foggy.....	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, Hong Kong, China ..*†	30.10	764.5	83	28.3	59	calm	0	.....	5?	.....	ene.	.....	.....	.....	.....	clear?.....	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. N. 34° 39′, E. 141° 48′	30.07	763.8	67	19.4	60	nnw.	2	.....	3	.....	nnw.	0.32	8.1	sm'h	nw.	fine.....	.....
OREGON IMPROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Oregon, Capt. E. Polemann, N. 41° 38′, W. 124° 24′ †.	29.88	758.9	49	9.4	85	sw.	2	.....	hz	.....	.....	.....	.....	mod.	w.	hazy.....	C. W. Pohl, 2d Officer
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
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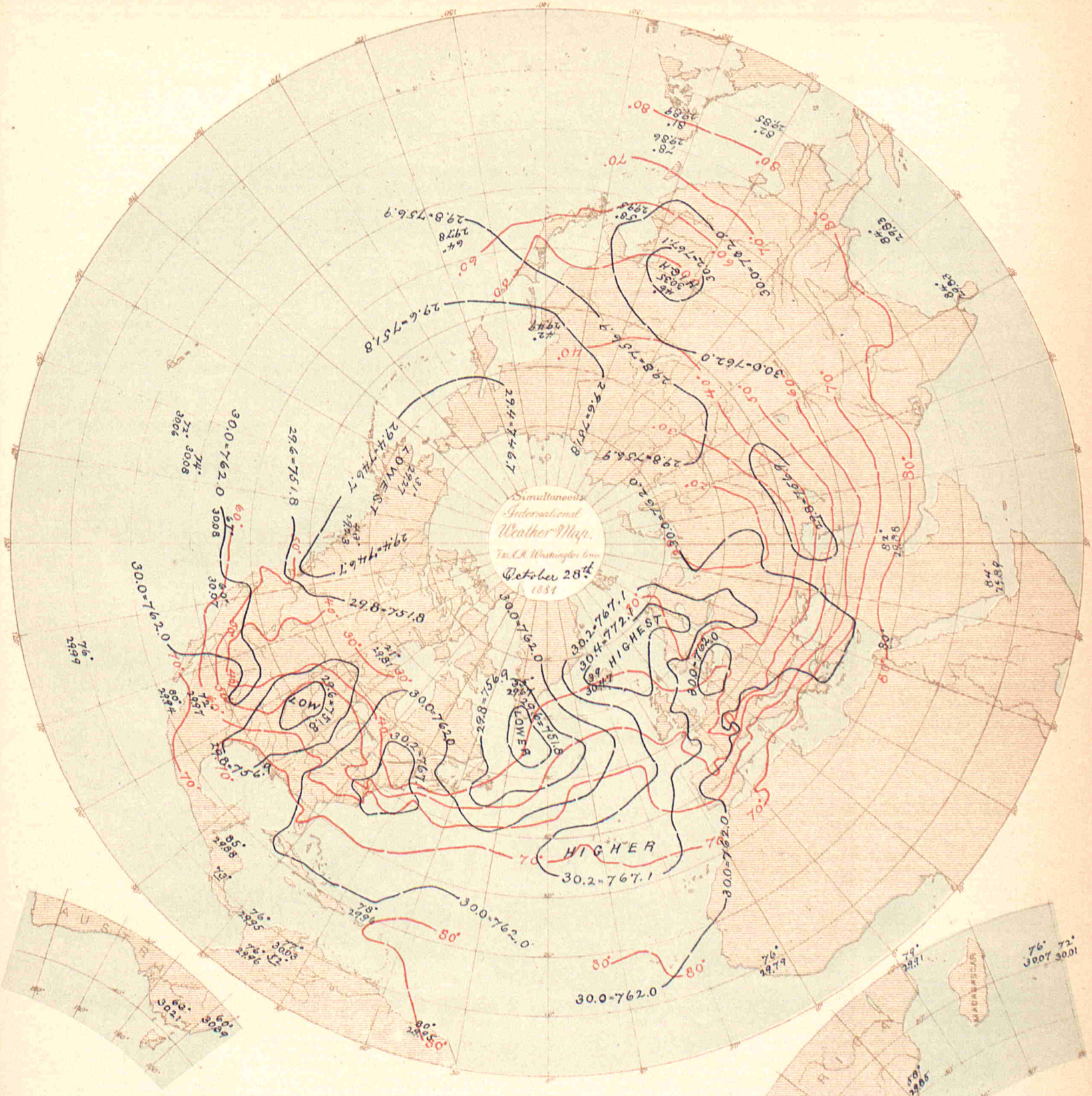
VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 33° 41′, W. 118° 15′ †..	30.07	763.8	56	13.3	94	n.	1	.....	10	.....	nw.	.....	.....	sm'h	.....	cloudy.....	J. W. Ingalls.
S. S. Dakota, Capt. ——,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Idaho, Capt. T. Huntington, Seattle, Wash. Ter. †.	29.42	747.3	50	10.0	86	se.	2	.....	10	.....	se.	.....	.....	.....	.....	rainy.....	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. H. Harrison.
S. S. Senator, Capt. Wallace, N. 34° 24′, W. 119° 38′ †.	30.06	763.5	57	13.9	87	se.	1	.....	8	.....	.....	.....	.....	sm'h	.....	cloudy	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †..	29.55	750.6	50	10.0	100	sse.	4	.....	10	.....	se.	.....	.....	.....	.....	raining	G. Debney.
S. S. Victoria, H. M. Hayward, N. 44° 06′, W. 124° 50′ †..	29.69	754.0	53	11.7	93	sw.	6	.....	0	.....	.....	.....	.....	very h'vy	se.	clear.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt. New York.*																	
S. S. Australia, Capt. ——, N. 25° 06′, W. 149° 49′	30.16	766.1	72	22.2	85	s.	3	.....	5?	.....	se.	.....	.....	long	nw.	clear?.....	U. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, N. 27° —′, W. 145° —′ †	30.18	766.6	74	23.3	95	se.	3	.....	10	.....	se.	.....	.....	h'vy	se.	cloudy.....	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 36° 05′, E. 152° 03′ *†...	29.88	758.9	64	17.8	78	nw.	7	.....	6	.....	nw.	o	o	r'gh	nw.	fair.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama †	29.95	760.7	76	24.4	91	nw.	1	.....	8	.....	nw.	o	o	sm'h	.....	fair.....	.....
S. S. City of Sydney, Capt. H. C. Dearborn, Sydney, N. S. W. *†..	30.21	767.3	57	13.9	81	w.	4	.....	5	.....	w.	o	o	sm'h	.....	fair.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 33° 22′, W. 132° 32′ †..	30.23	767.8	67	19.4	89	w.	2	.....	2	.....	wsw.	.....	.....	h'vy	nw.	clear.....	A. L. Ritchie, 2d Offl.
S. S. Colima, R. R. Searle N. 34° 00′, W. 120° 84′ †	30.05	763.3	60	15.6	82	w.	3	.....	8	.....	w.	o	o	mod.	w.	foggy.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. South Carolina, Capt. —— N. 19° 09′, W. 104° 41′ *†..	29.94	760.5	80	26.7	100	ne.	3	.....	1	.....	e.	.....	.....	mod.	sw.	clear.....	.....
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.40	772.1	66	18.9	74	calm	0	.....	0	.....	.....	.....	.....	.....	.....	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Feddersen, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, Antwerp, Belgium †	30.26	768.6	50	10.0	79	sw.	2	.....	9	.....	nne.	o	o	.....	.....	cloudy.....	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, England †..	30.21	767.3	46	7.8	.....	ne.	3	.....	8	.....	ne.	o	o	.....	.....	fair.....	A. Horsfall.
S. S. Britannic, Capt. H. Perry,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Celtic, Capt. B. Gleadell, N. 43° 33′, W. 56° 49′ †	29.81	757.2	48	8.9	85	w.	5	.....	8	.....	w.	.....	.....	sm'h	.....	fair.....	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 48° 24′, W. 29° 31′ †..	30.08	764.0	61	16.1	100	s.	2	.....	10	.....	s.	driz	driz	mod.	ese.	foggy.....	W. A. Ward.
S. S. Republic, Capt. P. J. Irving S. 40° 52′, W. 67° 26′ †.....	30.13	765.3	61	16.1	?	wnw.	2	.....	1	.....	wnw.	o	o	sm'h	.....	clear.....	.....
MISCELLANEOUS.																	
Bk. Dom Pedro II, Capt C. E. Coffin, N. 33° 04′, W. 59° 47′ *†..	29.80	756.9	.....	.....	.....	ne.	.....	.....	.....	.....	ne.	.....	.....	mod.	sw.	.....	.....
U. S. F. C. S. Fish Hawk, Washington, D. C. †...	30.24	768.1	51	10.6	100	e.	1	.....	10 n	.....	.....	o	o	.....	.....	foggy.....	.....
Schr. Henry Denison, Capt. J. Fehring N. 35° 57′, W. 72° 32′ †..	30.21	767.3	.....	.....	.....	ene.	2	.....	1	.....	e.	.....	.....	light	ene.	clear.....	.....
Golden Fleece	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hassler Lt. Com. Nichols,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Lovaine, Capt. H. McCauley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Pawashick, Capt. E. Fry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz N. 36° 18′, W. 33° 50′ †..	30.57	776.5	71	21.7	.....	sse.	4	.....	0	.....	.....	.....	.....	long	nw.	clear.....	E. Fry.
S. S. Proteus, Capt. Pike	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bark Sunbeam, Capt. Jos. Hand, N. 36° 51′, W. 52° 31′ †....	30.12	765.0	71	21.7	75	n.	3	.....	8	.....	nnw.	o	o	h'vy	nw.	cloudy.....	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Genl.
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 29, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 85 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.78	756.3	61.9	16.6	92	ne.			3		4			0	0	cloudy	Moiroud.
Algiers ‡			29.80	756.8	66.6	19.2	74	w.			6		9			0.496	12.6	covered	Nicolas.
La Calle ‡			29.73	755.1	69.4	20.8	56	nw.			5		8			0.276	7.0	very cloudy	Fonfrède.
Tunis ‡			29.71	754.6															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.80	757.0	56.3	13.5	71	n.			1		3			0.209	5.3	pretty fair	Dumas.
Tebessa ‡			29.66	753.4	66.6	19.2	55	sw.			8		3			0	0	pretty fair	Derché.
Geriville ‡					65.1	18.4	44	nw.			4		2			0	0	fair	Lonchamp.
Laghouat ‡			29.81	757.1	68.7	20.4	34	nw.			2		1			0	0	very fair	Herbin.
Biskra ‡			29.72	754.9	84.6	29.2	24	nw.			2		10			inap	inap.	covered	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.95	760.7	30.04	763.0	68.6	20.3	48	ne.	6	2.7			7			0	0	fine	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.37	746.0	29.94	760.4	39.2	4.0	97	ne.			1		10			0.748	19.0	raining	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.20	741.6	30.00	761.9	33.1	0.6	89	e.	0	0			10			0.043	1.1		Dr. Wiersbicki.
Eperies	29.02	737.2	29.93	760.2	39.2	4.0	87	calm			0		10 s			0.039	1.0	rain & snow.	Julius Mikolik.
Gratz ‡	28.69	728.7	29.98	761.5	38.8	3.8	71	e.			2		10			0	0		Andreas Rospini.
Hermannstadt	28.48	723.3	29.92	760.0	48.6	9.2	74	nw.			3		6			0.055	1.4		Prof. A. Gottschling.
Kremsmunster, Obs'y	28.58	725.9	29.97	761.3	34.2	1.2	87	n.			1		10			0.472	12.0	gloomy	The Staff.
Lemberg	28.93	734.9	29.96	760.9	36.0	2.2	80	s.			1		10			0.094	2.4		Dr. T. Stanecki.
Pola	29.63	752.6	29.74	755.5	53.4	11.9	99	e.			2		10			0.457	11.6		I. R. Hydrographic Office.
Szathmar	29.46	748.3	29.93	760.1	43.5	6.4	86	e.			1		10			0.283	7.2		Jozsef Midlinszky, S. J.
Szegedin	29.64	752.8	29.93	760.1	45.0	7.2	91	calm			0		10			0.016	0.4		Karl Stancel.
Trieste	29.69	754.0	29.79	756.6	50.0	10.0	76	e.			1		10			0.362	9.2		Rieder.
Vienna	29.26	743.1	30.00	762.0	36.7	2.6	75	ne.			1		10			0	0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 30, 1882.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	30.33	770.4	30.43	772.9	39.0	3.9	80	nw.	9	4.0			7			blank	blank	d. clouds	W. Boswell.
Armagh, Observatory	30.15	765.8	30.40	772.1	43.4	6.3	63	ene.	14	6.3			2					d. clouds	S. Call.
Bidston, Liverpool Obs'y			30.29	769.4	43.0	6.1	67	ne.	21	9.4			3					blue sky	John Hartnup.
Bolton, Sharples	29.72	754.9	30.27	768.8	40.4	4.7	63	ne.	18	8.0			7					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29.89	759.2	30.28	769.1	39.7	4.3	69	ne.			1		6			0.03	0.8	sleeting	A.S. J.McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.16	766.1	38.6	3.7	69	ne.			1.0		2					blue sky	John McLaren.
Chatham, School M. E.	30.00	762.0	30.14	765.5	36.6	2.6	95	n.			2		10					raining	R. Craydon, R. E.
Falmouth, Observatory	29.94	760.5	30.17	766.3	44.6	7.0	42	nne.			4		2					d. clouds	The Staff.
Fort Napier, Natal	27.38	695.4	29.60	751.8	92.0	33.3	31	e.			2		2					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.66	753.4	29.89	759.2	83.0	28.3	87	w.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			30.30	769.6	44	6.7	67	n.			2		2					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	29.88	758.9	29.93	760.2	65.2	18.4	83	n.			2		5					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	30.21	767.3	30.41	772.4	41.6	5.3	65	ene.			3		6 k					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	29.95	760.7	30.13	765.3	42.9	6.1	67	nne.			4		7			blank	blank	d. clouds	The Staff.
Guernsey	29.84	757.9	30.06	763.5	45	7.2	71	nne.			2		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.10	764.5	30.14	765.5	42.5	5.8	65	nne.	22	9.8			7					d. clouds	The Staff.
Leicester, Museum	29.95	760.7	30.22	767.6	40.5	4.7	81	ne.			1		0					blue sky	J. C. Smith.
Malta, Mediterranean	29.77	756.1	29.84	757.9	76.4	24.7	82	se.			4		8			0	0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.03	762.7	30.08	764.0	78.5	25.8	65	e.			1		8					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.69	754.1	30.23	767.8	40.6	4.8	79	e.			3		6					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	29.92	760.0	30.15	765.8	42.0	5.6	73	nne.			3		6					squally	The Staff.
Plymouth	30.07	763.8	30.15	765.8	45.5	7.5	58	ne.			3		0					blue sky	John Merrifield.
Sandwick Manse, Orkneys			30.45	773.4	41.1	5.1	72	calm	0	0			10					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.97	761.2	30.03	762.7	63.8	17.7	61	w.			1		4					d. clouds	Serg't W. H. Lyne.
Sheffield	30.01	762.2	30.30	769.6	44.0	6.7	73	ne.			2		7			0.01	0.3	overcast	W. F. Cooper.
Silloth Rectory	30.23	767.8	30.26	768.6	42.1	5.6	71	ene.			3		2			0	0	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.91	759.7	39.2	4.0	70	nne.	12	5.4			5					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	29.92	760.0	30.14	765.5	45.4	7.4	65	ne.			4		4					squally	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.12	765.0	30.18	766.6	50	10.0	59	ne.			6		4					d. clouds	W. Newcombe.
Valencia, Observatory	30.29	769.4	30.32	770.1	45.0	7.2	67	ne.	24	10.7			4					misty	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.35	770.9	30.39	771.9	34	1.1	89	calm	0	0		0	0			0	0	clear	H. J. Cundall, C. E.
Chatham, N. B.*	30.32	770.1	30.39	771.9	23	— 5.0	91	calm	0	0		0	0			0	0	clear	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	30.30	769.6	30.32	770.1	27	— 2.8	92	w.	1	0.4		5 ck	0	calm		0	0		J. McWilliams.
Fort Garry, Manitoba*	28.82	732.0	29.66	753.4	31	— 0.6	92	ne.	7	3.1			10 n			inap.	inap.	light rain	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.28	769.1	30.41	772.4	32	0.0	81	w.	4	1.8		0	fg.			0	0	fair	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.59	751.6	29.92	760.0	53	11.7	93	se.	25	11.2			10 n		se.	0.20	5.1	light rain	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.96	761.0	30.17	766.3	32	0.0	78	e.	10	4.5			10 s		sw.	0	0	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.05	737.9	29.74	755.4	50	10.0	93	se.	36	16.1			10 n		se.	0.16	4.1	light rain	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.08	738.6	29.76	755.9	57	13 9	100	s.	12	5.4			10 n		s.	0.31	7.9	light rain	H. Morgan.
Port Stanley, Ontario	29.10	739.1	29.74	755.4	58	14.4	96	se.	16	7.2			10 n		sw.	0.67	17.0	light rain	M. Payne.
Quebec, Quebec*	29.96	761.0	30.30	769.6	31	— 0.6	84	e.			1	2 k	2 ks	e	e.	0.01	0.3	fair	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.49	749.0	29.96	761.0	40	4.4	86	ss.	15	6.7			10 s		se.	inap.	inap.	light rain	W. H. McIntyre.
Saugeen, Ontario*	28 97	735.8	29.67	753.6	55	12.8	92	se.	18	8.0			10 ks			0.26	6.6	light rain	K. Stewart.
St. Andrews, N. B.	30.34	770.6	30.39	771.9	33	0.6	74	n.	1	0.4		0	0			0	0	clear	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.29	769 4	30.35	770.9	36	2.2	85	w.	1	0.4		0	2 k			0	0	clear	T. C. Hill, C. E.
Toronto, Ontario*	29.41	747.0	29.79	756.7	54	12.2	100	se.	15	6.7			10 n			0.59	15.0	heavy rain	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.32	770.1	30.39	771.9	33	0.6	85	ne.	2	0.9		2 cs	0	sw.		0	0	fair	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.06	763.5	30.32	770.1	37	2.8	90	w.	3	1.3		0	0			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House‡	29.49	749.0	29.52	749.8	66.0	18.9	83	sw.	6.0	2.7		2 c	0			0	0	clear	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	28.84	732.5			75.8	24.3	28	nw.			6	0	1			0	0	fine	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.20	767.0	30.22	767.6	49.5	9.7	78	n.	4.9	2.2		ck	0			0	0	clear	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.07	763.7	30.11	764.9	37.4	3.0	79	ene.	29	13			8						Oversergent Fischer.
Fanöe	30.10	764.6	30.12	765.1	36.1	2.3	84	nne.			6		5						Overloerer Lauridsen.
Godthaab, Greenland	29.50	749.4	29.55	750.5	31.3	— 0.4	89	ne.			2		4						S. Kleinschmidt.
Stykkisholm, Iceland	30.26	768.5	30.30	769.6	38.8	3.8	78	so.			4		8						A. O. Thorlacius.
Thorshavn	30.42	772.7	30.46	773.6	40.1	4.5	74	w.	7	3			10						Overloerer Bergh.
Vestervig	30.14	765.6	30.23	767.9	34.5	1.4	78	nne.			6		7						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.32	744.6	29.98	761.6	40.3	4.6	61	nnw.			1	ck	0	nw.					M. Labroue, Director.
Alençon Normal School	29.51	749.5	30.11	764.9	42.4	5.8	97	ne.			3		n		s.	0	0		M. Nicot, Director.
Arras, Engineer School	29.70	754.3	29.96	761.0	41.7	5.4	83	ne.					kn		ne.				M. Klein, Commandant.
Avignon, Normal School	29.70	754.3	29.78	756.3	47.8	8.8	84	n.			4		10			0.331	8.4	covered	M. Giraud, Director.
Bar-sur-Seine	29.43	747.4	30.00	761.9	39.9	4.4	87	sw.			1		10			0	0	covered	M. Saillard, Director.
Beauvais, Normal School	29.77	756.1	30.04	763.1	44.4	6.9	58	n.			2		5	nw.	n.	0.024	0.6	cloudy	M. Frère Eugène Marie.
Besançon, Normal School	29.00	736.6	29.91	759.7	41.7	5.4	66	ne.			2		5 cn		n.	0	0	cloudy	M. Gobin, Director.
Bordeaux, Observatory	29.72	754.8	29.98	761.6	44.4	6.9	60	nne.			1		0			0	0	clear	M. Rayet, Director.
Bourges, Normal School	29.39	746.6	29.96	760.9	44.2	6.8	51	nw.			2	ck	0	nw.		0	0		M. Postel, Director.
Brest, Naval Observatory	29.86	758.4	30.10	764.6	44.6	7.0	100	ne.			1		10		ne.	0.039	1.0	raining	M. de Kermaree, Dir.
Caen, Normal School	30.00	761.9	30.08	763.9	45.0	7.2	69	n.			1		8		n.	0.16	4.	very cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.60	751.9	29.93	760.2	42.8	6.0	80	wnw.			1		8		nne.	0	0	very cloudy	M. Jadot, Director.
Charleville, Normal School	29.48	748.7	30.00	762.1	41.4	5.2	81	e.			4		3			0.04	1.		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.58	725.8	29.97	761.3	38.7	3.7	59	n.			2		8		n.	0.035	0.9	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.09	738.8	29.94	760.4	41.7	5.4	74	n.			2		2		n.	0	0		M. de Villemontée, Dir
Commercy, Normal School	29.09	738.9	29.99	761.7	37.6	3.1	97	n.			1		10 km	n.	n.	0	0	covered	Dr. Coulet, Director.
Gap, Normal School	27.34	694.5	29.94	760.4	39.2	4	65	calm			0		5		se.	0.04	1.		M. Jeangirard, Director.
Gréasque, du. Rhone	28.67	728.3	29.82	757.3	45.1	7.3	91	n.			2		10		sw.	0	0	dense fog	M. Kina, Director.
Grenoble, Normal School	29.10	739.2	29.89	759.3	38.8	3.8	83	nnw.			1		n			0.201	5.1		M. Ablard, Director.
Guéret, Normal School	28.36	720.4	29.98	761.5	37.8	3.2	73	e.			2	c	k		w.	0	0		M. Rivoire, Director.
Lamballe, Normal School	29.80	756.8	30.07	763.8	45.5	7.5	80	nw.			1		8kn		nw.	0.008	0.2	hail & fog	M. Ollitrault, Director.
Lescar, Normal School	29.46	748.3	30.04	763.1	40.6	4.8	81	wnw.			1					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	30.01	762.2	30.11	764.8	50.0	10	86	ne.			2		10			0	0	covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.87	733.4	29.97	761.1	39.2	4.0	67	n.			2	10	cn;n		n.	0.004	0.1	covered	M. André, Director.
Mans, Normal School	29.74	755.4	30.06	763.5	41.7	5.4	84	ne.			4		8		ne.	0	0	very cloudy.	M. Piboen, Director.
Marseille, Observatory	29.47	748.6	29.75	755.6	47.7	8.7	85	wnw.			1		10		nw.	inap.	inap.		M. Stephan, Director.
Montlouis l'instituteur	24.56	623.8	29.80	756.8	29.3	—1.5	92	n.	9.4	4.2			9			0.197	5.0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.71	754.5	29.82	757.3	50.7	10.4	84	n.			2		5	n.	n.	0.122	3.1	cloudy	M. Pourle, Director.
Nancy, Normal School	29.15	740.5	29.95	760.8	35.6	2	93	wnw.			1		10 n			0.094	2.4	covered	M. Hasse.
Nantes, Observatory	29.91	759.8	30.08	763.9	48.2	9	56	nnw.			1-2		10k;kn	n.	n.	0	0		M. Larocque, Director.
Nice	29.65	753.0	29.68	753.9	58.3	14.6	82	ne.			2		10	ne.	ne.			light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.76	755.8	29.86	758.5	48.2	9.0	54	nw.	16.8	7.5			10	nw.		0	0		Dr. Fines.
Pic-du-Midi, Summit	20.96	532.3			26.1	—3.3		n.			1		0			0	0	clear	Gen'l de Nansouty Dir.
Privas, Normal School	28.86	733.0	29.95	760.8	40.6	4.8	69	s.			1		10	s.		0	0	covered	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.91	632.7			21.9	—5.6	100	ne.			3		10			0.035	0.9	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.03	762.8	30.06	763.6	47.1	8.4	100	nnw.			1		0			0	0	clear	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.82	757.4	30.04	763.0	47.1	8.4	59	nw.			1		5			0	0	cloudy	M. Mouillot, Director.
Rodez, Normal School	27.72	704.2	29.94	760.5	36.7	2.6	89	n.			1		10		n.	0	0	covered	M. Richard, Director.
Rouen, Normal School	29.98	761.4	30.02	762.5	46.4	8	64	ne.			1					0.12	3.		M. Platrier, Director.
Saint Lô, Normal School	29.91	759.6	30.06	763.6	37.8	3.2	90	e.			2		10		e.	0.016	0.4	covered	M. Delaplanche, Dir.
Saint Maur, Observatory	29.85	758.1	30.01	762.3	43.9	6.6	75	n.			1		10		wnw; nne	0.008	0.2		M. Renou, Director.
Toulouse, Observatory	29.28	743.6	30.00	762.0	40.6	4.8	86	w.			3		10	nw.		0	0	covered	M Bailland, Director.
Tours	29.80	757.0	30.00	762.0	46.4	8.0	72	ne.			1		10	calm	n.	0	0	covered	M. de Tastes.
Versailles, Observatory	29.52	749.8	30.01	762.3	45.0	7.2	66	ne.			1					0.063	1.6		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.73	755.1	30.02	762.5	43.9	6.6	72	n.			1		10		ene.	0.020	0.5		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.09	738.9	29.95	760.8	37.4	3.0	80	se.			2	0	8 s			0.004	0.1	light rain	Prof. Dr. Hoh.
Berlin	29.78	756.3	29.95	760.8	41.7	5.4	56	nw.			1		8			0.075	1.9		Prof. Dr. Arndt.
Breslau	29.45	747.9	29.98	761.4	36.7	2.6	57	s.			1		7			0	0		Royal University Obs'y.
Carlsruhe	29.53	750.1	29.97	761.3	41.0	5.0	72	sw.			1		10	sw.		0.043	1.1		Albert Senz.
Cassel	29.23	742.4	29.95	760.6	37.4	3.0	62	nw.			2		8	n.		0.008	0.2		Dr. H. Möhl.
Frankfort on the Main	29.60	751.8	29.98	761.5	35.2	1.8	84	n.			1		10			0.059	1.5		Physical Society.
Friedrichshafen	28.49	723.6	29.94	760.4	39.9	4.4	75	ne.			3		10	ne.		0	0		Wilhelm, Chief Tel.
Hamburg	29.89	759.2	29.98	761.6	35.2	1.8	91	calm			0		10			0	0		E. Preller.
Kiel	29.97	761.1	29.98	761.5	39.4	4.1	68	nne.			2		8			0.083	2.1		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.54	750.4	29.98	761.5	37.4	3.0	83	n.			1		10	n.		0.051	1.6	rain;snow; fg	H. Leppig, Asst.
Magdeburg	29.77	756.1	29.97	761.1	38.8	3.8	77	nnw.			1	0	9 k;ks		nw.	0.083	2.1		Dr. Assmann.
Memel	30.06	763.6	30.11	764.8	22.5	—5.3	91	ne.			1	0	2 k						Issermann.
Munich	28.09	713.6	29.95	760.8	34.3	1.3	78	ne.			2		10	w.		0	0		Central Station.
Neufahrwasser	30.10	764.4	30.11	764.8	28.8	—1.8	85	se.			1		10			0.213	5.4	snowing	A. Lothes.
Neustadt, Palatinate	29.43	747.5	29.95	760.8	37.8	3.2	85	se.			2		10	nw.		0.083	2.1		Dicknether.
Stuttgart	28.95	735.4	29.87	758.7	40.1	4.5	63	n.			1		4	n.		0	0		Prof. Dr. Schoder.
Weissenburg, Bavaria	28.43	722.2	30.02	762.6	38.1	3.4	66	calm			0		9	w.		0	0		Fischer.
Wustrow	29.93	760.2	29.95	760.8	38.3	3.5	88	n.			2		8 ks			0.181	4.6		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.66	753.4	30.04	763.1	74.7	23.7		sw.			1.0		7			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.90	759.4	29.95	760.7	81.6	27.6	90	wsw.	23.0	10.3			0			0	0	blue sky	
Deesa	29.46	748.2	29.92	760.1	87.9	31.1	37	ssw.	6.8	3.0			7		w.	0	0	d. clouds	
Bombay	29.85	758.1	29.89	759.1	82.7	28.2	65	nnw.	15.0	6.7			0			0	0	blue sky	
Poona, Yarrowda.	28.05	712.4	29.88	758.8	88.0	31.0	27	ene.	12.0	5.4			0			0	0	blue sky	
Belgaum	27.37	695.3	29.89	759.1	82.0	27.8	23	ene.	8.0	3.6			0			0	0	blue sky	
Lahore	29.20	741.7	29.91	759.7	79.9	26.6	44	calm	0.5	0.2			0			0	0	blue sky	
Roorkee	29.04	737.5	29.94	760.5	78.0	25.6	46	calm	1.1	0.5			0			0	0		
Agra	29.39	746.4	29.95	760.7	84.7	29.3	40	w.	2.2	1.0			0			0	0		
Nagpur	28.88	733.6	29.92	760.0	82.2	27.9	33	e.	2.9	1.3			0			0	0	blue sky	
Jubbulpore	28.59	726.2	29.95	760.8	81.0	27.2	25	calm	2.4	1.1			0			0	0	blue sky	
Lucknow	29.57	751.1	29.95	760.7	82.2	27.9	41	calm	0.5	0.2			0			0	0	blue sky	
Allahabad	29.62	752.4	29.94	760.5	73.8	23.2	63	calm	0.4	0.2			0			0	0	blue sky	
Patna	29.76	756.0	29.95	760.6	77.3	25.2	61	e.	1.2	0.5			2	e.	e.	0	0		
Hazaribagh	27.92	709.2	29.94	760.5	77.3	25.2	42	calm	3.0	1.3			0			0	0	blue sky	
Cuttack	29.84	758.0	29.92	760.1	80.3	26.8	71	nne.	0.1	0.04			6			0	0	d. clouds	
Calcutta, Alipore	29.90	759.3	29.92	759.9	76.7	24.8	95	calm	0	0			0			0	0	blue sky	
Dhubri	29.80	757.0	29.93	760.1	77.5	25.3	77	calm	2.2	1.0			0			0	0	blue sky	
Goalpara																			
Chittagong	29.82	757.4	29.91	759.6	80.5	26.9	72	nw.	1.5	0.6			2			0	0	blue sky	
Sibsagar	29.60	751.8	29.94	760.4	76.9	24.9	91	ne.	1.0	0.4			0			0	0	blue sky	
Jeypore	28.51	724.1	29.94	760.5	85.9	29.9	22	n.	3.4	1.5			2		n.	0	0	d. clouds	
Zanzibar, Africa			29.89	759.2	86.6	30.3	60	se.	5	2.2			6			0	0	gloomy	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.42	747.2	29.83	757.6	49.5	9.7	63	e.	3.1	1.4			10			0.091	2.3		Prof. Giovanni Clodig.
Milan	29.28	743.7	29.80	756.9	48.7	9.3	93	e.	3.8	1.7			10			0	0		Prof. Schiaparelli.
Padua	29.69	754.1	29.80	756.8	50.7	10.4	80	n.	6.9	3.1			10	se.		0.016	0.4		Prof. Dott. Lorenzoni.
Moncalieri	28.85	732.9	29.76	756.0	50.0	10.0	84	ene.	0.7	0.3			10			0	0		Prof. P. F. Denza.
Genoa	29.54	750.4	29.73	755.2	52.3	11.3	74	ne.	7.4	3.3			10	s.		0	0		Prof. G. M. Garibaldi.
Mondovi	27.85	707.5	29.78	756.3	44.4	6.9	93	wnw.			2		10			0	0		Prof. D. C. Bruno.
Pesaro	29.70	754.3	29.74	755.5	54.1	12.3	98	nw.			2		10			0.413	10.5		Prof. Luigi Guidi.
Florence	29.48	748.8	29.73	755.2	59.9	15.5	85	ne.			2		10			0.598	15.2		Prof. Costantino Pitter.
Leghorn	29.61	752.0	29.69	754.1	58.3	14.6	86	ene.	3.8	1.7			10			0.654	16.6		Prof. P. Monte.
Rome	29.54	750.2	29.71	754.6	56.7	13.7	98	n.	11.2	5.0			10			0.610	15.5		Prof. P. S. Ferrari.
Lecce	29.60	751.7	29.84	758.0	70.0	21.1	81	s.	17.4	7.8			10	s.		0.008	0.2		Prof. C. de Giorgi.
Cosenza	28.98	736.1	29.85	758.3	72.7	22.6	74	ssw.	1.8	0.8			6	sw.		0	0		Prof. D. Conti.
Cagliari	29.45	748.0	29.64	752.9	66.2	19.0	82	sw.			2		10	w.		0.122	3.1		Prof. A. Pacinotti.
Palermo	29.44	747.8	29.69	754.0	72.3	22.4	65	ne.	4.9	2.2			10			0	0		Prof. G. Ciacciatore.
Syracuse	29.80	756.9	29.84	758.0	74.5	23.6	83	ssw.	6.3	2.8			6	sw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.31	744.4	29.74	755.4	66.9	19.4	77	ssw.	0.7	0.3			10	s.		0.043	1.1		Prof. F. Brioschi.
Stelvio	21.89	555.9			28.0	— 2.2	96	w.			2		10			0.287	7.3	covered	Prof. P. F. Denza.
Valdobbia	21.89	556.0			27.3	— 2.6	62	nne.			2		10			0	0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y	29.75	755.6	29.76	755.9	59.1	15.1	72	nne.	7.5	3.3		3 ck	0			0	0	fair	K. Sasaki.
Kioto	29.55	750.6	29.72	754.9	56.2	13.4	94	e.	0.8	0.4		ck	10 s		nw.	inap.	inap.	cloudy	M. Tojima.
Nagasaki, I. M. Obs'y	29.67	753.6	29.87	758.7	59.9	15.5	67	nne.	3.6	1.6		0	0			0	0	clear	S Takehayashi.
Nemuro																			
Niigata	29.76	755.9	29.79	756.6	53.3	11.8	68	n.	9.3	4.2		ck	10ks;n			0.070	1.8	raining	
Nobiru	29.67	753.6	29.69	754.1	55.1	12.8	83	n.	9.8	4.4		ck	7 s			0	0	fair	
Supporo	29.65	753.1	29.72	754.9	40.0	4.4	72	wnw.	3.6	1.6			10			0.005	0.1		
Tokei Obs'y, Yeddo	29.61	752.1	29.67	753.6	55.0	12.8	96	wnw.	1.8	0.8			10 n			0.036	0.9	raining	The Staff.
Wakayama	29.66	753.3	29.71	754.6	56.3	13.5	89	ne.	1.2	0.5		2 ck	0	n.		0.007	0.2	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.92	760.0	30.11	764.8	77.1	25.1	63	ene.	15.0	6.7		1 cs	4 ks;k		ene.	0	0	fair	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.69	601.8	29.91	759.8	49.1	9.5	79	calm	0	0		0	0			0	0	clear	Vicente Fernandez
Leon	24.45	621.0	30.23	767.9	52.0	11.1	87	n.		3		0	0			0	0	blue sky	Prof. M. Leal.
Mazatlan	29.72	754.8	29.97	761.3	72.8	22.7	76	e.	0.9	0.4		0	1 k			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.10	586.8	30.17	766.5	48.9	9.4	76	calm	0	0		0	0			0	0	very fine	The Staff.
Morelia	24.17	614.0	30.19	766.8	53.6	12.0	40	sw.			2	0	0			0	0	blue sky	M. Tena, M. D.
Pabellon, Aguascalientes	23.91	607.4	29.94	760.4	50.2	10.1	87	calm			0	0	0			0	0		M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	595.0	30.23	767.7	52.7	11.5	80	calm	0	0		0	2		w.	0	0	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.08	764.1	30.08	764.1	41.5	5.3		ne.			3					0.264	6.7		
Groningen	30.00	761.9	30.05	763.3	39.4	4.1		ne.			4					0.071	1.8		
Helder	30.08	764.1	30.08	764.1	39.6	4.2		ne.			4					0.071	1.8		
Hellevoetsluis	30.07	763.8	30.07	763.8	42.1	5.6	75	ne.			1					0.213	5.4		
Utrecht	30.02	762.6	30.07	763.8	41.4	5.2	69	n.			2		5			0.016	0.4	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.31	769.9	30.37	771.5	33.1	0.6	51	calm	0	0			0			0	0		
Christiania	30.20	767.1	30.36	771.1	29.8	— 1.2	57	ne.	0	0			0			0	0		
Gjæsvær	30.14	765.5	30.16	766.1	25.3	— 3.7		ese.			2		10						
Lodingen	30.03	762.8	30.08	764.0	32.4	0.2	73	n.			2		5			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.14	765.6	30.30	769.5	64.8	18.2	75	wnw.	4.9	2.2			2			0	0		Dr. J. A. Sampaio.
Campo Major	28.84	732.6	29.85	758.1	55.0	12.8	53	nnw.	15.0	6.7			7			0.079	2.0		Dr. A. M. R. dos Santos
Funchal, Madeira	29.92	759.9	30.04	763.1	70.0	21.1	77	wsw.	4.0	1.8			8			0.031	0.8		Capt. D. A. de Cunha.
Lisbon, Observatory	29.58	751.3	29.94	760.5	57.2	14.0	43	nne.	11.2	5.0			5			0	0		The Staff.
Ponta Delgada, Azores	30.24	768.1	30.31	769.9	68.0	20.0	71	nw.	8.7	3.9			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	28.22	716.9	29.28	743.7	51.4	10.8	58	sse.	13	6		7 ck	0						Capt. Lasarew.
Archangel	29.95	760.6	29.97	761.1	14.7	— 9.6	97	s.	4	2			10						Capt. Sseliwerstow.
Astrakhan	30.43	772.8	30.34	770.7	26.1	— 3.3	76	wnw.	11	5		0	7 k						Capt. Wisganow.
Barnaul ‡	29.31	744.5	29.82	757.4	42.6	5.9	46	sw.	4	2			3					light clouds.	Meteorological Obs'y.
Dorpat	29.94	760.5	30.20	767.1	25.9	— 3.4	74	wsw.	4	2			9 k						Observatory.
Ekaterinburg	28.91	734.4	29.95	760.7	12.2	—11.0	75	n.	7	3			10						Meteorological Obs'y.
Kasan	29.91	759.8	30.21	767.3	14.4	— 9.8	61	calm	0	0		0	0						Observatory.
Kertch	30.20	767.1	30.22	767.6	44.8	7.1	74	calm	0	0		0	6 n			0	0		Lagorio & Sastyrea.
Kieff	29.47	748.6	30.14	765.5	29.3	— 1.5	68	ese.	9	4		cs	10ks;n					light snow	Observatory.
Lugan	30.12	765.0	30.34	770.6	27.3	— 2.6	64	ese.	4	2			4						Meteorological Obs'y.
Moscow	29.66	753.3	30.17	766.3	24.8	— 4.0	77	s.	7.8	3.5			10 s						Meteorological Obs'y.
Nikolaiev	30.16	766.0	30.23	767.8	34.3	1.3	68	se.	13	6			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.30	744.1	29.38	746.3	24.4	— 4.2	81	calm			0		10 n			0.409	10.4	snowing	Lieut. Iwanow.
Pekin, China	29.91	759.8	30.06	763.4	45.1	7.3	45	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.08	764.1	30.10	764.5	26.1	— 3.3	76	n.	7	3		0	8 n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.37	720.5	29.90	759.4	67.3	19.6	54	calm	0	0			4			0	0		Teich, A. M.
Tiflis	28.78	730.9	30.20	767.0	57.2	14.0	35	nw.	18	8		0	0						Physical Observatory.
Warsaw	29.60	751.8	30.04	763.0	33.3	0.7	59	nne.	4	2		ck	8 ks						Astronomical Obs'y.
Wilna	29.72	754.9	30.17	766.2	28.0	— 2.2	64	ene.	2	1			6					light clouds	Berg, Assistant.
Yeniseisk	29.82	757.5	30.13	765.3	20.1	— 6.6	71	calm	0	0			4						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.42	772.7	40.5	4.7	82	ne.			3		9 k			0	0	cloudy	Andrew Gibb.
Monach Lt. House, Hebrides			30.46	773.7	45	7.2	92	ne.			3		10			0	0	overcast	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.71	754.6	29.82	757.3	54.1	12.3	65	wnw.	3.6	1.6			10			0.075	1.9		Antonio Rave, Dir ector
Bilbao, Met. Obs'y	29.99	761.7	30.05	763.2	48.4	9.1	73	ne.	1.3	0.6		2	8	n.		0.114	2.9	covered	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.97	684.9			37.4	3.0	83	ne.	8.5	3.8			10			0	0	covered	Domingo Martin.
Madrid, Royal Obs'y	27.62	701.6	29.84	758.0	48.7	9.3	59	n.	8.3	3.7			10			0	0	covered	The Staff.
Murcia, Met. Obs'y ‡	29.65	753.1	29.80	756.8	67.6	19.8	57	ssw.	2.5	1.1		1	3	nne.		0.882	22.4	stormy	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.11	739.3	30.01	762.3	49 1	9.5	72	ne.	24.8	11.1			7			0	0	cloudy	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.97	761.3	30.04	763.0	74.8	23.8	88	calm	0	0		0	k	ene.	ese.	0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.89	759.2	29.94	760.5	80.4	26.9	80	nne.	0	0		6 cs	4 kn	nnw.	nnw.	0	0	covered	Federico Faura, S. J.
San Fernando, Naval Obs'y	29.78	756.4	29.88	758.9	61.5	16.4	71	wnw.	11.2	5.0		3	4	w.	nw.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.91	759.6	30.00	761.9	77.0	25.0	97	calm	0	0			10 kn			0.827	21.0	raining	E. Cadea, Chief Eng'r.
Tuguegarao, Philippine Ids	29.80	756.9	29.93	760.3	76.0	24.4	86	nw.	4.9	2.2		5 ck	0	s.		0	0	lightly cl'dy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson. Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.10	764.5	30.14	765.5	26.2	— 3.2	87	ne.			2		8			0	0		
Umea	30.12	765.0	30.17	766.3	29.1	— 1.6	80	nw.			2		6			0	0		
Hernosand	30.21	767.4	30.26	768.7	27.1	— 2.7	64	nnw.			2		8			0	0		
Stockholm	30.09	764.2	30.26	768.7	28.8	— 1.8	88	nnw.			2		2			0.039	1.0		
Wisby	30.10	764.6	30.16	766.1	33.1	0.6	71	e.			4		3			0.453	11.5		
Sub-Series.																			
Upsala	30.18	766.5	30.26	768.7	24.3	— 4.3	73	nnw.	5.1	2.3			7			0	0		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.45	722.5	29.91	759.6	42.1	5.6	73	ene.			5		10			0	0	covered	The Observatory.
Zurich ‡	28.28	718.4	29.98	761.4	37.8	3.2	85	w.			4		10			0	0	foggy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			30.08	764.0	61.3	16.3	58	ene.	4	2.0			3		sw.	0	0		The Observatory.
Valona			29.97	761.2	73.9	23.3		sw.			2		2			0.08	2.	slightly cld.y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.04	762.9	75.0	23.9	66	n.			1	0	1 s		n.	0	0		Prof. C. V. Van Dyck.

UNITED STATES SERIES.

By authority of the SECRETARY OF WAR.

Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	30.19	766.8	30.27	768.8	50	10.0	72	s.	6	2.7			10 n			inap.	inap.	light rain	
Alpena, Michigan	28.96	735.6	29.65	753.1	50	10.0	100	se.	10	4.5			fg.			0.54	13.7	dense fog	
Atlanta, Georgia	28.77	730.7	29.99	761.7	66.0	18.9	84	se.	16	7.2			10 s		s.	inap.	inap.	cloudy	
Atlantic City, New Jersey	30.20	767.1	30.21	767.3	62.4	16.9	87	se.	17	7.6			10 s		s.	0	0	threatening.	
Augusta, Georgia	29.85	758.2	30.05	763.3	67.0	19.4	90	se.	1	0.4		6 ck	hz.	s.		inap.	inap.	fair	
Baltimore, Maryland	30.07	763.8	30.12	765.0	63	17.2	90	se.	8	3.6			10 s		calm	0.17	4.3	cloudy	
Barnegat, New Jersey	30.17	766.3	30.19	766.8	61.8	16.6	87	se.	20	8.9			10 s		s.	0	0	cloudy	
Bismarck, Dakota	27.89	708.4	29.81	757.2	32	0.0	81	nw.	10	4.5		0	0			0	0	clear	
Boise City, Idaho	27.31	693.7	30.23	767.8	36.5	2.5	88	e.	4	1.8			10 s		calm	0.02	0.5	cloudy	
Boston, Massachusetts	30.21	767.3	30.37	771.4	44.0	6.7	83	calm	0	0			fg.			0	0	dense fog	
Brackettville, Texas	28.69	728.7	29.73	755.1	54	12.2	80	calm	0	0		0	0			0.01	0.3	clear	
Brownsville, Texas	29.83	757.7	29.88	758.9	71	21.7	84	se.	4	1.8		0	0			0	0	clear	
Buffalo, New York	29.10	739.1	29.84	757.9	59	15.0	81	se.	8	3.6			10 n		sw.	0.45	11.4	light rain	
Burlington, Vermont	29.91	759.7	30.21	767.3	44.7	7.1	66	s.	8	3.6			10 s		w.	0	0	cloudy	
Cairo, Illinois	29.42	747.3	29.83	757.7	58.6	14.8	92	sw.	8	3.6			10 s		sw.	0.01	0.3	cloudy	
Campo, California	27.49	698.2	30.06	763.5	39	3.9	92	w.	1	0.4		5 c	0	nw.		0	0	fair	
Camp Thomas, Arizona	27.28	692.9			44	6.7	93	calm			0	4 c	3 s			0	0	fair	
Cape Henry, Virginia	30.13	765.3	30.15	765.8	67	19.4	90	s.	8	3.6			10 s		s.	0	0	threatening.	
Cape May, New Jersey	30.13	765.3	30.16	766.1	64	17.8	78	se.	16	7.2			10 n		se.	0.01	0.3	light rain	
Castroville, Texas	29.07	738.4	29.78	756.4	51	10.6	80	nw.	3	1.3		0	0			0	0	clear	
Cedar Keys, Florida	30.05	763.3	30.07	763.8	73	22.8	84	se.	14	6.3		0	0			0	0	clear	
Champaign, Illinois	28.83	732.3	29.60	751.8	57.0	13.9	93	sw.	14	6.3		0	3 s		sw.	0.25	6.3	fair	
Charleston, S. Carolina	30.04	763.0	30.10	764.5	71	21.7	90	sw.	4	1.8		0	5 s		sw.	0	0	fair	
Charlotte, N. Carolina	29.16	740.7	30.07	763.8	63.4	17.4	93	s.	5	2.2			10 s		s.	0.04	1.0	cloudy	
Chattanooga, Tennessee	29.14	740.1	29.99	761.7	59.5	15.3	94	calm	0	0		0	5ks;fg		w;calm	1.61	40.9	fair	
Cheyenne, Wyoming	23.93	607.8	30.06	763.5	32.5	0.3	76	nw.	12	5.4		0	0			0	0	clear	
Chicago, Illinois	28.86	733.0	29.60	751.8	60.2	15.7	80	sw.	10	4.5		0	7 k		sw.	0.52	13.2	fair	
Chincoteague, Virginia	30.16	766.1	30.18	766.6	66	18.9	90	se.	19	8.5			10 s		se.	0	0	cloudy	
Cincinnati, Ohio	29.16	740.7	29.84	757.9	61	16.1	84	s.	9	4.0			10 ks		s.	0.78	19.8	cloudy	
Cleveland, Ohio	29.06	738.1	29.83	757.7	59.1	15.1	84	s.	10	4.5		2 k	5 s	sw.	s.	0.34	8.6	fair	
Coleman City, Texas																			
Columbus, Ohio	28.97	735.8	29.86	758.4	57	13.9	86	s.	8	3.6		0	0			0.80	20.3	clear	
Concho, Texas	27.87	707.9	29.87	759.7	50	10.0	86	sw.	12	5.4		0	0			0	0	clear	
Corsicana, Texas	29.36	745.7	29.84	757.9	55	12.8	80	w.	1	0.4		0	0			0	0	clear	
Davenport, Iowa	28.87	733.3	29.55	750.6	58	14.4	81	sw.	12	5.4			10 ks		sw.	0.63	16.0	cloudy	
Dayton, Washington T'y	28.28	718.3	30.14	765.5	41.6	5.3	83	se.	2	0.9		0	0			0.06	1.5	clear	
Deadwood, Dakota	25.23	640.8	30.09	764.3	39	3.9	76	sw.	4	1.8			10 ks		w.	0	0	cloudy	
Decatur, Texas					57	13.9	69	sw.	8	3.6		0	0			0	0	clear	
Delaware Breakwater, Del.	30.14	765.5	30.16	766.1	64	17.8	84	se.	24	10.7			10 ks		se.	0	0	cloudy	
Denison, Texas	28.98	736.1	29.81	757.2	58	14.4	86	s.	8	3.6		0	0			0	0	clear	
Denver, Colorado	24.66	626.4	30.03	762.7	45.6	7.6	59	w.	2	0.9			10 s		calm	0	0	cloudy	
Des Moines, Iowa	28.61	726.7	29.56	750.8	55	12.8	86	nw.	8	3.6			10 s		nw.	0.07	1.8	cloudy	
Detroit, Michigan	29.01	736.8	29.75	755.6	65.3	18.5	84	s.	13	5.8			10 n		calm	1.04	26.4	light rain	
Dodge City, Kansas	27.17	690.1	29.86	758.4	48	8.9	66	n.	12	5.4			10 s			0	0	cloudy	
Dubuque, Iowa	28.72	729.5	29.46	748.3	55.8	13.2	86	s.	3	1.3			10 n		calm	0.57	14.5	light rain	
Duluth, Minnesota	28.69	728.7	29.42	747.3	52	11.1	100	ne.	5	2.2			10 n		ne.	1.07	27.2	light rain	
Eagle Pass, Texas	29.08	738.6	29.93	760.2	53.0	11.7	86	n.	1	0.4		0	0			0	0	clear	
Eagle Rock, Idaho	25.32	643.1	30.31	769.9	30	— 1.1	92	sw.	12	5.4		0	0			0	0	clear	
Eastport, Maine	30.31	769.9	30.38	771.6	36.5	2.5	74	nw.	2	0.9		0	0			0	0	clear	
El Paso, Texas	26.23	666.2	30.07	763.8	44.3	6.8	47	nw.	11	4.9		1 c	2 s			0	0	clear	
Erie, Pennsylvania	29.04	737.6	29.80	756.9	60	15.6	87	s.	18	8.0			10 n			0.40	10.2	light rain	
Escanaba, Michigan	28.80	731.5	29.48	748.8	53	11.7	93	se.	12	5.4			10 s		se.	1.09	27.7	cloudy	
Florence, Arizona	28.52	724.4	30.12	765.0	43.1	6.2	96	se.	1	0.4		5 cs	0	n.		0	0	fair	
Fort Apache, Arizona	25.09	637.3	30.13	765.3	33	0.6	92	ne.	1	0.4		0	3 s		calm	0	0	fair	
Fort Assinnaboine, Montana	27.05	687.1	29.99	761.7	33	0.6	71	sw.	18	8.0		0	0			0	0	clear	
Fort Bennett, Dakota																			
Fort Benton, Montana	27.06	687.3	30.04	763.0	27	— 2.8	56	calm	0	0		0	0			0	0	clear	
Fort Buford, Dakota	27.81	706.4	29.92	760.0	37	2.8	72	nw.	3	1.3		0	0			0	0	clear	
Fort Custer, Montana	26.76	679.7	30.15	765.8	40	4.4	63	calm	0	0			10 s		calm	0	0	cloudy	
Fort Davis, Texas	24.83	630.7	29.79	756.7	51	10.6	69	w.	4	1.8		0	0			0	0	clear	
Fort Elliott, Texas	27.07	687.6	30.37	771.4	42	5.6	53	calm	0	0		0	c			0	0	clear	
Fort Gibson, Indian T'y	29.20	741.7	29.77	756.1	48.0	8.9	93	calm	0	0		0	0			0	0	clear	
Fort Grant, Arizona	25.26	641.6	30.06	763.5	47	8.3	74	sw.	12	5.4		10 cs	0			0	0	cloudy	
Fort Griffin, Texas	28.46	722.9	29.70	754.4	55.0	12.8	55	se.	5	2.2		0	0			0	0	clear	
Fort Keogh, Montana	27.35	694.7	30.02	762.5	41	5.0	82	sw.	8	3.6		3 cs	0			0	0	clear	
Fort Macon, North Carolina	30.12	765.0	30.13	765.3	71	21.7	84	s.	16	7.2		0	9 s		sw.	0.15	3.8	cloudy	
Fort McKavett, Texas	27.61	701.3	29.51	749.5	51.2	10.7	80	sw.	6	2.7		0	0			0	0	clear	
Fort Missoula, Montana	26.78	680.2	30.43	772.9	38	3.3	82	w.	2	0.9		0	0			inap.	inap.	clear	
Fort St. Michaels	29.35	745.5	29.38	746.2	34	1.1	70	ne.	9	4.0		0	5 s		ne.	0	0	fair	
Fort Shaw, Montana	26.30	668.0	30.04	763.0	44	6.7	56	sw.	20	8.9		0	0			0	0	clear	
Fort Sill, Indian Territory	28.46	722.9	29.75	755.6	48.5	9.2	85	se.	4	1.8		10 cs	0			0	0	cloudy	
Fort Stevenson, Dakota	27.95	709.9	29.91	759.7	26	— 3.3	88	w.	4	1.8		0	0			0	0	clear	
Fort Verde, Arizona					40	4.4	73	nw.			1	4 cs	0	w.		0	0	fair	
Fredericksburg, Texas	28.11	714.0	29.66	753.4	49	9.4	86	nw.	2	0.9		0	0			0	0	clear	
Galveston, Texas	29.85	758.2	29.89	759.2	68	20.0	79	sw.	4	1.8		0	hz.			0.80	20.3	clear	
Grand Haven, Michigan	28.89	733.8	29.59	751.6	59.5	15.3	90	s.	20	8.9			10 s		sw.	0.87	22.1	cloudy	
Hatteras, North Carolina	30.14	765.5	30.16	766.1	73	22.8	76	se.	20	8.9		0	8 ks		se	0.13	3.3	cloudy	
Helena, Montana	25.78	654.8	30.37	771.4	42	5.6	67	s.	12	5.4		0	0			0	0	clear	
Henrietta, Texas	28.76	730.5	29.66	753.4	54	12.2	74	s.	5	2.2		0	0			0	0	clear	
Huron, Dakota	28.22	716.8	29.68	753.9	40	4.4	89	nw.	16	7.2		0	1 s			0.41	10.4	clear	
Indianapolis, Indiana	28.93	734.8	29.76	755.9	60.5	15.8	85	s.	10	4.5		0	6 s		s.	0.40	10.2	fair	
Indianola, Texas	29.86	758.4	29.89	759.2	64.8	18.2	90	w.	4	1.8		0	0			inap.	inap.	clear	
Jacksboro, Texas	28.58	725.9	29.68	753.9	57	13.9	69	w.	6	2.7		0	2 s		calm	0	0	clear	
Jacksonville, Florida	30.04	763.0	30.08	764.0	70	21.1	90	se.	8	3.6		0	0			0	0	clear	
Keokuk, Iowa	28.90	734.0	29.58	751.3	56.5	13.6	82	sw.	16	7.2			10 s		w.	0.82	20.8	cloudy	
Key West, Florida	30.02	762.5	30.05	763.3	79.0	26.1	82	se.	7	3.1		0	2 k		se.	0	0	clear	
Kittyhawk, North Carolina	30.15	765.8	30.17	766.3	68	20.0	93	se.	16	7.2			10 s			0.04	1.0	cloudy	
Knoxville, Tennessee	28.97	735.8	30.04	763.0	59	15.0	100	se.	2	0.9			10 n		calm	1.36	34.5	light rain	
La Crosse, Wisconsin	28.62	726.9	29.42	747.3	57.4	14.1	86	s.	8	3.6			10 n			0.31	7.9	light rain	
La Mesilla, New Mexico	26.07	662.2	30.22	767.6	45.0	7.2	86	n.	6	2.7		3 c	0			0	0	fair	
Laredo, Texas	29.40	746.7	29.73	755.1	58.0	14.4	80	se.	1	0.4		0	0			0	0	clear	
Leavenworth, Kansas	28.77	730.7	29.70	754.4	50	10.0	77	w.	8	3.6		4 cs	0	w.		0	0	fair	
Lewiston, Idaho	29.21	741.9	30.09	764.3	43	6.1	83	ne.	2	0.9		0	5 s		ne.	0.08	2.0	fair	
Little Rock, Arkansas	29.50	749.3	29.82	757.4	56	13.3	93	sw.	5	2.2		2 cs	0			0	0	clear	
Los Angeles, California	29.73	755.1	30.11	764.8	52.2	11.2	86	sw.	3	1.3		0	6 s		sw.	0	0	fair	
Louisville, Kentucky	29.22	742.2	29.80	756.9	61.0	16.1	87	s.	10	4.5		0	8 s		s.	0.67	17.0	clearing	
Lynchburg, Virginia	29.33	745.0	30.04	763.0	64.3	17.9	90	se.	5	2.2			10 s		s.	0.02	0.5	cloudy	
Madison, Wisconsin	28.45	722.6	29.52	749.8	55	12.8	93	s.	9	4.0			10 s		s.	1.32	33.5	cloudy	
Marquette, Michigan	28.75	730.2	29.51	749.5	52	11.1	100	se.	4	1.8			10 n		se.	0.21	5.3	light rain	
Mason, Texas	28.20	716.3	29.95	760.7	51.7	10.9	74	sw.	3	1.3		0	1 s		calm	0	0	clear	
Memphis, Tennessee	29.55	750.6	29.90	759.4	59	15.0	93	s.	8	3.6		0	0			0.01	0.3	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	28.76	730.5	29.54	750.3	55	12.8	93	s.	9	4.0			10 s		s.	0.52	13.2	threatening.	
Mobile, Alabama	29.86	758.4	29.93	760.2	72.0	22.2	90	s.	4	1.8			10 n			0.49	12.4	light rain	
Montgomery, Alabama	29.75	755.6	29.99	761.7	69	20.6	90	w.	5	2.2		0	9 k		w.	0.37	9.4	clearing	
Moorhead, Minnesota	28.55	725.2	29.61	752.1	34	1.1	100	n.	24	10.7			10 n		n.	1.00	25.4	heavy rain	
Morgantown, W. Virginia	28.93	734.8	29.90	759.4	57.8	14.3	94	s.	4	1.8			10 n			0.34	8.6	light rain	
Mt. Washington, N. H.	23.98	609.1	30.35	770.9	32.0	0.0	81	nw.	18	8.0			10 s		nw.	0	0	cloudy	
Nashville, Tennessee	29.34	745.2	29.90	759.4	59.3	15.2	90	se.	2	0.9		0	6 ks		s.	0.64	16.3	fair	
New Haven, Connecticut	30.20	767.1	30.32	770.1	45	7.2	76	ne.	6	2.7			10 n		ne.	0.02	0.5	light rain	
New London, Connecticut	30.29	769.4	30.34	770.6	49	9.4	77	e.	4	1.8			10 s		calm	0	0	cloudy	
New Orleans, Louisiana	29.86	758.4	29.92	760.0	69.5	20.8	92	nw.	4	1.8			10 s			0.68	17.3	cloudy	
Newport, Rhode Island	30.30	769.6	30.36	771.1	52.3	11.3	56	e.	8	3.6			10 s		calm	0	0	cloudy	
New River, N. Carolina					68	20.0	93	s.			2		10 s		s.	0.33	8.4	threatening.	
New Shoreham, Rhode I'd.	30.31	769.9	30.34	770.6	53.0	11.7	61	se.	11	4.9		10 cs	0	sw.		0	0	cloudy	
New York, New York	30.07	763.8	30.25	768.3	56	13.3	93	e.	18	8.0			10 n		e.	0.03	0.8	light rain	
Norfolk, Virginia	30.12	765.0	30.15	765.8	67	19.4	90	se.	6	2.7			10 n			inap.	nap.	light rain	
North Platte, Nebraska	26.87	682.5	29.93	760.2	38	3.3	87	w.	10	4.5		10 c	0	w		0	0	cloudy	
Olympia, Washington T'y	29.74	755.4	29.78	756.4	50.0	10.0	93	s.	7	3.1			10 n		calm	0.94	23.9	light rain	
Omaha, Nebraska	28.44	722.4	29.68	753.9	53.8	12.1	81	nw.	12	5.4			10 s		nw.	0.14	3.6	cloudy	
Oswego, New York	29.62	752.3	29.96	761.0	50.3	10.2	90	se.	20	8.9			10 n			0.21	5.3	light rain	
Pensacola, Florida	29.92	760.0	29.95	760.7	72	22.2	97	sw.	2	0.9			10 s		sw.	1.04	26.4	cloudy	
Philadelphia, Pa.	30.12	765.0	30.18	766.6	60	15.6	87	se.	8	3.6			10 ks		sw.	0	0	cloudy	
Phœnix, Arizona	29.04	737.6	30.94	785.9	39	3.9	46	calm	0	0		3 c	0	se.		0	0	fair	
Pike's Peak, Colorado	17.50	444.5	29.70	754.4	8	—13.3	100	ne.	8	3.6			10 n		ne.	0.16	4.1	light snow	
Pioche, Nevada	24.20	614.7	30.39	771.9	32	0.0	65	n.	10	4.5		0	0			0.01	0.3	clear	
Pittsburg, Pennsylvania	29.09	738.9	29.94	760.5	59	15.0	87	s.	6	2.7			10 n		sw.	0.57	14.5	light rain	
Port Eads, Louisiana	29.94	760.5	29.94	760.5	72.0	22.2	100	w.	8	3.6			10 n		calm	inap.	inap.	heavy rain	
Port Huron, Michigan	29.03	737.3	29.74	755.4	57.5	14.2	93	s.	12	5.4			10 s		s.	0.63	16.0	cloudy	
Portland, Maine	30.33	770.4	30.38	771.6	39	3.9	73	ne.	3	1.3		2 c	3 s	w.	nw.	0	0	fair	
Portland, Oregon	29.81	757.2	29.88	758.9	50	10.0	93	s.	3	1.3			10 n		se.	0.46	11.7	light rain	
Portsmouth, N. Carolina					73	22.8	84	s.	20	8.9			10 s		s.	0.07	1.8	cloudy	
Prescott, Arizona	24.78	629.4	30.09	764.3	34	1.1	82	s.	1	0.4		0	0			0	0	clear	
Punta Rassa, Florida	30.03	762.7	30.04	763.0	71.5	21.9	87	e.	5	2.2		1 c	1 k	calm	calm	0	0	clear	
Red Bluff, California	29.80	756.9	30.15	765.8	55.0	12.8	93	calm	0	0			10 s		nw.	0	0	cloudy	
Rio Grande City, Texas	29.68	753.9	29.89	759.2	58	14.4	74	n.	3	1.3		0	0			0	0	clear	
Rochester, New York	29.22	742.2	29.92	760.0	55	12.8	93	se.	20	8.9			10 n		se.	0.22	5.6	heavy rain	
Roseburg, Oregon	29.37	746.0	29.96	761.0	54.1	12.3	64	s.	9	4.0			10 s			0.36	9.1	cloudy	
Sacramento, California	30.12	765.0	30.20	767.1	51.8	11.0	86	se.	4	1.8			9 s			0.03	0.8	cloudy	
St. Louis, Missouri	29.11	739.4	29.74	755.4	57.9	14.4	80	s.	11	4.9		0	0			0.08	2.0	clear	
St. Paul, Minnesota	28.50	723.9	29.42	747.3	54.0	12.2	96	s.	2	0.9			10 s			1.24	31.5	cloudy	
Salt Lake City, Utah	25.78	654.8	30.23	767.8	39	3.9	65	sw.	2	0.9		0	3 s		calm	0.83	21.1	clear	
San Antonio, Texas	29.18	741.2	29.90	759.4	50.6	10.3	96	calm	0	0		0	0			0	0	clear	
San Diego, California	29.98	761.5	30.05	763.3	55.3	12.9	86	ne.	3	1.3		0	0			0	0	clear	
Sandusky, Ohio	29.07	738.4	29.78	756.4	59	15.0	87	s.	18	8.0		0	5 s		s.	0.67	17.0	fair	
Sandy Hook, New Jersey	30.20	767.1	30.23	767.8	59.0	15.0	93	se.	19	8.5			10 n		se.	0.05	1.3	light rain	
San Francisco, California	30.15	765.8	30.22	767.6	54	12.2	93	w.	4	1.8			fg			0	0	dense fog	
Santa Fé, New Mexico	23.12	587.2	30.10	764.5	30	— 1.1	92	nw.	4	1.8		0	8 n		sw.	0.10	2.5	light snow	
Savannah, Georgia	29.98	761.5	30.07	763.8	72.5	22.5	93	s.	6	2.7			10 ks		s.	0	0	cloudy	
Shreveport, Louisiana	29.64	752.8	29.87	758.7	55	12.8	93	s.	3	1.3		0	0			0	0	clear	
Silver City, New Mexico	24.26	616.2	29.94	760.5	42	5.6	70	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.23	742.4	29.30	744.2	43.2	6.2	83	ne.	3	1.3			10 ks		calm	0	0	cloudy	
Smithville, North Carolina	30.06	763.5	30.10	764.5	71	21.7	90	sw.	8	3.6		0	1 k			0.05	1.3	clear	
Spokane Falls, Wash. Ter.	27.99	710.9	30.06	763.5	41	5.0	82	s.	4	1.8		0	0			0.08	2.0	clear	
Springfield, Illinois	28.96	735.6	29.67	753.6	56.5	13.6	81	s.	12	5.4		0	5 s		sw.	0.12	3.0	fair	
Springfield, Massachusetts	30.20	767.1	30.33	770.4	44.8	7.1	68	e.	2	0.9			10 s			0	0	cloudy	
Stockton, Texas	26.88	682.7	30.03	762.7	48.1	8.9	58	w.	16	7.2		0	0			0	0	clear	
St. Vincent, Minnesota	28.77	730.7	29.70	754.4	31	— 0.6	100	n.	2	0.9			10 n		calm	0.45	11.4	light rain	
Thatcher's Island, Mass.	30.32	770.1	30.38	771.6	47.2	8.4	86	s.	7	3.1			10 s		s.	0	0	cloudy	
Toledo, Ohio	29.02	737.1	29.74	755.4	60	15.6	93	s.	18	8.0		0	4 ks		sw.	0.53	13.5	clearing	
Tucson, Arizona	27.60	701.0	30.04	763.0	43	6.1	93	se.	2	0.9		0	0			0	0	clear	
Umatilla, Oregon	29.68	753.9	30.11	764.8	44.5	6.9	82	se.	3	1.3			10 s		calm	0	0	cloudy	
Uvalde, Texas	28.91	734.3	29.73	755.1	49	9.4	84	calm	0	0		0	0			0	0	clear	
Vicksburg, Mississippi	29.67	753.6	29.93	760.2	60	15.6	93	s.	3	1.3			fg		calm	1.13	28.7	dense fog	
Visalia, California	29.81	757.2	30.18	766.6	45	7.2	93	se.	2	0.9		0	0			0.03	0.8	clear	
Washington, D. C.	29.99	761.7	30.11	764.8	63	17.2	93	s.	5	2.2			10 s		s.	0.05	1.3	cloudy	
West Los Animas, Colorado	25.94	658.9	30.02	762.5	45	7.2	76	n.	6	2.7			10 s		n.	0	0	cloudy	
Wickenburg, Arizona					40	4.4	92	calm			0	10 c	0	sw.		0	0	cloudy	
Wilmington, N. Carolina	30.04	763.0	30.10	764.5	70.0	21.1	94	s.	5	2.2		2 ck	3 k	calm	calm	0.02	0.5	fair	
Winnemucca, Nevada	25.76	654.3	30.22	767.6	32	0.0	88	sw.	6	2.7		0	0			0.01	0.3	clear	
Wood's Holl, Mass.	30.32	770.1	30.36	771.1	51	10.6	72	se.	9	4.0			10 s		sw.	0	0	cloudy	
Yankton, Dakota	28.31	719.1	29.68	753.9	49	9.4	93	nw.	16	7.2			10 s			0.25	6.3	cloudy	
Yuma, Arizona	29.88	758.9	30.02	762.5	54.0	12.2	80	calm	0	0		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W. I.†																			J. A. Racker.
Bogota, U. S. Columbia	22.04	559.8			53.0	11.7	85	s.	1	0.4		2 cs; k	5 s			1.15	29.2	cloudy	Jonquin Gomez.
Buenaventura, U. S. C.	30.00	762.0	30.02	762.5	76	24.4	90	s.					5			0.05	1.3	cloudy	J. B. Dougherty.
Guadeloupe, W. I. ‡	29.80	756.9	29.80	756.9	80	26.7	83	e.				0	2 ks		e.	0	0		B. Bigar.
Havana, Cuba, W. I.	30.02	762.5	30.07	763.8	77	25.0	85	calm	0	0		0	2 ks		calm	0	0	fair	A. Van Caneghem, Ass't
Kingston, Jamaica, W. I.	29.98	761.5	29.99	761.7	76.8	24.9	85	n.	1	0.4		0	0			0	0		Robert Johnstone.
Navassa, W. I.	29.89	759.2	29.97	761.2	81	27.2	78	ne.	6	2.7		5 ck	2 s	e.	ne.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.95	760.7	29.95	760.7	79	26.1	87	e.			2		8 ks		e.	0	0	cloudy	Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.50	749.3	30.06	763.5	75	23.9	94	calm					10 ks		calm	1.16	29.5	raining	Francesco J. Cisneros.
Rivas, Nicaragua					73.8	23.2	98	se.			1	0	7 ks		se.	0.75	19.		Earl Flint.
Santiago de Cuba, W. I.	29.98	761.5	30.01	762.2	80	26.7	78	ne.	2.4	1.1		2 c	2 s		ne.	0	0	fair	Robert Mason.
St. Thomas, W. I. ‡	29.86	758.4	29.97	761.2	81	27.2	79	ne.	4	1.8		0	4 ks		ne.	0.01	0.3	clear	G. O. Gyllich.
York Factory, B. A.	29.76	755.9	29.81	757.2	29.0	—1.7	100	n.	8	3.6			10 s		n.	inap.	inap.	hazy	J. Fortescue & W. Wood.

BRITISH NAVAL SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
H. M. S. Albatross, Kobe, Japan	29.80	756.9	65	18.3		nne.			2		2							d. clouds	
H. M. S. Alert, Port Darwin, Australia	29.94	760.5	83.8	28.8	74	w.			3		1							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Syracuse, Sicily	29.90	759.4	71	21.7	71	sse.			1-3		2	sse.						d clouds	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	30.11	764.8	64	17.8		w.			1		9	w.						d. clouds	Capt. Hon. W. H. Joliffe
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N. 49° 06′, W. 14° 50′	30.26	768.6	55	12.8	100	ne.			1-2		4					1	ene.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.00	762.0	70.5	21.4	71	ese.			2-4		4	ese.						drizzling	Capt. F. W. Richards.
H. M. S. Champion, Ancon, Peru	29.82	757.4	62	16.7	100	calm			0		9					2	e.	d. clouds	Capt. G. R. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette Gibraltar, Mediterranean	29.90	759.4	64	17.8		wnw.			2		4	wsw.				3	wsw.	d. clouds	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 13° 20′, E. 48° 35′	29.92	760.0	83	28.3	67	e.			2		1							blue sky	Capt. C. S. Cardell.
H. L. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 20′, E. 134° 17′	29.71	754.6	60	15.6	94	calm			0		4	nw.						d. clouds	Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.93	760.2	80	26.7		calm			0		1	calm						blue sky	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, Sierra Leone, Senegambia	29.93	760.2	81	27.2		wsw.			1		6	ese.				2		showery	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.19	766.8	71	21.7	69	nne.			1-2		6	nne.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid																			Capt. W. R. Kennedy.
H. M. S. Dryad, N. 30° 34′, E. 47° 49′	29.87	758.7	86	30.0		wnw.			1		3	nw.						d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 20° 10′, E. 57° 32′	30.08	764.0	76	24.4		sse.			1-2		3	ese.				1	ese.	d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	30.00	762.0	57	13.9	93	s.			4-6		2	s.						squally	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.82	757.4	85	29.4	71	n.			2		5	n.						d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn, S. 7° 41′, E. 40° 20′	29.92	760.0	78.5	25.8	82	ne.			2		4	ne.				1	ne.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 15° 50, W. 85° 00′	29.87	758.7	81	27.2	87	calm			0		2							d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Moskyn.
H. M. S. Gannet, S. 5° 00′, W. 155° 20′	29.96	761.0	80	26.7	76	ene.			4		1	s.						blue sky	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	29.99	761.7	62	16.7	61	w.			2		2							d. clouds	Capt. L. F. Jones.
H. M. S. Grappler, N. 47° 26′, W. 6° 12′	30.11	764.8	51	10.6	100	w.			2		10					5	nw.	overcast	Capt. H. G. Gough.
H. M. S. Griffon																			Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 31° 23′, E. 121° 29′	30.19	766.8	55	12.8		n.			2-3		2	n.				3	nw.	d. clouds	Capt. E. H. Seymour.
H. M. S. Kestrel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 48′, W. 79° 32′	29.94	760.5	81	27.2		calm			0		7	calm						heavy rain	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 19° 40′, —0° 00′	30.04	763.0	66	18.9		ssw.			3		10					1		overcast	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 12′, E. 18° 26′	29.70	754 4	66	18.9	73	wnw.			5-6		10					2	w.	squally	Lt. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. London																			
H. M. S. Magpie, Hong Kong, China	30.03	762.7	75.5	24.2	69	calm			0		5	ene.						d. clouds	Lieut. A. Balfour.
H. M. S. Malabar, N. 17° 42′, E. 66° 52′	29.91	759.7	83	28.3	91	n.			4		1	n.				2	n.	blue sky	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotaur, N. 38° 16′, W. 9° 55′	29.85	758.2	61	16.1	68	nnw.			6		6	nnw.				2	nnw.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.77	756.1	81	27.2	91	sse.			2		7	sse.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine, Coquimbo, Chili,	30.14	765.5	55	12.8	80	nw.			1		10							overcast	Comm. F. Edwards.
H. M. S. Nelson,																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	30.32	770.1	34	1.1	95	calm			0		0							misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 25° 24′, W. 58° 43′	30.01	762.2	79	26.1	82	n.			3-4		4	ese.				4	nne.	squally	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	29.74	755.4	49	9.4	93	sse.			2		9							raining	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.88	758.9	84.3	29.1	71	n.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 16° 50′, W. 25° 01′	30.02	762.5	77	25.0	86	nne.			4		6	ene.				4	ene.	squally	
H. M. S. Sea Gull, S. 8° 10′, E. 39° 52′	29.53	750.0	80	26.7	86	ene.			2		3	ese.				4	ese.	d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb, N. 35° 53′, E. 14° 31′	29.86	758.4	80	26.7	70	sse.			3-4									d. clouds	
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, S. 30° 37′, W. 74° 26′	30.11	764.8	56	13.3	62	s.			1		9	s.				4	s.	d. clouds	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne, N. 34° 31′, E. 32° 05′	30.06	763.5	75	23.9	98	wsw.			1		1	wsw.				1	nnw.	blue sky	
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.99	761.7	79	26.1		nnw.			1		4							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	30.24	768.1	63	17.2	88	calm			0		0							blue sky	Com. J. C. Wilson, A. D.C
H. M. S. Woodlark, N. 24° 48′, E. 53° 36′	29.96	761.0	87.5	30.8	75	nne.			3		0					3	nw.	misty	Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo, Mossamedes, Benguela	29.91	759.7	74.1	23.4	69	nw.			3		4					1		d. clouds	Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.18	766.5	84.2	29.0	88	e.			7		8		e.	2 h'r	2 h'r	2	ne.	drizzling	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	29.87	758.7	73.4	23.0	72	n.			1									blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Krusenstierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore John G. Walker, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.03	762.7	73	22.8	90	w.	1	0.4			10		calm	2.02	51.3			cloudy	
N. Yard, Portsmouth, N. H.	30.38	771.6	35	1.7	90	calm	0	0			0			0	0			hazy	
Naval Hospital, Yokohama, Japan	29.54	750.3	56.5	13.6	87	calm			0		10		w.	sli't	sli't			misty	
Adams, Callao, Peru	29.83	757.7	61	16.1	94	sse.			1		10					gr'd		overcast	
Alaska, Callao, Peru	29.95	760.7	63	17.2	94	sse.			1		0			0	0	sm'h		clear	
Alert, Kobe, Japan *.	29.65	753.1	66	18.9	74	ne.			1		5?		calm			sm'h		cloudy?	
Alliance, N. 46° 01′, W. 54° 00′	30.24	768.1	41	5.0	74	nnw.			3		2		n.	0	0	sm'h		fair	
Ashuelot, Nagasaki, Japan	29.86	758.4	65	18.3	68	nw.			1		0							clear	
Colorado, New York, N. Y.	30.22	767.6	55	12.8	100	e.	3	1.3			10			0.012	0.3			rainy	
Constitution, Newport, R. I.	30.29	769.4	51	10.6	59	se.	0	0			10							overcast	
Franklin, Norfolk, Va.	30.04	763.0	67	19.4	89	sse.	4.8	2.1			10		sse.	0	0			cloudy	
Galena, Smyrna, Turkey in Asia.	30.06	763.5	74	23.3	68	s.			1		2					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal.	30.03	762.7	54	12.2	80	calm	0	0			10							overcast	
Kearsarge, Hampton Roads, Va.	30.15	765.8	67	19.4	89	sw.			2-4		10		sw.			sm'h		hazy	
Lackawanna, San Francisco, Cal.	30.37	771.4	57	13.9	94	sw.			0-1		0							clear	
Lancaster, N. 38° 31′ W. 29° 33′	30.31	769.9	68	20.0	84	w.			0-1		0			0	0	sm'h		blue sky	
Marion, Montevideo, Uruguay	29.79	756.7	63	17.2		w.			3		0			0	0	mod.	w.	clear	
Michigan, Erie, Pa.	29.71	754.6	60	15.6	88	s.			4		10		s.					raining	
Monocacy, Yokohama, Japan	29.72	754.9	58	14.4	94	nnw.			1		10		nnw.					rainy	
Nipsic, Genoa, Italy	29.72	754.9	55	12.8	74	n.			4		10		n.			sm'h		overcast	
Onward, Callao, Peru †	30.03	762.7	60	15.6	100	se.			3		10		nw.			long	w.	cloudy	
Palos, Hong Kong, China	30.05	763.3	74	23.3	59	nw.			2		0							clear	
Passaic, Washington, D. C.	30.05	763.3	64	17.8	89	se.			1		10		se.					overcast	
Pensacola, Callao, Peru	30.05	763.3	61	16.1	77	calm			0		10							cloudy	
Portsmouth, N. 39° 51′, W. 73° 16′	30.26	768.6	61	16.1	94	se.			3		10		se.			sm'h	e.	cloudy	
Powhatan, Boston, Mass.	30.34	770.6	42	5.6	74	calm			0		8							foggy	
Quinnebaug, Marseilles, France	29.75	755.6	50	10.0	86	n.			2		10		calm			sm'h		overcast	
Ranger, N. 29° 35′, W. 117° 41′. *	30.06	763.5	63	17.2	89	n.			4		2					sm'h		cloudy	
Saratoga, N. 39° 39′, W. 72° 38′	30.21	767.3	60	15.6	100	ese.			3		10		ese.	0	0	sm'h		cloudy	
St. Louis, League Island, Pa.	29.85	758.2	61	16.1	88	se.	10	4.5			10		se.	0.05	1.3			cloudy	
Swatara, Yokohama, Japan †.	29.73	755.1	59	15.0	65	n.			1		10		calm			sm'h		rainy	
Tennessee, New York, N. Y.	30.27	768.8	58	14.4	100	ese.	12	5.4			10			0.225	5.7			rainy	
Vandalia, Norfolk, Va.	30.12	765.0	68	20.0	90	sse.			1		10		calm					drizzling	
Wabash, Boston, Mass.	30.38	771.6	41	5.0	91	calm	0	0						0	0			foggy	
Wachusetts, Rockwell, Alaska	29.45	748.0	40	4.4	100	calm			0		5							fair	
Wyoming, Port Royal, S. C.	30.08	764.0	73	22.8	85	s.	6	2.7			5		s.	0	0			fair	
Yantic, New York, N. Y. *	30.17	766.3	59	15.0	88	ene.			3		10							drizzling	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
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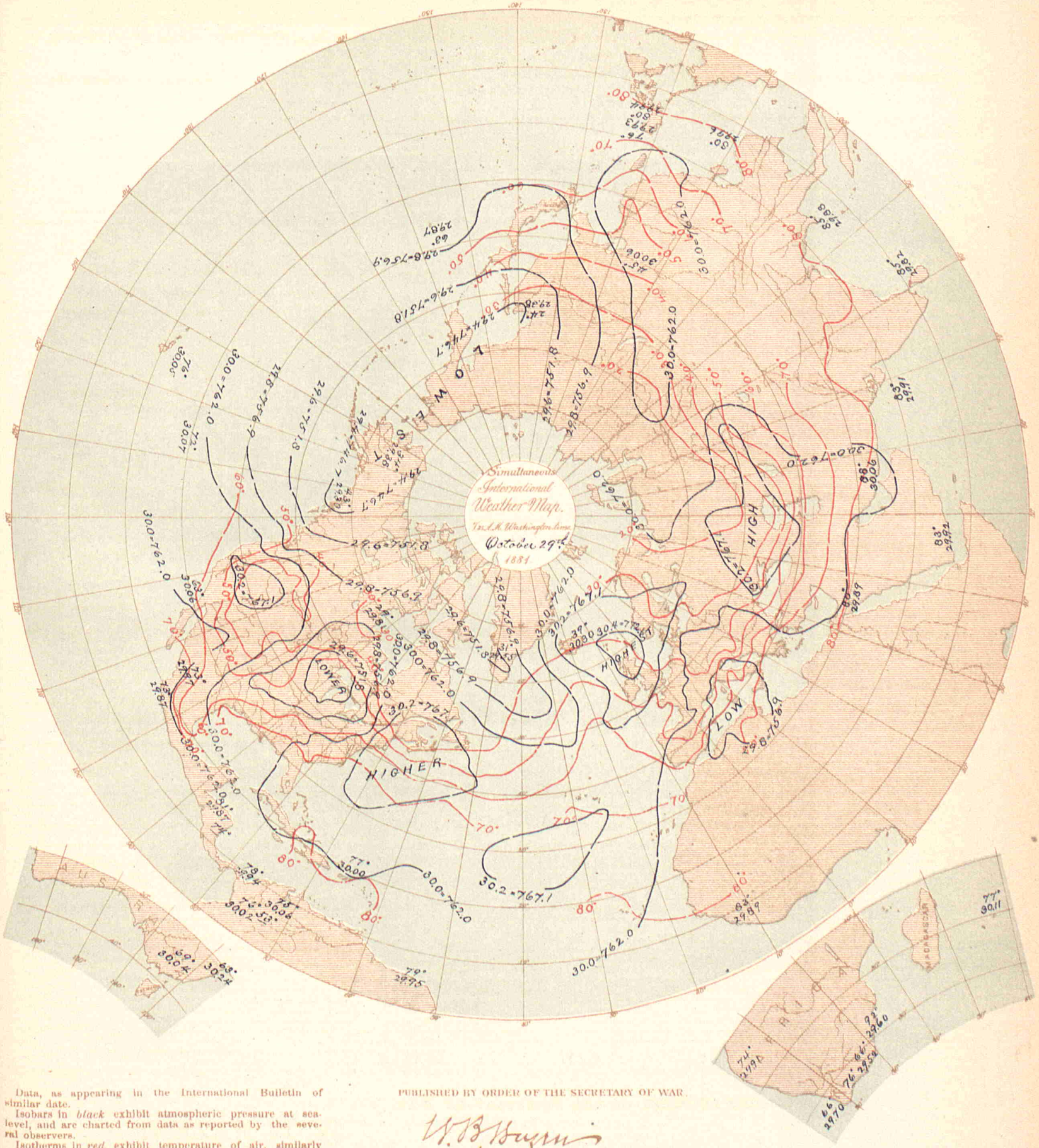
ALLAN LINE.																	
A. Schumaker & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 56° 11′, W. 36° 22′ *†.	29.79	756.7	.....	.....	.....	wsw.	4	.....	8	.....	sw.	.....	.....	mod.	sw.	cloudy.....	N. McLean.
S. S. Circassian, Capt. W. H. Smith, ‡ N. 56° 00′, W. 24° —′,	30.37	771.4	53	11.7	86	ssw.	6	.....	10	.....	se.	12h'r	12h'r	6	sse.	raining.....	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N 50° 38′, W. 38° 28′	29.96	761.0	46	7.8	.....	wsw.	4	.....	5	.....	w.	.....	.....	long	sw.	fair.....	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, Agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn †.	30.09	764.3	62	16.7	94	se.	3	.....	8	.....	se.	.....	.....	.....	.....	rainy.....	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 47° 45′, W. 49° 02′ †..	30.09	764.3	39	3.9	71	w.	3	.....	2	.....	w.	0	0	sm'h	sw.	clear.....	C. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Liverpool, Eng *†..	30.42	772.7	43	6.1	91	ne.	1	.....	2	.....	ne.	.....	.....	.....	.....	fair.....	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. British Merchant, E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Caldew, Capt. W. Petersen S. 52° 00′, W. 80° 40′	29.81	757.2	42	5.6	.....	wnw.	8	.....	10	.....	.....	.....	.....	.....	.....	drizzling	
S. S. Cipero, Capt. W. N. Lailey, Belize, Honduras, C. A.	29.89	759.2	82.1	27.8	87	e.	4	.....	2	.....	.....	.....	.....	.....	.....	d. clouds.....	
Bk. Commewyne, Capt. W. Scott, N. 51° 30′, W. 7° 15′	30.24	768.1	47.3	8.5	69	ne.	6	.....	8	.....	.....	.....	.....	.....	.....	d. clouds.....	
Bk. Coppename, Capt. A. Buchan, .. N. 44° 43′, W. 14° 12′	30.20	767.1	58	14.4	69	ene.	3	.....	9	.....	.....	.....	.....	.....	.....	d. clouds.....	
Bk. Glaramara, Capt. R. Morton, ‡ N. 7° 45′, W. 118° 23′	30.00	762.0	74	23.3	90	se.	1	.....	10	.....	.....	.....	.....	.....	.....	heavy rain .	
S. S. Gordon Castle, Capt. W. Waring. N. 13° 31′, E. 111° 20′	29.96	761.0	80.3	26.8	70	ne.	4-5	.....	2	.....	.....	.....	.....	.....	.....	d. clouds.....	
Bg. Hermine, Capt. S. G. Jones, S. 56° 15′, W. 68° 32′	29.52	749.8	40.7	4.8	91	wnw.	6	.....	9	.....	.....	.....	.....	.....	.....	raining.....	
Bkt. Hope, Capt. J. Campbell ‡	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Lochee, Capt. J. Raeburn, N. 12° 46′, E. 91° 47′	29.88	758.9	84.6	29.2	75	s.	2	.....	4	.....	.....	.....	.....	.....	.....	d. clouds.....	
Bk. Mertola, Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Moorhill, Capt. J. Brown, S. 53° 46′, W. 79° 40	29.54	750.3	42.5	5.8	97	wsw.	7	.....	10	.....	.....	.....	.....	.....	.....	drizzling	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Pleione, Capt. C. H. Renant,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Queen of Cambria, Capt. M. Parry, S. 31° 04′, W. 47° 56′	29.88	758.9	71	21.7	75	s.	2	.....	3	.....	.....	.....	.....	.....	.....	blue sky.....	
S. S. Rosetta, Capt. A. E. Barlow,.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Shun Lee, Capt. J. M. Gray,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Strathleven, Capt. C. W. Pearson, Off North Saddle Light, Japan	30.13	765.3	62.5	16.9	83	nnw.	4	.....	4	.....	.....	.....	.....	.....	.....	d. clouds.....	
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Ladd, 1st Officer.
S. S. Wyberton, Capt. R. J. Blacklin, Suez Canal, Egypt,	29.89	759.2	80	26.7	.....	nnw.	4	.....	3	.....	.....	.....	.....	.....	.....	d. clouds	
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, Agent, San Francisco.																	
S. S. Newbern, Capt. E. Rogers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., Agents, New York.																	
S. S. Galla, Capt. W. H. P. Hains N. 42° 06′, W. 51° 15′	30.22	767.6	50	10.0	65	n.	4	.....	8	.....	nw.	light	light	light	nw.	cloudy.....	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumaker & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.																	
S. S. Braunschweig, Capt. C. Pohle, N. 48° 53′, W. 28° 13′	29.98	761.5	58.0	14.4	94	s.	1	.....	10	.....	s.	.....	.....	sm'h	nw.	rainy.....	.....
S. S. Hermann, Capt. H. Baur, N. 44° 50′, W. 51° 58′	30.17	766.3	43.7	6.5	.....	w.	5	.....	5	.....	nw.	0	0	mod.	nw.	.....	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst, Havre, France	30.12	765.0	50.0	10.0	100	n.	3	.....	8	.....	n.	0	0	mod.	n.	cloudy..	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer N. 38° 18′. W. 70° 18′	30.33	770.4	65.5	18.6	73	e.	4	.....	8	.....	e.	0	0	sm'h	e.	fair.....	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche N. 51° 49′, E. 2° 33′	30.08	764.0	48.0	8.9	92	ene.	5	.....	10	.....	ne.	2 h'r	2 h'r	mod.	ene.	raining	Englehart & von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, San Francisco, Cal †..	30.32	770.1	54	12.2	93	w.	2	.....	10	.....	.....	0	0	sm'h	.....	foggy.....	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 22° 16′, E. 114° 41′ †..	30.24	768.1	78	25.6	69	e.	2	.....	5?	.....	ne.	.....	.....	light	.....	clear?.....	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, Yokohama, Japan	29.79	756.7	62	16.7	72	var.	1	.....	8	.....	se.	0	0	sm'h	.....	fine.....	.....
OREGON IMPROVEMENT CO.																	
John L. Howard, Agent, San Francisco.																	
S. S. Mississippi, Capt. E. W. Holmes,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Oterendorp, Agent, San Francisco.																	
S. S. City of Chester, Capt. G. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles, N. 40° 52′, W. 124° 34′ †..	30.05	763.3	58	14.4	84	se.	5	.....	10	.....	se.	.....	.....	mod.	se.	cloudy	.....
S. S. Oregon, Capt. E. Polemann, N. 38° 17′, W. 123° 16′ †	29.93	760.2	51	10.6	93	se.	2	.....	fg	.....	.....	.....	.....	sm'h	sw.	foggy	C. W Pohl, 2d Officer
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 32° 39′, W. 117° 12 †	30.10	764.5	56	13.3	87	e.	1		0					sm'h		clear	J. W. Ingalls.
S. S. Dakota, Capt. ——																	
S. S. Idaho, Capt. T. Huntington, Seattle, Wash. Ter †	29.82	757.4	51	10.6	93	se.	2		10		se					rainy	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson,																	G. H. Harrison.
S. S. Senator. Capt. Wallace, N. 34° 27′, W. 120° 33′ †	30.12	765.0	58	14.4	82	nw.	2		0					mod.	nw.	clear	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †	29.84	757.9	50	10.0	93	se.	3		10		se.					raining	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 42° 30′, W. 125° 07′ †	30.02	762.5	54	12.2	93	se.	7		10		se.			very hv'y	se. sw.	cloudy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. —— N. 22° 25′, W. 154° 33′	30.15	765.8	76	24.4	86	s.	2		2		se.			mod.	w.	clear	A. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, N. 3° 29′, W. 141° 10′ †	30.17	766.3	72	22.2	90	s.	4		1		s.			mod.	s.	clear	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,																	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 35° 45′. E. 158° 58′ *†	29.97	761.2	63	17.2	78	nw.	5		8		nw.	0	0	r'gh	nw.	cloudy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama †	29.94	760.5	78	25.6	86	s.	2		8		s.	0	0	sm'h		fair	
S. S. City of Sidney, Capt. H. C. Dearborn, Sydney, N. S. W. *†	30.21	767.3	56	13.3	81	w.	2		2		w.	0	0	sm'h		clear	E. L. Salk.
S. S. City of Tokio, Com. J. Maury, N. 32° 24′, W. 136° 37′ †	30.25	768.3	68	20.0	79	ssw.	3		2		ssw.			hv'y	nw.	clear	A. L. Richie, 2d Offl.
S. S. Colima, Capt. R. R. Searle, N. 36° 50′, W. 122° 18′ †	30.18	766.6	59	15.0	82	wsw.	3		10		w.	0	0	mod.	nw.	dense fog	R. R. Searle.
S. S. Grenada, Capt. M. Connolly,																	M. Connolly.
S. S. South Carolina, Capt. —— Manzanillo, Mexico †	29.87	758.7	73	22.8	100	nne.	2		0					light	sw.	fine	
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.31	769.9	67	19.4	79	ne.	1		2							clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Fedderson, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, N. 51° 20′, E. 2° 05′ †	30.18	766.6	40	4.4	73	nne.	4		2		nne.	0	0	light	nne.	clear	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings, Liverpool, Eng †	30.17	766.3	45	7.2		ene.	4		5		ne.	0	0			fair	R. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 51° 20′ W. 15° 18′ †	30.39	771.9	56	13.3	94	nne.	2		2		n.	0	0	sm'h		fine	
S. S. Celtic, Capt. B. Gleadell, N. 41° 49′, W. 63° 39 †	30.30	769.6	50	10.0	79	ne.	2		0					sm'h		clear	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy, N. 49° 51′, W. 20° 54′ †	30.26	768.6	62	16.7	94	s.	6		10		s.	driz.	driz.	r'gh	ese.	misty	
S. S. Republic. Capt. P. J. Irving N. 41° 48′, W. 59° 52′ †	30.23	767.8	52	11.1	86	n.	5		2		ne.	0	0	sm'h		fair	W. A. Ward.
MISCELLANEOUS.																	
Bk. Dom Pedro II, Capt. C. E. Coffin N. 31° 57′, W. 56° 31′ †*	29.80	756.9				nne.					nne.			h'vy	ne.		
U. S. F. C. S. Fish Hawk, Washington, D. C. †	30.19	766.8	64	17.8	?	se.	3		10 n			0.04	1.0			cloudy	
Schr. Henry Denison, Capt. J. Fehring. N. 32° 12′, W. 72° 32′ †	30.24	768.1				ese.	2		1		se.			light	se.	clear	
Hassler, Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	W. Randall.
S. Pawashick, Capt. E. Fry,																	E. Fry.
S. S. Lovaine, Capt. H. McCauley																	
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 36° 27′, W. 31° 31′ †	30.55	776.0	71	21.7		s.	3-4		0					mod.	nw.	clear	
S. S. Proteus, Capt. Pike																	
Bk. Sunbeam, Capt. Jos. Hand, N. 36° 37′, W. 56° 20′ †	30.17	766.3	70	21.1	70	nnw.	6		5		n.	light	light	mod.	n.	fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. Hazen

Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 30, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower From.	Rain-fall or melted snow in the past 24 hours Inch.	Rain-fall or melted snow in the past 24 hours Mill.	Weather	Observers.
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.80	757.0	65.2	19.0	72	w.			6		6			0.453	11.5	very cloudy	Moiroud.
Algiers ‡			29.74	755.5	65.5	18.6	68	w.			5		9			0.079	2.0	covered	Nicolas.
La Calle ‡			29.67	753.5	67.6	19.8	63	nw.			1		5			0	0	cloudy	Fonfrède.
Tunis ‡			29.63	752.5															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.83	755.7	55.0	12.8	53	wnw.			3		3			0.020	0.5	pretty fair	Dumas.
Tebessa ‡			29.55	750.6	65.5	18.6	75	sw.			4		2			0	0	fair	Derché.
Geriville ‡					57.9	14.4	55	n.			7		2			0	0	fair	Lonchamp.
Laghouat ‡			29.75	755.7	63.0	17.2	43	nw.			3		3			inap.	inap.	pretty fair	Herbin.
Biskra ‡			29.67	753.7	76.6	24.8	30	nnw.			5		9			0	0	covered	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	29.97	761.2	30.06	763.5	58.1	14.5	87	ssw.	6	2.7			10			0.04	1.0	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.28	743.8	29.85	758.2	36.7	2.6	89	ne.			1		10			0.094	2.4		Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.13	739.8	29.93	760.1	32.5	0.3	94	n.	8.1	3.6			10			0.362	9.2	snowing	Dr. Wiersbicki.
Eperies	28.85	732.7	30.14	765.6	37.4	3.0	85	calm			0		10 s			0.276	7.0	rain & snow	Julius Mikolik.
Gratz ‡	28.57	725.6	29.84	758.0	40.6	4.8	69	s.			2		7			0.409	10.4		Andreas Rospini.
Hermannstadt	28.32	719.4	29.73	755.2	57.9	14.4	73	wnw.			4		10			0.165	4.2	raining	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.52	724.5	29.91	759.7	35.8	2.1	87	n.			1		8			0.110	2.8		The Staff.
Lemberg	28.82	732 0	29.85	758.1	31.6	— 0.2	82	ne.			2		10			0.220	5.6		Dr. T. Stanecki.
Pola	29.56	750.8	29.67	753.6	55.8	13.2	77	ese.			2		10			0.866	22.0		I. R. Hydrographic Office.
Szathmar	29.23	742.5	29.70	754.3	47.8	8.8	83	se.			2		10			0.130	3.3		Jozsef Midlinszky, S. J.
Szegedin					45.3	7.4	94	calm			0		10			0.307	7.8		Karl Stancel.
Trieste	29.60	751.9	29.71	754.5	46.4	8.0	73	ene.			4		10			0	0		Rieder.
Vienna	29.17	741.0	29.92	759.9	34.2	1.2	87	nw.			2		10			0.268	6.8		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

Entered at the Post Office at Washington, D. C., as Second-Class Matter. Printed October 31, 1882.

BRITISH SERIES.

Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Aberdeen	30.19	766.8	30.29	769.4	41.5	5.3	52	w.	11	4.9			9			0	0	overcast	W. Boswell.
Armagh, Observatory	30.15	765.8	30.40	772.1	39.3	4.1	63	e.	2	0.9									S. Call.
Bidston, Liverpool Obs'y			30.34	770.6	40.8	4.9	72	nw.	7	3.1			6					d. clouds	John Hartnup.
Bolton, Sharples	29.76	755.9	30.32	770.1	39.8	4.3	63	nnw.	6	2.7			10					overcast	Thomas Mackereth, A.S.
Bradford, Yorkshire																0.01	0.3		J. McLandsborough, F. R.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.23	767.8	41.6	5.3	73	nne.			1.0		3					d. clouds	John McLaren.
Chatham, School M. E.	30.10	764.5	30.23	767.8	40.5	4.7	89	ne.			2		9					gloomy	R. Craydon, R. E.
Falmouth, Observatory	30.09	764.3	30.32	770.1	42.0	5.6	43	ne.			4		1					d. clouds	The Staff.
Fort Napier, Natal	27.48	698.0	29.70	754.4	77.2	25.1	34	se.			4		3					blue sky	Pvt. E. K. Anniss, A.H.C.
Free Town, Sierra Leone	29.74	755.4	29.97	761.2	80.0	26.7	95	sw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			30.26	768.6	44	6.7	67	n.			2		2					blue sky	J. O'Donaghue.
Gibraltar, Mediterranean	29.98	761.5	30.03	762.7	66.5	19.2	77	nw.			2		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	30.07	763.8	30.27	768.8	40.1	4.5	65	w.			1		10 k					d. clouds	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.05	763.3	30.23	767.8	43.1	6.2	67	nne.			4		6					d. clouds	The Staff.
Guernsey	29.98	761.5	30.20	767.1	45	7.2	60	ene.			3		7			blank	blank	d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.20	767.1	30.24	768.1	43.2	6.2	55	nne.	18	8.0			5					d. clouds	The Staff.
Leicester, Museum	30.01	762.2	30.28	769.1	42.9	6.1	67	n.			1		10					overcast	J. C. Smith.
Malta, Mediterranean	29.59	751.6	29.66	753.4	76.8	24.9	73	se.			4		8			0	0	overcast	Corpl. A. King, A. H. C.
Nassau, Bahamas	30.03	762.7	30.08	764.0	78.2	25.7	75	e.			1	4 c	0					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.76	755.9	30.31	769.9	42.0	5.6	71	nne.			1		6					d. clouds	John Mac Email.
Oxford, Radcliffe Obs'y	30.03	762.7	30.26	768.6	43.4	6.3	60	n.			3		3					d. clouds	The Staff.
Plymouth	30.22	767.6	30.29	769.4	43.0	6.1	51	ne.			2		7					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.24	768.1	43.1	6.2	73	wnw.	18	8.0			4					showery	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.88	758.9	29.94	760.5	70.0	21.1	61	ssw.			1		4					d. clouds	Serg't W. H. Lyne.
Sheffield	29.91	759.7	30.20	767.1	40.4	4.7	71	nne.			1		10			0	0	misty	W. F. Cooper.
Silloth Rectory	30.30	769.6	30.33	770.4	44.2	6.8	59	calm			0		2			0	0	blue sky	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.92	760.0	40.3	4.6	67	sse.	2	0.9			5					d. clouds	Rev. S. J. Perry.
Stratfield Turgiss	30.02	762.5	30.24	768.1	43.6	6.4	58	ne.			3		3					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	30.26	768.6	30.32	770.1	48	8.9	77	n.			4		5					d. clouds	W. Newcombe.
Valencia, Observatory	30.30	769.6	30.32	770.1	47.8	8.8	62	se.	20	8.9			4					misty	The Met'g'l Office.

CANADIAN SERIES.

Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	30.18	766.6	30.22	767.6	45	7.2	87	s.	10	4.5			10 s			0	0	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	30.08	764.0	30.14	765.5	43	6.1	93	s.	6	2.7			10 n		s.	0.04	1.0	light rain	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.92	760.0	29.94	760.5	45	7.2	89	sw.	12	5.4			10 k		w.	0.11	2.8	cloudy	J. McWilliams.
Fort Garry, Manitoba*	28.99	736.3	29.85	758.2	31	— 0.6	96	ne.	4	1.8		5 k	5 n	ne.	ne.	inap.	inap.	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	30.17	766.3	30.30	769.6	45	7.2	96	s.	6	2.7		8 k	0	sw.		0	0	cloudy	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.53	750.0	29.86	758.4	56	13.3	93	sw.	8	3.6		8 k	0	sw.		0.06	1.5	fair	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.68	753.9	29.88	758.9	50	10.0	96	s.	16	7.2		2 k	2 ks	w.		0.80	20.3	fair	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.05	737.9	29.73	755.1	55	12.8	86	s.	12	5.4		2 k	2 ks	sw.	sw.	0.34	8.6	fair	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.18	741.2	29.86	758.4	56	13.3	100	s.	6	2.7		8 ck	0	sw.		0.05	1.3	fair	H. Morgan.
Port Stanley, Ontario	29.20	741.7	29.84	757.9	58	14.4	93	sw.	8	3.6			8 k		sw.	0.06	1.5	cloudy	M. Payne.
Quebec, Quebec*	29.63	752.6	29.95	760.7	43	6.1	100	e.			1		10 n		e.	0.38	9.7	light rain	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.30	744.2	29.76	755.9	51	10.6	89	calm	0	0			10 ks		sw.	0.28	7.1	cloudy	W. H. McIntyre.
Saugeen, Ontario*	29.03	737.3	29.73	755.1	56	13.3	83	s.	9	4.0			10 n			0.03	0.8	cloudy	K. Stewart.
St. Andrews, N. B.	30.06	763.5	30.11	764.8	47	8.3	88	sw.	1	0.4			fg.			0.01	0.3	light rain	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	30.24	768.1	30.30	769.6	41	5.0	89	sw.	12	5.4		10 k	0	w.		0	0	cloudy	T. C. Hill, C. E.
Toronto, Ontario*	29.46	748.3	29.85	758.2	51	10.6	100	s.	5	2.2		5 ck	5 s	w.	w.	0.25	6.3	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	30.13	765.3	30.20	767.1	50	10.0	93	se.	6	2.7			10 s			inap.	inap.	light rain	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.14	765.5	30.40	772.1	41	5.0	91	s.				0	0			0	0		John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.

Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.

CAPE COLONY SERIES.

Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Cape St. Francis Lt. House‡	29.87	758.7	29.90	759.4	61.7	16.5	79	wsw.	17.7	7.9		0	3 s			0	0	hazy	John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.09	738.9			55	12.8	80	nw.			2	5	5			0.20	5.1	overcast	C. Stokes.

CHINESE SERIES.

Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.14	765.5	30.16	766.1	50.0	10.0	78	s.	3.1	1.4		9 ck	0	w.		0	0	covered	M. Marc Dechevrens, S.J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Velocity. Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	OBSERVERS.
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.18	766.6	30.23	767.8	36.0	2.2	72	e.	18	8			8						Oversergent Fischer.
Fanöe	30.17	766.3	30.19	766.8	37.2	2.9	69	ne.			2		1						Overloerer Lauridsen.
Godthaab, Greenland	29.56	750.8	29.60	751.9	28.0	— 2.2	96	calm			0		9						S. Kleinschmidt.
Stykkisholm, Iceland	29.90	759.4	29.94	760.5	45.0	7.2	77	se.			4		8						A. O. Thorlacius.
Thorshavn,	30.10	764.6	30.14	765.5	45.7	7.6	73	w.	9	4			3						Overloerer Bergh.
Vestervig	30.08	763.9	30.17	766.2	35.1	1.7	84	ssw.			4		9						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.32	744.8	29.99	761.8	41.4	5.2	94	nne.			1		kn						M. Labroue, Director
Alençon Normal School	29.58	751.3	30.16	766.6	38.8	3.8	97	n.			3		n		s.	0	0		M. Nicot, Director.
Arras, Engineer School	29.84	758.0	30.12	765.0	37.0	2.8	88	e.					n		e.				M. Klein, Commandant.
Avignon, Normal School	29.69	754.0	29.76	756.0	46.4	8	61	n.			4		2		n.	0	0	slightly cl'dy	M. Giraud, Director.
Bar-sur-Seine	29.42	747.3	30.00	761.9	37.4	3.0	68	e.			2		10		e.	0	0	covered	M. Saillard, Director.
Beauvais, Normal School	29.86	758.4	30.14	765.5	38.7	3.7	65	n.			2		8		ne.	0	0	very cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.95	735.3	29.87	758.6	38.5	3.6	83	ne.			1		10 n		w.	0	0	covered	M. Gobin, Director.
Bordeaux, Observatory	29.76	756.0	30.04	762.9	41.4	5.2	70	nne.			2		5		n.	0	0	cloudy	M. Rayet, Director.
Bourges, Normal School	29.43	747.4	30.00	762.0	35.6	2	74	nw.			2		kn		nw.	0	0		M. Postel, Director.
Brest, Naval Observatory	29.98	761.6	30.23	767.8	44.6	7.0	57	ne.			2		3		ne.	0.189	4.8		M. de Rermaree, Dir.
Caen, Normal School	30.07	763.8	30.15	765.8	43.5	6.4	82	ne.			1		5		ne.	0.35	9.	cloudy	M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.68	753.8	30.01	762.2	39.7	4.3	87	nw.			3		5			0	0	cloudy	M. Jadot, Director.
Charleville, Normal School.	29.46	748.3	29.98	761.5	39.0	3.9	65	nw.			4		1			0.173	4.4		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.56	725.3	29.97	761.1	34.9	1.6	66	n.			2		8		n.	0.043	1.1	¾ covered	M. Alluard, Director.
Cluny, Normal School	29.04	737.7	29.91	759.6	33.8	1	88	n.			3		7		n.			snowing	M. de Villemontée, Dir
Commercy, Normal School.	29.12	739.6	30.02	762.4	36.5	2.5	64	ne.			1		5kn	ne.	ne.	0	0	cloudy	Dr. Coulet, Director.
Gap, Normal School	27.24	691.8	29.84	757.8	41.0	5	39	s.			3		2 c	0	n.	0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.60	726.4	29.74	755.4	46.6	8.1	64	nw.			3		2		nw.	0	0	¼ covered	M. Kina, Director.
Grenoble, Normal School	29.04	737.7	29.83	757.7	38.1	3.4	87	nw.			3		n			0	0		M. Ablard, Director.
Guéret, Normal School	28.39	721.0	30.04	762.9	29.3	—1.5	92	ne.			2		10					snowing	M. Rivoire, Director.
Lamballe, Normal School	29.91	759.7	30.19	766.7	45.5	7.5	62	n.			2		5 k		n.	0.154	3.9	hailing	M. Ollitrault, Director.
Lescar, Normal School	29.37	745.9	29.94	760.5	44.6	7	91	wsw.			1		10					snowing	M. Chauvin, Director.
Lorient, Naval Observatory	30.10	764.6	30.21	767.2	50.0	10	54	n.			4		2		ne.	0	0	¾ covered	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.82	732.0	29.91	759.8	34.9	1.6	83	n.			2		n		n.	0	0		M. André, Director.
Mans, Normal School	29.83	757.6	30.15	765.8	38.7	3.7	69	ene.			1		2		nne.	0	0	slightly cl'dy	M. Piboen, Director.
Marseille, Observatory	29.44	747.8	29.71	754.7	48.0	8.9	62	nw.			3		2		nw.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.54	623.2	29.77	756.2	29.3	—1.5	58	nw.	9.4	4.2			c			0.079	2.0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.64	752.9	29.75	755.7	50.7	10.4	74	n.			4		2		nw.	0	0	slightly cl'dy	M. Pourle, Director.
Nancy, Normal School	29.21	742.0	30.02	762.4	34.9	1.6	71	n.			1		10 n			0	0	covered	M. Hasse.
Nantes, Observatory	30.00	762.0	30.16	766.1	45.1	7.3	47	n.			2–3		5k;kn	nne.	nne.	0	0		M. Larocque, Director.
Nice	29.58	751.2	29.61	752.1	57.2	14.0	76	e.			3		10	e.	e.	0.657	16.7	light rain	Capt. Boissière, Director.
Perpignan, Observatory	29.73	755.2	29.84	757.9	47.8	8.8	45	nw.	33.5	15.0			4		nw.	0	0	hazy	Dr. Fines.
Pic-du-Midi, Summit	29.87	530.1			11.8	—11.2		ssw.			1		10		ssw.	0.693	17.6	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.76	730.6	29.86	758.4	40.6	4.8	56	w.			2		10	w.		0	0	covered	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.89	632.3			18.3	—7.6	100	n.			3		10			0.102	2.6	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.07	763.8	30.10	764.6	44.6	7.0	71	nne.			1		2		n.	0	0	¼ covered	Lt. E. Decaute, Direc'tor.
Roche-sur-Yon, N. School	29.89	759.2	30.11	764.8	32.4	0.2	58	n.			4		0			0	0	clear	M. Mouillot, Director.
Rodez, Normal School	27.74	704.7	29.95	760.8	38.5	3.6	56	nw.			2		10		n.	0	0	covered	M. Richard, Director.
Rouen, Normal School	30.09	764.3	30.13	765.4	39.2	4	67	ne.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School	30.02	762.6	30.18	766.6	37.6	3.1	90	ene.			2		8		ne.	0.335	8.5	very cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.91	759.6	30.07	763.8	38.5	3.6	72	nne.			2		7		ne.	0.028	0.7		M. Renou, Director.
Toulouse, Observatory	29.26	743.1	29.98	761.5	41.0	5.0	83	nnw.			1		8		nw.	0	0	very cloudy	M Bailland, Director.
Tours	29.89	759.1	30.08	764.1	38.3	3.5	70	ne.			1		10	calm	ene.	0	0	covered	M. de Tastes.
Versailles, Observatory	29.58	751.2	30.07	763.7	38.1	3.4	60	ne.			2					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.80	756.8	30.09	764.2	38.1	3.4	63	n.			2		6		nne.	0.008	0.2		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.11	739.3	29.97	761.2	37.4	3.0	64	e.			4	0	2 s			0	0		Prof. Dr. Hoh.
Berlin	29.90	759.4	30.08	764.0	35.6	2.0	73	e.			1		6			0	0		Prof. Dr. Arndt.
Breslau	29.48	748.8	30.01	762.3	33.6	0.9	82	ne.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.52	749.9	29.97	761.2	30.7	2.6	84	nw.			2		10	ne.		0.012	0.3		Albert Senz.
Cassel	29.28	743.7	30.00	761.9	35.2	1.8	75	ne.			4		7	ne.		0.016	0.4		Dr. H. Möll.
Frankfort on the Main	29.65	753.0	30.02	762.5	38.1	3.4	65	nne.			1		8			0	0		Physical Society.
Friedrichshafen	28.40	721.3	29.87	758.8	37.8	3.2	67	ne.			6		9	ene.		0	0		Wilhelm, Chief Tel.
Hamburg	30.05	763.3	30.15	765.7	35.8	2.1	73	n.			2		10			0	0	foggy	E. Preller.
Kiel	30.13	765.4	30.15	765.8	35.8	2.1	83	e.			1		10			0.098	2.5		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.63	752.7	30.07	763.8	33.4	0.8	80	nne.			2		10	ne.		0.201	5.1		H. Leppig, Asst.
Magdeburg	29.88	759.0	30.08	764.1	35.6	2.0	75	ne.			1		10 ks		ne.	0.016	0.4	dense fog	Dr. Assmann.
Memel	30.21	767.2	30.25	768.4	21.9	—5.6	87	ne.			2		1 s						Issermann.
Munich	28.05	712.4	29.90	759.5	33.3	0.7	85	ne.			3		10	n.		0.126	3.2		Central Station.
Neufahrwasser	30.14	765.6	30.16	766.0	34.0	1.1	83	e.			1		10	ene.		0.004	0.1		A. Lothes.
Neustadt, Palatinate	29.46	748.2	29.98	761.5	36.7	2.6	70	nnw.			1		10			0	0		Dicknether.
Stuttgart	28.95	735.4	29.87	758.8	38.3	3.5	80	n.			1		10			0.008	0.2	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.41	721.7	29.97	761.1	37.0	2.8	67	ne.			6		9	ne.		0.004	0.1		Fischer.
Wustrow	30.13	765.4	30.16	766.1	33.8	1.0	85	se.			2		10 s			0.079	2.0	snowing	Brandes & Reimer.

STATIONS.	Barometer. Corrected for instru-m'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.62	752.3	30.00	762.0	72.7	22.6		s.			3.5		8			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.86	758.5	29.91	759.8	82.9	28.3	83	wsw.	17.0	7.6			0			0	0	blue sky	
Deesa	29.41	747.0	29.88	758.9	89.3	31.8	41	nw.	6.8	3.0			0			0	0	blue sky	
Bombay	29.83	757.6	29.86	758.6	82.1	27.8	69	nw.	14.0	6.3			0			0	0	blue sky	
Poona, Yarrowda.	28.02	711.6	29.84	758.0	87.3	30.7	18	e.	5.0	2.2			0			0	0	blue sky	
Belgaum	27.32	694.0	29.83	757.7	82.0	27.8	23	ene.	7.0	3.1			0			0	0	blue sky	
Lahore	29.14	740.1	29.88	759.1	76.9	24.9	46	calm	0.8	0.4			0			0	0	blue sky	
Roorkee	28.98	736.0	29.88	759.0	76.2	24.6	53	nw.	1.5	0.7			1			0	0		
Agra	29.34	745.3	29.91	759.6	82.7	28.2	41	w.	2.2	1.0			0			0	0		
Nagpur	28.84	732.6	29.88	759.1	82.2	27.9	33	ene.	3.4	1.5			0			0	0	blue sky	
Jubbulpore	28.56	725.5	29.93	760.1	78.8	26.0	29	e.	1.8	0.8			0			0	0	blue sky	
Lucknow	29.54	750.2	29.91	759.7	83.2	28.4	32	calm	1.0	0.4			0			0	0	blue sky	
Allahabad	29.56	751.6	29.91	759.6	74.3	23.5	66	calm	0.5	0.2			0			0	0	blue sky	
Patna	29.73	755.2	29.91	759.8	77.1	25.1	60	e.	0.9	0.4			0			0	0	blue sky	
Hazaribagh	27.88	708.2	29.90	759.5	78.0	25.6	40	n.	2.6	1.2			2			0	0		
Cuttack	29.83	757.6	29.91	759.7	80.3	26.8	68	calm	0.3	0.1			8			0	0	d. clouds	
Calcutta, Alipore	29.87	758.6	29.89	759.1	76.5	24.7	95	calm	0	0			2	n.	n.	0	0	d. clouds	
Dhubri	29.77	756.1	29.89	759.2	77.4	25.2	72	calm	2.7	1.2			1			0	0	d. clouds	
Goalpara																			
Chittagong	29.81	757.1	29.90	759.4	77.7	25.4	65	nne.	2.1	0.9			0			0	0	blue sky	
Sibsagar	29.56	750.8	29.90	759.4	77.3	25.2	85	se.	0.9	0.4			0			0	0	blue sky	
Jeypore	28.47	723.1	29.90	759.6	83.7	28.7	27	ne.	2.8	1.2			1		ne.	0	0	d. clouds	
Zanzibar, Africa			29.92	760.0	87.1	30.6	52	s.	5	2.2			4			0	0	d. clouds	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.32	744.7	29.73	755.1	46.8	8.2	56	e.	9.4	4.2			10			0.130	3.3		Prof. Giovanni Clodig.
Milan	29.20	741.7	29.72	754.9	45.9	7.7	93	e.	8.1	3.6			10	ese.		0.228	5.8		Prof. Schiaparelli.
Padua	29.61	752.0	29.71	754.7	51.8	11.0	55	ne.	11.9	5.3			10	sw.		0.307	7.8		Prof. Dott. Lorenzoni.
Moncalieri	28.74	729.9	29.65	753.0	49.8	9.9	79	n.	1.3	0.6			7	ne.		0.012	0.3		Prof. P. F. Denza.
Genoa	29.45	748.1	29.64	752.9	55.0	12.8	68	e.	3.1	1.4			4	s.		0.303	7.7		Prof. G. M. Garibaldi.
Mondovi	27.73	704.3	29.65	753.1	46.4	8.0	80	wnw.			4		1	ssw.		0.134	3.4		Prof. D. C. Bruno.
Pesaro	29.63	752.7	29.68	753.9	50.4	10.2	64	n.			4		10	se.		0.252	6.4		Prof. Luigi Guidi.
Florence	29.40	746.8	29.65	753.2	59.9	15.5	72	ne.			2		10			0.264	6.7		Prof. Costantino Pitter.
Leghorn	29.56	750.8	29.64	752.9	54.9	12.7	93	ene.	4.3	1.9			10			0.728	18.5		Prof. P. Monte.
Rome	29.51	749.5	29.68	753.9	60.8	16.0	79	w.	5.6	2.5			10			0.303	7.7		Prof. P. S. Ferrari.
Lecce	29.49	749.0	29.74	755.3	71.2	21.8	78	sse.	31.1	13.9			10			0.020	0.5		Prof. C. de Giorgi.
Cosenza	28.91	734.2	29.78	756.4	68.4	20.2	74	sse.	2.5	1.1			9	se.		0.039	1.0		Prof. D. Conti.
Cagliari	29.45	747.9	29.64	752.8	57.6	14.2	77	nw.			4		9			0.028	0.7		Prof. A. Pacinotti.
Palermo	29.45	747.9	29.69	754.1	71.6	22.0	70	calm	0	0			10			0	0		Prof. G. Ciacciatore.
Syracuse	29.65	753.2	29.70	754.3	73.6	23.1	87	sse.	5.6	2.5			10	ssw.		0	0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.24	742.8	29.67	753.6	63.1	17.3	89	ssw.	3.8	1.7			10	sw.		0.248	6.3		Prof. F. Brioschi.
Stelvio	21.80	553.8			21.2	— 6.0	92	w.			2		10			0	0	covered	Prof. P. F. Denza.
Valdobbia	21.84	554.6			27.3	— 2.6	63	e.			2		10			0	0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of I. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y	29.93	760.2	29.95	760.7	50.0	10.0	71	n.	2.7	1.2		0	0			0	0	clear	K. Sasaki.
Kioto	29.77	756.1	29.94	760.5	48.2	9.0	92	w.	0.3	0.1		0	0			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.84	757.9	30.05	763.3	52.1	11.2	76	nw.	1.4	0.6			9 s			0	0	cloudy	S Takehayashi.
Nemuro																			
Niigata	29.80	756.9	29.83	757.7	45.1	7.2	92	sse.	3.8	1.7		10 ck	0	w.		0.080	2.0	cloudy	
Nobiru	29.74	755.4	29.76	755.9	41.9	5.5	87	n.	5.2	2.3		ck	4 s	w.		0	0	fair	
Supporo	29.54	750.3	29.61	752.1	34.0	1.1	76	sse.	11.4	5.1			2			0.165	4.2		
Tokei Obs'y, Yeddo	29.73	755.1	29.79	756.7	44.6	7.0	80	n.	4.4	2.0		0	0			0	0	clear	The Staff.
Wakayama	29.88	758.9	29.94	760.5	54.4	12.4	67	n.	1.2	0.5		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.96	761.0	30.15	765.8	75.3	24.1	62	ese.	22.0	9.8		0	8 k&s,n			0.02	0.5	cloudy	A. N. Figon.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.71	602.2	29.93	760.2	52.7	11.5	75	calm	0	0		0	k			0	0	clear	Vicente Fernandez
Leon	24.45	621.0	30.19	766.8	55.2	12.9	86	n.			1	0	0			0	0	blue sky	Prof. M. Leal.
Mazatlan	29.70	754.5	29.96	761.1	73.5	23.1	86	ne.	0.9	0.4		0	0			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.12	587.4	30.16	766.0	55.2	12.9	81	calm	0	0		0	7 k		ne.	0	0	cloudy	The Staff.
Morelia	24.11	612.3	30.11	764.7	53.8	12.1	41	ne.			1	4	2	s.	s.	inap.	inap.	½ cloudy	M. Tena, M. D.
Pabellon, Aguascalientes	23.95	608.2	29.98	761.4	48.9	9.4	87	calm			0	0	0			0	0		M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	594.9	30.24	768.0	51.8	11.0	93	calm	0	0		0	1		w.	0	0	fine	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.17	766.3	30.17	766.3	40.3	4.6		ene.			4					0	0		
Groningen	30.13	765.2	30.18	766.6	38.3	3.5		ne.			2					0.024	0.6		
Helder	30.18	766.6	30.18	766.6	38.3	3.5		ene.			4					0	0		
Hellevoetsluis	30.16	766.0	30.16	766.0	39.6	4.2	70	ene.			4					0	0		
Utrecht	30.12	765.1	30.17	766.3	39.0	3.9	72	ne.			3		5			0	0	cloudy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Barometer. Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.00	762.0	30.06	763.6	34.9	1.6	78	se.	11.0	4.9			10			0	0		
Christiania	29.94	760.5	30.08	764.0	28.6	— 1.9	64	calm	0	0			6			0	0		
Gjesvær	30.21	767.4	30.24	768.0	23.7	— 4.6		calm			0		10					snowing	
Lodingen	30.04	762.9	30.08	764.1	26.8	— 2.9	64	ene.			4		0			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	30.08	764.0	30.24	768.0	62.1	16.7	85	calm	0	0			3			0	0		Dr. J. A. Sampaio.
Campo Major	28.96	735.6	29.97	761.2	54.5	12.5	41	nne.	9.8	4.4			10			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.08	763.9	30.16	766.1	68.2	20.1	47	sw.	5.6	2.5			6			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.70	754.3	30.06	763.6	55.2	12.9	37	nne.	20.6	9.2			0			0	0		The Staff.
Ponta Delgada, Azores	30.19	766.9	30.26	768.7	68.0	20.0	62	calm	0	0			4			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.06	738.1	30.24	768.1	11.5	—11.4	93	w.	9	4		0	1 k						Capt. Lasarew.
Archangel	30.02	762.4	30.04	762.9	13.6	—10.2	97	se.	2	1			10						Capt. Sseliwerstow.
Astrakhan	30.47	773.8	30.38	771.7	39.6	4.2	74	se.	2	1		0	3 s						Capt. Wisganow.
Barnaul ‡	29.42	747.3	29.95	760.7	23.5	— 4.7	54	ssw.	16	7			10						Meteorological Obs'y.
Dorpat	29.91	759.7	30.17	766.2	29.1	— 1.6	92	wsw.	2	1			10n;ks						Observatory.
Ekaterinburg	29.07	738.3	30.11	764.8	12.7	—10.7	70	wsw.	9	4			8						Meteorological Obs'y.
Kasan	29.91	759.7	30.20	767.0	21.0	— 6.1	85	sw.	7	3			10						Observatory.
Kertch	29.96	760.9	29.98	761.4	58.1	14.5	90	s.	11	5		0	7 n			0.024	0.6		Lagorio & Sastyres.
Kieff	29.26	743.3	29.93	760.2	28.6	— 1.9	96	ne.	9	4			10 n					snowing	Observatory.
Lugan	30.01	762.2	30.23	767.8	26.1	3.3	80	ese.	13	6			10			blank	blank		Meteorological Obs'y.
Moscow	29.65	753.2	30.17	766.2	23.7	— 4.6	67	ssw.	7.8	3.5		0	3 ks						Meteorological Obs'y.
Nikolaiev	29.79	756.7	29.86	758.5	46.4	8.0	94	sse.	13	6			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor.	29.47	748.5	29.56	750.7	12.9	—10.6	66	calm			0	0	0			0.016	0.4		Lieut. Iwanow.
Pekin, China	29.74	755.3	29.88	758.9	51.4	10.8	53	calm	0	0		0	1 s			0	0		Physical Observatory.
St. Petersburg	30.10	764.6	30.12	765.0	23.4	— 4.8	86	e.	2	1		0	6 n;ks						Central Physical Obs'y.
Tashkend, Laboratory	28.83	732.2	30.45	773.5	45.7	7.6	77	nw.	13	6			10			0.343	8.7		Teich, A. M.
Tiflis	28.97	735.7	30.40	772.1	56.5	13.6	53	se.	4	2		0	2 s						Physical Observatory.
Warsaw	29.58	751.4	30.02	762.6	31.6	— 0.2	98	nne.	11	5			10 ks						Astronomical Obs'y.
Wilna	29.74	755.5	30.19	766.7	29.5	— 1.4	58	se.	2	1			6					light clouds	Berg, Assistant.
Yeniseisk	28.98	736.0	29.27	743.4	29.8	— 1.2	85	e.	7	3			8						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.32	770.1	41.0	5.0	42	w.			2	6 cs	0	ne.		0	0	light clouds	Andrew Gibb.
Monach Lt. House, Hebrides			30.25	768.3	46	7.8	92	s.			4		10			0.2	5.	overcast	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.67	753.6	29.78	756.3	53.6	12.	65	wsw.	2.2	1.0			6			0.181	4.6		Antonio Rave, Director.
Bilbao, Met. Obs'y	30.03	762.7	30.09	764.2	47.1	8.4	83	se.	1.1	0.5		3	5	ne.		0.157	4.0	almost cov'd	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	26.99	685.6			40.1	4.5	94	n.	8.3	3.7		0	8			0	0	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.65	702.2	29.86	758.4	49.5	9.7	42	n.	16.3	7.3		0	2			0	0	clouds	The Staff.
Murcia, Met. Obs'y ‡	29.85	758.2	30.00	762.1	54.7	12.6	43	nw.	1.3	0.6		0	3			0	0	clouds	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.15	740.5	30.07	763.8	45.7	7.6	74	n.	10.5	4.7			9			0.031	0.8		R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.97	761.3	30.04	763.0	73.7	23.2	83	e.	2.7	1.2		5 c;cs	0	s.		0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.90	759.4	29.95	760.7	81.1	27.3	77	nne.	0	0		4 cs	1 k		nnw.	0	0		Federico Faura, S. J.
San Fernando, Naval Obs'y	29.84	757.9	29.94	760.4	59.2	15.1	52	n.	6.1	2.7		0	2		ne.	0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.87	758.6	29.96	760.9	79.2	26.2	84	ne.	14.1	6.3			10 kn		ne.	1.220	31.0	overcast	E. Cadea, Chief Engr.
Tuguegarao, Philippine Ids	29.90	759.4	30.04	762.9	72.8	22.7	91	nnw.	6.6	2.9		2 ok	5 ks	ese.	nnw.	inap.	inap.	cloudy	José L. Fastovra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.24	768.0	30.28	769.0	16.5	— 8.6	100	n.			2		8			0	0		
Umea	30.10	764.4	30.15	765.7	27.3	— 2.6	80	se.			2		10			0.067	1.7		
Hernosand	30.09	764.3	30.14	765.0	28.6	— 1.9	74	calm			0		5			0	0		
Stockholm	29.97	761.1	30.14	765.6	28.2	— 2.1	73	wsw.			2		7			0	0		
Wisby	30.15	765.7	30.21	767.2	34.9	1.6	89	sw.			2		7			0	0		
Sub-Series.																			
Upsala	30.02	762.5	30.11	764.7	27.0	— 2.8	57	wsw.	6.9	3.1			7			0	0		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.39	721.1	29.87	758.6	38.1	3.4	70	ne.			4		10			0	0	covered	The Observatory.
Zurich ‡	28.22	716.7	29.92	760.0	34.9	1.6	71	ne.			2		10			0	0	foggy	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.98	761.5	73.0	22.8	51	sw.	9	4.0			2		sw.	0	0		The Observatory.
Valona			29.90	759.5	75.6	24.2		sw.			2		2			0	0	slightly cl'dy	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			30.00	762.0	81.0	27.2	56	ne.			1	1 c	0			0	0		Prof. C. V. Van Dyck.

UNITED STATES SERIES.
By authority of the SECRETARY OF WAR.
Furnished by the co-operation of W. B. HAZEN, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
Albany, New York	29.93	760.2	30.01	762.2	57	13.9	80	ne.	1	0.4			fg.			0.36	9.1	dense fog	
Alpena, Michigan	29.03	737.3	29.72	754.9	52.8	11.6	86	sw.	8	3.6			10 s		w.	0	0	cloudy	
Atlanta, Georgia	28.80	731.5	30.02	762.5	68.5	20.3	90	e.	10	4.5			10 n		calm	0.35	8.9	light rain	
Atlantic City, New Jersey	30.06	763.5	30.07	763.8	64.1	17.8	93	s.	7	3.1			10 s		calm	0.22	5.6	cloudy	
Augusta, Georgia	29.91	759.7	30.11	764.8	69.3	20.7	90	s.	2	0.9		3 c	0			0	0	fair	
Baltimore, Maryland	30.00	762.0	30.05	763.3	63	17.2	93	sw.	1	0.4			fg.		calm	0.64	16.3	dense fog	
Barnegat, New Jersey	30.02	762.5	30.04	763.0	64.0	17.8	97	sw.	5	2.2			10s;fg		s;calm	0.98	24.9	cloudy	
Bismarck, Dakota	28.00	711.2	29.92	760.0	28	— 2.2	88	calm	0	0			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.06	687.3	29.98	761.5	46	7.8	93	se.	16	7.2			10 s		calm	0.13	3.3	cloudy	
Boston, Massachusetts	29.86	758.4	30.02	762.5	61.0	16.1	100	sw.	7	3.1			10n;fg			0.36	9.1	light rain	
Brackettville, Texas	28.98	736.1	30.06	763.5	48	8.9	93	calm	0	0		0	0			0	0	clear	
Brownsville, Texas																			
Buffalo, New York	29.17	740.9	29.91	759.7	59.7	15.4	73	s.	7	3.1		8 ck	1 s	s.	s.	0.22	5.6	cloudy	
Burlington, Vermont	29.66	753.4	29.96	761.0	55.3	12.9	85	s.	6	2.7			10 s		s.	0.11	2.8	cloudy	
Cairo, Illinois	29.50	749.3	29.91	759.7	58.6	14.8	89	e.	3	1.3			10 s		s.	0	0	cloudy	
Campo, California	27.51	698.7	30.08	764.0	42	5.6	82	w.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.44	697.0			33	0.6	81	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	30.07	763.8	30.09	764.3	71	21.7	90	sw.	16	7.2		0	7 ks		sw.	0.21	5.3	fair	
Cape May, New Jersey	30.02	762.5	30.05	763.3	65	18.3	93	s.	12	5.4			10 s		s.	0.73	18.5	cloudy	
Castroville, Texas	29.32	744.7	30.03	762.7	55	12.8	62	nw.	3	1.3		0	0			0	0	clear	
Cedar Keys, Florida	30.05	763.3	30.07	763.8	74	23.3	85	se.	16	7.2		0	0			0	0	clear	
Champaign, Illinois	29.07	738.4	29.86	758.4	48.8	9.3	77	sw.	5	2.2		1 c	1 s	sw.	sw.	0	0	clear	
Charleston, S. Carolina	30.06	763.5	30.12	765.0	74	23.3	90	s.	8	3.6		0	8 s		s.	0	0	cloudy	
Charlotte, N. Carolina	29.19	741.4	30.10	764.5	67.4	19.7	93	s.	8	3.6			10 s		s.	0.06	1.5	cloudy	
Chattanooga, Tennessee	29.12	739.6	29.97	761.2	64.5	18.1	95	calm	0	0			10s;fg		s;calm	0.27	6.9	cloudy	
Cheyenne, Wyoming	24.02	610.1	30.15	765.8	40.3	4.6	42	nw.	24	10.7		0	0			0	0	clear	
Chicago, Illinois	29.10	739.1	29.84	757.9	51.8	11.0	81	w.	12	5.4			10 s			0	0	cloudy	
Chincoteague, Virginia	30.06	763.5	30.08	764.0	67	19.4	100	sw.	21	9.4		0	4 s		calm	0.10	2.5	fair	
Cincinnati, Ohio	29.28	743.7	29.96	761.0	57.2	14.0	86	se.	3	1.3		3 cs	0	s.		0	0	clear	
Cleveland, Ohio	29.17	740.9	29.94	760.5	56	13.3	77	s.	9	4.0		2 k	0	w.		0	0	clear	
Coleman City, Texas																			
Columbus, Ohio	29.07	738.4	29.96	761.0	54	12.2	86	s.	5	2.2		4 cs	0			0	0	fair	
Concho, Texas	28.22	716.8	30.22	767.6	46	7.8	78	nw.	10	4.5		0	0			0	0	clear	
Corsicana, Texas	29.54	750.3	30.02	762.5	54	12.2	80	n.	8	3.6		0	3 s			0	0	clear	
Davenport, Iowa	29.22	742.2	29.90	759.4	48	8.9	77	w.	4	1.8			10 s		calm	0.04	1.0	cloudy	
Dayton, Washington T'y	28.13	714.5	29.69	761.7	46.7	8.2	86	s.	8	3.6			10 n		calm	1.01	25.7	heavy rain	
Deadwood, Dakota	25.26	641.6	30.12	765.0	39	3.9	43	calm	0	0		0	0			0	0	clear	
Decatur, Texas					55	12.8	69	se.	12	5.4		0	0			inap.	inap.	clear	
Delaware Breakwater, Del.	30.02	762.5	30.04	763.0	67	19.4	100	s.	12	5.4			9 ks		sw.	0.09	2.3	cloudy	
Denison, Texas	29.15	740.4	29.98	761.5	53	11.7	86	nw.	8	3.6		0	0			0.14	3.6	clear	
Denver, Colorado	24.79	629.7	30.16	766.1	38.0	3.3	41	s.	12	5.4		0	0			0	0	clear	
Des Moines, Iowa	29.01	736.8	29.96	761.0	40	4.4	82	nw.	4	1.8		0	1 s			0	0	clear	
Detroit, Michigan	29.14	740.1	29.88	758.9	59.2	15.1	75	s.	8	3.6		0	2 k;s		w.	inap.	inap.	clear	
Dodge City, Kansas	27.49	698.2	30.18	766.6	34.3	1.3	77	nw.	6	2.7		0	0			inap.	inap.	clear	
Dubuque, Iowa	29.12	739.6	29.86	758.4	43.5	6.4	83	w.	6	2.7			10 s		calm	0.01	0.3	cloudy	
Duluth, Minnesota	29.11	739.4	29.84	757.9	41	5.0	82	w.	2	0.9			10 s		calm	0.32	8.1	cloudy	
Eagle Pass, Texas	29.40	746.7	30.25	768.3	57.0	13.9	64	nw.	8	3.6		0	0			0	0	clear	
Eagle Rock, Idaho	25.38	644.6	30.36	771.1	36	2.2	66	sw.	12	5.4		4 c	0	sw.		0	0	fair	
Eastport, Maine	30.06	763.5	30.12	765.0	48	8.9	93	s.	14	6.3			10 n		s.	0.01	0.3	light rain	
El Paso, Texas	26.46	672.1	30.30	769.6	37.2	2.9	72	calm	0	0		0	fg.			0	0	light fog	
Erie, Pennsylvania	29.17	740.9	29.93	760.2	59	15.0	75	s.	6	2.7		2 cs	0			0.02	0.5	clear	
Escanaba, Michigan	28.98	736.1	29.66	753.4	52	11.1	93	s.	5	2.2			10 s		calm	0.18	4.6	cloudy	
Florence, Arizona	28.61	726.7	30.21	767.3	42.2	5.7	79	nw.	2	0.9		0	0			0	0	clear	
Fort Apache, Arizona	25.20	640.1	30.24	768.1	30	— 1.1	81	ne.	1	0.4		0	0			0	0	clear	
Fort Assinnaboine, Montana	26.84	681.7	29.78	756.4	47	8.3	66	sw.	27	12.1			10 s		sw.	0	0	cloudy	
Fort Bennett, Dakota																			
Fort Benton, Montana	26.93	684.0	29.91	759.7	35	1.7	66	calm	0	0		1 cs	0			0	0	clear	
Fort Buford, Dakota	27.72	704.1	29.83	757.7	37	2.8	72	calm	0	0		3 cs	0	calm		0	0	clear	
Fort Custer, Montana	26.67	677.4	30.06	763.5	40	4.4	63	nw.	6	2.7		0	0			0	0	clear	
Fort Davis, Texas	25.10	637.5	30.06	763.5	40	4.4	76	s.	1	0.4		0	0			0	0	clear	
Fort Elliott, Texas	27.32	693.9	30.62	777.7	38	3.3	65	nw.	10	4.5		0	0			0.15	3.8	clear	
Fort Gibson, Indian T'y	29.35	745.5	29.92	760.0	52.5	11.4	93	n.	12	5.4			10 s		n.	0.26	6.6	cloudy	
Fort Grant, Arizona	25.39	644.9	30.19	766.8	41	5.0	70	nw.	4	1.8		0	0			0	0	clear	
Fort Griffin, Texas	28.80	731.5	30.09	764.3	50.2	10.1	64	nw.	8	3.6		0	0			0	0	clear	
Fort Keogh, Montana	27.30	693.4	29.97	761.2	37	2.8	72	sw.	2	0.9		4 cs	0			0	0	fair	
Fort Macon, North Carolina	30.14	765.5	30.15	765.8	72	22.2	84	sw.	12	5.4		3 k	0	sw.		0.36	9.1	clear	
Fort McKavett, Texas	27.91	708.9	29.88	758.9	44.2	6.8	76	w.	9	4.0		0	0			0	0	clear	
Fort Missoula, Montana	26.54	674.1	30.19	766.8	42	5.6	100	n.	1	0.4			10 n			0.22	5.6	heavy rain	
Fort St. Michaels	29.59	751.6	29.62	752.3	30	— 1.1	68	ne.	6	2.7		0	0			0	0	clear	
Fort Shaw, Montana	26.11	663.2	29.85	758.2	47	8.3	66	sw.	18	8.0		1 cs	0	calm		0	0	clear	
Fort Sill, Indian Territory	28.80	731.5	30.09	764.3	50.5	10.3	69	nw.	13	5.8		0	0			0.10	2.5	clear	
Fort Stevenson, Dakota	27.94	709.7	29.90	759.4	31	— 0.6	88	n.	3	1.3		0	6 s		e	0	0	fair	
Fort Verde, Arizona					37.4	3.0	72	nw.			2	0	0			0	0	clear	
Fredericksburg, Texas	28.35	720.1	29.93	760.2	53	11.7	69	nw.	8	3.6		0	0			0	0	clear	
Galveston, Texas	29.92	760.0	29.96	761.0	59	15.0	70	nw.	25	11.2		0	hz.			0.04	1.0	clear	
Grand Haven, Michigan	29.11	739.4	29.81	757.2	52.0	11.1	86	sw.	15	6.7			10 s		sw.	0	0	cloudy	
Hatteras, North Carolina	30.14	765.5	30.16	766.1	73	22.8	90	s.	16	7.2		2 k	2 s	sw.		0.13	3.3	fair	
Helena, Montana	25.58	649.7	30.17	766.3	48	8.9	71	nw.	8	3.6			10 s		calm	0	0	cloudy	
Henrietta, Texas	29.08	738.6	30.04	763.0	48	8.9	86	nw.	12	5.4		0	0			0	0	clear	
Huron, Dakota	28.54	724.9	30.00	762.0	31	— 0.6	100	calm	0	0			fg.			0	0	dense fog	
Indianapolis, Indiana	29.10	739.1	29.93	760.2	56	13.3	80	calm	0	0		4ck;cs	3 s	sw.	sw.	0	0	fair	
Indianola, Texas	30.02	762.5	30.05	763.3	58.9	14.9	70	nw.	24	10.7		0	0			0	0	clear	
Jacksboro, Texas	28.88	733.5	30.02	762.5	50	10.0	86	w.	8	3.6		0	0			0	0	clear	
Jacksonville, Florida	30.04	763.0	30.08	764.0	73	22.8	84	se.	8	3.6		4 k	0	se.		0	0	fair	
Keokuk, Iowa	29.23	742.4	29.92	760.0	46.6	8.1	83	calm	0	0			10 s			0	0	cloudy	
Key West, Florida	30.02	762.5	30.05	763.3	78.0	25.6	76	e.	7	3.1		8 c	2 k	cs'm	e.	0.26	6.6	cloudy	
Kittyhawk, North Carolina	30.13	765.3	30.15	765.8	70	21.1	93	sw.	14	6.3		0	6 s;ks		sw.	0	0	fair	
Knoxville, Tennessee	28.97	735.8	30.04	763.0	61	16.1	90	ne.	2	0.9			10 s		calm	0.06	1.5	cloudy	
La Crosse, Wisconsin	29.07	738.4	29.87	758.7	44	6.7	76	nw.	4	1.8			10 s			0.05	1.3	cloudy	
La Mesilla, New Mexico	26.29	667.8	30.44	773.2	36.3	2.4	82	calm	0	0		0	0			0	0	clear	
Laredo, Texas	29.71	754.6	30.06	763.5	56.0	13.3	69	nw.	2	0.9		0	0			0	0	clear	
Leavenworth, Kansas	29.07	738.4	30.00	762.0	46	7.8	76	nw.	5	2.2			10 s			0	0	cloudy	
Lewiston, Idaho	29.06	738.1	29.94	760.5	46	7.8	100	e.	1	0.4			10 n		calm	0.27	6.9	light rain	
Little Rock, Arkansas	29.47	748.5	29.79	756.7	59	15.0	93	calm	0	0		0	0			0.14	3.6	clear	
Los Angeles, California	29.73	755.1	30.11	764.8	59.2	15.1	75	s.	8	3.6		0	0			0	0	clear	
Louisville, Kentucky	29.32	744.7	29.90	759.4	57.0	13.9	80	calm	0	0		10 cs	0	calm		0	0	cloudy	
Lynchburg, Virginia	29.35	745.5	30.06	763.5	63.2	17.3	93	calm	0	0			10s;fg			0.58	14.7	cloudy	
Madison, Wisconsin	28.78	731.0	29.84	757.9	43	6.1	93	w.	7	3.1			10 s		calm	0.12	3.0	cloudy	
Marquette, Michigan	28.89	733.8	29.65	753.1	51	10.6	93	nw.	6	2.7			10 s		nw.	0.06	1.5	cloudy	
Mason, Texas	28.45	722.6	30.24	768.1	50	10.0	74	nw.	11	4.9		0	0			0	0	clear	
Memphis, Tennessee	29.48	748.8	29.83	757.7	58	14.4	100	ne.	1	0.4			10 n		calm	0.14	3.6	light rain	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.04	737.6	29.82	757.4	46	7.8	83	sw.	13	5.8			10 s			0.02	0.5	cloudy	
Mobile, Alabama	29.82	757.4	29.89	759.2	75	23.9	97	sw.	11	4.9			10 ks			1.22	31.0	threatening.	
Montgomery, Alabama	29.73	755.1	29.97	761.2	66.3	19.1	91	se.	6	2.7			10 n		sw.	1.09	27.7	light rain	
Moorhead, Minnesota	28.89	733.8	29.95	760.7	33	0.6	100	w.	2	0.9			10 s			0.34	8.6	cloudy	
Morgantown, W. Virginia	29.01	736.8	30.00	762.0	49.0	9.4	96	calm	0	0			fg			inap.	inap.	dense fog	
Mt. Washington, N. H.	23.81	604.8	30.18	766.6	39.6	4.2	93	nw.	30	13.4			fg		nw.	1.87	47.5	light fog	
Nashville, Tennessee	29.37	746.0	29.93	760.2	58.0	14.4	84	se.	1	0.4		10 cs	fg			0	0	cloudy	
New Haven, Connecticut	29.88	758.9	30.00	762.0	63	17.2	97	s.	2	0.9			fg			0.90	22.9	dense fog	
New London, Connecticut	29.97	761.2	30.02	762.5	61	16.1	100	sw.	3	1.3			fg			0.98	24.9	dense fog	
New Orleans, Louisiana	29.81	757.2	29.87	758.7	75.5	24.2	87	s.	13	5.8		2 cs	7 s	w.	s.	0.31	7.9	threatening.	
Newport, Rhode Island	29.96	761.0	30.01	762.2	61.0	16.1	100	s.	5	2.2			10n;fg		calm	0.69	17.5	rain & fog	
New River, N. Carolina					73	22.8	84	s.			2	0	0			0	0	clear	
New Shoreham, Rhode I'd.	29.98	761.5	30.01	762.2	62.0	16.7	100	sw.	16	7.2			10 n		sw.	1.55	39.4	light rain	
New York, New York	29.86	758.4	30.04	763.0	62	16.7	100	w.	6	2.7			10 s		w.	0.52	13.2	cloudy	
Norfolk, Virginia	30.05	763.3	30.08	764.0	69	20.6	93	sw.	11	4.9		3 ck	3ks;fg	sw.		0.09	2.3	fair	
North Platte, Nebraska	27.10	688.3	30.16	765.1	31.4	— 0.3	90	nw.	9	4.0		0	0			0	0	clear	
Olympia, Washington T'y	29.75	755.6	29.79	756.7	50.0	10.0	93	sw.	2	0.9		0	7 n		sw.	1.31	33.3	light rain	
Omaha, Nebraska	28.82	732.0	30.05	763.5	42.5	5.8	78	nw.	6	2.7		0	2 s			0	0	clear	
Oswego, New York	29.58	751.3	29.92	760.0	56.8	13.8	87	s.	5	2.2		0	6 k		w.	0.26	6.6	fair	
Pensacola, Florida	29.90	759.4	29.93	760.2	76	24.4	97	sw.	12	5.4			10 n		sw.	0.39	9.9	light rain	
Philadelphia, Pa.	30.00	762.0	30.06	763.5	62.5	16.9	100	w.	6	2.7			fg.			0.61	15.5	dense fog	
Phœnix, Arizona	29.00	736.6	30.90	784.8	38	3.3	53	e.	1	0.4		0	0			0	0	clear	
Pike's Peak, Colorado	17.78	451.6	29.99	761.7	18	— 7.8	58	ne.	20	8.9		0	0			0.16	4.1	clear	
Pioche, Nevada	24.23	615.4	30.42	772.7	37	2.8	58	calm	0	0		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.17	740.9	30.02	762.5	52.3	11.3	85	calm	0	0		5 c	fg.	w.	calm	0.01	0.3	fair	
Port Eads, Louisiana	29.91	759.7	29.92	760.0	77.0	25.0	88	sw.	25	11.2		0	5 ks; s		sw.	0.10	2.5	fair	
Port Huron, Michigan	29.13	739.9	29.84	757.9	54.5	12.5	93	sw.	12	5.4		5 ck	0	w.		0	0	fair	
Portland, Maine	29.98	761.5	30.03	762.7	51	10.6	93	ne.	5	2.2			fg			0.46	11.7	dense fog	
Portland, Oregon	29.82	757.4	29.89	759.2	52.5	11.4	86	s.	12	5.4		0	5 s		se.	0.58	14.7	fair	
Portsmouth, N. Carolina					72	22.2	82	w.	16	7.2		6 k	0	s.		0.04	1.0	fair	
Prescott, Arizona	24.93	633.2	30.24	768.1	29	— 1.7	80	calm	0	0		0	0			0	0	clear	
Punta Rassa, Florida	30.04	763.0	30.05	763.3	71	21.7	84	e.	6	2.7		2 c	0	calm		0	0	clear	
Red Bluff, California	29.67	753.6	30.02	762.5	59.0	15.0	60	se.	23	10.3			10 s		sw.	0	0	cloudy	
Rio Grande City, Texas	29.99	761.7	30.21	767.3	62	16.7	50	n.	12	5.4		0	0			0	0	clear	
Rochester, New York	29.24	742.7	29.94	760.5	58	14.4	81	sw.	12	5.4		1 ck	2 s	w.	sw.	0.11	2.8	clear	
Roseburg, Oregon	29.45	748.0	30.04	763.0	50	10.0	86	se.	2	0.9			10 ks		sw.	0.87	22.1	cloudy	
Sacramento, California	30.09	764.3	30.17	766.3	53.2	11.8	80	se.	6	2.7			10 s			0	0	cloudy	
St. Louis, Missouri	29.34	745.2	29.97	761.2	55.2	12.9	86	n.	2	0.9			10 s			0	0	cloudy	
St. Paul, Minnesota	29.00	736.6	29.92	760.0	40.5	4.7	88	nw.	12	5.4			10 s		nw.	0.02	0.5	cloudy	
Salt Lake City, Utah	25.78	654.8	30.23	767.8	36	2.2	58	s.	2	0.9		0	0			0	0	clear	
San Antonio, Texas	29.41	747.0	30.13	765.3	55.6	13.1	62	nw.	4	1.8		0	0			0	0	clear	
San Diego, California	29.97	761.2	30.04	763.0	59.0	15.0	75	ne.	8	3.6		0	0			0	0	clear	
Sandusky, Ohio	29.20	741.7	29.90	759.4	55	12.8	86	s.	11	4.9		0	0			0	0	clear	
Sandy Hook, New Jersey	30.01	762.2	30.04	763.0	64.0	17.8	93	nw.	8	3.6			10 ks		nw.	0.45	11.4	cloudy	
San Francisco, California	30.14	765.5	30.21	767.3	56	13.3	86	se.	4	1.8			10 s		s.	0.02	0.5	cloudy	
Santa Fé, New Mexico	23.39	594.1	30.38	771.6	28	— 2.2	80	calm	0	0		0	0			0.03	0.8	clear	
Savannah, Georgia	30.01	762.2	30.10	764.5	72	22.2	97	s.	3	1.3		5 cs	2 ks		s.	0	0	fair	
Shreveport, Louisiana	29.62	752.3	29.84	757.9	56	13.3	86	sw.	7	3.1			10 ks		calm	0	0	cloudy	
Silver City, New Mexico	24.43	620.5	30.11	764.8	33	0.6	65	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.30	744.2	29.37	746.0	39.2	4.0	89	calm	0	0		0	0			0.18	4.6	clear	
Smithville, North Carolina	30.10	764.5	30.14	765.5	73	22.8	84	sw.	10	4.5		0	0			0.20	5.1	clear	
Spokane Falls, Wash. Ter.	27.76	705.1	29.83	757.7	49	9.4	80	sw.	12	5.4			10 s		sw.	0.10	2.5	cloudy	
Springfield, Illinois	29.22	742.2	29.92	760.0	52.2	11.2	77	w.	3	1.3			10 s		se.	0	0	cloudy	
Springfield, Massachusetts	29.89	759.2	30.03	762.7	51.1	10.6	96	n.	5	2.2			10 s			0.96	24.4	cloudy	
Stockton, Texas	27.18	690.4	30.33	770.4	41.0	5.0	92	calm	0	0		0	0			0	0	clear	
St. Vincent, Minnesota	28.97	735.8	29.90	759.4	33	0.6	96	s.	3	1.3			10 s		calm	0.36	9.1	cloudy	
Thatcher's Island, Mass.	29.95	760.7	30.00	762.0	55.0	12.8	100	sw.	10	4.5			10 n		sw.	0.24	6.1	light rain	
Toledo, Ohio	29.15	740.4	29.87	758.7	56	13.3	86	sw.	10	4.5		5 ck	0	sw.		0.02	0.5	fair	
Tucson, Arizona	27.66	702.6	30.10	764.5	42	5.6	76	e.	2	0.9		0	0			0	0	clear	
Umatilla, Oregon	29.54	750.3	29.97	761.2	53.0	11.7	72	sw.	4	1.8			10 s		calm	0.23	5.8	cloudy	
Uvalde, Texas	29.17	740.9	30.02	762.5	51	10.6	80	w.	6	2.7		0	0			0	0	clear	
Vicksburg, Mississippi	29.59	751.6	29.85	758.2	63	17.2	93	se.	9	4.0			10 s		s.	0.05	1.3	cloudy	
Visalia, California	29.80	756.9	30.17	766.3	48	8.9	89	se.	4	1.8		0	0			0	0	clear	
Washington, D. C.	29.92	760.0	30.04	763.0	62.0	16.7	100	calm	0	0			fg			0.35	8.9	dense fog	
West Los Animas, Colorado	26.14	663.9	30.22	767.6	32	0.0	71	w.	8	3.6		0	0			0.01	0.3	clear	
Wickenburg, Arizona					38	3.3	64	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	30.07	763.8	30.13	765.3	72.0	22.2	97	s.	5	2.2		hz	0	calm		0.10	2.5	dense haze	
Winnemucca, Nevada	25.63	651.0	30.09	764.3	39	3.9	79	s.	5	2.2		3 ck	0	sw.		0	0	clear	
Wood's Holl, Mass.	30.00	762.0	30.04	763.0	60	15.6	100	sw.	4	1.8			fg		sw.	0.46	11.7	dense fog	
Yankton, Dakota	28.65	727.7	30.02	762.5	39	3.9	89	calm	0	0		0	0			0	0	clear	
Yuma, Arizona	29.95	760.7	30.09	764.3	55.3	12.9	78	calm	0	0		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡																			J. A. Racker.
Bogota, U. S. Columbia	22.03	559.6			53.0	11.7	80	calm	0	0		2 k	5 s			0.38	9.7	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	30.01	762.2	30.03	762.7	78	25.6	82	sw.					0			0.80	20.3	clear	J. B. Dougherty.
Guadeloupe, W. I.‡	29.79	756.7	29.79	756.7	80	26.7	90	ne.				0	5 ks			0	0		B. Bigar.
Havana, Cuba, W. I.	30.02	762.5	30.06	763.5	77	25.0	77	calm	0	0		5 cs	1 ks	calm	calm	inap.	inap.	fair	A. Van Caneghem, Ass't
Kingston, Jamaica, W. I.	29.96	761.0	29.97	761.2	79.9	26.6	79	calm	0	0		1 cs	0			0.98	24.9		Robert Johnstone.
Navassa, W. I.	29.86	758.4	29.94	760.5	79	26.1	80	ne.				0	2 s		ne.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.93	760.2	29.93	760.2	82	27.8	79	e.			2	3 c	4 k			0.060	1.5	fair	Dr. O. J. Hering.
Puerto Berrio, U. S. Col'mba	29.48	748.8	30.04	763.0	78	25.6	89	calm					10 ks		calm	0.15	3.8	raining	Francesco J. Cisneros.
Rivas, Nicaragua					72.5	22.5	100	calm			0	2 ck	3 ks		se.	0.295	7.5		Earl Flint.
Santiago de Cuba, W. I.	29.96	761.0	29.98	761.5	79	26.1	78	ne.	7.2	3.2		3 ck	0			1.30	33.0	fair	Robert Mason.
St. Thomas, W. I.‡	29.83	757.7	29.94	760.5	81	27.2	69	e.	5	2.2		1 c	4 ks	w.	e.	0.12	3.0	clear	G. O. Gyllich.
York Factory, B. A.	29.76	755.9	29.81	757.2	27.5	— 2.5	100	n.	9	4.0			10 n		n.	inap.	inap.	snowing	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross, Kobe, Japan	29.97	761.2	58	14.4		nw.			2		2					1		d. clouds	
H. M. S. Alert, Port Darwin, Australia.	29.95	760.7	84.2	29.0	75	nw.			1		6							misty	Capt. J. P. Maclear.
H. M. S. Alexandra, Syracuse, Sicily	29.75	755.6	72	22.2	85	se.			2		8	sse.						misty	Capt. Lord Walter Kerr
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	30.00	762.0	77	25.0		sw.			2-4		4	sw.						squally	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S. Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Bittern																			Capt. E. B. Pusey.
H. M. S. Blanche, N 49° 15′, W. 12° 10′	30.25	768.3	53	11.7	93	e.			3		4					2	e.	d. clouds	Capt. C. G. F. Knowles.
H. M. S. Boadicea, S. 15° 55′, W. 5° 43′	30.08	764.0	74	23.3	76	ese.			2-5		5	ese.						squally	Capt. F. W. Richards.
H. M S. Champion, Ancon, Peru	29.99	761.7	63	17.2	100	calm			0		2							d. clouds	Capt. G. E. Hope.
H. M. S. Cockatrice																			Capt. H. Y. Grenfell.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	29.88	758.9	66	18.9		wnw.			3		2	wnw.				2	wnw.	squally	Lt. Comm. J. L. Burr
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 14° 37′, E. 52° 41′	29.96	761.0	81	27.2	74	ene.			1		1							blue sky	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 34° 21′, E. 133° 42′	29.67	753.6	59	15.0	100	nw.			4		3	nw.				1	n.	squally	Capt. S. Long.
H. M. S. Cygnet, N. 38° 14′, E. 21° 44′	29.89	759 2	76	24.4		n.			1		3	nnw.						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Dido, Sierra Leone, Senegambia	29.87	758.7	82	27.8		w.			2		2	ese.				2		d. clouds	Capt C. Domville.
H. M. Dock Yard, Bermuda, W. I.	30.24	768.1	70	21.1	73	nne.			2-3		1	nne.						blue sky	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid																			Capt. W. R. Kennedy.
H. M. S. Dryad, N. 30° 34′, E. 47° 49′	29.97	761.2	84	28.9		nw.			1		2	nw.						d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 20° 10′, E. 57° 32′	30.06	763.5	77	25.0		ese.			1		2	ese.				1	ese.	d. clouds	Capt. E. St. J. Garforth
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.97	761.2	56	13.3	100	n.			4-6		6	n.						d. clouds	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.80	756.9	85	29.4	71	nne.			2		5	n.						d. clouds	Capt. R. D. King.
H. M .S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H M. S. Fawn, S. 6° 09′, E. 39° 11′	29.90	759.4	82.5	28.1	74	se.			2		5	sse.				1	se.	d. clouds	Capt. P. Aldrich.
H. M. S. Flamingo, N. 15° 50′, W. 88° 00′	29.92	760.0	80	26.7	91	se.			1		2	e.						d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, S. 6° 30′, W. 156° 15′	29.94	760.5	80	26.7	82	ene.			2		2	se.						d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet																			Capt. L. F. Jones.
H. M. S. Grappler, N. 44° 46′, W. 8° 47′	30.12	765.0	56	13.3	87	nne.			4		3					5	nne.	d. clouds	Capt. H. G, Gough.
H. M. S. Griffon, N. 17° 51′, W. 75° 43′	29.94	760.5	82	27.8	83	ese.			1		2	se.				2	ese.	d. clouds	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 31° 23′ E. 121° 29′	30.17	766.3	55	12.8		calm			0									d. clouds	Capt. E. H. Seymour.
H. M. S. Krestel																			Capt. W. M. Lang.
H. M. S. Kingfisher, N. 8° 48′, W. 79° 32′	29.89	759.2	80	26.7		s.			3-5		3	s.				1	se.	d. clouds	Capt. R. H. Thornton.
H. M. S. Lapwing, S. 18° 40′, W. 2° 30′	30.12	765.0	66	18.9		ese.			5		7	se.				2	se.		Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 12′, E. 18° 26′	30.06	763.5	62	16.7	61	wsw.			3-4		4					2	w.	d. clouds	Lieut. Comm. C. Oldham.
H. M. S. Lily																			Capt. C. J. Brownrigg.
H. M. S. Magpie, Hong Kong, China	30.08	764.0	73.3	22.9	68	ese.			1		0							blue sky	Lieut. A. Balfour.
H. M. S. Malabar, N. 16° 28′, E. 62° 09′	29.98	761.5	82	27.8	91	nne.			3-4		3	ne.				3	ne.	d. clouds	Capt. I. G. F. Grant.
H. M. S. Midge																			

Stations and Vessels.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotour, N. 40° 17′, W. 10° 13′	30.01	762.2	58	14.4	69	n.			6		2	n.				2	n.	d. clouds	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead,
H. M. S Monarch, Sfax, Tunis	29.61	752.1	75	23.9	72	var.			2		5	ssw.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine																			Comm. F. Edwards.
H. M. S. Nelson																			Capt. J. E. Erskine.
H M. S Northampton, Halifax, Nova Scotia	30.26	768.6	49	9.4	93	s.			1		8	wsw.						misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 27° 48′, W. 56° 00′	30.14	765.5	75.5	24.2	82	nne.			3–6		6	ese.				6	nne.	squally	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler																			Capt. Hon. A.C.Littleton.
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S Rocket, N. 48° 26′, W. 123° 27′	29.69	754.1	48	8.9	92	wsw.			2		10							raining	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.88	758.9	84.3	29.1	71	n.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 13° 47′, W. 26° 39′	29.99	761.7	80	26.7	82	ese.			6		6	e.				2	ese.	showery	
H. M. S. Sea Gull, S. 6° 10′, E. 39° 11′	29.53	750.0	85	29.4	68	ese.			3		3	ese.				2	ese.	d. clouds	Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb, N. 35° 53′, E. 14° 31′	29.71	754.6	81	27.2	66	se.			3		1	ssw.						blue sky	Capt. T. H. Royse.
H. M. S. Tamar																			Capt. O. G. Fane.
H. M. S. Tenedos																			Capt. P. W. Stephens.
H. M. S. Thetis																			Capt. C. F. Hotham.
H. M. S. Thunderer																			
H. M. S. Triumph, S. 30° 07′ W. 71° 45′	30.03	762.7	54	12.2	93	calm			0		10	calm				1	s.	overcast	Capt. A. H. Markham. Capt. M. B. Medlycott.
H. M. S. Turquoise																			
H. M. S. Tweed																			
H. M. S. Tyne, N. 34° 43′, E. 27° 35′	30.10	764.5	72.5	22.5	98	ene.			1		6	nw.				1	ese.	d. clouds	Capt. J. E. Stokes.
H. M. S. Urgent, Port Royal, Jamaica, W.I.	29.97	761.2	78	25.6		n.			1		3							d. clouds	Com. W. T. Brown. Capt. S. H. P. Dacres.
H. M. S. Wild Swan																			
H. M. S. Wolverene, Sydney, N. S. W.	30.12	765.0	66	18.9	90	calm			0		1							blue sky	Com. J. C. Wilson, A.D.C. Capt. T. P. Nesham.
H. M. S. Woodlark																			
H. M. S. Wrangler																			
GERMAN NAVAL SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
India																			Carlos Candid dos Reis.
Bengo, S. 15° 12′, E. 12° 10′	29.93	760.2	73.0	22.8	69	nnw.			3		9					2	nnw.	overcast	A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.20	767.0	82.4	28.0	92	e.			6		8					2	e.		Carlos M. de Silva Costa. C. da Silva Costa.
Rio Lima																			G. A. de Brito Capello.
Sado																			
Tamega, Macao, China	29.91	759.7	75.2	24.0	64	e.			1									blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES. Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm.																			
H. M. Corvette Saga																			Capt. M. von Krusenstiern
H. M. Frigate Vanadis																			Com. Th. Ulner.

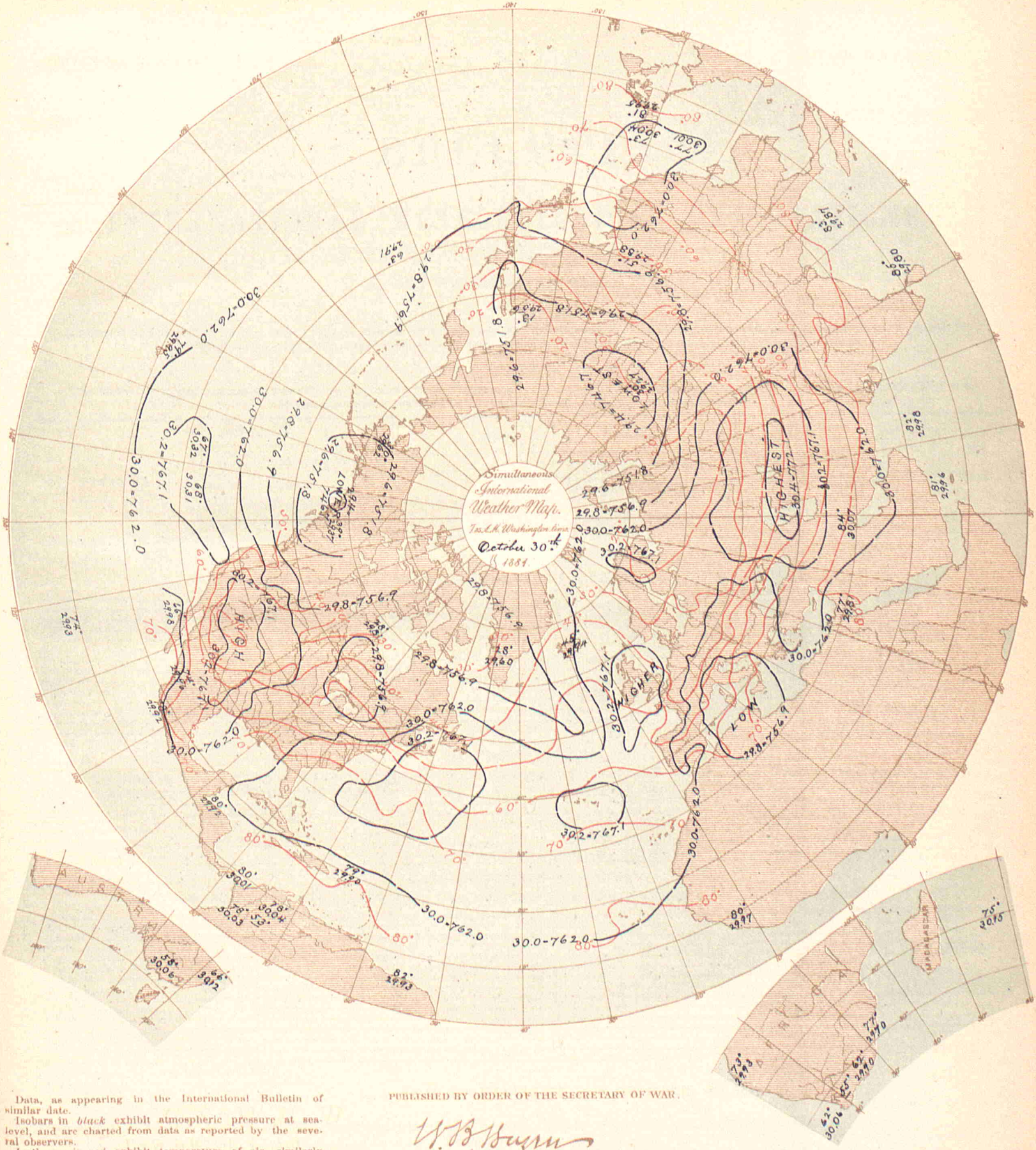
STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore John G. Walker, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla.	29.99	761.7	78	25.6	91	sw.	14	6.3			8		sw.	1.22	31.0			fair	
N. Yard, Portsmouth, N. H.	30.03	762.7	52	11.1	93	ne.	5	2.2		10 c	0	ne.		0.05	1.3			foggy	
Naval Hospital, Yokohama, Japan	29.56	750.8	49.5	9.7	57	calm			0		0			0	0			clear	
Adams, Callao, Peru	29.84	757.9	65	18.3	84	sse.			1		2					sm'h		fair	
Alaska, Callao, Peru	29.98	761.5	62	16.7	94	se.			1		2			0	0	sm'h		fair	
Alert, Kobe, Japan *	29.76	755.9	58	14.4	64	n.			1		0			0	0	sm'h		clear	
Alliance. N. 45° 16′, W. 58° 20′	30.33	770.4	46	7.8	77	wsw.			3		10			0	0	sm'h		overcast	
Ashuelot, Nagasaki, Japan	30.02	762.5	59	15.0	65	n.			1		8		n.					cloudy	
Colorado, New York, N. Y.	30.01	762.2	63	17.2	100	wsw.	1	0.4			10		wsw.					foggy	
Constitution. Newport, R. I.	29.95	760.7	61	16.1	100	ssw.	3	1.3			10							light fog	
Franklin, Norfolk, Va.	30.01	762.2	70	21.1	95	s.	14.4	6.4			8		s.	0	0			fair	
Galena, Smyrna, Turkey in Asia.	30.06	763.5	78	25.6	65	s.			2		2					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal.	30.15	765.8	51	10.6	79	calm	0	0			0			0.09	2.3			clear	
Kearsarge, Norfolk, Va.	30.09	764.3	70	21.1	90	s.			3		0?					sm'h		cloudy?	
Lackawanna. San Francisco, Cal.	30.38	771.6	59	15.0	100	se.			2		10							cloudy	
Lancaster, Fayal Island, Azores	30.22	767.6	66	18.9	84	wsw.			2		8		sw.					d. clouds	
Marion, Montevideo, Uruguay	29.85	758.2	57	13.9		s.			1		8		s.	0	0	sm'h		cloudy	
Michigan, Erie, Pa.	29.85	758.2	57	13.9	87	sw.			3		2		sw.					fair	
Monocacy, Yokohama, Japan	29.79	756.7	54	12.2	93	wsw.			1		1		wsw.					clear	
Nipsic. Genoa, Italy	29.63	752.6	58	14.4	76	nne.			1		2					sm'h		d. clouds	
Onward, Callao, Peru †	30.01	762.2	63	17.2	94	se.			2		2		n.			long	w.	clear	
Palos, Hong Kong, China	30.09	764.3	72	22.2	67	e.			1		0							clear	
Passaic, Washington, D. C.	30.05	763.3	62	16.7	94	sw.			1		10		s.					overcast	
Pensacola, Callao, Peru,	30.07	763.8	65	18.3	73	sse.			1		0?							fair?	
Portsmouth, New York, N. Y.	30.01	762.2	63	17.2	94	wnw.			2		8		w.			sm'h		misty	
Powhatan. Boston, Mass.	29.99	761.7	62	16.7	100	sw.			2		10							rainy	
Quinnebaug, Marseilles, France	29.69	754.1	48	8.9	70	nnw.			4–6		2		n.			sm'h		clear	
Ranger, N. 27° 10′, W. 115° 24′ *	29.98	761.5	66	18.9	94	nne.			2		0							clear	
Saratoga, N. 40° 30′, W. 72° 05′	30.02	762.5	60	15.6	100	sw.			3–4		10		sw.	h'vy	h'vy	sm'h		cloudy	
St. Louis, League Island, Pa.	29.75	755.6	63	17.2	89	sw.	3	1.3			10		ssw.	0.23	5.8			cloudy	
Swatara, Yokohama, Japan †	29.74	755.4	53	11.7	80	calm			0		2		calm			sm'h		fair	
Tennessee, New York, N. Y.	30.07	763.8	64	17.8	100	wnw.	3	1.3			10		nw.	0.50	12.7			foggy	
Vandalia. Norfolk, Va.	30.08	764.0	71	21.7	95	sw.			3		5							fair	
Wabash, Boston, Mass.	29.98	761.5	61	16.1	100	w.	1	0.4			10		w.	0.46	11.7			raining	
Wachusetts, Rockwell, Alaska	29.42	747.3	37	2.8	100	w.			2		0							clear	
Wyoming, Port Royal, S. C.	30.12	765.0	74	23.3	90	s.			1		5		s.	0	0			fair	
Yantic, New York, N. Y. *	29.99	761.7	64	17.8	94	w.			1		10							overcast	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	OBSERVERS.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE. *A. Schumacher & Co., Agents, Baltimore, and H. & A. Allan Agents, Boston and Portland.*																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 36° 45′, W. 30° 15′ *†	29.82	757.4				nnw.	3		2		se.			mod.	nnw.	clear	N. McLean.
S. S. Circassian, Capt. W. H. Smith, N. 56° 00′, W. 15° 00′ ‡	30.42	772.7	52	11.1	59	s.	4		7		sse.	3 h'r	3 h'r	4	s.	d. clouds	C. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson, N. 51° 22′, W. 31° 40′	29.91	759.7	46	7.8		nnw.	3		10		nne.			cross	w; n.	cloudy	W. Richardson.
AMERICAN S. S. CO. *Peter Wright & Sons, Agents, Philadelphia.*																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Pa †	29.98	761.5	65	18.3	94	sw.	2		10		sw.					rainy	Cauffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 45° 31′, W. 55° 24′ †	30.29	769.4	45	7.2	76	sw.	3		5?		sw.	0	0	sm'h	sw.	clear?	C. W. Walker, 2d Offi.
S. S. Ohio, Capt. H. Morrison, Liverpool, Eng *†	30.22	767.6	38	3.3	91	ne.	1		8		ne.					fine	
S. S. Pennsylvania, Capt. G. H. Dodge,																	C. Rodman, 3d Officer.
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall, S. 44° 58′, W. 59° 20,	30.35	770.9	48	8.9	100	wnw.	4		4							blue sky	
S. British Merchant, Capt. E. J. Moloney																	
Bq. Caldew, Capt. N. W. Petersen S. 48° 32′, W. 80° 35′	29.74	755.4	45	7.2		nw.	7		10							raining	
S. S. Cipero, Capt. W. N. Lailey, Belize, Honduras, C A	29.98	761.5	81.8	27.7	83	e.	3		1							blue sky	
Bk. Commewyne, Capt. W. Scott, N. 49° 32′, W. 10° 18′	30.28	769.1	51	10.6	53	se.	4		4							d. clouds	
Bk. Coppename, Capt. A. Buchan, N. 43° 28′, W. 15° 34′	30.19	766.8	58.5	14.7	69	ese.	4		10							overcast	
Bk. Glaramara, Capt. R. Morton, N. 6° 43′, W. 117° 27′ ‡	29.93	760.2	74	23.3	95	s.	5		10							raining	
S. S. Gordon Castle, Capt. W. Waring, N. 16° 56′, E. 112° 42′	30.01	762.2	76.9	24.9	82	ne.	5		2							d. clouds	
Bg. Hermine, Capt. S. G. Jones, S. 57° 07′, W. 69° 03′	29.19	741.4	37	2.8	90	sw.	3		10							misty	
Bkt. Hope, Capt. Jas. Campbelle																	
Island Belle, Capt. A. McBride,																	
S. Lochee, Capt. J. Raeburn, N. 13° 55′, E. 91° 32′	29.87	758.7	83	28.3	79	se.	3		9							d. clouds	
Bk. Mertola, Capt. E. W. Turner																	
Bk. Moorhill, Capt. J. Brown, S. 52° 50′, W. 80° 50′	29.31	744.5	43	6.1	97	sw.	6		10							misty	
Naiad, Capt. J. Smith,																	
S. Pleione, Capt. C. H. Renant,																	
Queen of Cambria, Capt. M. Parry S. 30° 57′, W. 48° 51′	29.94	760.5	71	21.7	57	calm	0		2							d. clouds	
S. S. Rosetta, Capt. A. E. Barlow,																	
Sierra Estrella, Capt. P. Murdoch,																	
Bk. Shun Lee, Capt. J. M. Gray,																	
S. S. Strathleven, Capt. C. W. Pearson Off Nambri, Japan	30.20	767.1	64.5	18.1	90	e.	3		3							d. clouds	
S. S. Thames, Capt. Luckhurst																	R. Ladd, 1st Officer.
S. S. Wyberton, Capt R. J. Blacklin Suez Canal, Egypt	29.81	757.2	77	25.0		nnw.	4		3							d. clouds	
CALIFORNIA, AND MEXICAN S.S. CO. *J. Birmingham, Agent San Francisco.*																	
S. S. Newbern, Capt. E. Rogers																	E. Rogers.
CUNARD LINE. *Vernon H. Brown & Co., Agents, New York.*																	
S. S. Gallia, Capt. W. H. P. Hains, N. 44° 27′, W. 43° 57′	30.13	765.3	51	10.6	72	n.	6		8		nne.	0	0	light	n.	cloudy	J. H. Mills, 3d, Officer.
NORTH GERMAN LLOYD. *A. Schumacher & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.*																	
Braunschweig, Capt. C. Pohle N. 49° 31′, W. 21° 54′	29.57?	751.1?	58.5	14.7	97	sw.	5		10					r'gh cross	s.	rainy	
S. S. Hermann, Capt. H. Baur N. 43° 23′, W. 57° 51′	30.43	772.9	48.2	9.0		nnw.	3		2		nw.	0	0	mod.	nw.	clear	E. Schmidt, 3d Officer.
S. S. Köln, Capt. T. Jüngst, Wolf Rock, England	30.33	770.4	49.0	9.4	97	ene.	4		5		ene.	0	0	sm'h	ene.	cloudy	T. Jüngst.
S. S. Leipsic, Capt. F. Pfeiffer, N. 39° 46′, W. 65° 03′	30.32	770.1	67.0	19.4	69	se.	3		8		s.	5 h'r	5 h'r	sm'h	se.	fair	Walter & Reichler.
S. S. Strassburg, Capt. Heimbruche, N. 53° 40′, E. 5° 25′	30.20	767.1	43.0	6.1	67	ene.	4		5		e.	3 hr	rain hail	mod.	ene.	fair	Englehart and von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO. *Leland Stanford, President, San Francisco.*																	
S. S. Belgic, Capt. H. Davison, San Francisco, Cal †	30.31	769.9	55	12.8	87	se.	2		10		se.	0	0	sm'h		cloudy	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 23° 53′ E. 117° 52′ *†	30.32	770.1	75	23.9	72	ene.	4		5?		ene.			mod.		clear?	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf. Yokohama, Japan	29.91	759.7	53	11.7	67	var.	3		2		var.	0	0	sm'h		fine	
OREGON IMPROVEMENT CO. *John L. Howard, Agent, San Francisco.*																	
S. S. Mississippi, Capt. E. W. Holmes,																	
OREGON RAILWAY & NAVIGAT'N CO. *K. Van Otterendorp, Agent, San Francisco.*																	
S. S. City of Chester, Capt. G. Reichmann																	G. Reichmann.
S. S. Columbia, Capt. F. Bolles, N. 46° 14′, W. 124° 05′ †	29.84	757.9	55	12.8	87	sw.	2		5		wsw.			r'gh	ssw.	hazy	
S. S. Oregon, Capt. E. Polemann,																	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodal, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 33° 42′, W. 118° 13′ †..	30.09	764.3	60	15.6	71	n.	2		0					sm'h		clear	J. W. Ingalls.
S. S. Dakota, Capt. ——,																	
S. S. Idaho, Capt. T. Huntington, Seattle, Wash. Ter. †.	29.76	755.9	53	11.7	86	s.	3		10		s.					raining	T. Huntington.
S. S. Orizaba, Capt. Z. B. Johnson,																	G. H. Harrison.
S. S. Senator, Capt. Wallace, Monterey, Cal. †..	30.21	767.3	51	10.6	79	nw.	2		0					sm'h		clear	T. Wallace.
S. S. State of California, Capt. Debney, Portland, Oregon †..	29.87	758.7	51	10.6	93	s.	2		10		s.					raining	G. Debney.
S. S. Victoria, H. M. Hayward, N. 41° 19′, W. 125° 07′ †..	30.04	763.0	56	13.3	94	sw.	4		10		s.			r'gh	se. sw.	cloudy	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bulloy, Supt. New York.*																	
S. S. Australia, Capt. ——, Honolulu, Sandwich Is'ds	30.05	763.3	79	26.1	86	calm	0		5?		ne.					clear?	U. Bannermann, 2d Off.
S. S. City of New York, Capt. W. B. Cobb, N. 31°—′, W. 136° 20′ †	30.41	772.4	68	20.0	100	n.	6		1		n.			h'vy	n.	clear	W. H. Hawes, 2d Off. W. H. T. Titus.
S. S. City of Panama, Capt. D. S. Austin,																	
S. S. City of Peking, Capt. G. G. Barry, N. 36° 33′, E. 164° 04′ *†..	30.01	762.2	63	17.2	83	ese.	6		10		se.	0	0	r'gh	var.	cloudy	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. —— Panama, Panama †	30.01	762.2	80	26.7	87	sw.	3		2		sw.	0	0	sm'h		clear	
S. S. City of Sydney, Capt. H. C. Dearborn, Sydney, N. S. W. *†..	30.07	763.8	58	14.4	82	w.	3		5		w.	0	0	sm'h		fair	E. L. Saik.
S. S. City of Tokio, Com. J. Maury N. 31° 31′, W. 141° 05′ †..	30.47	773.9	67	19.4	79	ne.	2		2		ne.			h'vy	wnw.	clear	A. L. Ritchie, 2d Off.
S. S. Colima, R. R. Searle																	R. R. Searle.
S. S. Grenada, Capt. M. Connolly																	M. Connolly.
S. S. South Carolina, Capt. —— N. 17° 30′, W. 100° 30′ *†..	29.92	760.0	78	25.6	86	ne.	2		0					light	sw.	fine	
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.14	765.5	66	18.9	89	n.	1		2							clear	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents.*																	
S. S. Nederland, Capt. Ueberweg,																	A. Feddersen, 2d Off.
S. S. Rhynland, Capt. W. G. Randall, N. 50° 08′, W. 4° 15′ †.	30.43	772.9	50	10.0	79	nne.	5		4		ne.	0.1	3.	mod.	ene.	fair	C. H. Grant, 2d Off.
WHITE STAR LINE. *R. J. Cortis, Agent.*																	
S. S. Adriatic, Capt. J. W. Jennings Liverpool, England †..	30.22	767.6	44	6.7		calm	0		5		ne.	0	0			fair	A. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 51° 14′, W. 25° 14′ †...	29.81	757.2	58	14.4	88	nw.	5		10		nw.	sl't	sl't	cross		gloomy	
S. S. Celtic, Capt. B. Gleadell, N. 40° 39′, W. 71° 04′ †	29.99	761.7	62	16.7	88	sw.	3		10		wsw.			sm'h		cloudy	B. Gleadell.
S. S. Germanic, Capt. G. W. Kennedy, N. 50° 52′, W. 11° 44′ †..	30.36	771.1	55	12.8	93	sse.	5		5		s.	0	0	mod.	s.	d. clouds	W. A. Ward.
S. S. Republic, Capt. P. J. Irving N. 42° 34′, W. 52° 15′ †..	30.27	768.8	52	11.1	79	n.	4		2		ne.	0	0	sm'h		fair	
MISCELLANEOUS.																	
Bk. Dom Pedro II, Capt C. E. Coffin, N. 31° 00′, W. 53° 27′ *†..	29.90	759.4				ne.					e.			h'vy	ne.	squally	
U. S. F. C. S. Fish Hawk, Washington, D. C. †...	30.14	765.5	63	17.2	100	calm	0		10 n			0.84	21.3			foggy	
Schr. Henry Denison, Capt. J. Fehring N. 32° 37′, W. 71° 08′ †..	30.28	769.1				se.	2		2		se.			r'gh	se.	fair	
Golden Fleece																	
Hassler Lt. Com. Nichols,																	
S. Iron Cross, Capt. Randall,																	
S. S. Lovaine, Capt. H. McCauley																	
S. Pawashick, Capt. E. Fry,																	W. Randall.
Bk. Peppina, Capt. Giov. S. d'Anconz N. 36° 16′, W. 29° 34′ †..	30.46	773.7	68	20.0		s.	4		5		ssw.			long mod.	nw.	fair	E. Fry.
S. S. Proteus, Capt. Pike																	
Bark Sunbeam, Capt. Jos. Hand, N. 36° 45′, W. 60° 18′ †..	30.37	771.4	70	21.1	70	ne.	5		5		e.	0	0	mod.	n.	fair	J. Green.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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W. B. Hazen

Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Heliotype Printing Co. Boston.

BULLETIN

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON OCTOBER 31, 1881,

7 A. M., Washington Mean Time.

Collated at the Office of the Chief Signal Officer of the Army of the United States, from observations made in each instance in compliance with a special request, and printed for exchange with the co-operating observers.

The time for Simultaneous International Meteorological Observations is now 35 minutes earlier than before January 1st, 1881. For the present any observations taken at 7:35 A. M. will be published with a ‡.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature.		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction. Upper.	Clouds. Direction. Lower	Rain-fall or melted snow in the past 24 hours		Weather	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
ALGERIAN SERIES. Furnished by the co-operation of General Maritz, Commandant Supérieur du Génie in Algeria.																			
Nemours ‡			29.87	758.6	56.7	13.7	80	w.			3		1			0.795	20.2	very fair	Moiroud.
Algiers ‡			29.76	755.9	55.0	12.8	73	wnw.			6		10			1.504	38.2	covered	Nicolas.
La Calle ‡			29.61	752.0	55.0	12.8	77	nw.			1		6			3.307	84.0	very cloudy	Fonfréde.
Tunis ‡			29.57	751.0															Jacques.
Sfax ‡																			Gau.
Saida ‡			29.85	758.2	60.4	15.8	82	n.			5		3			0.118	3.0	pretty fair	Dumas.
Tebessa ‡			29.53	750.1	53.6	12.0	67	nw.			4		3			0	0	pretty fair	Derché.
Geriville ‡					41.7	5.4	82	nw.			8		10			0	0	covered	Lonchamp.
Laghouat ‡			29.74	755.3	52.5	11.4	66	w.			5		4			0	0	cloudy	Herbin.
Biskra ‡			29.68	753.9	74.8	23.8	31	nw.			7		6			0	0	very cloudy	Malan.
AUSTRALIAN SERIES. Furnished by the co-operation of R. L. J. Ellery, Director of the Melbourne Observatory at Melbourne, N. S. W., and the respective observers.																			
Melbourne, Victoria	30.02	762.5	30.11	764.8	56.2	13.4	74	sse.	4	1.8			10			0.02	0.5	dull	R. L. J. Ellery.
Sub-Series.																			
AUSTRO-HUNGARIAN SERIES. Furnished by the co-operation of Professor Dr. Julius Hann, Director of the Imperial and Royal Central Meteorological Institute at Vienna.																			
Agram	29.22	742.1	29.77	756.2	33.3	0.7	96	calm			0		10			0.402	10.2	rain & snow	Prof. Ivan Stozir.
Cracow, I. R. Obs'y	29.26	743.2	30.07	763.7	29.3	— 1.5	94	ne.	13.0	5.8			10			0	0		Dr. Wierzbicki.
Eperies	29.02	737.2	29.94	760.4	33.1	0.6	90	n.			1		10 8			0.213	5.4	rain & snow	Julius Mikolik.
Gratz ‡	28.59	726.3	29.89	759.1	35.4	1.9	93	s.			2		10			0.004	0.1		Andreas Rospini.
Hermannstadt	28.34	719.9	29.76	755.9	55.0	12.8	96	wnw.			3		10			0.150	3.8	raining	Prof. A. Gottschling.
Kremsmunster, Obs'y	28.52	724.4	29.92	760.0	31.6	— 0.2	94	e.			1		10			0.059	1.5	snowing	The Staff.
Lemberg	29.01	736.9	30.05	763.2	31.1	— 0.5	94	ne.			1		10			0	0		Dr. T. Stanecki.
Pola	29.43	747.6	29.55	750.5	51.8	11.0	85	ene.			6		10			0.142	3.6		I. R. Hydrographic Office.
Szathmar	29.32	744.7	29.78	756.5	42.6	5.9	94	nw.			2		10			0.799	20.3		Jozsef Midlinszky, S. J.
Szegedin	29.44	747.8	29.73	755.1	39.6	4.2	97	ne.			3		10			0.709	18.0		Karl Stancel.
Trieste	29.51	749.6	29.61	752.2	38.5	3.6	92	ene.			5		10			0.339	8.6		Rieder.
Vienna	29.18	741.2	29.93	760.2	30.9	— 0.6	94	n.			2		10			0.394	10.0		I. R. Central Met. Obs'y.
BELGIAN SERIES. Furnished by the co-operation of J. C. Houzeau, Director of the Royal Observatory at Brussels.																			
Brussels																			Royal Observatory.
Furnes																			M. E. de Cae.
Maeseyck																			M. Pierrot.

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STATIONS.	Barometer. Corrected for instru-m'tal error and tem-perature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—10	Direction. Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
BRITISH SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary, and the respective observers.																			
Aberdeen	29.99	761.7	30.09	764.3	43.0	6.1	71	s.	7	3.1			0			0	0	misty	W. Boswell.
Armagh, Observatory	29.76	755.9	30.00	762.0	41.7	5.4	62	se.	17	7.6			10					overcast	S. Call.
Bidston, Liverpool Obs'y			30.12	765.0	41.1	5.1	60	sse.	13	5.8			2					blue sky	John Hartnup.
Bolton, Sharples	29.57	751.1	30.12	765.0	41.0	5.0	48	s.	6	2.7			3					d. clouds	Thomas Mackereth.
Bradford, Yorkshire	29.70	754.4	30.10	764.5	39.9	4.4	57	sw.			1		2			0	0	blue sky	J. McLandsborough, F. R. A. S.
Bridgetown, Barbadoes																			Pvt. J. Glennon.
Cardington			30.16	766.1	41.0	5.0	49	se.			0.2		0					blue sky	John McLaren.
Chatham, School M. E.	30.07	763.8	30.21	767.3	37.3	2.9	94	calm			0		8			blank	blank	d. clouds	R. Craydon, R. E.
Falmouth, Observatory	29.87	758.7	30.10	764.5	46.5	8.1	60	sse.			4		10					overcast	The Staff.
Fort Napier, Natal	27.68	703.1	29.90	759.4	57.0	13.9	83	se.			2		9					overcast	Pvt. E. K. Anniss, A. H. C.
Free Town, Sierra Leone	29.77	756.1	29.98	761.5	86.0	30.0	75	nw.			1		3					d. clouds	Sergt. John Robinson.
Galway, Queen's College			29.77	756.1	45	7.2	60	s.			4		10					overcast	J. O'Donaghue.
Gibraltar, Mediterranean	30.06	763.5	30.12	765.0	64.6	18.1	81	nw.			2		0					blue sky	Cpl. O. Baldwin.
Glasgow, Observatory	29.85	758.2	30.06	763.5	41.4	5.2	61	wnw.			2		fg; k					foggy	Harry Urquhart, Asst.
Greenwich, Royal Obs'y	30.01	762.2	30.19	766.8	37.0	2.8	92	ne.			1		0					foggy	The Staff.
Guernsey	29.91	759.7	30.13	765.3	45.5	7.5	60	ene.			1		7					d. clouds	Dr. S. E. Hoskins, F. R. S.
Kew, Observatory	30.16	766.1	30.19	766.8	33.6	0.9	88	n.	3	1.3								foggy	The Staff.
Leicester, Museum	29.90	759.4	30.16	766.1	45.0	7.2	48	sw.			1		0					blue sky	J. C. Smith.
Malta, Mediterranean	29.54	750.3	29.61	752.1	74.6	23.7	70	se.			3		6			0.53	13.5	d. clouds	Corpl. A. King, A. H. C.
Nassau, Bahamas	29.98	761.5	30.03	762.7	79.2	26.2	71	se.			1		4					d. clouds	C. S. Duncombe.
Oscott, St. Mary's College	29.63	752.6	30.16	766.1	43.5	6.4	67	s.			1		0					blue sky	John Mac Email.
Oxford, Radcliffe Obs'y	29.94	760.5	30.17	766.3	40.0	4.4	67	sse.			1		0					misty	The Staff.
Plymouth	30.05	763.3	30.13	765.3	44.3	6.8	58	se.			3		5					d. clouds	John Merrifield.
Sandwick Manse, Orkneys			30.05	763.3	43.9	6.6	82	ne.	5	2.2			5					d. clouds	Rev. C. Clouston, L. L. D.
Scutari Cemetery, Turkey	29.86	758.4	29.93	760.2	71.2	21.8	49	sw.			1		6					d. clouds	Serg't W. H. Lyne.
Sheffield	29.85	758.2	30.14	765.5	42.3	5.7	58	sw.			2		2			0	0	blue sky	W. F. Cooper.
Silloth Rectory	30.06	763.5	30.09	764.3	37.6	3.1	64	e.			1		3			0	0	d. clouds	Rev. F. Redford, M. A.
Stonyhurst, Observatory			29.72	754.9	33.1	0.6	74	n.	3	1.3			5					d. clouds	Rev. S. J. Perry.
Straitfield Turgiss	29.93	760.2	30.15	765.8	42.5	5.8	71	e.			1		3					d. clouds	Rev. C. H. Griffiths, F. M. S.
Truro, Royal Institution	29.95	760.7	30.02	762.5	49	9.4	64	se.			6		8					gloomy	W. Newcombe.
Valencia, Observatory	29.64	752.8	29.66	753.4	48.5	9.2	85	se.	56	25.1			10					raining	The Met'g'l Office.
CANADIAN SERIES.																			
Furnished by the co-operation of Charles Carpmael, A. M., F. R. A. S., Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada, and the respective observers.																			
Bathurst, N. B.																			Hon. J. Ferguson.
Charlottetown, P. E. Island	29.76	755.9	29.80	756.9	49	9.4	96	sw.	2	0.9			10 n			0.435	11.1	cloudy	H. J. Cundall, C. E.
Chatham, N. B.*	29.68	753.9	29.74	755.4	50	10.0	93	s.	6	2.7			10 n		s.	0.08	2.0	cloudy	G. A. Blair.
Chicontimi, Quebec																			Rev. V. A. Huart.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Father Point, Quebec*	29.64	752.8	29.67	753.6	41	5.0	100	sw.	5	2.2			10 n		w.	0.19	4.8	light rain	J. McWilliams.
Fort Garry, Manitoba*	28.66	728.0	29.50	749.3	34	1.1	100	calm	0	0		5 k	5 n	s.	s.	inap.	inap.	cloudy	James Stewart.
Fredericton, N. B.																			Prof. Harrison.
Granton, Ontario																			James Grant.
Halifax, N. S.*	29.77	756.1	29.90	759.4	53	11.7	100	s.	2	0.9			10 n		sw.	0.572	14.5	heavy rain	A. Allison.
Hamilton, Ontario																			Geo. Dickson, B. A.
Kingston, Ontario*	29.54	750.3	29.87	758.7	48	8.9	89	w.	6	2.7		8 c	0	w.		0	0	fair	S. Woods, M. A.
Little Glace Bay, N. S.																			C. H. Rigby.
Montreal, Quebec*	29.59	751.6	29.79	756.7	52	11.1	83	w.	10	4.5		2 c	8 s	w.	w.	inap.	inap.	cloudy	C. H. McLeod, C. E.
Moose Factory, Ontario																			J. R. Nason.
Parry Sound, Ontario*	29.18	741.2	29.87	758.7	47	8.3	93	w.	16	7.2		5 k	5 ks	nw.	nw.	0	0	cloudy	Rev. R. Moseley.
Peterboro, Ontario																			J. F. Jeffers, M. A.
Port Dover, Ontario	29.23	742.4	29.92	760.0	46	7.8	100	nw.	3	1.3		10 ck	0	sw.		0	0	fair	H. Morgan.
Port Stanley, Ontario	29.26	743.2	29.91	759.7	47	8.3	96	w.	5	2.2			10 n		nw.	0	0	cloudy	M. Payne.
Quebec, Quebec*	29.43	747.5	29.75	755.6	49	9.4	89	w.			1	5 k	2 s		w.	0.45	11.4	clearing	Capt. Ashe, R. N.
Rockliffe, Ontario*	29.34	745.2	29.79	756.7	49	9.4	86	w.	1	0.4			10 s		w.	0.03	0.8	cloudy	W. H. McIntyre.
Saugeen, Ontario*	29.18	741.2	29.90	759.4	48	8.9	86	nw.	9	4.0			10 ks			0	0	cloudy	K. Stewart.
St. Andrews, N. B.	29.76	755.9	29.81	757.2	49	9.4	96	calm	0	0			fg.			0.18	4.6	foggy	
St. John, N. B.																			G. Murdock, C. E.
Stratford, Ontario																			C. J. Macgregor, M. A.
Sydney, C. B.*	29.75	755.6	29.82	757.4	53	11.7	93	w.	10	4.5		5 cs	5 s		w.	0.55	14.0	clearing	T. C. Hill, C. E.
Toronto, Ontario*	29.53	750.0	29.91	759.7	48	8.9	89	w.	7	3.1			10 ks		w.	0	0	cloudy	Magnetic Observatory.
Windsor, N. S.																			
Woodstock, Ontario																			Prof. Wolverton
Yarmouth, N. S.*	29.80	756.9	29.86	758.4	52	11.1	100	calm	0	0			fg.			0.65	16.5	heavy rain	Lt. F. E. Wilmot, R. N.
Sub-Series.																			
St. Johns, Newfoundland	30.03	762.7	30.28	769.1	47	8.3	100	se.	3	1.3			10 n			0.50	12.7	raining	John Delany.
St. Pierre, N. F.																			N. F. Land, Comd't.
Stations marked with a * are telegraphed daily to the office of the Chief Signal Officer of the Army.																			
CAPE COLONY SERIES.																			
Furnished by the co-operation of the Meteorological Commission of Cape Colony, Cape Town, and the respective observers.																			
Cape St. Francis Lt. House†	30.33	770.4	30.36	771.1	58.0	14.4	68	ssw.	26.2	11.7		0	4 k			0.260	6.6		John Duthie.
Cape Town, C. G. H. Obs'y																			The Staff, for D. Gill.
Worcester*†	29.47	748.5			60	15.6	53	ese.			1	2	4			0.05	1.3	cloudy	C. Stokes.
CHINESE SERIES.																			
Furnished by the co-operation of Marc Dechevrens, S. J., Director of the Meteorological Observatory at Zi-Ka-Wei.																			
Sub-Series.																			
Zi-Ka-Wei, near Shanghai	30.09	764.2	30.11	764.8	56.1	13.4	88	s.	2.2	1.0		3 ck	0	w.		0	0	cloudy	M. Marc Dechevrens, S. J

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
COSTA RICA SERIES. By authority of the Minister of Foreign Affairs. Furnished by the co-operation of the Director of the Central Office of Statistics and Meteorology.																			
San José																			
DANISH SERIES. Furnished by the co-operation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.																			
Copenhagen	30.23	767.8	30.28	769.0	35.1	1.7	91	s.	11	5			10					rain & snow.	Oversergent Fischer.
Fanöe	30.17	766.2	30.19	766.7	39.4	4.1	65	s.			4		2						Overloerer Lauridsen.
Godthaab, Greenland	29.62	752.3	29.66	753.4	25.3	— 3.7	100	nne.			4		0						S. Kleinschmidt.
Stykkisholm, Iceland	29.58	751.2	29.62	752.3	42.4	5.8	82	se.			4		8						A. O. Thorlacius.
Thorshavn	29.92	760.0	29.96	760.9	45.9	7.7	64	sw.	7	3			7						Overloerer Bergh.
Vestervig	30.01	762.2	30.10	764.5	42.1	5.6	85	sw.			2		7						Loearer Oesterbol.
FRENCH SERIES. Furnished by the co-operation of the Central Meteorological Office of France, Prof. E. Mascart, Director, and the respective observers.																			
Agen, Normal School	29.40	746.8	30.08	764.1	32.4	0.2	97	n.			2		k;kn		n.				M. Labroue, Director.
Alençon Normal School	29.60	751.7	30.20	767.0	39.2	4	90	n.			2	ck	0			0	0		M. Nicot, Director.
Arras, Engineer School	29.88	759.0	30.17	766.2	36.0	2.2	65	e.				c	0	e.					M. Klein, Commandant.
Avignon, Normal School	29.56	750.7	29.63	752.7	37.8	3.2	72	n.			4		10			0.055	1.4	stormy	M. Giraud, Director.
Bar-sur-Seine	29.48	748.8	30.06	763.6	37.9	3.3	67	ne.			1		10		ne.	0	0	covered	M. Saillard, Director.
Beauvais, Normal School	29.89	759.3	30.17	766.4	35.6	2	61	e.			2		5		ne.	0	0	cloudy	M. Frère Eugène Marie.
Besançon, Normal School	28.95	735.4	29.88	758.9	34.2	1.2	96	ne.			1		10		n.	0.059	1.5	rain & snow.	M. Gobin, Director.
Bordeaux, Observatory	29.84	757.9	30.11	764.8	40.8	4.9	54	nnw.			1		2		n.	0	0	slightly cl'dy	M. Rayet, Director.
Bourges, Normal School	29.47	748.4	30.04	763.0	34.7	1.5	81	nw.			2		kn		nw.	0	0		M. Postel, Director.
Brest, Naval Observatory	29.89	759.3	30.14	765.5	48.2	9.0	73	sw.			1		6		sw.	0	0		M. de Rermaree, Dir.
Caen, Normal School	30.10	764.5	30.18	766.5	43.5	6.4	79												M. Biétrix, Director.
Châlons-sur-Marne, N.Sch'l	29.71	754.5	30.04	763.0	38.7	3.7	69	n.			2		2		w.	0	0	slightly cl'dy	M. Jadot, Director.
Charleville, Normal School	29.49	749.1	30.01	762.3	37.0	2.8	69	ne.			3		2			0.126	3.2		M. Grimard, Director.
Clermont-Ferrand Obs'y	28.58	726.0	30.01	762.2	30.7	—0.7	72	n.			2		10		n.	0.063	1.6	covered	M. Alluard, Director.
Cluny, Normal School	29.08	738.6	29.94	760.5	32.7	0.4	86	n.			3		8		n.	0	0		M. de Villemontée, Dir
Commercy, Normal School	29.18	741.1	30.07	763.8	33.6	0.9	88	ne.			1		2 kn	ne.	ne.	0	0	slightly cl'dy	Dr. Coulet, Director.
Gap, Normal School	27.10	688.3	29.67	753.5	39.2	4	70	nw.			3					0	0		M. Jeangirard, Director.
Gréasque, du. Rhone	28.48	723.3	29.62	752.3	44.1	6.7	65	nw.			1		5		s.	0	0	½ covered	M. Kina, Director.
Grenoble, Normal School	29.00	736.6	29.80	756.9	34.0	1.1	81	nnw.			4		n			0.028	0.7		M. Ablard, Director.
Guéret, Normal School	28.41	721.7	30.06	763.6	28.4	—2	96	n.			2		5 n		s.	0	0	cloudy	M. Rivoire, Director.
Lamballe, Normal School	29.84	758.0	30.12	765.0	46.4	8	55	e.			1		2 k		e.	0.098	2.5	clear	M. Ollitrault, Director.
Lescar, Normal School	29.54	750.2	30.13	765.2	37.4	3	66	ene.			1					0	0		M. Chauvin, Director.
Lorient, Naval Observatory	30.11	764.8	30.21	767.4	50.9	10.5	50	s.			1		0			0	0	clear	Lt. T. Carré, Director.
Lyon Obs'y, Park Station	28.82	731.9	29.92	760.0	30.6	—0.8	86	n.			2		10		n.			snowing	M. André, Director.
Mans, Normal School	29.83	757.7	30.15	765.9	39.7	4.3	43	ne.			4		0			0	0	clear	M. Piboen, Director.
Marseille, Observatory	29.30	744.1	29.57	751.0	48.4	9.1	84	w.			1		7		e.	0	0		M. Stephan, Director.
Montlouis l'instituteur	24.52	622.8	29.76	755.8	22.1	—5.5	60	n.	15.0	6.7			5		n.	0	0		M. Cave, for Dr. Fines.
Montpellier, Normal School	29.59	751.6	29.70	754.4	42.1	5.6	88	nnw.			3		5		nnw.	0	0	cloudy	M. Pourle, Director.
Nancy, Normal School	29.23	742.4	30.03	762.7	34.2	1.2	78	n.			1		10 n		e.	0.024	0.6	covered	M. Hasse.
Nantes, Observatory	30.02	762.6	30.19	766.7	44.6	7	43	nne			0-2		1 k			0	0		M. Larocque, Director.
Nice	29.55	750.6	29.59	751.5	53.2	11.8	80	w.			3		10	nw.	w.	0.071	1.8	covered	Capt. Boissière, Director.
Perpignan, Observatory	29.70	754.4	29.81	757.1	38.5	3.6	55	nw.	44.7	20.0			10					snowy	Dr. Fines.
Pic-du-Midi, Summit	20.82	528.9			— 1.1	—18.4		n.			3		10		n.	0.343	8.7	snowy	Gen'l de Nansouty Dir.
Privas, Normal School	28.73	729.7	29.84	757.8	34.2	1.2	78	n.			1		1	n.		0	0	clear	M. Tallieu.
Puy de Dôme Obs'y, Summit	24.87	631.8			14.4	—9.8	100	n.			4		10			0.535	13.6	foggy	M. Alluard, Director.
Rochefort, Naval Obs'y	30.16	766.0	30.19	766.8	42.3	5.7	66	nne.			1		2		n.	0	0	¼ covered	Lt. E. Decante, Direc'tor.
Roche-sur-Yon, N. School	29.95	760.8	30.18	766.5	41.4	5.2	54	n.			1		0			0	0	clear	M. Mouillot, Director.
Rodez, Normal School	27.71	703.9	29.95	760.7	31.3	—0.4	87	nw.			4		10		ne.	0	0	covered	M. Richard, Director.
Rouen, Normal School	30.13	765.2	30.17	766.3	38.8	3.8	87	ne.			1					0	0		M. Platrier, Director.
Saint Lô, Normal School	30.03	762.7	30.19	766.7	41.0	5	94	ne.			1		8		nne.	0.240	6.1	very cloudy	M. Delaplanche, Dir.
Saint Maur, Observatory	29.96	760.9	30.12	765.1	36.9	2.7	56	nne.			2		2		ne.	0.004	0.1		M. Renou, Director.
Toulouse, Observatory	29.30	744.3	30.03	762.7	69.8	21.0	71	nw.			4		8		nw.	0	0	very cloudy	M Bailland, Director.
Tours	29.88	759.0	30.08	764.0	37.4	3.0	60	ne.			2		2	calm	e.	0	0	¼ covered	M. de Tastes.
Versailles, Observatory	29.63	752.7	30.13	765.2	34.5	1.4		ne.			3					0	0		Dr. A. Bérigny, Director.
Sub-Series.																			
Paris, Montsouris Obs'y	29.84	758.0	30.13	765.4	35.4	1.9	67	nne.			3		7		nne.	inap.	inap.		M. Marié Davy, Director.
GERMAN SERIES. Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
Bamberg	29.17	740.8	30.03	762.7	32.5	0.3	70	n.			5	0	8 s			0	0		Prof. Dr. Hoh.
Berlin	29.98	761.4	30.15	765.9	36.3	2.4	66	e.			1		10			0	0		Prof. Dr. Arndt.
Breslau	29.60	751.9	30.13	765.4	31.8	— 0.1	83	ene.			2		10			0	0		Royal University Obs'y.
Carlsruhe	29.59	751.5	30.03	762.8	35.6	2.0	64	ne.			2		10	ne.		0	0		Albert Senz.
Cassel	29.37	745.9	30.08	764.1	30.6	— 0.8	77	n.			5		6	ne.		0	0		Dr. H. Möhl.
Frankfort on the Main	29.69	754.1	30.08	763.9	35.1	1.7	71	nne.			2		10			0	0		Physical Society.
Friedrichshafen	28.43	722.0	29.91	759 7	34.5	1.4	78	ne.			5		10	e.				snowy	Wilhelm, Chief Tel.
Hamburg	30.12	765.0	30.21	767.4	35.4	1.9	69	ne			1		7			0	0	hazy	E. Preller.
Kiel	30.18	766.6	30.20	767.0	37.2	2.9	68	se.			2		1			0.016	0.4		Prof. Dr. G. Karsten.
Leipsic, Astrom'l Obs'y	29.71	754.7	30.16	766.0	30.6	— 0.8	85	ne.			2		10	ene.		0	0	snowy	H. Leppig, Asst.
Magdeburg	29.97	761.2	30.17	766.3	33.1	0.6	71	ne.			1	0	9k;ks		ne.	0	0		Dr. Assmann.
Memel	30.31	769.8	30.35	771.0	27.5	— 2.5	70	e.			2		1					hazy	Issermann.
Munich	28.07	712.9	29.92	760.0	30.0	— 1.1	93	ne.			1		10			0.205	5.2		Central Station.
Neufahrwasser	30.27	768.9	30.29	769.3	32.0	0.0	88	e.			1		2			0	0		A. Lothes.
Neustadt, Palatinate	29.49	749.1	30.02	762.5	34.9	1.6	84	n.			2		10	n.		0	0		Dicknether.
Stuttgart	29.02	737.2	29.95	760.8	34.7	1.5	71	n.			4		10			0	0	gloomy	Prof. Dr. Schoder.
Weissenburg, Bavaria	28.45	722.6	30.03	762.7	31.5	— 0.3	89	ne.			4		10			0.114	2.9		Fischer.
Wustrow	30.21	767.3	30.24	768.0	36.7	2.6	67	ese.			1	0	3 s			0	0		Brandes & Reimer.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Mill.	Reduced to sea-level. Inch.	Mill.	Temperature of the Air. Fah.	Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Velocity. Miles p. h'r	Mtrs p. sec	Force 0—10	Clouds. Amount and kind. Up'er 0—10	Lo'er 0—0	Direction, Upper. From.	Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Mill.	Weather.	Observers.
GREEK SERIES. Furnished by the co-operation of Prof. Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.																			
Athens	29.59	751.5	29.97	761.2	74.3	23.5		s.			3.0		5			0	0		Schmidt & Wourlisch.
INDIAN SERIES. Furnished by the co-operation of H. F. Blanford, Meteorological Reporter to the Government of India, at Calcutta.																			
Kurrachee	29.76	756.0	29.82	757.3	82.0	27.8	87	wsw.	21.0	9.4			0			0	0	blue sky	
Deesa	29.36	745.7	29.83	757.6	88.9	31.6	35	sse.	5.9	2.6			0			0	0	blue sky	
Bombay	29.79	756.6	29.82	757.5	82.5	28.1	71	nw.	16.0	7.2			0			0	0	blue sky	
Poona, Yarrowda.	27.98	710.7	29.81	757.1	86.5	30.3	17	ene.	7.0	3.1			0			0	0	blue sky	
Belgaum	27.30	693.3	29.81	757.1	82.8	28.2	30	ne.	2.0	0.9			0			0	0	blue sky	
Lahore	29.10	739.2	29.84	758.0	82.0	27.8	33	n.	0.6	0.3			4			0	0	d. clouds	
Roorkee	28.95	735.3	29.86	758.4	75.8	24.3	45	nw.	1.4	0.6			1			0	0		
Agra	29.30	744.3	29.87	758.7	82.2	27.9	43	w.	2.2	1.0			0			0	0		
Nagpur	28.82	732.1	29.86	758.6	81.7	27.6	34	calm	3.2	1.4			0			0	0	blue sky	
Jubbulpore	28.54	724.8	29.89	759.3	79.8	26.6	30	calm	2.8	1.2			0			0	0	blue sky	
Lucknow	29.50	749.3	29.88	758.8	84.2	29.0	22	calm	1.1	0.5			0			0	0	blue sky	
Allahabad	29.57	751.0	29.89	759.1	73.6	23.1	55	calm	0.4	0.2			0			0	0	blue sky	
Patna	29.73	755.0	29.91	759.7	78.1	25.6	59	calm	1.4	0.6			4	e.	e.	0	0	d. clouds	
Hazaribagh	27.86	707.6	29.88	758.9	77.6	25.3	31	w.	2.0	0.9			8			0	0		
Cuttack	29.80	757.0	29.89	759.1	80.9	27.2	67	nne.	0.1	0.04			4			0	0	d. clouds	
Calcutta, Alipore	29.87	758.7	29.89	759.2	76.4	24.7	97	calm	0	0			1			0	0	d. clouds	
Dhubri	29.82	757.5	29.95	760.6	76.8	24.9	74	calm	1.6	0.7			5			0	0	d. clouds	
Goalpara																			
Chittagong	29.81	757.2	29.90	759.5	76.7	24.8	65	nw.	2.3	1.0			0			0	0	blue sky	
Sibsagar	29.55	750.6	29.89	759.2	75.9	24.4	84	e.	0.9	0.4			2			0	0	blue sky	
Jeypore	28.43	722.1	29.87	758.6	82.4	28.0	27	nw.	2.5	1.1			0			0	0	blue sky	
Zanzibar, Africa			29.90	759.4	80.7	27.1	80	ese.					10			1.02	25.9	raining	
ITALIAN SERIES. By authority of the Minister of Agriculture, Industry and Commerce. Furnished by the co-operation of Prof. P. Tacchini, Director of the Central Meteorological Office at Rome, and the respective observers.																			
Udine	29.27	743.5	29.68	753.9	44.2	6.8	63	e.	4.9	2.2			10			0.185	4.7		Prof. Giovanni Clodig.
Milan	29.15	740.4	29.67	753.6	45.7	7.6	89	s.	1.8	0.8			10	sse.		0.209	5.3		Prof. Schiaparelli.
Padua	29.54	750.3	29.65	753.0	44.4	6.9	84	nne.	13.0	5.8			10	nne.		0.185	4.7		Prof. Dott. Lorenzoni.
Moncalieri	28.73	729.8	29.64	752.9	47.1	8.4	94	wsw.	3.8	1.7			10			0.220	5.6		Prof. P. F. Denza.
Genoa	29.38	746.3	29.57	751.1	51.8	11.0	63	ne.	6.9	3.1			10	sw.		0.043	1.1		Prof. G. M. Garibaldi.
Mondovi	27.72	704.1	29.64	752.9	41.4	5.2	94	w.			2		9			0.327	8.3		Prof. D. C. Bruno.
Pesaro	29.50	749.3	29.55	750.5	47.3	8.5	94	nw.			4		10			1.437	36.5		Prof. Luigi Guidi.
Florence	29.31	744.4	29.56	750.8	50.0	10.0	73	n.			4		10			0.189	4.8		Prof. Costantino Pitter.
Leghorn	29.48	748.7	29.56	750.8	54.9	12.7	81	ne.	3.8	1.7			9			0.098	2.5		Prof. P. Monte.
Rome	29.37	746.0	29.54	750.4	62.1	16.7	76	wsw.	10.5	4.7			10			1.197	30.4		Prof. P. S. Ferrari.
Lecce	29.41	747.1	29.66	753.4	70.9	21.6	80	ssw.	49.7	22.2			10	s.		0.004	0.1		Prof. C. de Giorgi.
Cosenza	28.80	731.5	29.67	753.7	68.0	20.0	72	ssw.	4.9	2.2			9	sw.		0.665	16.9		Prof. D. Conti.
Cagliari	29.42	747.2	29.53	750.1	56.5	13.6	59	wnw.			6		10			0.079	2.0		Prof. A. Pacinotti.
Palermo	29.28	743.7	29.52	749.9	75.2	24.0	48	nne.	6.9	3.1			10			0	0		Prof. G. Ciacciatore.
Syracuse	29.57	751.1	29.61	752.2	72.3	22.4	57	e.	9.4	4.2			10	s.		0.039	1.0		Prof. Vincenzo Guiliano.
Sub-Series.																			
Naples, S. R	29.13	739.8	29.55	750.6	66.2	19.0	83	se.	3.8	1.7			10	sw.		0.303	7.7		Prof. F. Brioschi.
Stelvio	21.75	552.4			26.6	— 3.0	87	ne.			2		10			0	0	misty	Prof. P. F. Denza.
Valdobbia	21.78	553.1			24.4	— 4.2	63	e.			6		10			0	0	covered	Prof. P. F. Denza.
JAPANESE SERIES. Furnished by the co-operation of J. Arai, Director of the Imperial Meteorological Observatory at Tokei.																			
Hiroshima, I. M. Obs'y	29.98	761.5	29.99	761.7	54.6	12.6	78	w.	1.5	0.7		0	0			0	0	clear	K. Sasaki.
Kioto	29.83	757.7	30.01	762.2	51.0	10.6	92	nnw.	0.9	0.4		ck	1 s			0	0	clear	M. Tojima.
Nagasaki, I. M. Obs'y	29.90	759.4	30.10	764.5	59.7	15.4	72	nnw.	1.0	0.4		1 ck	0			0	0	clear	S Takehayashi
Nemuro																			
Niigata	29.81	757.2	29.84	757.9	60.2	15.7	68	w.	24.8	11.0		ck	9 ks		w.	0.190	4.8	cloudy	
Nobiru	29.71	754.6	29.73	755.1	53.0	11.7	93	n.	5.7	2.5			10k;ks;			0.030	0.8	light rain	
Supporo	29.47	748.5	29.54	750.3	37.0	2.8	77	nnw.	13.2	5.7			3 [n			0.335	8.5		
Tokei Obs'y, Yeddo	29.76	755.9	29.83	757.7	50.2	10.1	93	sw.	2.5	1.1		0	0			0	0	clear	The Staff.
Wakayama	29.95	760.7	30.00	762.0	55.0	12.8	81	sw.	0.8	0.4		0	0			0	0	clear	Y. Kuwamuca.
MAURITIUS SERIES. Furnished by the co-operation of C. Meldrum, Secretary of the Meteorological Society of Mauritius.																			
Mauritius Obs'y, Mauritius	29.94	760.5	30.13	765.3	75.6	24.2	60	ese.	25.5	11.4		0	4 k;ks		ese.	0.15	3.8	fair	A. N. Figor.
MEXICAN SERIES. By authority of the Secretary of Public Works. Furnished by the co-operation of Senor Mariano Bárcena, Director of the Central Meteorological Observatory in the City of Mexico, and the respective observers.																			
Guadalajara																			Prof. L. Perez.
Guanajuato	23.71	602.1	29.93	760.1	53.6	12.0	80	sw.	0	0		0	2 s		e.	0	0	clear	Vicente Fernandez
Leon	24.45	621.2	30.19	766.8	56.0	13.3	88	n.			1	5 c	0	e.		0	0	½ cloudy	Prof. M. Leal.
Mazatlan	29.70	754.4	29.96	761.0	72.0	22.2	90	e.	0.9	0.4		0	1 k			0	0	clear	F. Quijano, C. E.
Mexico, Central Obs'y	23.12	587.2	30.23	767.9	52.5	11.4	84	calm	0	0			10 pk			0	0	overcast	The Staff.
Morelia	24.09	612.0	30.12	765.0	61.2	16.2	56	ne.			1	0	0			0	0	fine	M. Tena, M. D.
Pabellon, Aguascalientes	23.98	609.1	30.02	762.6	52.3	11.3	89	calm			0	0	1 s			0	0	fine	M. V. de Leon, M. E.
Puebla, Catholic Institute	23.42	594.9	30.22	767.5	52.3	11.3	80	calm	0	0		0	3		n.	0	0	clear	Prof. P. Spina.
San Luis Potosi																			G. Barroeta, M. D.
Tlacotalpam																			Prof. M. Cházaro.
Vera Cruz																			Prof. J. Rossell.
Zacatecas																			J. A. Bonilla, M. E.
NETHERLANDS SERIES. Furnished by the co-operation of Prof. Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.																			
Flushing	30.19	766.9	30.19	766.9	38.8	3.8		ene.			3					0	0		
Groningen	30.15	765.7	30.20	767.1	36.0	2.2		ese.			1					0	0		
Helder	30.19	766.8	30.19	766.8	40.6	4.8		se.			1					0	0		
Hellevoetsluis	30.19	766.7	30.19	766.7	39.2	4.0	70	ene.			1					0	0		
Utrecht	30.15	765.8	30.20	767.0	38.7	3.7	54	ene.			2		2			0	0	lightly cl'dy	H. van der Brink.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature. Inch.	Barometer. Corrected for instrum'tal error and temperature. Mill.	Barometer. Reduced to sea-level. Inch.	Barometer. Reduced to sea-level. Mill.	Temperature of the Air. Fah.	Temperature of the Air. Cent.	Rel. Hum. Per Ct.	Wind. Direction. From.	Wind. Velocity. Miles p. h'r	Wind. Velocity. Mtrs p. sec	Wind. Force 0—10	Clouds. Amount and kind. Up'er 0—10	Clouds. Amount and kind. Lo'er 0—10	Clouds. Direction. Upper. From.	Clouds. Direction. Lower. From.	Rain-fall or melted snow in the past 24 hours. Inch.	Rain-fall or melted snow in the past 24 hours. Mill.	Weather.	Observers.
NORWEGIAN SERIES. Furnished by the co-operation of Prof. H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.																			
Bergen	30.00	761.9	30.06	763.5	35.6	2.0	64	calm	0	0			0			0.169	4.3		
Christiania	29.98	761.4	30.12	765.1	29.5	— 1.4	76	ene.	4	2			10			0.012	0.3	snowing	
Gjæsvær	30.34	770.5	30.36	771.1	20.5	— 6.4		calm			0		0						
Lodingen	30.18	766.5	30.22	767.7	28.2	— 2.1	53	se.			6		0			0	0		
PORTUGUESE SERIES. Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Angra, Azores	29.89	759.1	30.04	763.0	67.1	19.5	85	sw.	13.6	6.1			3			0	0		Dr. J. A. Sampaio.
Campo Major	29.14	740.1	30.16	766.0	52.0	11.1	33	n.	6.9	3.1			9			0	0		Dr. A. M. R. dos Santos
Funchal, Madeira	30.13	765.3	30.22	767.5	69.8	21.0	50	sw.	6.3	2.8			2			0	0		Capt. D. A. de Cunha.
Lisbon, Observatory	29.84	758.0	30.21	767.4	52.3	11.3	51	ne.	4.3	1.9			1			0	0		The Staff.
Ponta Delgada, Azores	30.05	763.2	30.12	765.0	66.9	19.4	74	sw.	16.8	7.5			3			0	0		
RUSSIAN SERIES. Furnished by the co-operation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.																			
Akmolinski	29.05	737.9	30.21	767.3	18.7	— 7.4	85	wsw.	13	6		0	6 k						Capt. Lasarew.
Archangel	30.15	765.7	30.17	766.2	23.4	— 4.8	100	wsw.	2	1			10						Capt. Sseliwerstow.
Astrakhan	30.02	762.4	29.93	760.3	56.1	13.4	75	w.	16	7			10 n			blank	blank	heavy cl'ds.	Capt. Wisganow.
Barnaul ‡	29.88	759.0	30.43	772.9	14.9	— 9.5	64	w.	2	1			9					light clouds	Meteorological Obs'y.
Dorpat	30.13	765.3	30.39	771.8	30.9	— 0.6	81	s.	4	2		2 ck	0						Observatory.
Ekaterinburg	29.05	737.8	30.09	764.2	14.2	— 9.9	60	wsw.	13	6		0	5 n						Meteorological Obs'y.
Kasan	29.96	760.9	30.25	768.3	18.5	— 7.5	69	wnw.	2	1			9						Observatory.
Kertch	29.95	760.8	29.97	761.3	61.0	16.1	87	calm	0	0		0	8 n			0	0		Lagorio & Sastyrea.
Kieff	29.51	749.6	30.19	766.7	26.8	— 2.9	85	ene.	9	4			10ks;n						Observatory.
Lugan	29.95	760.6	30.16	766.1	26.6	— 3.0	83	ene.	13	6			10						Meteorological Obs'y.
Moscow	29.75	755.6	30.26	768.7	24.3	— 4.3	68	s.	4	2		0	7 ks						Meteorological Obs'y.
Nikolaiev	29.98	761.5	30.05	763.3	41.0	5.0	96	nne.	18	8			10 n						Capt. Kurdakow.
Nikolaievsk, on the Amoor	29.59	751.6	29.68	753.8	17.6	— 8.0	77	w.			4		10 n			0.047	1.2		Lieut. Iwanow.
Pekin, China	29.87	758.8	30.02	762.4	53.8	12.1	56	calm	0	0		0	0			0	0		Physical Observatory.
St. Petersburg	30.38	771.6	30.39	772.0	21.0	— 6.1	93	se.	4	2			10 n					sleeting	Central Physical Obs'y.
Tashkend, Laboratory	28.87	733.4	30.50	774.7	45.3	7.4	80	calm	0	0			0			0.197	5.0		Teich, A. M.
Tiflis	28.71	729.3	30.10	764.6	67.8	19.9	32	nw.	9	4		0	0						Physical Observatory.
Warsaw	29.75	755.6	30.19	766.9	34.3	1.3	80	nne.	11	5			10 n					light snow	Astronomical Obs'y.
Wilna	29.92	760.0	30.37	771.3	30.2	— 1.0	61	se.	2	1			4					light clouds	Berg, Assistant.
Yeniseisk	30.00	762.0	30.32	770.0	9.7	—12.4	64	w.	9	4			6						M. O. Marks.
SCOTTISH SERIES. Furnished by the co-operation of Alexander Buchan, M. A., F. R. S. E., Secretary of the Scottish Meteorological Society at Edinburgh, and the respective observers.																			
Leith, Restalrig Park			30.15	765.8	42.4	5.8	62	e.			1	0	0			0	0	fine	Andrew Gibb.
Monach Lt. House, Hebrides			29.85	758.4	45	7.2	92	sse.			7	3	3	sse.		0	0	d. clouds	J. Youngclause.
North Unst, Shetland Isl'ds																			Robert Burnet.
SPANISH SERIES. Furnished by the co-operation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and the respective observers.																			
Barcelona, Met. Obs'y	29.67	753.6	29.78	756.3	51.3	10.7	48	w.	3.8	1.7			0			0.134	3.4	clear	Antonio Rave, Director.
Bilbao, Met. Obs'y	30.11	764.8	30.17	766.3	50.4	10.2	65	ne.	1.6	0.7		2	4	n.		0.370	9.4	cloudy	Prof. Manuel de Nevera.
Burgos, Met. Obs'y	27.09	688.2			39.2	4.0	92	n.	9.2	4.1		0	6			0	0	cloudy	Domingo Martin.
Madrid, Royal Obs'y	27.82	706.6	30.10	764.6	44.6	7.0	43	s.	4.9	2.2		0	0			0	0	clear	The Staff.
Murcia, Met. Obs'y ‡	29.84	758.0	30.00	761.9	53.8	12.1	36	nnw.	6.5	2.9		0	2			0	0	almost clear	Olayo Diaz, Director.
Santiago, Met. Obs'y	29.19	741.3	30.10	764.4	50.5	10.3	60	se.	6.9	3.1			10			0.012	0.3	covered	R. Gil Vallanueva, Dir.
Sub-Series.																			
Havana, Cuba, W. I.	29.94	760.5	30.00	762.1	75.2	24.0	88	e.	1.3	0.6		1 c	0	sse.		0	0	fair	Benito Vines, S. J.
Manilla, Philippine Islands	29.93	760.3	29.98	761.6	79.3	26.3	86	ne.	0	0		cs	0			0	0	clear	Federico Faura, S. J.
San Fernando, Naval Obs'y	30.08	763.9	30.18	766.5	56.8	13.8	24	n.	6.3	2.8		0	0			0	0		Capt. C. Pujazon, R. N.
San Juan de Porto Rico, W. I	29.84	757.8	29.93	760.1	77.7	25.4	89	ne.	14.5	6.5		4 cs	6 n	ne.	ne.	0.189	4.8	raining	E. Cadea, Chief Engn'r.
Tuguegarao, Philippine Ids	29.91	759.8	30.05	763.2	73.9	23.3	91	nw.	5.1	2.3		5 ck	1 ks	ese.	n.	0	0	partly cld'y	José L. Fastoyra.
SWEDISH SERIES. Furnished by the co-operation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, and of Prof. H. H. Hildebrandsson, Director of the Meteorological Observatory of the Upsala University.																			
Haparanda	30.40	772.1	30.44	773.1	19.4	— 7.0	83	ne.			2		5			0	0		
Umea	30.34	770.6	30.39	771.9	24.1	— 4.4	86	calm			0		10			0	0		
Hernosand	30.26	768.5	30.31	769.8	30.4	— 0.9	78	ne.			4		10			0.331	8.4		
Stockholm	30.48	774.3	30.66	778.8	34.9	1.6	71	sw.			2		10			0	0		
Wisby	30.24	768.0	30.30	769.5	34.9	1.6	78	sw			2		0			0.154	3.9		
Sub-Series.																			
Upsala	30.18	766.6	30.27	768.8	31.5	— 0.3	79	ese.	2.0	0.9			8			inap.	inap.		S. G. Fineman.
SWISS SERIES. Furnished by the co-operation of Prof. Rob. Billwiller, Director of the Central Meteorological Institute of Switzerland, at Zurich, and Prof. E. Plantamour, Director of the Observatory at Geneva.																			
Geneva	28.36	720.4	29.84	757.8	36.7	2.6	74	ne.			8		10			0	0	covered	The Observatory.
Zurich ‡	28.24	717.3	29.95	760.7	32.7	0.4	94	ne.			2		10					showery	The Observatory.
TURKISH SERIES. Furnished by the co-operation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and of Prof. C. V. A. van Dyck, Superintendent of the Lee Observatory at Beirut.																			
Constantinople			29.99	761.7	72.7	22.6	51	s.	6	2.5			9		sw.	0	0		The Observatory.
Valona			29.80	756.9	77.4	25.2		s.			4		2			0	0	slightly cld'y	A. Bertrand.
Sub-Series.																			
Beirut, Lee Obs'y, Syria			29.98	761.4	82.9	28.3	70	sw.			1	7 c	0			0	0		Prof. C. V. Van Dyck.

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind. Up'er	Clouds. Amount and kind. Lo'er	Clouds. Direction, Upper.	Clouds. Direction, Lower.	Rain-fall or melted snow in the past 24 hours.		Weather.	Observers.
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES. By authority of the Secretary of War. Furnished by the co-operation of W. B. Hazen, Brigadier and Brevet Major General, Chief Signal Officer, U. S. Army.																			
Albany, New York	29.79	756.7	29.87	758.7	59.5	15.3	75	sw.	2	0.9			10 s		w.	0.31	7.9	cloudy	
Alpena, Michigan	29.28	743.7	29.96	761.0	43.5	6.4	93	w.	6	2.7			10 s			0	0	cloudy	
Atlanta, Georgia	28.70	729.0	29.92	760.0	61.0	16.1	100	w.	8	3.6			fg.			2.50	63.5	light fog	
Atlantic City, New Jersey	29.94	760.5	29.96	761.0	65.8	18.8	93	sw.	17	7.6			10 s		s.	0.16	4.1	cloudy	
Augusta, Georgia	29.67	753.6	29.87	758.7	67.0	19.4	93	s.	4	1.8			10 s		s.	1.42	36.1	cloudy	
Baltimore, Maryland	29.85	758.2	29.90	759.4	67	19.4	100	sw.	4	1.8			10 n		calm	1.40	35.6	heavy rain	
Barnegat, New Jersey	29.90	759.4	29.92	760.0	65.5	18.6	95	sw.	19	8.5			10 s		s.	1.90	48.3	cloudy	
Bismarck, Dakota	27.65	702.3	29.57	751.1	44	6.7	63	calm	0	0			10 s		calm	0	0	cloudy	
Boise City, Idaho	27.28	692.9	30.20	767.1	38	3.3	92	w.	2	0.9			10 s		calm	0.26	6.6	cloudy	
Boston, Massachusetts	29.70	754.4	29.86	758.4	64.0	17.8	95	sw.	7	3.1			10s; fg		sw.	0.11	2.8	cloudy	
Brackettville, Texas	28.88	733.5	29.95	760.7	49	9.4	86	calm	0	0		0	0			0	0	clear	
Brownsville, Texas																			
Buffalo, New York	29.18	741.2	29.92	760.0	61	16.1	67	n.	1	0.4		9 cs	sk.	sw.		0	0	cloudy	
Burlington, Vermont	29.52	749.8	29.82	757.4	58.3	14.6	89	s.	8	3.6			10 s		w.	0.01	0.3	cloudy	
Cairo, Illinois	29.59	751.6	30.00	762.0	50.6	10.3	89	nw.	3	1.3		0	fg.			0	0	clear	
Campo, California	27.40	695.9	29.97	761.2	30.8	— 0.7	88	nw.	3	1.3		0	0			0	0	clear	
Camp Thomas, Arizona	27.19	690.6			37.5	3.1	87	calm			0	0	0			0	0	clear	
Cape Henry, Virginia	29.92	760.0	29.94	760.5	72	22.2	82	s.	16	7.2			10 s		s.	0	0	cloudy	
Cape May, New Jersey	29.90	759.4	29.93	760.2	65	18.3	93	s.	16	7.2			10 s		s.	0.72	18.3	cloudy	
Castroville, Texas	29.27	743.4	30.00	762.0	45	7.2	93	nw.	4	1.8		0	0			0	0	clear	
Cedar Keys, Florida	29.92	760.0	29.94	760.5	75	23.9	90	s.	28	12.5		0	5 s		se.	0.02	0.5	clearing	
Champaign, Illinois	29.13	739.9	29.94	760.5	44.7	7.1	83	ne.	2	0.9			10 s		ne.	0	0	cloudy	
Charleston, S. Carolina	29.86	758.4	29.92	760.0	75	23.9	90	sw.	12	5.4		3 c	7 s	calm	sw.	0.11	2.8	cloudy	
Charlotte, N. Carolina	28.98	736.1	29.89	759.2	62.0	16.7	100	se.	6	2.7			10 n		se.	1.28	32.5	light rain	
Chattanooga, Tennessee	29.08	738.6	29.93	760.2	60.0	15.6	87	w.	5	2.2		0	9 ks		w.	0.98	24.9	cloudy	
Cheyenne, Wyoming	23.78	604.0	29.91	759.7	38.2	3.4	47	nw.	28	12.5		0	0			0	0	clear	
Chicago, Illinois	29.24	742.7	29.98	761.5	47.6	8.7	87	calm	0	0			10 s			0	0	cloudy	
Chincoteague, Virginia	29.93	760.2	29.95	760.7	69	20.6	90	s.	27	12.1		0	8 s		s.	0	0	cloudy	
Cincinnati, Ohio	29.25	742.9	29.93	760.2	54.5	12.5	80	nw.	4	1.8			fg.			0.41	10.4	dense fog	
Cleveland, Ohio	29.20	741.7	29.97	761.2	52.6	11.4	81	n.	10	4.5			10 s		n.	0	0	cloudy	
Coleman City, Texas																			
Columbus, Ohio	29.01	736.8	29.90	759.4	52	11.1	80	n.	4	1.8		3 ck	3 ks	sw.	sw.	0.50	12.7	clearing	
Concho, Texas	28.07	713.0	30.07	763.8	44	6.7	86	calm	0	0		0	0			0	0	clear	
Corsicana, Texas	29.61	752.1	30.09	764.3	48	8.9	77	nw.	4	1.8		0	0			0	0	clear	
Davenport, Iowa	29.26	743.2	29.94	760.5	45	7.2	83	s.	6	2.7			10 s		calm	0	0	cloudy	
Dayton, Washington T'y	28.34	719.8	30.20	767.1	41.7	5.4	82	sw.	4	1.8			10 s		w.	0.08	2.0	cloudy	
Deadwood, Dakota	25.02	635.5	29.88	758.9	38	3.3	67	s.	24	10.7		0	0			inap.	inap.	clear	
Decatur, Texas					50	10.0	71	se.	8	3.6		0	0			0	0	clear	
Delaware Breakwater, Del.	29.91	759.7	29.93	760.2	68	20.0	93	s.	12	5.4			9 ks		sw.	0.02	0.5	cloudy	
Denison, Texas	29.21	741.9	30.04	763.0	51	10.6	72	sw.	6	2.7		0	0			0	0	clear	
Denver, Colorado	24.52	622.8	29.89	759.2	42.0	5.6	30	s.	7	3.1		0	0			0	0	clear	
Des Moines, Iowa	28.96	735.6	29.91	759.7	45	7.2	83	s.	3	1.3		0	3 s			0	0	clear	
Detroit, Michigan	29.24	742.7	29.98	761.5	49.9	9.9	76	nw.	2	0.9			10 n		calm	inap.	inap	light rain	
Dodge City, Kansas	27.14	689.3	29.83	757.7	44.6	7.0	78	s.	10	4.5		0	0			0	0	clear	
Dubuque, Iowa	29.23	742.4	29.97	761.2	41.5	5.3	93	s.	3	1.3			fg.		calm	0	0	dense fog	
Duluth, Minnesota	29.04	737.6	29.77	756.1	40	4.4	89	sw.	2	0.9			10 s		sw.	0.03	0.8	cloudy	
Eagle Pass, Texas	29.32	744.7	30.17	766.3	56.6	13.7	64	calm	0	0		0	0			0	0	clear	
Eagle Rock, Idaho	25.19	639.8	30.18	766.6	31	— 0.6	92	sw.	18	8.0			10 s		sw.	0.36	9.1	cloudy	
Eastport, Maine	29.75	755.6	29.82	757.4	51	10.6	96	s.	1	0.4			10 n			0.33	8.4	light rain	
El Paso, Texas	26.22	666.0	30.06	763.5	38.3	3.5	72	nw.	1	0.4		0	0			0	0	clear	
Erie, Pennsylvania	29.18	741.2	29.94	760.5	58	14.4	84	calm	0	0		10 cs	0			0.01	0.3	cloudy	
Escanaba, Michigan	29.22	742.2	29.90	759.4	42	5.6	93	sw.	5	2.2			10 s		calm	0.01	0.3	cloudy	
Florence, Arizona	28.38	720.8	29.98	761.5	49.3	9.6	60	ne.	2	0.9		0	0			0	0	clear	
Fort Apache, Arizona	24.98	634.5	30.02	762.5	34	1.1	80	ne.	2	0.9		0	0			0	0	clear	
Fort Assinnaboine, Montana	26.93	684.0	29.87	758.7	36	2.2	82	sw.	14	6.3		0	4 s		sw.	0	0	fair	
Fort Bennett, Dakota																			
Fort Benton, Montana	26.98	685.3	29.96	761.0	40	4.4	59	sw.	12	5.4			10 ks		calm	0	0	cloudy	
Fort Buford, Dakota	27.60	701.0	29.70	754.4	45	7.2	63	calm	0	0			10 s		calm	0	0	cloudy	
Fort Custer, Montana	26.60	675.6	29.99	761.7	40	4.4	63	n.	10	4.5		0	5 s		calm	0.43	10.9	fair	
Fort Davis, Texas	24.87	631.7	29.83	757.7	44	6.7	80	s.	8	3.6		0	0			0	0	clear	
Fort Elliott, Texas	27.09	688.1	30.39	771.9	45	7.2	71	s.	16	7.2		0	0			0	0	clear	
Fort Gibson, Indian T'y	29.40	746.7	29.97	761.2	45.3	7.4	93	e.	4	1.6		0	0			0	0	clear	
Fort Grant, Arizona	25.20	640.1	30.00	762.0	45	7.2	58	ne.	2	0.9		0	0			0	0	clear	
Fort Griffin, Texas	28.70	729.0	29.99	761.7	47.5	8.6	63	se.	4	1.8		0	0			0	0	clear	
Fort Keogh, Montana	27.15	689.6	29.82	757.4	42	5.6	82	w.	14	6.3			10 s		w.	0.25	6.3	cloudy	
Fort Macon, North Carolina	29.98	761.5	29.99	761.7	72	22.2	90	sw.	28	12.5		8 cs	2 k	sw.	sw.	0	0	cloudy	
Fort McKavett, Texas	27.80	706.1	29.74	755.4	47.2	8.4	66	s.	8	3.6		0	0			0	0	clear	
Fort Missoula, Montana	26.65	676.9	30.30	769.6	38	3.3	82	sw.	3	1.3			10 ks			0.03	0.8	cloudy	
Fort St. Michaels	29.80	756.9	29.84	757.9	27	— 2.8	76	se.	8	3.6		0	5 s		e.	0	0	fair	
Fort Shaw, Montana	26.19	665.2	29.93	760.2	39	3.9	65	sw.	11	4.9			10 s		calm	0	0	cloudy	
Fort Sill, Indian Territory	28.73	729.7	30.02	762.5	43.3	6.3	82	s.	2	0.9		0	0			0	0	clear	
Fort Stevenson, Dakota	27.60	701.0	29.56	750.8	47	8.3	86	n.	24	10.7			10 s			0	0	cloudy	
Fort Verde, Arizona					35	1.7	66	w.			1	0	0			0	0	clear	
Fredericksburg, Texas	28.32	719.3	29.92	760.0	44	6.7	86	nw.	1	0.4		0	0			0	0	clear	
Galveston, Texas	30.08	764.0	30.12	765.0	60	15.6	77	nw.	4	1.8		0	0			0	0	clear	
Grand Haven, Michigan	29.27	743.4	29.97	761.2	49.0	9.4	77	calm	0	0			10 s		calm	0	0	cloudy	
Hatteras, North Carolina	29.98	761.5	30.00	762.0	74	23.3	85	s.	32	14.3			10 s		s.	0.98	24.9	cloudy	
Helena, Montana	25.65	651.5	30.24	768.1	40	4.4	67	s.	21	9.4			10 s		calm	0.12	3.0	cloudy	
Henrietta, Texas	29.02	737.1	29.95	760.7	49	9.4	83	s.	10	4.5		0	0			0	0	clear	
Huron, Dakota	28.13	714.5	29.59	751.6	40.2	4.6	82	se.	7	3.1		0	0			0	0	clear	
Indianapolis, Indiana	29.15	740.4	29.98	761.5	48	8.9	89	n.	7	3.1			10s; fg		n; calm	0	0	cloudy	
Indianola, Texas	30.10	764.5	30.13	765.3	59.0	15.0	75	n.	4	1.8		0	0			0	0	clear	
Jacksboro, Texas	28.85	732.8	29.98	761.5	50	10.0	64	sw.	7	3.1		0	0			0	0	clear	
Jacksonville, Florida	29.90	759.4	29.94	760.5	74	23.3	84	s.	22	9.8		8 cs; k	0	s.		0	0	cloudy	
Keokuk, Iowa	29.28	743.7	29.96	761.0	42.0	5.6	100	se.	2	0.9			fg.			0	0	dense fog	
Key West, Florida	30.00	762.0	30.03	762.7	77.0	25.0	85	s.	6	2.7			10 s		s.	0.03	0.8	threatening.	
Kittyhawk, North Carolina	29.98	761.5	30.00	762.0	71	21.7	84	sw.	14	6.3			10 s		sw.	0.03	0.8	cloudy	
Knoxville, Tennessee	28.87	733.3	29.94	760.5	60.1	15.6	92	w.	2	0.9			10 s		w.	1.90	48.3	cloudy	
La Crosse, Wisconsin	29.11	739.4	29.91	759.7	44	6.7	76	se.	9	4.0			10 s			0	0	cloudy	
La Mesilla, New Mexico	26.11	663.2	30.26	768.6	36.2	2.3	92	calm	0	0		0	0			0	0	clear	
Laredo, Texas	29.63	752.6	29.98	761.5	51.0	10.6	80	calm	0	0		0	0			0	0	clear	
Leavenworth, Kansas	29.01	736.8	29.94	760.5	46	7.8	76	s.	6	2.7		0	0			0	0	clear	
Lewiston, Idaho	29.21	741.9	30.09	764.3	45	7.2	83	ne.	1	0.4			10 s		calm	0.20	5.1	cloudy	
Little Rock, Arkansas	29.71	754.6	30.03	762.7	50	10.0	86	nw.	3	1.3		0	0			0	0	clear	
Los Angeles, California	29.61	752.1	29.99	761.7	55.3	12.9	80	sw.	4	1.8		0	0			0	0	clear	
Louisville, Kentucky	29.34	745.2	29.92	760.0	53.0	11.7	80	n.	3	1.3		0	1 s		calm	0.15	3.8	clear	
Lynchburg, Virginia	29.21	741.9	29.92	760.0	64.2	17.9	93	sw.	6	2.7			10 n		sw.	1.90	48.3	light rain	
Madison, Wisconsin	28.91	734.3	29.98	761.5	43	6.1	83	sw.	5	2.2			10 s		calm	0	0	cloudy	
Marquette, Michigan	29.11	739.4	29.87	758.7	43	6.1	83	s.	5	2.2			10 ks		s.	0.06	1.5	cloudy	
Mason, Texas	28.39	721.1	30.19	766.8	42.8	6.0	82	nw.	3	1.3		0	0			0	0	clear	
Memphis, Tennessee	29.69	754.1	30.04	763.0	52	11.1	80	calm	0	0		0	0			0.12	3.0	clear	

STATIONS.	Barometer. Corrected for instrum'tal error and temperature		Barometer. Reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount and kind.		Clouds. Direction,		Rain-fall or melted snow in the past 24 hours.		Weather.	OBSERVERS.
												Up'er	Lo'er	Upper.	Lower.				
	Inch.	Mill.	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.		
UNITED STATES SERIES—Continued.																			
Milwaukee, Wisconsin	29.19	741.4	29.97	761.2	44	6.7	83	s.	3	1.3			10 s			0	0	cloudy	
Mobile, Alabama	29.94	760.5	30.01	762.2	58.0	14.4	87	nw.	6	2.7			10 s			0.12	3.0	cloudy	
Montgomery, Alabama	29.74	755.4	29.98	761.5	59.4	15.2	86	w.	8	3.6			10 ks		nw.	0.79	20.1	cloudy	
Moorhead, Minnesota	28.53	724.6	29.59	751.6	40	4.4	89	se.	2	0.9		0	0			0	0	clear	
Morgantown, W. Virginia	28.80	731.5	29.75	755.6	61.5	16.4	92	n.	4	1.8			10 n		n.	0.97	24.6	light rain	
Mt. Washington, N. H.	23.64	600.4	30.01	762.2	37.0	2.8	100	nw.	52	23.3			10n;fg		nw.	0.42	10.7	light rain	
Nashville, Tennessee	29.40	746.7	29.96	761.0	56.9	13.8	89	nw.	4	1.8			10 ks		nw.	2.34	59.4	cloudy	
New Haven, Connecticut	29.75	755.6	29.86	758.4	65	18.3	93	sw.	11	4.9			10s;fg		sw.	0.38	9.7	cloudy	
New London, Connecticut	29.86	758.4	29.91	759.7	64	17.8	100	w.	10	4.5			10 n		w.	0.64	16.3	heavy rain	
New Orleans, Louisiana	29.98	761.5	30.04	763.0	60.2	15.7	81	n.	6	2.7		0	0			0.65	16.5	clear	
Newport, Rhode Island	29.85	758.2	29.90	759.4	62.0	16.7	100	sw.	12	5.4			10 n		calm	0.53	13.5	light rain	
New River, N. Carolina					74	23.3	84	s.			2	8 cs	0	s.		0.23	5.8	cloudy	
New Shoreham, Rhode I'd.	29.88	758.9	29.91	759.7	63.0	17.2	93	sw.	16	7.2		6 cs	4 ks	sw.	sw.	1.44	36.6	cloudy	
New York, New York	29.73	755.1	29.91	759.7	65	18.3	100	s.	12	5.4			10 s		s.	0.28	7.1	cloudy	
Norfolk, Virginia	29.90	759.4	29.93	760.2	70.5	21.4	90	s.	14	6.3		0	9 ks		sw.	0.01	0.3	cloudy	
North Platte, Nebraska	26.78	680.2	29.84	757.9	33.4	0.8	81	sw.	7	3.1		0	0			0	0	clear	
Olympia, Washington T'y	30.11	764.8	30.15	765.8	43.0	6.1	93	s.	1	0.4			10 s		calm	0.42	10.7	cloudy	
Omaha, Nebraska	28.62	726.9	29.86	758.4	47	8.3	68	s.	10	4.5		0	6 s			0	0	fair	
Oswego, New York	29.54	750.3	29.88	758.9	56.2	13.4	85	nw.	1	0.4		0	9 s		w.	0	0	cloudy	
Pensacola, Florida	29.98	761.5	30.00	762.0	56	13.3	87	nw.	6	2.7		0	2 s		nw.	0.01	0.3	clear	
Philadelphia, Pa.	29.87	758.7	29.93	760.2	66	18.9	100	sw.	12	5.4			10 n			0.83	21.1	heavy rain	
Phœnix, Arizona	28.77	730.7	30.63	778.0	41	5.0	57	e.	2	0.9		0	0			0	0	clear	
Pike's Peak, Colorado	17.55	445.8	29.76	755.9	14	—10.0	64	sw.	44	19.7		0	0			0.04	1.0	clear	
Pioche, Nevada	24.02	610.1	30.21	767.3	36	2.2	53	nw.	10	4.5		0	0			0	0	clear	
Pittsburg, Pennsylvania	29.05	737.9	29.90	759.4	59.7	15.4	87	n.	6	2.7			10 n		ne.	0.68	17.3	light rain	
Port Eads, Louisiana	30.05	763.3	30.06	763.5	58.0	14.4	82	nw.	12	5.4		0	1 s		calm	0.75	19.0	clear	
Port Huron, Michigan	29.26	743.2	29.97	761.2	46.8	8.2	83	nw.	6	2.7			10 s		calm	0	0	cloudy	
Portland, Maine	29.80	756.9	29.85	758.2	57.5	14.2	93	sw.	6	2.7			10n;fg		calm	0.18	4.6	light rain	
Portland, Oregon	30.14	765.5	30.21	767.3	47.1	8.4	93	s.	2	0.9		4 cs	6 s		s.	0.67	17.0	cloudy	
Portsmouth, N. Carolina					73	22.8	90	s.	26	11.6			10 ks		s.	0.18	4.6	cloudy	
Prescott, Arizona	24.70	627.4	30.02	762.5	33	0.6	65	s.	2	0.9		0	0			0	0	clear	
Punta Rassa, Florida	29.98	761.5	29.99	761.7	76	24.4	88	se.	10	4.5		0	8 ks		s.	0	0	threatening	
Red Bluff, California	29.83	757.7	30.18	766.6	50.0	10.0	77	n.	3	1.3		0	4 s		calm	0.47	11.9	fair	
Rio Grande City, Texas	29.90	759.4	30.12	765.0	49	9.4	68	n.	3	1.3		0	0			0	0	clear	
Rochester, New York	29.21	741.9	29.91	759.7	54	12.2	93	nw.	4	1.8		4 cs	6s;sk	w.	nw.	0	0	cloudy	
Roseburg, Oregon	29.68	753.9	30.26	768.6	43.5	6.4	94	w.	2	0.9		0	5 ks		sw.	1.17	29.7	fair	
Sacramento, California	30.12	765.0	30.20	767.1	48.6	9.2	71	n.	4	1.8		0	0			0.03	0.8	clear	
St. Louis, Missouri	29.41	747.0	30.04	763.0	44.0	6.7	100	n.	3	1.3			fg			inap.	inap.	dense fog	
St. Paul, Minnesota	28.86	733.0	29.78	756.4	39.8	4.3	92	se.	11	4.9			10 s		se.	0	0	cloudy	
Salt Lake City, Utah	25.60	650.2	30.06	763.5	41	5.0	52	calm	0	0		0	5 s		calm	inap.	inap.	fair	
San Antonio, Texas	29.38	746.2	30.10	764.5	46.6	8.1	86	calm	0	0		0	0			0	0	clear	
San Diego, California	29.84	757.9	29.91	759.7	57.3	14.1	74	ne.	4	1.8		0	0			0	0	clear	
Sandusky, Ohio	29.24	742.7	29.95	760.7	51	10.6	86	nw.	12	5.4			10 s			0	0	cloudy	
Sandy Hook, New Jersey	29.86	758.4	29.89	759.2	69.0	20.6	84	sw.	20	8.9			10 s		sw.	1.65	41.9	cloudy	
San Francisco, California	30.16	766.1	30.23	767.8	54	12.2	64	w.	8	3.6		0	0			0.08	2.0	clear	
Santa Fé, New Mexico	23.80	604.5	30.16	766.1	27	— 2.8	70	se.	1	0.4		0	0			0	0	clear	
Savannah, Georgia	29.82	757.4	29.91	759.7	75	23.9	82	sw.	12	5.4			10 ks		sw.	0.01	0.3	threatening	
Shreveport, Louisiana	29.84	757.9	30.07	763.8	48.5	9.2	86	w.	3	1.3		0	0			0	0	clear	
Silver City, New Mexico	24.24	615.7	29.92	760.0	36	2.2	72	calm	0	0		0	0			0	0	clear	
Sitka, Alaska	29.89	759.2	29.96	761.0	46.1	7.8	93	e.	3	1.3			10 ks		se.	0.02	0.5	cloudy	
Smithville, North Carolina	29.93	760.2	29.97	761.2	74	23.3	85	s.	18	8.0		2 c	4 k		s.	0.07	1.8	fair	
Spokane Falls, Wash. Ter.	27.99	710.9	30.06	763.5	41	5.0	76	s.	10	4.5		0	5 s		s.	0.02	0.5	fair	
Springfield, Illinois	29.30	744.2	30.00	762.0	47	8.3	86	s.	2	0.9			10 s			0	0	cloudy	
Springfield, Massachusetts	29.73	755.1	29.86	758.4	59.6	15.3	96	n.	4	1.8			10 n			0.11	2.8	light rain	
Stockton, Texas	26.95	684.5	30.10	764.5	43.0	6.1	76	sw.	4	1.8		0	0			0	0	clear	
St. Vincent, Minnesota	28.65	727.7	29.58	751.3	45	7.2	93	s.	4	1.8			10 s		calm	0	0	cloudy	
Thatcher's Island, Mass.	29.81	757.2	29.86	758.4	60.0	15.6	100	sw.	3	1.3			10 n		sw.	0.37	9.4	heavy rain	
Toledo, Ohio	29.25	742.9	29.97	761.2	49	9.4	86	nw.	4	1.8			10 s		nw.	0	0	cloudy	
Tucson, Arizona	27.51	698 7	29.95	760.7	45	7.2	71	se.	4	1.8		0	0			0	0	clear	
Umatilla, Oregon	29.77	756.1	30.20	767.1	44.7	7.1	83	sw.	2	0.9		0	1 s		calm	0	0	clear	
Uvalde, Texas	29.10	739.1	29.95	760.7	44	6.7	85	calm	0	0		0	0			0	0	clear	
Vicksburg, Mississippi	29.79	756.7	30.05	763.3	56	13.3	86	nw.	4	1.8			10 s		nw.	0	0	cloudy	
Visalia, California	29.72	754.9	30.09	764.3	47	8.3	86	nw.	1	0.4		0	0			0	0	clear	
Washington, D. C.	29.78	756.4	29.90	759.4	67	19.4	100	s.	1	0.4			10 n		s.	0.75	19.0	light rain	
West Los Animas, Colorado	25.78	654.8	29.86	758.4	38	3.3	45	nw.	12	5.4		0	3 s		nw.	0	0	clear	
Wickenburg, Arizona					38	3.3	64	calm			0	0	0			0	0	clear	
Wilmington, N. Carolina	29.88	758.9	29.94	760.5	75.0	23.9	82	sw.	12	5.4		5 c;ck	4 k	calm	calm	0.01	0.3	cloudy	
Winnemucca, Nevada	25.67	652.0	30.13	765.3	32	0.0	96	s.	4	1.8			10 ks		sw.	0.26	6.6	cloudy	
Wood's Holl, Mass.	29.87	758.7	29.91	759.7	60.5	15.8	96	sw.	18	8.0			10 n		sw.	0.91	23.1	light rain	
Yankton, Dakota	28.35	720.1	29.72	754.9	48	8.9	86	sw.	8	3.6		0	0			0	0	clear	
Yuma, Arizona	29.73	755.1	29.87	758.7	50.0	10.0	77	ne.	1	0.4		0	0			0	0	clear	
Sub-Series.																			
Bridgetown, Barbados, W.I.‡																			J. A. Racker.
Bogota, U. S. Columbia	22.03	559.6			52.0	11.1	85	calm	0	0		2 k	8 s	nw.	nw.	1.17	29.7	cloudy	Joaquin Gomez.
Buenaventura, U. S. C.	30.02	762.5	30.04	763.0	75	23.9	90	w.					5			0.05	1.3	cloudy	J. B. Dougherty.
Guadeloupe, W. I. ‡	29.82	757.4	29.82	757.4	78	25.6	87	ne.				5 k	5 ks			0.10	2.5	hazy	B. Bigar.
Havana, Cuba, W. I.	29.98	761.5	30.04	763.0	78	25.6	82	calm	0	0		5 cs	1 ks	calm	calm	0	0	fair	A. Van Caneghem, Ass't.
Kingston, Jamaica, W. I.	29.95	760.7	29.96	761.0	76.0	24.4	91	calm	0	0		0	7 s		e.	0	0	fair	Robert Johnstone.
Navassa, W. I.	29.86	758.4	29.94	760.5	81	27.2	80	ne.	7	3.1		5 ck	2 s	e.	ne.	0	0	fair	F. M. Everett.
Paramaribo, S. A.	29.95	760.7	29.95	760.7	80	26.7	82	ne.			2	0	5 k			0	0		Dr. C. J. Hering.
Puerto Berrio, U. S. Col'mba	29.47	748.5	30.03	762.7	76	24.4	94	calm					10 ks		n.	0.03	0.8	cloudy	Francesco J. Cisneros.
Rivas, Nicaragua					70.7	21.5	96	calm			0	0	9 ks		se.	0.77	19.5		Earl Flint.
Santiago de Cuba, W. I.	29.94	760.5	29.96	761.0	78	25.6	78	n.	8.4	3.8		5 c	6 ks		ne.	0.05	1.3	fair	Robert Mason.
St. Thomas, W. I. ‡	29.82	757.4	29.92	760.0	79	26.1	88	e.	7	3.1		1 c	5 ks	w.	e.	0.83	21.1	fair	G. O. Gyllich.
York Factory, B. A.	29.78	756.4	29.83	757.7	27.0	— 2.8	98	n.	4	1.8			10 s		n.	inap.	inap.	snowing	J. Fortescue & W. Wood.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.																			
Furnished by the co-operation of the Meteorological Council, London, Robert H. Scott, Esq., F. R. S., Secretary.																			
H. M. S. Albatross, Hajuna Nada, Japan	30.01	762.2	67	19.4		wsw.			3-5		4					2		d. clouds	
H. M. S. Alert, Port Darwin, Australia	29.93	760.2	83.8	28.8	72	wnw.			1-3		4							d. clouds	Capt. J. P. Maclear.
H. M. S. Alexandra, Syracuse, Sicily	29.62	752.3	73	22.8	76	sse.			1-2		10	sse.				1	sse.	misty	Capt. Lord Walter Kerr.
H. M. S. Antelope, N. 41° 09′, E. 29° 03′	29.97	761.2	78	25.6		s.			1-2		3	sw.						d. clouds	Capt. Hon. W. H. Joliffe.
H. M. S. Arab																			Capt. R. W. Stopford.
H. M. S Bacchante																			Capt. Lord C. Scott.
H. M. S. Beacon																			Comm. G. W. Hand.
H. M. S. Blanche, N. 49° 19′, W. 9° 57′	29.76	755.9	53	11.7	100	sse.			7		10					5	sse.	squally	Capt. C. G. F. Knowles.
H. M. S. Boadi ea, S. 15° 55′, W. 5° 43′	30.13	765.3	70	21.1	73	ese.			3-4		5	ese.						squally	Capt. F. W. Richards.
H. M. S. Champion, Ancon, Peru	30.02	762.5	63	17.2	100	s.			1		4					1	s.	d. clouds	Capt. G. E. Hope.
H. M. S. Comus																			Capt. J. W. East.
H. M. S. Condor																			Comm. F. W. Egerton.
H. M. S. Coquette, Gibraltar, Mediterranean	30.11	764.8	65	18.3		wnw.			2		1	wnw.				1	wnw.	blue sky	Lt. Comm. J. L. Burr.
H. M. S. Cormorant																			Capt. Bruce.
H. M. S. Crocodile, N. 15° 42′, E. 57° 10′	29.93	760.2	80	26.7		ene.			1		2							d. clouds	Capt. C. S. Cardell.
H. M. S. Cruiser																			Capt. F. A. Wetherall.
H. M. S. Curacoa, N. 33° 45′, E. 132° 09′	29.89	759.2	62	16.7	94	wnw.			3-5		3	nw.						squally	Capt. S. Long.
H. M. S Cygnet, N. 38° 14′, E. 21° 44′	29.77	756.1	75	23.9		nne.			2		2	calm						d. clouds	Capt. H. D. Ryder.
H. M. S. Danae																			Capt. J. C. Parvis.
H. M. S. Daring																			Capt. F. J. Elliott.
H. M. S. Diamond																			
H. M. S. Dido, Sierra Leone, Senegambia	29.87	758.7	80	26.7		sse.			1		9	ese.				2		d. clouds	Capt. C. Domville.
H. M. Dock-Yard, Bermuda, W. I.	30.22	767.6	71	21.7	71	ene.			1-2		2	ene.						d. clouds	Capt. T. Barnardiston.
H. M. S. Dragon																			Capt. Hulton.
H. M. S. Druid																			Capt. W. R. Kennedy.
H. M. S. Dryad, N. 30° 34′, E. 47° 49′	29.92	760.0	84	28.9		calm			0									d. clouds	Comm. John Hext.
H. M. S. Eclipse, S. 20° 10′, E. 57° 32′	30.08	764.0	75	23.9		ese.			2		3	ese.						d. clouds	Capt. E. St. J. Garforth.
H. M. S. Egeria																			Comm. C. Johnstone.
H. M. S. Emerald, S. 41° 17′, E. 174° 48′	29.76	755.9	58	14.4	100	nnw.			4-6		1	n						squally	Capt. W. H. Maxwell.
H. M. S. Encounter																			Capt. L. Ching.
H. M. S. Euryalus, Trincomalee, Ceylon, India	29.77	756.1	79	26.1	90	s.			2		9							d. clouds	Capt. R. D. King.
H. M. S. Falcon																			Capt. W. H. C. Selby.
H. M. S. Fantome																			Capt. W. C. Karslake.
H. M. S. Fawn																			Capt. P. Aldrich.
H. M. S. Flamingo, N. 15° 50′, W. 88° 00′	29.96	761.0	82	27.8	87	s.			1		3							d. clouds	Comm. R. N. Custance.
H. M. S. Flying Fish																			Lt. Comm. R. F. Hoskyn.
H. M. S. Gannet, S. 7° 40′, W. 157° 15′	29.91	759.7	81	27.2	76	ene.			1		2	s.						d. clouds	Comm. E. G. Bourke.
H. M. S. Garnet, Montevideo, Uruguay	29.83	757.7	58	14.4	81	n.			2		5					5		d. clouds	Capt. L. F. Jones.
H. M. S. Grappler, N. 42° 00′, W. 9° 50′	30.12	765.0	56	13.3	93	se.			4		10					5	sse.	overcast	Capt. H. G. Gough.
H. M. S. Griffon, N. 17° 44′, W. 73° 40′	29.93	760.2	82	27.8	87	e.			2		6					3	ese.	showery	Comm. J. Ingles.
H. M. S. Humber																			Capt. T. L. H. Ward.
H. M. S. Inconstant																			Capt. J. L. Way.
H. M. S. Iris																			Capt. C. C. P. Fitzgerald.
H. M. S. Iron Duke, N. 31° 23′, E. 121° 29′	30.07	763.8	60	15.6		sw.			1		4	sw.				1	s.	d. clouds	Capt. E. H. Seymour.
H. M. S. Kingfisher, N. 8° 48′, W. 79° 32′	29.92	760.0	80	26.7		se.			1-2		5	s.						d. clouds	Capt. R. H. Thornton.
H. M. S. Krestel																			Capt. W. N. Lang.
H. M. S. Lapwing, S. 16° 50′, W. 4° 30′	30.18	766.6	68	20.0		e.			5		10	ene.				3	ese.	d. clouds	Comm. F. H. Haygorth.
H. M. S. Lark, S. 34° 12′, E. 18° 26′	30.42	772.7	65	18.3	58	ese.			3-4		5					1	ese.	squally	Lieut. Comm. C. Oldham
H. M. S. Magpie, Hong Kong, China	30.06	763.5	73.3	22.9	73	calm			0		6							d. clouds	Lieut. A. Balfour.
H. M. S. Malabar, N. 15° 37′, E. 57° 31′	29.97	761.2	81	27.2	87	ene.			3		4	ne.				2	ne.	d. clouds	Capt. I. G. F. Grant.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
BRITISH NAVAL SERIES.—Continued.																			
H. M. S. Minotaur, N. 42° 53′, W. 10° 20′	30.06	763.5	57	13.9	69	ssw.			2		10	ssw.				2	n.	overcast	Capt. H. H. Rawson.
H. M. S. Modeste																			Capt. J. G. Mead.
H. M. S. Monarch, Sfax, Tunis	29.58	751 3	69	20.6	79	ssw.			3		9	sw.						d. clouds	Capt. C. G. Tryon.
H. M. S. Mutine																			Comm. F. Edwards.
H. M. S. Nelson,																			Capt. J. E. Erskine.
H. M. S. Northampton, Halifax, Nova Scotia	29.86	758.4	54	12.2	96	calm			0									misty	Capt. E. B. Drummond.
H. M. S. Orontes, N. 30° 16′, W. 53° 09′	30.21	767.3	74	23.3	85	nne.			4-6		4	ese.				6	nne.	squally	Capt. R. P. Kinahan.
H. M. S. Pegasus																			Capt. T. G. Jones.
H. M. S. Pelican																			Capt. F. R. Dicken.
H. M. S. Penguin																			Capt. A. C. Paget.
H. M. S. Phœnix																			Capt. H. H. Grenfel.
H. M. S. Rambler,																			Capt. Hon. A. C. Littleton
H. M. S. Ready																			Comm. W. H. Edwards.
H. M. S. Rifleman																			Comm. P. H. W. Mayow.
H. M. S. Rocket, N. 48° 26′, W. 123° 27′	30.07	763.8	44	6.7	92	ssw.			2		8							d. clouds	Capt. V. B. Orlebar.
H. M. S. Ruby, N. 18° 52′, E. 72° 48′	29.87	758.7	84.3	29.1	71	n.			1		0							blue sky	Capt. C. E. Foot.
H. M. S. Salamis																			Capt. A. Fitz George.
H. M. S. Sappho, N. 12° 34′, W. 27° 21′	29.99	761.7	79	26.1	86	calm			0		5	ese.						d. clouds	
H. M. S. Sea Gull																			Comm. W. Byles.
H. M. S. Serapis																			Capt. G. O. Twiss.
H. M. S. Shannon																			Capt. J. D'Arcy.
H. M. S. Superb, N. 35° 53′, E. 14° 31′	29.64	752.8	76	24.4	64	ssw.			2									overcast	
H. M. S. Tamar																			Capt. T. H. Royse.
H. M. S. Tenedos																			Capt. C. G. Fane.
H. M. S. Thetis																			Capt. P. W. Stephens.
H. M. S. Thunderer																			Capt. C. F. Hotham.
H. M. S. Triumph, Coquimbo, Chili,	30.17	766.3	57	13.9	81	calm			0		10	calm						overcast	Capt. A. H. Markham.
H. M. S. Turquoise																			Capt. M. B. Medlycott.
H. M. S. Tweed																			Capt. J. E. Stokes.
H. M. S. Tyne, N. 34° 47′, E. 23° 01′	29.98	761.5	75	23.9	100	ese.			4		5	sse.				3	ese.	d. clouds	
H. M. S. Urgent, Port Royal, Jamaica, W. I.	29.94	760.5	78	25.6		nw.			2		5							d. clouds	Com. W. T. Brown.
H. M. S. Wild Swan																			Capt. S. H. P. Dacres.
H. M. S. Wolverene, Sydney, N. S. W.	30.05	763.3	62	16.7	88	s.			1		3	s.						d. clouds	Com. J. C. Wilson, A. D.C
H. M. S. Woodlark																			Capt. T. P. Nesham.
H. M. S. Wrangler																			
GERMAN NAVAL SERIES.																			
Furnished by the co-operation of Professor Dr. G. Neumayer, Director of the German Marine Observatory at Hamburg.																			
PORTUGUESE NAVAL SERIES.																			
Furnished by the co-operation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Dom Luiz at Lisbon.																			
Bengo																			Carlos Candid dos Reis.
India																			A. M. da Sitra.
Quanza, St. Vincent, Cape Verd Ids	30.20	767.0	80.6	27.0	88	ne.			1		10		ne.	18 h'r	18 h'r	1	nnw.	showery	Carlos M. de Silva Costa.
Rio Lima																			C. da Silva Costa.
Sado																			G. A. de Brito Capello.
Tamega, Macao, China	30.08	763.9	73.4	23.0	74	ene.			2		2							blue sky	P. I. de Rio Carvallio.
SWEDISH NAVAL SERIES.																			
Furnished by the co-operation of E. Malmburg, Director of the Nautical Meteorological Bureau at Stockholm,																			
H. M. Corvette Saga																			M. von Kruseustierna.
H. M. Frigate Vanadis																			Com. Th. Ulner.

STATIONS AND VESSELS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.				Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea-swell.		Weather.	Observers.
						Direction.	Velocity.		Force	Amount and kind.		Direction.							
										Up'er	Lo'er	Upper.	Lower.			Character.	Dir'n from.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	Miles p. h'r	Mtrs p. sec	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
UNITED STATES NAVAL SERIES.																			
By authority of the Secretary of the Navy.																			
Furnished by the co-operation of the Navy Department, through Commodore John G. Walker, U. S. N., Chief of Bureau of Navigation.																			
N. Yard, Pensacola, Fla	30.07	763.8	59	15.0	88	wnw.	4	1.8			2		nw.	0	0			fair	
N. Yard, Portsmouth, N. H.	29.76	755.9	58	14.4	82	calm	0	0		10 c	0			0.3	8.			rainy	
Naval Hospital, Yokohama, Japan	29.65	753.1	55	12.8	77	calm			0		0			0	0			clear	
Adams, Callao, Peru	29.85	758.2	63	17.2	94	sse.			1		8					gr'd		fair	
Alaska, S. 14° 20′, W. 76° 26′	30.00	762.0	62	16.7	100	se.			3		8			0	0	long		cloudy	
Alert, Kobe, Japan *.	29.82	757.4	65	18.3	73	wsw.			1		2		calm	0	0	sm'h		clear	
Alliance, N. 44° 41′, W. 60° 48′	29.90	759.4	51	10.6	93	wsw.			3		10			light	light	sm'h		foggy	
Ashuelot, Nagasaki, Japan	30.06	763.5	63	17.2	78	ne.			1		2		wsw.					clear	
Colorado, New York, N. Y.	29.89	759.2	68	20.0	95	ssw.	6	2.7			10		ssw.	0.14	3.6			misty	
Constitution, Newport, R. I.	29.87	758.7	62	16.7	100	sw.	3	1.3			10							raining	
Franklin, Norfolk, Va.	29.89	759.2	71	21.7	90	sse.	18	8.0			8		sw.	0	0			fair	
Galena, Smyrna, Turkey in Asia.	30.02	762.5	74	23.3	59	se.			1		2					sm'h		clear	
Independence, N. Yard, Mare I'd, Cal.	30.01	762.2	54	12.2	67	calm	0	0			0							clear	
Kearsarge, Norfolk, Va.	29.93	760.2	71	21.7	85	sse.			3		8					sm'h		cloudy	
Lackawanna, San Francisco, Cal. †	30.41	772.4	57	13.9	94	wnw.			2-3		0							clear	
Lancaster, Fayal Island, Azores	29.98	761.5	68	20.0	90	sw.			5		10		sw.			sm'h	w.	squally	
Marion, Montevideo, Uruguay	29.70	754.4	61	16.1		ne.			3		5		wnw.			sm'h		fair	
Michigan, Erie, Pa.	29.85	758.2	56	13.3	87	s.			1		10		s.					cloudy	
Monocacy, Yokohama, Japan	29.82	757.4	64	17.8	78	nw.			1		0							clear	
Nipsic, Genoa, Italy	29.56	750.8	55	12.8	68	n.			3		8					sm'h		d. clouds	
Onward, Callao, Peru †	30.03	762.7	61	16.1	100	se.			2		8		n.			long	w.	cloudy	
Palos, Hong Kong, China	30.06	763.5	73	22.8	?	e.			1		5		n;e.					fair	
Passaic, Washington, D. C.	29.89	759.2	67	19.4	64	ssw.			1		10		sw.					raining	
Pensacola, Callao, Peru	30.10	764.5	64	17.8	78	se.			1		8							cloudy	
Portsmouth, Off Newport, R. I.	29.88	758.9	61	16.1	100	sw.			5		10					sm'h		rainy	
Powhatan, Boston, Mass.	29.87	758.7	65	18.3	94	sw.			1		10		s.					rainy	
Quinnebaug, Marseilles, France	29.54	750.3	47	8.3	77	nw.			2-3		8		ese.			sm'h		fair	
Ranger, N. 25° 27′, W. 113° 04′ *.	29.92	760.0	71	21.7	90	nw.			2		0							clear	
Saratoga, N. 41° 18′, W. 71° 14′	29.90	759.4	60	15.6	100	sw.			3-4		10			hv'y	h'vy	sm'h		cloudy	
St. Louis, League Island, Pa.	29.59	751.6	68	20.0	90	s.	15	6.7			10		s.	0.4	10.			cloudy	
Swatara, Yokohama, Japan †	29.78	756.4	60	15.6	71	w.			1		0					sm'h		clear	
Tennessee, New York, N. Y.	29.89	759.2	65	18.3	100	ssw.	11.5	5.1			10		sw.	0.40	10.2			hazy	
Vandalia, Norfolk, Va.	29.93	760.2	72	22.2	90	sse.			1		8		calm					fair	
Wabash, Boston, Mass.	29.88	758.9	66	18.9	94	calm	0	0			10		sw.	0.11	2.8			misty	
Wachusetts, Rockwell, Alaska	29.95	760.7	43	6.1	92	se.			1		10		calm					overcast	
Wyoming, Port Royal, S. C.	29.89	759.2	74	23.3	90	ssw.	16	7.2			10		ssw.	0.02	0.5			overcast	
Yantic, New York, N. Y. *	29.83	757.7	67	19.4	94	ssw.			2		10							misty	

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the Air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill.				
MERCHANT-MARINE SERIES.																	
Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
ALLAN LINE.																	
A. Schumaker & Co., Agents, Baltimore, and H. & A. Allan, Agents, Boston and Portland.																	
S. S. Buenos Ayrean, Capt. N. McLean, N. 56° 36′, W. 23° 06′ *†	29.39	746.5	.....	.....	.....	nw.	2	.....	5	.....	wnw.	.....	.....	r'gh	se.	fair	N. McLean.
S. S. Circassian, Capt. W. H. Smith, ‡ N. 55° 20′, W. 6° 25′	30.35	770.9	40	4.4	82	s.	4	.....	2	.....	s.	0	0	2	s.	d. clouds	G. Gapou, 2d Officer.
S. S. Nova Scotian, Capt. W. Richardson N 51° 42′, W. 24° 31′	29.60	751.8	48	8.9	.....	nw.	4	.....	5	.....	nw.	.....	.....	cross	sw. wnw.	fair	W. Richardson.
AMERICAN S. S. CO.																	
Peter Wright & Sons, Agents, Philadelphia.																	
S. S. Illinois, Capt. J. W. Shackford, Philadelphia, Penn †	29.65	753.1	68	20.0	94	s.	3	.....	10	.....	s.	.....	.....	.....	.....	rainy	Couffman & Morse.
S. S. Indiana, Capt. R. W. Sargent, N. 43° 34′, W. 61° 05′ †..	29.91	759.7	53	11.7	86	sw.	5	.....	8	.....	sw.	light	light	mod.	sw.	foggy	O. W. Walker, 2d Off.
S. S. Ohio, Capt H. Morrison, Liverpool, Eng *†..	30.19	766.8	38	3.3	91	s.	2	.....	10	.....	s.	.....	.....	.....	.....	fair	C. Rodman, 3d Off.
S. S. Pennsylvania, Capt. G. H. Dodge,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
BRITISH METEOROLOGIC'L OFFICE.																	
S. Auckland, Capt. A. McDongall,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. British Merchant, E. J. Moloney,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Caldew, Capt. W. Petersen S. 44° 50′, W. 79° 53′	29.89	759.2	45	7.2	.....	sw.	6	.....	10	.....	.....	.....	.....	.....	.....	misty	
S. S. Cipero, Capt. W. N. Lailey, Belize, Honduras, C. A.	30.00	762.0	77.8	25.4	90	nw.	1	.....	5	.....	.....	.....	.....	.....	.....	d. clouds	
Bk. Commewyne, Capt. W. Scott, N. 48° 40′, W. 13° 07′	29.46	748.3	57.4	14.1	87	s.	9	.....	10	.....	.....	.....	.....	.....	.....	misty	
Bk. Coppename, Capt. A. Buchan, N. 42° 30′, W. 16° 40′	29.96	761.0	61.7	16.5	73	wsw.	5	.....	10	.....	.....	.....	.....	.....	.....	overcast	
Bk. Glaramara, Capt. R. Morton, ‡ N. 6° 12′, W. 117° 19′	29.92	760.0	76	24.4	88	sse.	5	.....	8	.....	.....	.....	.....	.....	.....	showery	
S. S. Gordon Castle, Capt. W. Waring, N. 20° 51′, E. 113° 44′	30.02	762.5	75.5	24.2	81	ne.	5	.....	7	.....	.....	.....	.....	.....	.....	gloomy	
Bg. Hermine, Capt. S. G. Jones, S. 57° 01′, W. 70° 39′	28.93	734.8	34	1.1	69	sse.	5	.....	10	.....	.....	.....	.....	.....	.....	overcast	
Bkt. Hope, Capt. J. Campbell ‡	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Island Belle, Capt. A. McBride,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Lochee, Capt. J. Raeburn, N. 15° 11′, E. 91° 38′	29.82	757.4	79.8	26.6	86	var.	2	.....	8	.....	.....	.....	.....	.....	.....	showery	
Bk. Mertola, Capt. E. W. Turner,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Moorhill, Capt. J. Brown, S. 50° 20′, W. 81° 08	29.37	746.0	45	7.2	76	ssw.	7	.....	5	.....	.....	.....	.....	.....	.....	threatening	
Naiad, Capt. J. Smith,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. Pleione, Capt. C. H. Renant,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Queen of Cambria, Capt. M. Parry,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Rosetta, Capt. A. E. Barlow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sierra Estrella, Capt. P. Murdock,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bk. Shun Lee, Capt. J. M. Gray,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Strathleven, Capt. C. W. Pearson, N. 24° 27′, E. 118° 40′	30.04	763.0	68.5	20.3	84	e.	3	.....	2	.....	.....	.....	.....	.....	.....	d. clouds	
S. S. Thames, Capt. Luckhurst	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Wyberton, Capt. R. J. Blacklin. Port Said, Suez Canal, Egypt	29.80	756.9	79	26.1	.....	wnw.	2	.....	5	.....	.....	.....	.....	.....	.....	d. clouds	R. Ladd, 1st Officer.
CALIFORNIA AND MEXICAN S. S. CO.																	
J. Birmingham, Agent, San Francisco.																	
S. S. Newbern, Capt. E. Rogers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Rogers.
CUNARD LINE.																	
Vernon H. Brown & Co., Agents, New York.																	
S. S. Galia, Capt. W. H. P. Hains N. 47° 00′, W. 35° 55′	30.03	762.7	52	11.1	73	wnw.	4	.....	8	.....	nw.	0	0	light	n.	cloudy	J. H. Mills, 3d Officer.
NORTH GERMAN LLOYD.																	
A. Schumaker & Co., Agents, Baltimore, and Oelrich & Co., Agents, New York.																	
S. S. Braunschweig, Capt. C. Pohle,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Hermann, Capt. H. Baur, N. 41° 53′, W. 63° 36′	30.02	762.5	55.4	13.0	.....	w.	5	.....	10	.....	w.	2 h'r	2 h'r	mod.	wsw.	rain & fog	E. Schmidt, 3d Officer.
S. S. Koln, Capt. T. Jüngst, N. 49° 50′, W. 12° 30′	29.41	747.0	55.0	12.8	?	s.	8	.....	10	.....	s.	7 h'r	7 h'rs	hv'y	s.	stormy	T. Jüngst.
S. S. Leipzig, Capt. F. Pfeifer N. 41° 09′, W. 59° 00′	30.15	765.8	69.5	20.8	80	sw.	6	.....	10	.....	wsw.	7 h'r	7 h'r	long	sw.	cloudy	Walter & Reschler.
S. S. Strassburg, Capt. O. Heimbrouche	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Englehart & von [Goessel.
OCCIDENTAL & ORIENTAL S. S. CO.																	
Leland Stanford, President, San Francisco.																	
S. S. Belgic, Capt. H. Davison, San Francisco, Cal †	30.33	770.4	53	11.7	67	w.	3	.....	0	.....	.....	0	0	sm'h	.....	clear	J. Jones, 2d Officer.
S. S. Gaelic, Capt. W. H. Kidley, N. 25° 45′, E. 120° 58′ *†..	30.30	769.6	73	22.8	67	ne.	4	.....	2	.....	ne.	.....	.....	mod.	.....	clear	W. H. Kidley.
S. S. Oceanic, Capt. J. Metcalf, N. 34° 15′, E. 137° 56′	29.95	760.7	67	19.4	64	wsw.	6	.....	2	.....	w.	0	0	mod	wsw.	fine	
OREGON IMPROVEMENT CO.																	
John L. Howard, Agent, San Francisco.																	
S. S. Mississippi, Capt. E. W. Holmes,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
OREGON RAILWAY & NAVIGAT'N CO.																	
K. Van Oterendorp, Agent, San Francisco.																	
S. S. City of Chester, Capt. G. Reichmann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Reichmann.
S. S. Columbia, Capt. F. Bolles,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. S. Oregon, Capt. E. Polemann	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Pohl, 2d Officer

VESSELS AND MASTERS.	Barometer reduced to sea-level.		Temperature of the air.		Rel. Hum.	Wind.		Clouds.				Rain-fall or melted snow in the past 24 hours.		Sea Swell.		Weather.	Observers.
						Direction.	Force	Amount and kind.		Direction.							
								Up'er	Lo'er	Upper.	Lower.			Character.	Direction.		
	Inch.	Mill.	Fah.	Cent.	Per Ct.	From.	0—10	0—10	0—10	From.	From.	Inch.	Mill				
MERCHANT-MARINE SERIES. Furnished by co-operation of the owners, agents, &c., of the respective lines and vessels.																	
PACIFIC COAST S. S. CO. *Goodall, Perkins & Co., Agents, San Francisco.*																	
S. S. Ancon, Capt. J. W. Ingalls, N. 34° 22′, W. 120° 05 †..	29.96	761.0	63	17.2	72	nw.	4	.....	0	.....	.....	.....	.....	mod.	wnw.	clear.....	J. W. Ingalls.
S. S. Dakota, Capt. ———	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Idaho, Capt. T. Huntington, Esquimalt, Vancouver's Id. †..	30.12	765.0	48	8.9	85	w.	2	.....	3	.....	w.	.....	.....	.....	.....	clear.....	T. Huntington.
S. S. Orizaba, Capt. C. B. Johnson, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. H. Harrison.
S. S. Senator. Capt. Wallace, San Francisco, Cal. †...	30.30	769.6	54	12.2	61	ne.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	T. Wallace.
S. S. State of California, Capt. Debney, Astoria, Oregon †..	30.17	766.3	46	7.8	?	ese.	2	.....	10	.....	se.	.....	.....	.....	.....	cloudy	G. Debney.
S. S. Victoria, Capt. H. M. Hayward, N. 38° 00′, W. 123° 05′ †..	30.36	771.2	54	12.2	87	nw.	2	.....	10	.....	s.	.....	.....	long	se.	cloudy.....	J. C. Hunter.
PACIFIC MAIL S. S. CO. *Williams, Dimond & Co., Agents, San Francisco, and H. J. Bullay, Supt., New York.*																	
S. S. Australia, Capt. ——— N. 16° 31′, W. 160° 14′	30.01	762.2	77	25.0	82	e.	4	.....	5?	.....	e.	.....	.....	mod.	e.	clear?.....	A. Bannermann, 2d Offl.
S. S. City of New York, Capt. W. B. Cobb, N. 33° —′, W. 131° —′ †..	30.46	773.7	65	18.3	89	nne.	4	.....	10	.....	ne.	.....	.....	mod.	ne.	cloudy..	W. H. Hawes, 2d Offl.
S. S. City of Panama, Capt. D. S. Austin,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. T. Titus.
S. S. City of Peking, Capt. G. G. Barry, N. 38° 27′. E. 169° 13′ *†..	29.72	754.9	57	13.9	63	nw.	6	.....	1	.....	nw.	0	0	r'gh	nw.	clear.....	Thos. Martensen.
S. S. City of Rio de Janeiro, Capt. ——— N. 7° 53′, W. 79° 53′ .†	29.98	761.5	78	25.6	82	sw.	3	.....	5?	.....	sw.	0	0	mod.	sw.	cloudy?.....	.....
S. S. City of Sidney, Capt. H. C. Dearborn, Sydney, N. S. W. *†..	29.88	758.9	63	17.2	72	sw.	4	.....	2	.....	sw.	0	0	sm'h	.....	clear.....	E. L. Saik.
S. S. City of Tokio, Com. J. Maury, N. 30° 53′, W. 146° 08′ †..	30.42	772.7	70	21.1	85	se.	4	.....	5	.....	se.	.....	.....	mod.	nw.	fair.....	A. L. Richie, 2d Offl.
S. S. Colima, Capt. R. R. Searle, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. R. Searle.
S. S. Grenada, Capt. M. Connolly, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Connolly.
S. S. South Carolina, Capt. ——— N. 17° 30′, W. 100° 30′ *†...	29.92	760.0	78	25.6	91	ne.	1	.....	10	.....	ne.	.....	.....	light	wsw.	cloudy.....	.....
S. S. Zelandia, Capt. H. Webber, Sydney, N. S. W.	30.13	765.3	66	18.9	100	n.	1	.....	0	.....	.....	.....	.....	.....	.....	clear.....	H. Webber.
RED STAR LINE. *Peter Wright & Sons, Agents, New York and Philadelphia.*																	
S. S. Nederland, Capt. Ueberweg, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Fedderson, 2d Offl.
S. S. Rhynland, Capt. W. G. Randall, N. 50° 12′, W. 12° 06′ †..	29.49	749.0	56	13.3	87	s.	6	.....	10	.....	s.	0.05	1.3	hv'y	s.	stormy.....	C. H. Grant, 2d Offl.
WHITE STAR LINE. *R. J. Cortis, Agent, New York.*																	
S. S. Adriatic, Capt. J. W. Jennings, Liverpool, Eng. †..	29.93	760.2	40	4.4	.....	ese.	4	.....	10	.....	e.	0	0	.....	.....	cloudy.....	R. Horsfall.
S. S. Britannic, Capt. H. Perry, N. 50° 12′ W. 34° 00′ ...†..	29.86	758.4	49	9.4	?	nw.	6	.....	2	.....	nw.	light	light	long	nw.	fine	.....
S. S. Celtic, Capt. B. Gleadell, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. Gleadell.
S. S. Germanic, Capt. C. W. Kennedy,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. S. Republic, Capt. P. J. Irving N. 44° 27′, W. 45° 36′ †..	30.42	772.7	54	12.2	100	w.	2	.....	5	.....	w.	0	0	sm'h	.....	fair.....	W. A. Ward.
MISCELLANEOUS.																	
Bk. Dom Pedro II, Capt. C. E. Coffin N. 29° 52′, W. 50° 53′ †*..	29.90	759.4	.....	.....	.....	ene.	.....	.....	.....	.....	e.	.....	.....	h'vy	ne.	cloudy	.....
U. S. F. C. S. Fish Hawk, Washington, D. C. †..	30.04	763.0	67	19.4	?	s.	2	.....	10 n	.....	.....	1.12	28.4	.....	.....	raining.....	.....
Schr. Henry Denison, Capt. J. Fehring, N. 33° 10′, W. 69° 15′ †...	30.22	767.6	.....	.....	.....	se.	3	.....	2	.....	se.	.....	.....	r'gh	se.	fair..	.....
Hassler, Lt. Com. Nichols, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Iron Cross, Capt. Randall,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Randall.
S. Pawashick, Capt. E. Fry,.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. Fry.
S. S. Lovaine, Capt. H. McCauley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Peppina, Capt. Giov. S. d'Anconz, N. 36° 06′, W. 26° 16′ †...	30.38	771.6	72	22.2	.....	wsw.	4	.....	2	.....	sw.	.....	.....	mod. long cross	nw.	fair.....	.....
S. S. Proteus, Capt. Pike.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bk. Sunbeam, Capt. Jos. Hand, N. 36° 44′, W. 63° 00′ †.	30.32	770.1	74	23.3	81	sw.	6	.....	2	.....	wsw.	0	0	sm'h	.....	clear.....	J. Green.

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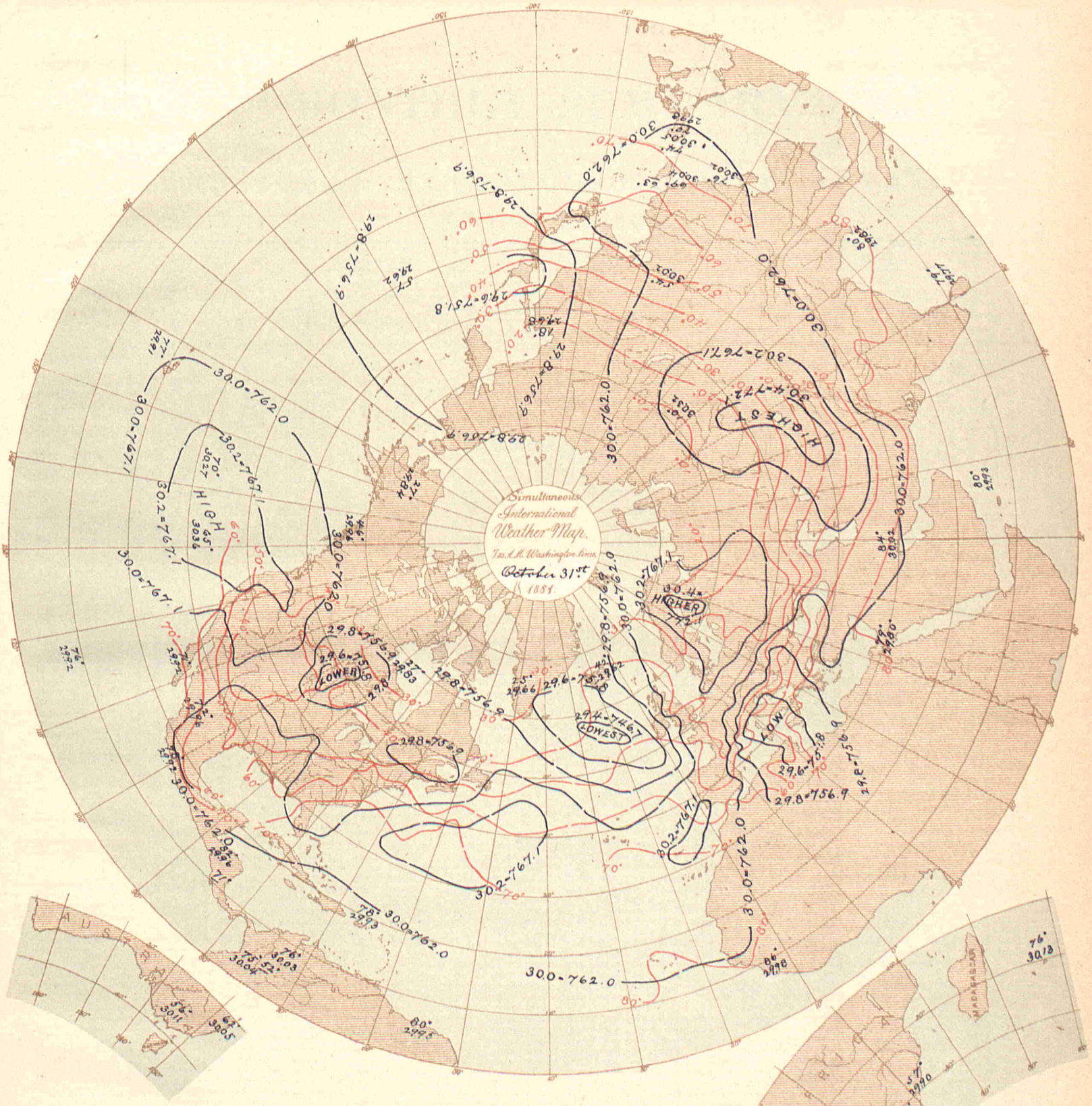
W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.



Data, as appearing in the International Bulletin of similar date.

Isobars in *black* exhibit atmospheric pressure at sea-level, and are charted from data as reported by the several observers.

Isotherms in *red* exhibit temperature of air, similarly charted.

Broken or dotted lines indicate that the lines so broken are doubtful.

Arrows, when charted, fly with the wind and exhibit wind-direction and force.

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MONTHLY SUMMARY

OF

INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

OCTOBER, 1881.

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea. Feet.	Met'rs	Mean Barometer. Actual. Inch.	Mill.	Reduced. Inch.	Mill.	Mean Temperature. Fah.	Cent.	Mean Rel. Humidity.	Wind. Directions. N	NW	W	SW	S	SE	E	NE	C	Total Movement. Miles	Kil.	Average Cloudiness. 0–10	Total Precipitation Inch.	Mil.
Algerian Series.	° ′	° ′																								
Nemours	N. 35 06	W. 1 50	0.00 m.	13	4			30.01	762.2	71.4	21.9	85.0		2	15	6			6	2				2	3.72	94.4
Algiers	N. 36 47	E. 3 05	0.20 p.m.	72	22			30.03	762.8	74.1	23.4	71.6	2	5	12	4			2	6				4	6.74	171.3
La Calle	N. 36 54	E. 8 26	0.42 p.m.	36	11			30.04	762.9	78.6	25.9	69.0	9	12	2	1			3	4				5	8.06	204.7
Tunis	N. 36 42	E. 10 13	0.49 p.m.	46	14																					
Sfax	N. 34 44	E. 10 40	0.51 p.m.	?	?																					
Saida	N. 34 51	E. 0 10	0.09 p.m.	2844	867			30.03	762.7	75.6	24.2	48.0	13	8	1	3				6				1	1.46	37.0
Tebessa	N. 35 24	E. 8 06	0.40 p.m.	2890	881			30.03	762.8	73.6	23.1	51.0	6	9	4	7	1	2			2			3	1.17	29.8
Geriville	N. 33 45	E. 1 10	0.13 p.m.	4285	1306					70.3	21.3	32.0	7	12	7	1	3	1						3	0.49	12.5
Laghouat	N. 33 48	E. 2 53	0.20 p.m.	2559	780			30.04	763.0	77.5	25.3	34.2		5	7	3	5	3	5	3				1	1.03	26.2
Biskra	N. 34 51	E. 5 41	0.31 p.m.	410	125			30.04	763.0	81.1	27.3	37.0	18	6				7						3	1.05	26.7
Australian Series.																										
Melbourne	S. 37 50	E. 144 58	9.47 p.m.	91	28	29.94	760.5	30.03	762.7	53.3	11.8	81.3	2	1	3	4	12	4	3	2				6	3.05	77.5
Sub-Series.																										
Austro-Hungarian Series.																										
Agram	N. 45 48	E. 15 53	1.12 p.m.	536	163	29.39	746.4	29.94	760.5	48.7	9.3	80.8	2	2	2	1	3	2	5	11	3			9	7.65	194.3
Cracow	N. 50 04	E. 20 00	1.28 p.m.	722	220	29.21	742.0	30.00	761.9	46.0	7.8	77.7	2	4	3	4			4	14				6	3.32	84.3
Eperies	N. 48 58	E. 21 15	1.33 p.m.	820	250	29.04	737.6	29.94	760.4	47.8	8.8	68.5	8				2	1			20			9	3.25	82.6
Gratz	N. 47 04	E. 15 28	1.10 p.m.	1171	357	28.69	728.6	29.95	760.6	48.2	9.0	78.3		3		5	11	3	6	3				9	5.16	131.0
Hermannstadt	N. 45 47	E. 24 13	1.45 p.m.	1352	412	28.49	723.6	29.91	759.7	54.9	12.7	69.4		7	5	1	4	11	3					7	2.82	71.6
Kremsmünster	N. 48 04	E. 14 08	1.04 p.m.	1260	384	28.58	725.8	29.94	760.5	45.3	7.4	83.1	3	2	4	4			6	10	2			8	2.49	63.3
Lemberg	N. 49 50	E. 24 00	1.44 p.m.	978	298	28.97	735.8	29.97	761.3	45.0	7.2	77.6		5	2		8	4		12				8	2.82	71.6
Pola	N. 44 52	E. 13 51	1.03 p.m.	105	32	29.75	755.6	29.86	758.4	58.5	14.7	75.2	2		2	2	3	3	11	8				8	9.13	231.8
Szathmar	N. 47 46	E. 22 53	1.39 p.m.	430	131	29.44	747.8	29.91	759.6	52.7	11.5	70.4	3	5	2	3	4	2	8	4				7	5.78	146.9
Szegedin	N. 46 15	E. 36 49	2.35 p.m.	256	78	29.63*b*	752.7*b*	29.91*b*	759.8*b*	52.0	11.1	76.7	1*a*	5	1	3	7	3		2	8			8*a*	4.72	119.8
Trieste	N. 45 39	E. 13 46	1.04 p.m.	85	26	29.78	756.4	29.88	759.0	56.7	13.7	73.1						1	7	10	13			8	6.34	160.8
Vienna	N. 48 12	E. 16 22	1.14 p.m.	663	202	29.26	743.1	29.98	761.6	46.0	7.8	74.5	8	8	6		1	4	2	1	1			9	3.21	81.6
Belgian Series.																										
Brussels	N. 50 51	E. 4 22	0.26 p.m.	187	57																					
Furnes	N. 51 04	E. 2 40	0.19 p.m.	20	6																					
Maeseyck	N. 51 06	E. 5 48	0.32 p.m.	115	35																					
British Series.																										
Aberdeen	N. 57 10	W. 2 06	0.00 m.	86	26	29.95	760.7	30.05	763.3	47.7	8.7	71.2	2	3	6	2	5	7	6					6	3.82	97.0
Armagh	N. 54 21	W. 6 39	11.42 a.m.	206	63	29.79	756.7	30.03	762.7	49.5	9.7	74.3	1	3	3	3	2	7	8	4				6		
Bidston	N. 53 24	W. 3 04	11.56 a.m.	180	85			30.01	762.2	49.3	9.6	73.9	2	2	6	3		3	9	6				6		
Bolton	N. 53 35	W. 2 28	11.58 a.m.	481	145	29.46	748.3	30.01	762.2	47.9	8.8	70.6	1	4	2	3	3	2	9	7				7		
Bradford	N. 53 48	W. 1 47	0.01 p.m.	362	110	29.60	751.8	30.00	762.0	48.5	9.2	73.1		3	2	8		6	1	6				4	4.26	108.2
Bridgetown	N. 13 04	W. 59 37	8.10 a.m.	28	9																					
Cardington	N. 52 08	W. 0 27	0.06 p.m.	109	33			29.98	761.5	49.9	9.9	75.4	4	1	6	1		4	8	7				6		
Chatham	N. 51 25	E. 0 33	0.10 p.m.	120	37	29.88	758.9	30.02	762.5	49.9	9.9	81.6	6	2	1	3	1	1	10	6	1			7		
Falmouth	N. 50 09	W. 5 04	11.48 a.m.	200	61	29.77	756.1	29.99	761.7	53.0	11.7	67.4	2	3	5	1	1	3	9	7				7		
Fort Napier	S. 30 00	E. 31 00	2.12 p.m.	2200	671	27.67	702.8	29.89	759.2	76.9	24.9	62.9		2	1	1	1	13	7	3	3			3		
Free Town	N. 8 30	W. 13 14	11.15 a.m.	224	68	29.66	753.4	29.89	759.2	85.6	29.8	81.0*a*		3	8	15		3		1	1			3		
Galway	N. 53 15	W. 9 03	11.32 a.m.	25	8			29.92*a*	760.0*a*	52.2	11.2	72.8	3	5	3	4	7	1	8					8		
Gibraltar	N. 36 09	W. 5 21	11.47 a.m.	50	15	29.96	761.0	30.01	762.2	71.9	22.2	84.1	1	3	12	8			4	3				4		
Glasgow	N. 55 53	W. 4 17	11.51 a.m.	90	27	29.81	757.2	30.02	762.5	49.1	9.5	69.9	2		8	2	1	2	7	9				6		
Greenwich	N. 51 29	0 00	0.08 p.m.	159	48	29.83	757.7	30.00	762.0	50.4	10.2	74.8	4	2	1	5	1	1	6	11				7		
Guernsey	N. 49 27	W. 2 41	11.58 a.m.	204	62	29.74	755.4	29.96	761.0	53.4	11.9	67.6	3	1	4	4	1	1	4	13				5		
Kew	N. 51 28	W. 0 19	0.07 p.m.	34	10	29.97	761.2	30.01	762.2	49.9	9.9	66.9	7	2	4	4	1	1	6	6				7		
Leicester	N. 52 39	W. 1 08	0.04 p.m.	245	75	29.75	755.6	30.01	762.2	49.8	9.9	67.0	2	3	2	5		5	1	13				7		
Malta	N. 36 00	E. 14 30	1.06 p.m.	111	34	29.82	757.4	29.90	759.4	74.3	23.5	75.8		13	1	3		7	1	6				5	1.17	29.7
Nassau	N. 25 04	W. 77 22	6.58 a.m.	44	13	29.99	761.7	30.04	763.0	79.2	26.2	76.1	1			1		4	10	15				5		
Oscott	N. 52 28	W. 1 55	0.00 m.	483	147	29.49	749.0	30.02	762.5	49.3	9.6	76.0	5	1	3	4	2	1	7	8				7		
Oxford	N. 51 46	W. 1 17	0.03 p.m.	212	64	29.78	756.4	30.01	762.2	49.7	9.8	68.5	8	2	3	2	1	2	6	6	1			7		
Plymouth	N. 50 22	W. 4 10	11.51 a.m.	69	21	29.92	760.0	29.99	761.7	53.1	11.7	71.8	2	4	2	3		5	7	8				6		
Sandwick Manse	N. 59 05	W. 3 20	11.54 a.m.	94	29			30.00	762.0	47.7	8.7	77.5	3	2	8	1	5	9		2	1			6		
Scutari Cemet'y *a*	N 41 00	E. 29 03	2.04 p.m.	60	18	29.89	759.2	29.95	760.7	66.7	19.3	60.0	2		1	11	6			9	1			6		
Sheffield	N. 53 23	W. 1 28	0.02 p.m.	260	79	29.74	755.4	30.03	762.7	49.0	9.4	79.2	3	3	2	6	1		6	10				7	2.77	70.4
Silloth Rectory	N. 54 52	W. 3 22	11.54 a.m.	28	9	29.98	761.5	30.01	762.2	49.8	9.9	72.1	5	1	4	2		2	12	2	3			6	2.14	54.4
Stonyhurst	N. 53 51	W. 2 28	11.58 a.m.	363	110			29.82	757.4	48.1*b*	8.9*b*	70.2*b*	3	3	5	2	1	2	10	5				7*d*		
Stratfield Turgiss	N. 51 17	W. 0 53	0.04 p.m.	197	60	29.79	756.7	30.01	762.2	51.0	10.6	71.4	1	3	5	2		1	11	8				6		
Truro	N. 50 16	W. 5 04	11.53 a.m.	43	13	29.95	760.7	29.99	761.7	56.9	13.8	69.6	4	3	3	2	1	4	6	8				6		
Valencia	N. 51 55	W. 10 18	11.27 a.m.	20	6	29.93	760.2	29.96	761.0	54.1	12.3	75.8	1	2	3	1	1	10	11	2				8		

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea. Feet.	Met'rs	Result of Simultaneous Observations for October, 1881. Mean Barometer. Actual. Inch.	Mill.	Reduced. Inch.	Mill.	Mean Temperature. Fah.	Cent	Mean Rel. Humidity.	Wind. Directions. N	NW	W	SW	S	SE	E	NE	C	Total Movement. Miles	Kil.	Average Cloudiness. 0–10	Total Precipitation. Inch.	Mill.
Canadian Series	° ′	° ′																								
Bathurst	N. 47 39	W. 65 43	7.45 a.m.	35	11																					
Charlottetown	N. 46 14	W. 63 10	7.55 a.m.	38	12	29.93	760.2	29.97	761.2	43.3	6.3	80.8	4	2	8	7	4	1	2	2	1	6991	11251	7	5.09	129.3
Chatham	N. 47 03	W. 65 29	7.45 a.m.	56	17	29.96	761.0	30.02	762.5	38.3	3.5	85.9	1	4	6	4	10			1	5	3684	5929	6	2.68	68.1
Chicontimi				159	48																					
Cornwall	N. 45 01	W. 74 43	7.09 a.m.	175	53																					
Dalhousie	N. 48 04	W. 66 21	7.32 a.m.	150	46																					
Father Point	N. 48 31	W. 68 28	7.34 a.m.	20	6	29.98	761.5	30.00	762.0	38.5	3.6	83.4	6	7	6	8	1		2		1	15281	24592	8	2.62	66.5
Fort Garry	N. 49 51	W. 97 07	5.39 a.m.	754	230	29.22	742.2	30.09	764.3	29.2	—1.6	91.6	4	3	3	11	1	1	1	5	2	4855	7813	6	2.23	56.6
Fredericton	N. 45 57	W. 66 39	7.41 a.m.	59	18																					
Granton	N. 43 12	W. 81 21	6.43 a.m.	1015	309																					
Halifax	N. 44 39	W. 63 36	7.53 a.m.	122	37	29.93	760.2	30.06	763.5	44.1	6.7	89.0	2	7	12	2	5		1	1	1			5	4.28	108.7
Hamilton	N. 43 16	W. 79 53	6.49 a.m.	358	109																					
Kingston	N. 44 14	W. 76 30	7.02 a.m.	307	94	29.78	756.4	30.12	765.0	45.1	7.3	86.8	8	5	3	4	3	2	1	3	2			7	2.77	70.4
Little Glace Bay	N. 46 12	W. 59 58	8.08 a.m.	34	10																					
Montreal	N. 45 31	W. 73 33	7.13 a.m.	187	57	29.89	759.2	30.10	764.5	41.5	5.3	82.2	2	2	1	3	7	1	2	3				8	6.44	163.6
Moose Factory	N. 51 16	W. 80 56	6.44 a.m.	30	9																					
Parry Sound	N. 45 19	W. 80 01	6.48 a.m.	635	194	29.40	746.7	30.10	764.5	41.6	5.3	91.7	6		4	1	5	8	3		4	6689	10765	7	6.33	160.8
Peterborough	N. 44 17	W. 78 20	6.54 a.m.	688	210																					
Port Dover	N. 42 47	W. 80 13	6.47 a.m.	635	194	29.42	747.3	30.12	765.0	48.7	9.3	97.2	3	13	2	1	5	1		4	2	4955	7974	7	4.78	121.4
Port Stanley	N. 42 40	W. 81 13	6.43 a.m.	592	180	29.46	748.3	30.11	764.8	48.8	9.3	92.0	6	6	6	2	2	1	7	1				8	5.40	137.2
Quebec	N. 46 48	W. 71 12	7.23 a.m.	293	89	29.75	755.6	30.08	764.0	38.3	3.5	82.9*a*	4	3	12	2			3	4	3			6	4.73	120.1
Rockliffe	N. 46 10	W. 77 48	6.57 a.m.	418	127	29.64	752.8	30.11	764.8	36.5	2.5	83.9*a*	2	4	2	2	1	10		1	9			6	3.94	100.1
Saugeen	N. 44 30	W. 81 21	6.42 a.m.	656	200	29.36	745.7	30.08	764.0	45.8	7.7	87.6	4	5	2	3	8	5	1	3		9469	15239	8	5.16	131.1
St. Andrews	N. 43 04	W. 81 06	6.34 a.m.	47	14	30.01	762.2	30.06	763.5	42.5	5.8	83.9	4	10	3	4	3	1		2	4			4	2.97	75.4
St. John, N.B.	N. 45 17	W. 66 03	7.44 a.m.	150	46																					
Stratford	N. 43 23	W. 81 00	6.44 a.m.	1182	360																					
Sydney	N. 46 08	W. 60 10	8.07 a.m.	55	17	29.90	759.4	29.96	761.0	43.6	6.4	81.6	1	5	7	10	2		1	1	4	8316	13383	7	3.74	95.0
Toronto	N. 43 39	W. 79 23	6.50 a.m.	350	107	29.94	760.5	30.13	765.3	46.2	7.9	85.0	8	5	6	3	1	2	4	2		6910	11120	7	3.78	96.0
Windsor	N. 44 59	W. 63 58	7.53 a.m.	87	26																					
Woodstock	N. 43 08	W. 80 47	6.48 a.m.	980	299																					
Yarmouth	N. 43 50	W. 66 02	7.44 a.m.	61	19	30.02	762.5	30.08	764.0	45.8	7.7	91.2	2	7	4	1	2	2	4	5	4	8106	13045	5	3.39	86.1
Sub-Series.																										
St. Johns, N. F.	N. 47 34	W. 52 42	8.37 a.m.	230	70	29.98	761.5	30.24	768.1	41.5	5.3	92.5			6	9	8	3	1	1	1			5	4.33	110.0
St. Pierre	N. 46 47	W. 56 08	8.24 a.m.	?	?																					
Cape Colony Series.																										
Cape St. Francis.‡	S. 34 10	E. 24 50	1.47 p.m.	25	7	30.02	762.5	30.05	763.3	63.7	17.6	88.0			9	4	3	2	6	7				4	1.18	30.0
Cape Town	S. 34 05	E. 18 29	1.22 p.m.	27	8																					
Worcester	S. 33 36	E. 19 26	1.26 p.m.	?	?	29.20	741.7			78.3	25.7	36.0		8	10	2	1	3	7					3	0.25	6.3
Chinese Series.																										
Zi-Ka-Wei	N. 31 12	E. 121 26	8.14 p.m.	23	7	30.10	764.4	30.12	765.0	62.6	17.0	88.1	6	2	2	1	3	2	8	6	1			5	5.53	140.4
Costa Rican Series.																										
San José	N. 9 56	W. 84 00	6.15 a.m.	3757	1145																					
Danish Series.																										
Copenhagen	N. 55 41	E. 12 36	0.58 p.m.	43	13	29.98	761.4	30.02	762.6	45.5	7.5	74.4	2	2	5	1	3	1	11	6				8		
Fanöe	N. 55 27	E. 8 24	0.42 p.m.	20	6	29.97	761.2	29.99	761.7	46.2	7.9	80.2*a*	1	2	5	4	1		6	12				7		
Godthaab	N. 64 11	W. 51 46	8.41 a.m.	36	11	29.51	749.5	29.55	750.6	28.4	—2.0	82.0	4	2		3	3	1	1	12	5			7		
Stykkisholm	N. 65 05	W. 22 46	10.37 a.m.	36	11	29.76	755.9	29.80	757.0	41.4	5.2	86.0				3	6	11	6	3	2			8		
Thorshavn	N. 62 02	W. 6 44	11.41 a.m.	29	9	29.95	760.7	29.98	761.6	46.8	8.2	78.0	2	2	4	4	5	3	7	4				7		
Vestervig	N. 56 47	E. 8 20	0.41 p.m.	82	25	29.91	759.7	30.00	762.0	45.0	7.2	79.9	2	1	4	4	1	1	1	16	1			7		
French Series.																										
Agen	N. 44 12	E. 0 38	0.11 p.m.	604	184	29.34	745.2	29.98	761.6	55.8	13.2	67.6	7	6	4	2	3	6		3					1.70	43.3
Alençon	N. 48 25	E. 0 06	0.09 p.m.	476	145	29.48	748.7	30.10	764.4	49.5	9.7	89.6	6	5	1	5	1	2		11					2.49	63.3
Arras	N. 50 18	E. 2 47	0.19 p.m.	239	73	29.71*b*	754.5*b*	29.94*b*	760.5*b*	48.2*b*	9.0*b*	76.1*b*	...*d*	4	3	3	2	4	4	7					2.74	69.5
Avignon	N. 43 57	E. 4 48	0.27 p.m.	65	20	29.83	757.7	29.91	759.7	58.5	14.7	60.3	23	5			1	1	1					6	3.38	85.8
Bar-sur-Seine	N. 48 06	E. 4 22	0.25 p.m.	518	158	29.43	747.4	29.99	761.7	49.8	9.9	70.1	3	2	2	6	1	4	10	3				8	1.72	43.6
Beauvais	N. 49 26	E. 2 04	0.16 p.m.	246	75	29.74	755.4	30.01	762.2	49.6	9.8	66.3	5	4	3	3	2	2	7	5				6	1.00	25.4
Besançon	N. 47 14	E. 6 01	0.32 p.m.	830	253	29.08	738.6	29.98	761.6	48.6	9.2	73.9	2		1	2	9	1		16				5	3.43	87.0
Bordeaux	N. 44 50	E. 0 32	0.06 p.m.	243	74	29.71	754.5	29.96	761.0	56.3	13.5	61.9	8	4	3	2	2	3	4	5				6	33.4	84.7
Bourges	N. 47 05	E. 2 26	0.17 p.m.	510	156	29.41	747.1	29.97	761.1	51.8	11.0	64.9	8	6	2	7		1	1	6					1.95	49.6
Brest	N. 48 23	W. 4 29	11.50 a.m.	210	64	29.74	755.5	29.99	761.7	56.3	13.5	69.3		2	5	2	3	3	4	11	1			6	2.01	51.0
Caen	N. 49 11	W. 0 21	0.07 p.m.	69	21	29.92	760.0	30.00	761.9	53.2	11.8	76.0	7	1	6	3	4	3	2	5				4	2.49	63.3
Châlons-sur-Marne	N. 48 57	E. 4 21	0.25 p.m.	294	90	29.60	751.9	29.93	760.2	50.9	10.5	74.3	2	5	6	5	2	3	4	4				6	2.10	53.2
Charleville	N. 49 46	E. 4 42	0.27 p.m.	476	145	29.48*a*	748.8*a*	29.98*a*	761.6*a*	49.5	9.7	70.5	1	1	2	6	3	7	9	2				6	1.86	47.2
Clermont-Fd.	N. 45 45	E. 3 04	0.20 p.m.	1273	388	28.61	726.7	29.97	761.1	52.2	11.2	59.9	13	3	2	6		2	1	4				7	1.20	30.5
Cluny	N. 46 26	E. 4 39	0.27 p.m.	787	240	29.07	738.3	29.96	760.9	52.5	11.4	72.0	14	3	3	2	4	2		2	1			4	2.74	69.5
Commercy	N. 48 45	E. 5 35	0.30 p.m.	797	243	29.11	739.5	30.00	761.9	46.8	8.2	76.0	5	3	7	4			10	2				6	3.38	85.8
Gap	N. 44 34	E. 6 04	0.32 p.m.	2437	743	27.36	694.9	29.89	759.3	53.4	11.9	68.2	4	4	2	2	8	2	3	2	4				4.77	121.1
Gréasque	N. 43 24	E. 5 37	0.31 p.m.	1056	322	28.80	731.5	29.94	760.5	59.2	15.1	57.3	1				2	17	5	6				5	1.71	43.5
Grenoble	N. 45 11	E. 5 43	0.31 p.m.	715	218	29.19	741.4	29.94	760.4	51.3	10.7	72.4	3	17		1	3	2	3	2					3.64	92.5
Guéret	N. 46 10	E. 1 52	0.16 p.m.	1486	453	28.38	720.9	29.97	761.1	48.7	9.3	71.9	1	2	1	10		4	5	8				5	1.54	39.1
Lamballe	N. 48 28	W. 2 31	11.59 a.m.	252	77	29.72	754.8	29.99	761.8	54.1	12.3	70.1	6	3	5	2	2	5	1	7					2.45	62.3
Lescar *b.*	N. 43 21	W. 0 26	0.06 p.m.	525	160	29.42	747.2	29.98	761.4	58.3	14.6	66.2	4	5	8	6	1		2	3					1.44	36.7
Lorient	N. 47 44	W. 3 21	11.55 a.m.	86	26	29.92	759.9	30.02	762.5	57.9	14.4	71.2	2	2	4	3	5		3	12				5	1.98	50.4
Lyon	N. 45 41	E. 2 30	0.18 p.m.	981	299	28.92	734.5	29.98	761.6	49.6	9.8	69.2	11	6	1		2	4	4	3					3.88	98.5
Mans	N. 48 01	E. 0 12	0.09 p.m.	285	87	29.71	754.5	30.02	762.4	50.5	10.3	69.0	3	4	4	1	2	2	3	12				5	2.92	74.3
Marseille	N. 43 18	E. 5 23	0.29 p.m.	246	75	29.60	751.7	29.87	758.6	62.2	16.8	59.4		10	9	5	2	3	2					6	1.30	33.1
Mont-Louis	N. 42 30	E. 2 07	0.16 p.m.	5203	1586	24.72	627.9	29.95	760.8	47.5	8.6	59.5	6	3	2	8	1	2	7	2				4	1.28	32.5
Montpellier	N. 43 36	E. 3 54	0.24 p.m.	102	31	29.79	756.6	29.89	759.3	60.4	15.8	71.9	15					13	1	2				3	4.61	117.1
Nancy	N. 48 41	E. 6 11	0.33 p.m.	712	217	29.21	742.0	30.00	761.9	47.1	8.4	71.2	7	5	7	2	4			6				7	2.81	71.4
Nantes	N. 47 13	W. 1 33	0.02 p.m.	134	41	29.86	758.5	30.02	762.6	55.9	13.3	60.5	5	4	4	2	2	2	4	8				6	2.10	53.4
Nice	N. 43 41	E. 7 16	0.37 p.m.	29	9	29.79	756.7	29.82	757.5	64.0	17.8	66.8		1	5	1	4	3	15	2				6	5.72	145.2
Perpignan	N. 42 41	E. 2 53	0.19 p.m.	98	30	29.80	757.0	29.91	759.7	56.1	13.4	50.3	7	10		1	1	4	2	6				6	0.68	17.3
Pic du Midi (Sum- *n*)	N. 42 47	W. 0 08	0.08 p.m.	9380	2859	20.98	532.9			29.1	—1.6		2	1	2	6	3			1	2			3	4.00	101.7
Privas [mit.)	N. 44 45	E. 4 35	0.26 p.m.	997	304					53.1	11.7	60.5	16		1		4	2	1	1	6			5	0.72	18.2
Puy de Dome	N. 45 46	E. 2 58	0.20 p.m.	4813	1467	25.02	635.6			34.3	1.3	89.9	5		6	6	2		4	8				8	4.14	105.1
Rochefort	N. 45 56	W. 0 58	0.04 p.m.	29	9	29.97	761.3	30.01	762.2	56.3	13.5	83.6	4	1		4	3	1	3	12	3			5	1.11	28.1
Roche-sur-Yon	N. 46 40	W. 1 26	0.02 p.m.	198	60	29.78	756.3	29.98	761.6	54.0	12.2	71.0	8	3	5	1	2		2	10				4	2.77	70.3
Rodez	N. 44 21	E. 2 35	0.18 p.m.	2050	625	27.81	706.4	29.97	761.2	50.2	10.1	69.0	2	14	5	2	1	4	1	1	1			6	2.08	52.7
Rouen *b.*	N. 49 26	E. 1 05	0.12 p.m.	80	24	29.94	760.5	30.00	761.9	49.6	9.8	68.2	1	3	5	1	1	4	5	9					1.12	28.5
Saint Lô *i.*	N. 49 06	W. 1 05	0.04 p.m.	134	41	29.77	756.2	29.93	760.3	50.4	10.2	78.3	1	3	3	4		2	3	6				7	2.01	51.0
Saint Maur	N. 48 48	E. 2 21	0.18 p.m.	162	49	29.83	757.7	30.00	761.9	50.9	10.5	65.9	7	6	1	4	4		3	6				6	1.35	34.3
Toulouse	N. 43 37	E. 1 27	0.14 p.m.	636	194	29.29	743.9	30.02	762.4	56.8	13.8	63.6	1	14	5	2	1	5	2	1				6	2.55	64.7
Tours *t.*	N. 47 24	E. 0 41	0.11 p.m.	171	52	29.81	757.2	30.00	762.1	52.3	11.3	64.7	2		3	3		1	4	9				6	1.78	45.3
Versailles	N. 48 48	E. 2 07	0.16 p.m.	445	136	29.50	749.4	29.99	761.8	49.6	9.8	64.4	4	5	2	4	1	5	4	6					1.29	32.7
Sub Series.																										
Paris, Montsouris.	N. 48 50	E. 2 20	0.18 p.m.	256	78	29.72	754.8	30.01	762.2	50.0	10.0	66.5	8	3	4	2	3	1	3	7				7	1.04	26.5

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea. Feet.	Altitude of Barometer above sea. Met'rs	Result of Simultaneous Observations for October, 1881. Mean Barometer. Actual. Inch.	Actual. Mill.	Reduced. Inch.	Reduced. Mill.	Mean Temperature. Fah.	Mean Temperature. Cent.	Mean Rel. Humidity.	Wind. Directions. N	NW	W	SW	S	SE	E	NE	C	Total Movement. Miles	Total Movement. Kil.	Average Cloudiness. 0–10	Total Precipitation. Inch.	
German Series.	° ′	° ′																								
Bamberg	N. 49 54	E. 10 53	0.51 p.m.	787	240	29.11	739.5	29.97	761.3	46.6	8.1	64.4	2	5	4	4	3	5	6	2	.....	.....	.....	6	2.17	55.2
Berlin	N. 52 30	E. 13 23	1.02 p.m.	164	50	29.81	757.1	29.98	761.5	48.0	8.9	69.4	2	4	2	6	1	5	5	6	.....	.....	.....	7	2.48	62.9
Breslau	N. 51 07	E. 17 02	1.17 p.m.	482	147	29.48	748.8	30.02	762.4	45.1	7.3	74.0	4	2	4	1	2	4	7	7	.....	.....	.....	8	1.10	27.8
Carlsruhe	N. 49 01	E. 8 25	0.42 p.m.	404	123	29.54	750.4	29.98	761.4	47.5	8.6	81.9	1	3	3	8	2	2	4	8	.....	.....	.....	8	1.99	50.6
Cassel	N. 51 19	E. 9 28	0.46 p.m.	669	204	29.24	742.8	29.96	761.0	44.8	7.1	71.0	5	3	3	2	6	.....	5	7	.....	.....	.....	7	1.98	50.4
Frankfort on M.	N. 50 08	E. 8 41	0.43 p.m.	338	103	29.60	751.9	29.97	761.3	47.7	8.7	54.1	7	3	4	4	1	1	2	9	.....	.....	.....	7	3.64	92.5
Friedrichshafen	N. 47 39	E. 9 29	0.45 p.m.	1355	413	28.51	724.2	29.97	761.1	47.1	8.4	78.4	1	1	2	8	6	....	1	12	.....	.....	.....	8	3.83	97.2
Hamburg	N. 53 33	E. 9 58	0.48 p.m.	85	26	29.91	759.6	30.00	762.0	45.7	7.6	78.6	4	3	4	3	2	.....	8	6	1	.....	.....	8	3.78	95.9
Kiel	N. 54 20	E. 10 04	0.49 p.m.	13	4	29.97	761.1	29.98	761.5	46.8	8.2	74.9	2	2	2	4	1	1	11	6	2	.....	.....	8	4.79	121.6
Leipsic	N. 51 20	E. 12 24	0.58 p.m.	390	119	29.57	751.1	30.01	762.2	44.6	7.0	74.2	4	2	.....	7	3	.....	3	12	.....	.....	.....	8	2.15	54.6
Magdeburg	N. 52 09	E. 11 37	0.54 p.m.	269	82	29.79	756.7	29.98	761.6	46.2	7.9	74.5	3	3	3	3	4	.....	3	11	1	.....	.....	8	3.69	93.8
Memel	N. 55 43	E. 21 07	1.32 p.m.	39	12	30.04	763.1	30.09	764.3	43.2	6.2	75.2	.....	2	.....	5	3	2	7	12	.....	.....	.....	6	.....	.....
Munich	N. 48 09	E. 11 34	0.55 p.m.	1732	528	28.11	714.1	29.98	761.5	44.1	6.7	73.2	2	11	.....	1	.....	2	2	8	5	.....	.....	8	2.53	64.3
Neufahrwasser	N. 54 24	E. 18 40	1.25 p.m.	16	5	30.03	762.8	30.05	763.2	45.7	7.6	70.5	2	1	.....	5	3	1	7	12	.....	.....	.....	7	1.10	28.0
Neustadt	N. 49 21	E. 8 08	0.41 p.m.	479	146	29.43	747.5	29.96	760.9	47.7	8.7	70.5	6	2	8	4	.....	1	5	2	3	.....	.....	8	1.63	41.3
Stuttgart	N. 48 47	E. 9 11	0.45 p.m.	833	254	29.00	736.6	29.91	759.7	46.8	8.2	72.2	10	4	6	2	1	1	3	4	.....	.....	.....	8	1.92	48.9
Weissenburg	N. 49 02	E. 10 58	0.52 p.m.	1401	427	28.46	722.8	29.99	761.7	44.8	7.1	73.8	2	1	9	3	.....	1	4	7	4	.....	.....	8	1.74	44.3
Wustrow	N. 54 21	E. 12 24	0.58 p.m.	23	7	29.98	761.4	30.00	762.0	46.0	7.8	83.2	3	1	3	3	1	5	6	9	.....	.....	.....	8	3.55	90.2
Greek Series.																										
Athens	N. 37 58	E. 23 43	1.43 p.m.	359	110	29.60	751.7	29.97	761.3	72.9	22.7	.....	1	1	4	15	5	.....	1	4	.....	.....	.....	4	0.29	7.4
Indian Series.																										
Kurachee	N. 24 47	E. 67 04	4.36 p.m.	49	15	29.78	756.4	29.83	757.7	84.4	29.1	76.9	.....	.....	.....	30	1	.....	.....	.....	.....	.....	.....	1	.....	.....
Deesa	N. 24 16	E. 72 14	4.57 p.m.	465	142	29.36	745.7	29.83	757.7	88.2	31.2	44.1	1	6	9	6	6	1	.....	2	.....	.....	.....	1	.....	.....
Bombay	N. 18 54	E. 72 49	5.00 p.m.	37	11	29.79	756.7	29.83	757.7	82.9	28.3	78.4	1	29	1	.....	.....	.....	.....	.....	.....	.....	.....	2	4.17	105.9
Poona	N. 18 28	E. 74 10	5.05 p.m.	1849	564	27.98	710.7	29.82	757.4	84.1	28.9	42.6	3	1	10	1	.....	1	3	12	.....	.....	.....	5	2.53	64.3
Belgaum	N. 15 52	E. 74 42	5.07 p.m.	2550	777	27.30	693.4	29.82	757.4	79.3	26.3	55.1	1	3	11	2	.....	.....	1	13	.....	.....	.....	3	1.44	36.6
Lahore	N. 31 34	E. 74 20	5.05 p.m.	732	223	29.04	737.6	29.77	756.1	84.8	29.3	44.0	2	2	1	1	....	1	2	2	20	.....	.....	1	0.12	3.0
Roorkee	N. 29 52	E. 77 56	5.20 p.m.	887	270	28.89	733.8	29.78	756.4	82.7	28.2	47.8	1	10	6	1	.....	3	1	.....	9	.....	.....	1	.....	.....
Agra	N. 27 10	E. 78 05	5.20 p.m.	555	169	29.24	742.7	29.79	756.7	89.4	31.9	39.7	.....	7	22	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....
Nagpur	N. 21 09	E. 79 11	5.24 p.m.	1025	312	29.77	756.1	29.81	757.2	84.4	29.1	42.3	6	1	.....	.....	1	.....	3	3	17	.....	.....	2	0.44	11.2
Jubulpore	N. 23 09	E. 79 59	5.28 p.m.	1351	412	28.48	723.4	29.83	757.7	84.8	29.3	50.8	3	2	1	.....	.....	.....	5	.....	20	.....	.....	1	0.11	2.8
Lucknow	N. 26 50	E. 81 00	5.32 p.m.	369	112	29.42	747.3	29.79	756.7	86.4	30.2	38.5	2	1	12	2	1	.....	1	.....	12	.....	.....	1	0.10	2.5
Alahabad *a.*	N. 25 26	E. 81 52	5.35 p.m.	307	94	29.48	748.8	29.79	756.7	79.5	26.4	67.4	.....	.....	1	2	2	.....	1	1	23	.....	.....	1	0.22	5.6
Patna	N. 25 37	E. 85 08	5.49 p.m.	183	56	29.62	752.3	29.79	756.7	77.8	25.4	72.6	4	5	4	1	2	1	7	3	4	.....	.....	3	3.08	78.2
Hazaribagh	N. 24 00	E. 85 24	5.50 p.m.	2007	612	27.79	705.9	29.81	757.2	77.4	25.2	58.0	4	12	3	.....	2	2	3	.....	5	.....	.....	2	3.65	92.7
Cuttack	N. 20 29	E. 85 54	5.52 p.m.	80	24	29.72	754.9	29.80	756.9	82.6	28.1	71.8	3	.....	3	2	.....	2	2	2	17	.....	.....	3	2.85	72.4
Calcutta	N. 22 33	E. 88 19	6.01 p.m.	21	7	29.77	756.1	29.79	756.7	80.5	26.9	79.6	3	.....	.....	1	2	1	6	.....	18	.....	.....	3	2.12	53.8
Dhubri	N. 26 07	E. 89 50	6.08 p.m.	118	36	29.60	751.8	29.80	756.9	79.8	26.6	79.6	1	.....	.....	.....	.....	.....	1	1	28	.....	.....	2	0.63	16.0
Chittagong	N. 22 21	E. 91 50	6.15 p.m.	87	26	29.72	754.9	29.81	757.2	80.8	27.1	78.7	3	6	10	3	1	4	.....	1	3	.....	.....	4	.....	.....
Sibsagar	N. 26 59	E. 94 40	6.27 p.m.	333	112	29.47	748.5	29.81	757.2	79.5	26.4	85.6	1	.....	.....	2	.....	7	1	19	1	.....	.....	2	2.34	59.4
Jeypore	N. 26 55	E. 75 50	5.05 p.m.	1431	436	28.39	721.1	29.81	757.2	88.0	31.1	29.8	6	14	5	2	1	.....	.....	.....	3	.....	.....	2	.....	.....
Zanzibar	S. 6 10	E. 39 11	2.45 p.m.	22	7	29.94	760.5	.....	.....	82.7	28.2	64.6	1	3	3	1	5	11	4	2	1	.....	.....	5	3.12	79.2
Italian Series.																										
Udine	N. 46 04	E. 13 14	1.01 p.m.	381	116	29.49	749.1	29.90	759.4	55.0	12.8	61.7	.....	.....	.....	.....	1	1	10	5	13	.....	.....	8	6.83	173.4
Milan	N. 45 28	E. 9 11	0.45 p.m.	482	147	29.39	746.6	29.91	759.6	54.9	12.7	72.0	2	1	2	8	3	3	7	5	.....	.....	.....	8	3.83	97.3
Padua	N. 45 24	E. 11 53	0.56 p.m.	102	31	29.78	756.5	29.89	759.2	55.9	13.3	69.4	11	1	.....	3	3	.....	3	10	.....	.....	.....	8	4.63	117.6
Moncalieri	N. 45 00	E. 7 42	0.39 p.m.	853	260	28.98	736.0	29.88	758.9	55.0	12.8	71.4	1	9	2	2	5	3	6	3	.....	.....	.....	7	2.09	53.0
Genoa	N. 44 25	E. 8 55	0.44 p.m.	157	48	29.67	753.7	29.87	758.6	60.4	15.8	57.8	12	.....	.....	3	1	5	3	7	.....	.....	.....	6	6.23	158.2
Mondovi	N. 44 22	E. 7 48	0.39 p.m.	1824	556	27.98	710.6	29.89	759.2	51.3	10.7	70.9	2	3	22	.....	.....	.....	2	2	.....	.....	.....	5	2.27	57.7
Pesaro	N. 43 55	E. 12 53	1.00 p.m.	46	14	29.81	757.2	29.86	758.4	55.4	13.0	79.5	10	5	2	4	.....	3	3	4	.....	.....	.....	8	9.89	251.3
Florence	N. 43 46	E. 11 14	0.53 p.m.	240	73	29.59	751.6	29.84	758.0	61.7	16.5	62.6	8	2	1	3	2	1	.....	4	.....	.....	.....	7	4.82	122.3
Leghorn	N. 43 32	E. 10 18	0.49 p.m.	79	24	29.77*a*	756.2*a*	29.86*a*	758.4*a*	62.1	16.7	66.8	2	3	4	3	4	2	4	11	.....	.....	.....	7	9.34	237.2
Rome	N. 41 54	E. 12 29	0.58 p.m.	164	50	29.67	753.6	29.84	758.0	65.1	18.4	64.0	7	3	3	11	2	3	1	1	.....	.....	.....	7	10.40	264.2
Lecce	N. 40 21	E. 18 12	1.21 p.m.	236	72	29.65	753.0	29.90	759.4	68.4	20.2	64.2	4	2	3	4	8	8	1	1	.....	.....	.....	6	3.15	79.9
Cosenza	N. 39 13	E. 16 15	1.13 p.m.	840	256	29.82	757.4	29.91	759.7	65.5	18.6	64.5	.....	1	2	3	5	14	6	.....	.....	.....	.....	7	8.54	217.0
Cagliari	N. 39 13	E. 9 10	0.45 p.m.	180	55	29.66*a*	753.4*a*	29.85*a*	758.1*a*	68.9*a*	20.5*a*	57.8*a*	*b*	11	3	3	3	6	1	.....	2	.....	.....	6*b*	3.51*b*	89.2*b*
Palermo	N. 38 07	E. 13 22	1.02 p.m.	236	72	29.65	753.0	29.89	759.2	71.6	22.0	53.0	1	2	4	9	1	.....	2	9	3	.....	.....	7	2.25	57.1
Syracuse	N. 37 03	E. 15 18	1.09 p.m.	43	13	29.85	758.1	29.88	758.9	71.7	22.1	71.7	1	.....	7	10	4	3	5	1	.....	.....	.....	7	4.58	116.4
Sub-Series.																										
Naples	N. 40 52	E. 14 18	1.05 p.m.	489	149	29.35	745.6	29.85	758.3	64.6	18.1	76.1	1	1	2	13	4	4	1	5	.....	.....	.....	7	5.85	148.7
Stelvio	N. 46 37	E. 10 26	0.50 p.m.	8343	2543	22.01	559.1	.....	.....	29.7	—1.3	74.9	1	.....	7	6	2	2	7	6	.....	.....	.....	8	1.52	38.7
Valdobbia	N. 45 47	E. 7 54	0.40 p.m.	8360	2548	22.04	559.8	.....	.....	31.5	—0.3	68.3	14	2	.....	.....	.....	4	10	1	.....	.....	.....	7	4.04	102.6
Japanese Series.																										
Hiroshima	N. 34 20	E. 132 27	8.58 p.m.	14	4	30.01	762.2	30.02	762.5	60.2	15.7	79.5	24	.....	2	.....	1	.....	.....	4	.....	.....	.....	5	4.30	109.2
Kioto	N. 35 01	E. 135 46	9.11 p.m.	162	49	29.88	758.9	30.06	763.5	56.6	13.7	88.4	2	23	3	1	.....	1	1	.....	.....	.....	.....	6	26.46	672.1
Nagasaki	N. 32 44	E. 129 51	8.47 p.m.	189	58	29.87	758.7	30.07	763.8	62.8	17.1	76.5	7	2	1	3	.....	.....	1	13	4	.....	.....	5	5.68	144.3
Nemuro	N. 38 21	E. 145 35	9.50 p.m.	58	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Neegata	N. 37 55	E. 139 03	9.24 p.m.	32	10	30.02	762.5	30.06	763.5	56.5	13.6	77.3	12	.....	1	3	1	8	4	2	.....	.....	.....	7	5.38	136.7
Nobiru	N. 38 23	E. 141 12	9.32 p.m.	15	5	30.01	762.2	30.02	762.5	53.3	11.8	88.2	5	20	.....	2	1	.....	.....	2	1	.....	.....	5	3.22	81.8
Supporo	N. 43 04	E. 141 23	9.33 p.m.	61	19	29.85	758.2	29.92	760.0	45.1	7.3	85.7	1	3	6	1	5	8	3	.....	4	.....	.....	6	4.36	110.7
Tokei	N. 35 40	E. 139 45	9.27 p.m.	63	19	29.97	761.2	30.04	763.0	57.8	14.3	86.6	7	6	1	1	1	1	6	6	2	.....	.....	7	3.42	86.9
Wakayama	N. 34 14	E. 135 09	9.09 p.m.	48	15	30.00	762.0	30.05	763.3	61.4	16.3	76.6	8	2	.....	1	2	.....	4	11	3	.....	.....	5	2.52	64.0
Mauritius Ser's.																										
Mauritius	S. 20 06	E. 57 33	3.58 p.m.	181	55	29.94	760.5	30.13	765.3	75.0	23.9	60.3	.....	.....	.....	2	.....	1	20	8	.....	.....	.....	6	1.83	46.5
Mexican Series.																										
Guanajuato	N. 21 01	W. 100 48	5.24 a.m.	6683	2037	23.69	601.2	29.91	759.8	56.7	13.7	79.4	.....	.....	.....	1	.....	.....	4	6	20	.....	.....	4	2.11	53.5
Leon	N. 21 07	W. 101 35	5.22 a.m.	5902	1799	24.44	620.7	30.18	766.5	59.0	15.1	85.0	8	3	3	8	2	1	2	4	.....	.....	.....	4	0.94	24.1
Mazatlan	N. 23 11	W. 106 17	5.03 a.m.	249	76	29.65	753.2	29.91	759.7	77.0	25.0	88.0	3	1	.....	.....	.....	4	8	13	2	.....	.....	.....	2.40	61.0
Mexico	N. 19 26	W. 99 00	5.32 a.m.	7490	2283	23.12	587.2	30.16	766.1	55.4	12.2	83.0	2	8	3	1	1	.....	.....	1	15	.....	.....	6	1.47	37.3
Morelia	N. 19 42	W. 101 06	5.22 a.m.	6247	1940	24.14	613.4	30.19	766.7	58.4	14.5	77.0	1	1	.....	5	3	9	2	10	.....	.....	.....	4	1.02	26.0
Pabellon	N. 22 04	W. 102 04	5.20 a.m.	6312	1924	23.95	608.3	30.16	766.0	58.2	14.5	84.0	5	4	2	3	.....	.....	.....	17	.....	.....	.....	5	3.52	89.3
Puebla	N. 19 02	W. 98 03	5.36 a.m.	7113	2168	23.42	595.0	30.20	767.2	53.8	12.2	73.0	3	2	.....	.....	.....	.....	.....	20	.....	.....	.....	4	0.84	21.4
San Luis Potosi	N. 22 10	W. 100 51	5.25 a.m.	6211	1893	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tlacotalpam	N. 18 37	W. 95 32	5.40 a.m.	13	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Zacatecas	N. 22 44	W. 102 26	5.18 a.m.	8100	2469	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea. Feet.	Altitude of Barometer above sea. Met'rs	Mean Barometer. Actual. Inch.	Mean Barometer. Actual. Mill.	Mean Barometer. Reduced. Inch.	Mean Barometer. Reduced. Mill.	Mean Temperature. Fah.	Mean Temperature. Cent.	Mean Rel. Humidity.	Wind. Directions. N	NW	W	SW	S	SE	E	NE	C	Total Movement. Miles	Total Movement. Kil.	Average Cloudiness. 0–10	Total Precipitation. Inch.	Total Precipitation. Mill.
Netherland Series.	° ′	° ′																								
Flushing	N. 51 24	E. 3 35	0.22 p.m.	0	0	30.00	761.9	30.00	761.9	50.0	10.0	.....	3	1	5	3	1	1	4	13	.....	.....	.....	.....	2.94	74.6
Groningen	N. 53 12	E. 6 34	0.34 p.m.	0	0	29.94	760.5	30.00	761.9	47.8	8.8	.....	1	4	3	2	1	.....	8	12	.....	.....	.....	.....	2.44	62.1
Helder	N. 52 58	E. 4 45	0.27 p.m.	0	0	29.99	761.8	29.99	761.8	46.8	8.2	.....	1	2	5	4	.....	1	5	13	.....	.....	.....	.....	2.31	58.6
Hellevoetsluis	N. 51 49	E. 4 08	0.25 p.m.	0	0	29.98	761.6	29.98	761.6	48.0	8.9	77.9	.....	2	4	4	1	.....	4	16	.....	.....	.....	.....	2.13	54.1
Utrecht	N. 52 05	E. 5 07	0.29 p.m.	43	13	29.95	760.8	30.00	762.0	48.2	9.0	71.3	4	2	5	3	1	.....	4	12	.....	.....	.....	6	1.89	47.9
Norwegian Series.																										
Bergen	N. 60 24	E. 5 20	0.29 p.m.	56	17	29.96	761.0	30.02	762.6	45.7	7.6	65.3	3	5	.....	.....	4	4	1	2	12	.....	.....	4	5.04	127.9
Christiania	N. 59 55	E. 10 45	0.51 p.m.	134	41	29.91	759.8	30.06	763.6	43.2	6.2	63.0	6	1	.....	3	5	2	5	7	2	.....	.....	6	1.13	28.7
Gjæsvær	N. 71 07	E. 25 22	1.49 p.m.	23	7	29.85	758.3	29.88	759.9	37.4	3.0	.....	2	3	4	6	1	4	3	3	5	.....	.....	9	.....	.....
Lodingen	N. 68 24	E. 16 01	1.12 p.m.	43	13	29.95	760.6	29.99	761.8	41.4	5.2	74.8	5	1	3	9	.....	2	.....	9	2	.....	.....	6	2.84	72.2
Portuguese Series.																										
Angra	N. 38 39	W. 27 14	10.19 a.m.	144	44	30.00	761.9	30.15	765.8	65.1	18.4	77.4	1	7	4	3	1	2	5	6	2	.....	.....	4	2.39	60.7
Campo Major	N. 39 02	W. 6 59	11.40 a.m.	945	288	28.98	736.0	29.96	761.0	65.7	18.7	55.5	4	1	10	5	4	.....	3	4	.....	.....	.....	7	3.07	77.9
Funchal	N. 32 38	W. 16 55	11.00 a.m.	82	25	30.04	763.0	30.13	765.2	72.5	22.5	58.4	.....	.....	4	16	1	3	3	2	2	.....	.....	6	0.52	13.2
Lisbon	N. 38 42	W. 9 08	11.31 a.m.	335	102	29.67	753.5	30.02	762.5	64.4	18.0	61.1	7	4	3	6	5	.....	2	4	.....	.....	.....	5	2.77	70.3
Ponta Delgada	N. 37 45	W. 25 41	10.25 a.m.	66	20	30.10	764.6	30.17	766.4	68.4	20.2	66.4	1	6	3	3	1	.....	.....	10	7	.....	.....	4	2.39	60.6
Russian Series.																										
Akmolinski	N. 51 03	E. 71 22	4.54 p.m.	?	?	28.96	735.5	30.06	763.6	41.7	5.4	67.3	.....	1	3	11	5	2	6	3	.....	.....	.....	4	.....	.....
Archangel	N. 64 33	E. 40 32	2.50 p.m.	16	5	30.01	762.3	30.03	762.8	36.5	2.5	84.5	3	5	5	3	8	4	.....	2	1	.....	.....	9	.....	.....
Astrakhan	N. 46 21	E. 48 02	3.20 p.m.	‖72	‖22	30.20	767.0	30.11	764.9	55.0	12.8	52.7	4	1	3	1	4	3	10	3	2	.....	.....	6	.....	.....
Barnaul ‡	N. 53 20	E. 83 47	5.45 p.m.	482	147	29.61	752.1	30.12	765.1	38.5	3.6	66.0	.....	.....	4	12	1	.....	.....	1	13	.....	.....	7	.....	.....
Dorpat	N. 58 23	E. 26 43	1.55 p.m.	223	68	29.87	758.6	30.11	764.9	41.7	5.4	74.5	3	3	.....	6	7	1	2	9	.....	.....	.....	8	.....	.....
Ekaterinburg	N. 56 49	E. 60 35	4.11 p.m.	876	267	29.07	738.3	30.07	763.8	36.5	2.5	67.5	3	3	3	10	1	7	.....	.....	4	.....	.....	7	.....	.....
Kasan	N. 55 47	E. 49 08	3.25 p.m.	249	76	29.84	757.9	30.11	764.9	40.6	4.8	64.0	4	2	3	6	5	6	1	1	3	.....	.....	7	.....	.....
Kertch	N. 45 21	E. 36 29	2.34 p.m.	20	6	30.01	762.2	30.03	762.7	55.9	13.3	80.3	3	3	1	1	2	5	2	4	10	.....	.....	6	2.20	55.8
Kieff	N. 50 26	E. 30 31	2.10 p.m.	600	183	29.37	745.9	30.02	762.4	45.0	7.2	69.4	7	2	2	.....	2	3	7	8	.....	.....	.....	7	.....	.....
Lugan	N. 48 35	E. 39 20	2.46 p.m.	187	57	29.88	758.9	30.08	764.1	51.3	10.7	61.2	2	.....	2	4	3	3	12	5	.....	.....	.....	6	.....	.....
Moscow	N. 55 46	E. 37 40	2.39 p.m.	512	156	29.56	750.8	30.05	763.2	43.0	6.1	66.6	3	4	.....	1	14	4	1	.....	4	.....	.....	6	.....	.....
Nikolajev	N. 46 58	E. 31 58	2.16 p.m.	62	19	29.98	761.5	30.05	763.3	53.6	12.0	72.9	4	.....	.....	1	8	4	2	5	7	.....	.....	7	.....	.....
Nikolaievsk *b*	N. 53 08	E. 140 45	9.31 p.m.	59	18	29.70	754.5	29.79	756.7	34.5	1.4	84.0	.....	1	5	.....	.....	.....	5	.....	17	.....	.....	7	2.32	59.0
Pekin	N. 39 57	E. 116 29	7.54 p.m.	125	38	29.98	761.6	30.13	765.2	55.2	12.9	60.4	.....	3	.....	3	...	1	.....	1	23	.....	.....	3	0.20	5.0
St. Petersburg	N. 59 56	E. 30 16	2.09 p.m.	16	5	30.08	764.0	30.10	764.4	39.7	4.3	83.1	5	4	2	2	5	5	1	7	.....	.....	.....	9	.....	.....
Tashkend	N. 41 19	E. 69 16	4.45 p.m.	1621	494	28.56	725.4	30.13	765.4	56.3	13.5	74.1	.....	4	.....	.....	.....	.....	.....	.....	27	.....	.....	4	2.39	60.7
Tiflis	N. 41 43	E. 44 47	3.07 p.m.	1342	409	28.67	728.2	30.07	763.7	64.2	17.9	50.5	3	9	1	1	4	10	2	1	.....	.....	.....	4	.....	.....
Warsaw	N. 52 13	E. 21 02	1.32 p.m.	394	120	29.61	752.1	30.04	763.0	45.0	7.2	67.7	7	2	1	4	3	3	5	6	.....	.....	.....	7	.....	.....
Wilna	N. 54 41	E. 25 18	1.49 p.m.	387	118	29.68	753.8	30.11	764.8	43.7	6.5	66.5	4	2	1	5	5	5	2	4	3	.....	.....	7	.....	.....
Yeniseisk	N. 58 27	E. 92 09	6.16 p.m.	128	39	29.78	756.5	30.08	764.0	30.0	—1.1	78.2	.....	2	12	5	5	1	3	3	.....	.....	.....	4	.....	.....
Scottish Series.																										
Leith	N. 55 58	W. 3 10	11.55 a.m.	83	25	.....	.....	30.05	763.3	49.2	9.6	73.9	1	3	7	1	.....	7	9	3	.....	.....	.....	7	2.13	54.1
Monach L.hou se	N. 57 31	W. 7 42	11.37 a.m.	150	46	.....	.....	29.97	761.2	50.5	10.3	92.7	2	1	2	3	12	4	4	3	.....	.....	.....	8	3.00	76.2
North Unst	N. 60 51	W. 0 53	0.04 p.m.	230	70	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spanish Series.																										
Barcelona	N. 41 23	E. 2 11	0.16 p.m.	98	30	29.79	756.6	29.89	759.1	64.2	17.9	65.0	.....	.....	7	4	2	6	8	4	.....	.....	.....	4	3.29	83.5
Bilbao	N. 43 15	W. 2 59	11.56 a.m.	52	16	29.93	760.3	29.99	761.7	64.0	17.8	64.0	1	5	4	1	3	11	1	5	.....	.....	.....	7	2.61	66.4
Burgos	N. 42 20	W. 3 46	11.53 a.m.	2821	860	27.04	686.7	.....	.....	54.0	12.2	79.1	4	1	1	7	4	.....	1	13	.....	.....	.....	5	2.20	55.8
Madrid	N. 40 25	W. 3 42	11.53 a.m.	2152	656	27.75	704.9	29.95	760.8	61.5	16.4	61.9	3	.....	2	12	5	4	2	3	.....	.....	.....	5	1.48	37.6
Murcia ‡	N. 37 59	W. 1 10	0.03 p.m.	141	43	29.81	757.1	29.96	760.9	72.5	22.5	59.6	.....	8	5	3	6	.....	5	4	.....	.....	.....	6	6.73	171.0
Santiago	N. 42 53	W. 8 28	11.34 a.m.	863	263	29.02	737.1	29.90	759.5	60.3	15.7	72.5	7	1	3	7	2	5	1	5	.....	.....	.....	7	8.18	207.7
Sub-Series.																										
Havana	N. 23 08	W. 82 28	7.39 a.m.	62	19	29.95	760.6	30.01	762.3	75.5	24.2	84.7	1	.....	.....	.....	.....	2	22	.....	6	.....	.....	3	2.08	52.9
Manilla	N. 14 35	E. 121 00	8.12 p.m.	56	17	29.80	756.9	29.81	757.2	81.3	27.4	82.9	4	.....	6	5	6	6	1	3	.....	.....	.....	7	6.14	156.0
San Fernando	N. 36 28	W. 6 13	11.43 a.m.	95	29	29.94	760.5	30.04	762.9	68.0	20.0	71.4	2	.....	8	8	6	3	1	.....	3	.....	.....	7	4.60	116.9
San Juan de Porto Rico	N. 18 30	W. 66 10	7.44 a.m.	82	25	29.86	758.5	29.95	760.8	79.0	26.1	90.0	.....	1	.....	.....	2	3	2	3	20	.....	.....	7	15.67	398.0
Tuguegarao	N. 17 37	E. 121 30	8.15 p.m.	125	38	29.68	753.8	29.81	757.2	77.5	25.3	87.4	1	18	.....	1	6	3	1	1	.....	.....	.....	7	5.97	151.7
Swedish Series.																										
Haparanda	N. 65 47	E. 24 03	1.44 p.m.	29	9	30.05	763.3	30.09	764.3	37.2	2.9	81.0	6	1	1	8	2	3	.....	8	2	.....	.....	7	1.84	46.8
Umea	N. 63 50	E. 20 17	1.29 p.m.	39	12	30.04	762.9	30.09	764.2	40.1	4.5	80.0	9	2	.....	5	6	1	1	5	2	.....	.....	7	4.24	107.6
Hernosand	N. 62 32	E. 17 57	1.20 p.m.	46	14	30.05	763.2	30.10	764.5	41.7	5.4	69.0	8	2	.....	4	9	.....	2	4	2	.....	.....	6	2.09	53.1
Stockholm	N. 59 20	E. 18 04	1.20 p.m.	144	44	29.89	759.3	30.07	763.8	43.0	6.1	75.0	4	4	.....	7	4	1	2	9	.....	.....	.....	8	1.26	32.0
Wisby	N. 57 39	E. 18 19	1.20 p.m.	52	16	29.97	761.2	30.03	762.7	45.0	7.2	76.0	1	2	2	11	.....	.....	6	9	.....	.....	.....	6	2.94	74.7
Sub-Series.																										
Upsala	N. 59 51	E. 17 37	1.19 p.m.	79	24	29.96	761.0	30.05	763.2	41.9	5.5	76.4	6	5	.....	2	7	2	3	6	.....	.....	.....	7	1.02	25.8
Swiss Series.																										
Geneva	N. 46 12	E. 6 08	0.33 p.m.	1338	408	28.54	724.8	29.97	761.3	49.5	9.7	66.3	13	3	.....	1	4	2	1	7	.....	.....	.....	7	4.18	106.2
Zurich ‡	N. 47 22	E. 8 40	0.43 p.m.	1542	470	28.33	719.6	29.99	761.8	45.5	7.5	78.9	1	1	9	1	.....	.....	5	5	9	.....	.....	7	2.32	59.0
Turkish Series.																										
Constantinople	N. 41 00	E. 28 59	2.04 p.m.	230	70	.....	.....	30.00	762.0	65.1	18.4	65.1	7	.....	1	13	.....	.....	.....	7	3	.....	.....	6	1.59	40.4
Valona	N. 40 27	E. 19 27	1.25 p.m.	105	32	.....	.....	29.99	761.8	67.6	19.8	.....	.....	1	14	10	4	2	.....	.....	.....	.....	.....	5	6.50	165.0
Sub-Series.																										
Beirut	N. 33 54	E. 35 28	2.30 p.m.	111	34	.....	.....	29.95	760.8	79.2	26.2	60.2	10	5	7	6	.....	.....	.....	3	.....	.....	.....	3	1.38	35.1

OCTOBER, 1881.

‖ Below sea level.

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea: Feet.	Altitude of Barometer above sea: Met'rs	Mean Barometer, Actual: Inch.	Mean Barometer, Actual: Mill.	Mean Barometer, Reduced: Inch.	Mean Barometer, Reduced: Mill.	Mean Temperature: Fah.	Mean Temperature: Cent.	Mean Rel. Humidity.	Wind Directions: N	NW	W	SW	S	SE	E	NE	C	Wind Total Movement: Miles	Wind Total Movement: Kil.	Average Cloudiness. 0–10	Total Precipitation: Inch.	Total Precipitation: Mill.
U. S. Series.	° ′	° ′																								
Albany	N. 42 40	W. 73 45	7.13 a.m.	75	23	30.09	764.3	30.17	766.3	52.0	11.1	68.7	4	5	5	6	9	......	1	1	......	3943	6346	6	3.19	81.0
Alpena	N. 45 05	W. 83 28	6.34 a.m.	609	185	29.44	747.8	30.13	765.3	42.3	5.7	87.6	......	12	8	4	1	2	2	1	1	6863	11045	3	10.25	260.3
Atlanta	N. 33 45	W. 84 23	6.31 a.m.	1131	345	29.01	736.8	30.23	767.8	60.6	15.9	84.3	......	7	1	1	......	1	17	4	......	6779	10910	4	3.44	87.4
Atlantic City	N. 39 22	W. 74 25	7.11 a.m.	13	4	30.18	766.6	30.19	766.8	58.2	14.6	83.7	6	3	2	12	4	2	1	......	1	6915	11128	5	3.03	77.0
Augusta	N. 33 28	W. 81 54	6.41 a.m.	183	56	30.02	762.5	30.22	767.6	64.2	17.9	81.3	......	1	1	......	4	2	5	9	9	2628	4229	4	2.33	59.2
Baltimore	N. 39 18	W. 76 38	7.02 a.m.	45	14	30.15	765.8	30.20	767.1	58.0	14.4	75.3	6	1	4	6	4	2	3	3	2	3456	5562	5	4.06	103.1
Barnegat	N. 39 48	W. 74 09	7.12 a.m.	20	6	30.15	765.8	30.17	766.3	57.7	14.3	82.2	5	4	2	14	2	1	2	1	......	9120	14677	6	4.35	110.5
Bismarck	N. 46 48	W. 100 38	5.26 a.m.	1693	516	28.23	717.0	30.15	765.8	32.2	0.1	81.6	6	7	......	......	......	3	7	1	7	6357	10230	5	0.51	13.0
Boise City	N. 43 46	W. 116 06	4.24 a.m.	2750	838	27.21	691.1	30.13	765.3	36.9	2.7	82.2	1	8	8	......	1	1	4	3	5	3216	5176	6	2.12	53.8
Boston	N. 42 21	W. 71 04	7.23 a.m.	142	43	30.00	762.0	30.16	766.1	49.4	9.7	77.4	3	5	8	7	1	1	2	2	2	7386	11885	3	2.84	72.1
Brackettville	N. 29 17	W. 100 51	5.27 a.m.	1170	356	28.87	733.3	29.90	759.4	65.9	19.4	93.3	1	......	......	......	......	2	19	2	7	4881	7855	8	16.17	410.7
Brownsville *b*	N. 26 00	W. 97 30	5.38 a.m.	43	13	29.94	760.5	29.99	761.7	74.8	23.8	93.6	5	......	......	......	1	9	1	5	8	4132	6650	3	8.72	221.5
Buffalo	N. 42 53	W. 78 55	6.52 a.m.	664	202	29.40	746.7	30.14	765.5	51.1	10.6	76.7	1	5	4	5	3	4	2	6	1	4961	7984	4	7.33	186.2
Burlington	N. 44 29	W. 73 13	7.15 a.m.	268	82	29.84	757.9	30.14	765.5	45.2	7.3	79.3	5	4	1	2	14	1	3	1	......	6823	10980	5	1.54	39.1
Cairo	N. 37 00	W. 89 12	6.11 a.m.	377	115	29.76	755.9	30.17	766.3	59.5	15.3	85.9	2	2	......	7	10	3	3	4	......	5554	8938	6	2.74	69.6
Campc	N. 32 22	W. 116 08	4.22 a.m.	2500	762	27.40	695.9	29.97	761.2	34.3	1.3	82.3	......	6	7	......	12	4	1	......	1	3532	5684	1	0.73	18.5
Camp Thomas..*n*.	N. 32 04	W. 110 06	4.49 a.m.	2710	826	27.25	692.1	......	......	41.5	5.3	79.9	......	......	......	......	......	1	2	......	14	......	......	3	0.40	10.2
Cape Henry	N. 36 56	W. 76 00	7.04 a.m.	16	5	30.18	766.6	30.20	767.1	63.8	17.7	77.2	5	1	......	10	10	1	1	3	......	8559	13935	5	3.48	88.4
Cape May	N. 38 56	W. 74 58	7.08 a.m.	27	8	30.15	765.8	30.18	766.6	60.0	15.6	79.9	4	4	1	9	7	2	......	4	......	11256	18114	4	4.53	115.1
Castroville ......*a*	N. 29 25	W. 98 50	5.33 a.m.	780	238	29.23	742.4	29.92	760.0	67.2	19.6	79.4	3	4	1	......	4	13	3	......	2	3740	6019	7	4.85	123.2
Cedar Keys	N. 29 12	W. 83 02	6.36 a.m.	22	7	30.10	764.5	30.12	765.0	71.3	21.8	83.8	5	1	......	1	1	4	2	17	......	7147	11502	2	1.25	31.7
Champaign	N. 40 07	W. 88 14	6.15 a.m.	767	234	29.27	743.4	30.07	763.8	53.1	11.7	86.3	3	3	1	8	4	6	......	5	1	8263	13298	6	5.77	146.6
Charleston	N. 32 45	W. 79 55	6.49 a.m.	52	16	30.12	765.0	30.18	766.6	68.5	20.3	85.4	5	5	3	2	2	1	1	12	......	5669	9123	4	1.59	40.4
Charlotte	N. 35 13	W. 80 51	6.45 a.m.	808	246	29.33	745.0	30.24	768.1	59.9	15.5	80.8	8	1	2	2	6	3	1	6	2	3476	5594	4	2.69	68.3
Chattanooga	N. 35 04	W. 85 15	6.27 a.m.	783	239	29.38	746.2	30.23	767.8	59.6	15.3	86.8	4	1	2	2	2	5	1	3	11	3571	5747	5	5.07	128.8
Cheyenne	N. 41 12	W. 104 42	5.09 a.m.	6089	1856	24.04	610.6	30.17	766.3	34.5	1.4	66.4	4	11	9	1	1	......	2	2	1	6559	10556	1	0.88	22.4
Chicago	N. 41 52	W. 87 35	6.18 a.m.	661	201	29.37	746.0	30.11	764.8	53.2	11.8	83.8	4	2	2	8	4	1	3	5	2	5758	9283	6	6.89	175.0
Chincoteague	N. 37 55	W. 75 20	7.06 a.m.	18	5	30.18	766.6	30.20	767.1	62.7	17.1	83.8	5	5	2	11	4	2	1	1	......	11054	17789	4	3.52	89.4
Cincinnati	N. 39 06	W. 84 26	6.30 a.m.	620	189	29.50	749.3	30.18	766.6	58.9	14.9	82.5	1	2	2	7	5	6	2	4	2	3940	6341	5	6.01	152.7
Cleveland	N. 41 30	W. 81 47	6.42 a.m.	690	210	29.40	746.7	30.17	766.3	53.8	12.1	78.4	5	1	2	1	8	11	2	1	......	7175	11547	4	5.79	147.1
Coleman City	N. 31 55	W. 99 10	5.32 a.m.	1709	521	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Columbus	N. 39 57	W. 83 03	6.36 a.m.	805	245	29.28	743.7	30.18	766.6	55.1	12.8	81.0	6	1	3	3	9	1	6	1	1	5015	8071	6	8.64	219.5
Concho	N. 31 22	W. 100 20	5.26 a.m.	1900	579	28.13	714.5	30.13	765.3	62.2	16.8	89.2	1	2	......	3	4	4	3	6	8	6938	11156	6	2.72	69.1
Corsicana	N. 32 05	W. 96 30	5.41 a.m.	448	136	29.62	752.3	30.10	764.5	67.0	19.4	84.9	4	1	1	1	8	7	1	......	8	3733	6008	7	5.18	131.6
Davenport	N. 41 32	W. 90 30	6.06 a.m.	615	187	29.42	747.3	30.10	764.5	52.3	11.3	81.4	5	2	2	5	5	2	4	6	......	5940	9559	7	6.85	174.0
Dayton	N. 46 23	W. 117 50	4.16 a.m.	1660	506	28.27	718.0	30.13	765.3	40.5	4.7	84.4	4	......	......	11	4	5	......	1	6	2587	4103	6	3.04	77.2
Deadwood	N. 44 22	W. 103 34	5.14 a.m.	4600	1402	25.37	644.4	30.23	767.8	35.4	1.9	73.4	1	1	......	6	3	2	5	1	12	3612	5813	4	0.58	14.7
Decatur ....*e*	N. 33 10	W. 97 30	5.38 a.m.	1150	350	28.92*n*	734.6*n*	30.06*n*	763.5*n*	64.7	18.2	77.2	3	1	......	4	1	13	......	3	1	5780	9302	5	4.16	105.7
Del. Breakwater	N. 38 48	W. 75 05	7.08 a.m.	20	6	30.16	766.1	30.18	766.6	60.8	16.0	85.7	6	2	1	8	10	2	......	2	......	12222	19669	5	2.35	59.7
Denison	N. 33 50	W. 96 40	5.41 a.m.	767	234	29.27	743.4	30.10	764.5	64.5	18.1	87.6	3	3	......	2	13	5	2	......	3	4359	7015	7	6.76	171.7
Denver	N. 39 45	W. 105 04	5.08 a.m.	5294	1614	24.78	629.4	30.15	765.8	41.3	5.2	63.4	4	6	1	1	15	2	1	1	......	4751	7646	3	0.32	8.1
Des Moines	N. 41 35	W. 93 40	5.53 a.m.	849	259	29.16	740.7	30.10	764.5	49.2	9.6	86.2	5	3	1	3	8	1	3	3	4	5086	8185	7	6.45	163.8
Detroit	N. 41 21	W. 83 07	6.36 a.m.	661	201	29.41	747.0	30.15	765.8	53.8	12.1	77.6	3	9	3	3	4	2	4	1	2	5476	8813	7	6.52	165.6
Dodge City	N. 37 39	W. 100 08	5.27 a.m.	2512	766	27.43	696.7	30.12	765.0	49.6	9.8	90.4	4	5	......	4	8	4	......	5	1	9824	15810	5	2.19	55.6
Dubuque	N. 42 30	W. 90 44	6.05 a.m.	665	203	29.34	745.2	30.08	764.0	48.6	9.2	83.1	5	3	4	1	8	3	3	3	1	3737	6014	7	6.70	170.2
Duluth	N. 46 48	W. 92 08	6.00 a.m.	644	184	29.36	745.7	30.09	764.3	41.5	5.3	80.8	3	8	6	5	......	......	1	5	3	4738	7625	6	3.77	95.8
Eagle Pass	N. 28 40	W. 100 15	5.26 a.m.	780	238	29.25	742.9	30.10	764.5	68.4	20.2	90.1	2	3	1	......	1	15	1	5	3	3862	6215	6	6.54	166.1
Eagle Rock	N. 43 30	W. 112 04	4.40 a.m.	4650	1415	25.27	641.8	30.26	768.6	28.2	—2.1	74.4	14	......	1	9	1	......	......	1	5	6957	11196	4	1.71	43.4
Eastport	N. 44 55	W. 66 54	7.40 a.m.	61	18	30.00	762.0	30.08	764.0	43.7	6.5	79.9	6	9	2	8	4	......	2	......	......	7562	12170	6	4.31	109.5
El Paso	N. 31 46	W. 106 32	5.02 a.m.	3760	1146	26.27	667.2	30.11	764.8	55.4	13.0	69.5	2	7	1	......	......	......	4	12	5	3109	5003	4	1.45	36.8
Erie	N. 42 07	W. 80 10	6.47 a.m.	681	208	29.39	746.5	30.15	765.8	54.7	12.6	78.4	4	1	2	3	11	3	......	3	4	5675	9133	7	5.75	146.0
Escanaba	N. 45 46	W. 87 14	6.20 a.m.	612	186	29.41	747.0	30.09	764.3	42.3	5.7	86.3	4	8	5	3	3	3	2	1	2	5817	9361	7	6.13	155.7
Florence	N. 33 03	W. 111 17	4.43 a.m.	1480	451	28.43	722.1	30.03	762.7	55.9	13.3	68.4	1	2	13	2	......	2	5	4	2	1778	2861	3	1.13	28.7
Fort Apache	N. 33 47	W. 109 58	4.49 a.m.	5050	1539	25.04	636.0	30.08	764.0	42.1	5.6	83.6	1	......	......	1	2	1	18	7	1	4336	6978	3	4.68	118.9
FortAssinnaboine	N. 48 37	W. 109 43	4.49 a.m.	2710	826	27.23	691.6	30.17	766.3	26.2	—3.2	79.8	......	......	1	12	2	......	......	7	9	5918	9524	5	0.75	19.0
Fort Bennett .*e*	N. 44 42	W. 100 38	5.26 a.m.	1510	457	28.52	724.4	30.12	765.0	36.1	2.3	84.1	6	2	3	......	......	7	1	4	3	4442	7149	5	1.00	25.4
Fort Benton	N. 47 51	W. 110 40	4.45 a.m.	2700	823	27.25	692.1	30.23	767.8	25.6	—3.6	75.6	1	......	2	3	1	1	1	3	19	4389	7063	6	1.94	49.3
Fort Buford	N. 48 03	W. 103 58	5.12 a.m.	1900	579	28.08	713.2	30.19	766.8	30.5	—0.8	81.5	3	6	4	1	2	2	3	7	3	4751	7646	5	0.39	9.9
Fort Custer	N. 45 48	W. 107 38	4.58 a.m.	3040	927	26.87	682.5	30.26	768.6	33.9	1.1	71.8	14	3	......	3	6	......	1	1	3	4827	7768	5	0.80	20.3
Fort Davis	N. 30 30	W. 103 45	5.13 a.m.	4940	1506	25.02	635.5	29.98	761.5	54.6	12.6	80.7	1	......	6	2	5	6	5	5	1	4567	7350	3	4.47	113.5
Fort Elliott	N. 35 31	W. 100 27	5.28 a.m.	2650	808	29.30	744.2	30.60	777.2	52.5	11.4	69.8	3	2	1	1	4	10	1	......	9	8498	13676	3	0.69	17.5
Fort Gibson	N. 35 43	W. 95 16	5.48 a.m.	540	165	29.50	749.3	30.07	763.8	60.6	15.9	87.5	2	1	3	....	7	8	5	1	4	5525	8891	6	6.67	169.4
Fort Grant...*a*	N. 32 25	W. 109 56	4.49 a.m.	4860	1481	......	......	......	......	53.3	11.8	67.4	6	1	......	1	2	1	2	14	3	4784	7699	3	1.02	25.9
Fort Griffin	N. 32 53	W. 99 21	5.33 a.m.	1260	384	28.77	730.7	30.01	762.2	63.5	17.5	85.3	3	1	......	2	......	7	6	1	11	5171	8322	6	2.54	64.5
Fort Keogh	N. 46 17	W. 105 55	5.05 a.m.	2372	723	27.54	699.5	30.21	767.3	34.1	1.2	76.8	2	2	5	5	1	2	4	5	5	5660	9109	5	0.46	11.7
Fort Macon	N. 34 42	W. 76 40	7.01 a.m.	11	3	30.18	766.6	30.19	766.8	66.7	19.3	86.1	12	3	3	4	2	4	1	2	......	8988	14464	5	3.75	95.2
Fort McKavett.*d*.	N. 30 48	W. 99 58	5.28 a.m.	2240	683	27.85	707.4	29.75	755.6	63.4	17.4	83.7	......	1	1	5	4	5	8	3	......	......	......	5	7.21	183.1
Fort Missoula	N. 46 50	W. 114 01	4.32 a.m.	3140	957	26.74	679.2	30.39	771.9	34.2	1.2	89.5	1	5	3	4	......	3	1	7	7	2677	4308	7	1.05	26.9
Fort St.Michael	N. 63 48	W. 162 00	1.20 a.m.	30	9	29.85	758.2	29.88	758.9	37.3	2.9	87.4	3	2	......	1	8	7	4	6	......	5842	9402	7	2.14	54.4
Fort Shaw	N. 47 29	W. 111 46	4.41 a.m.	3550	1082	26.40	670.5	30.14	765.5	29.2	—1.6	82.5	1	3	8	7	1	......	1	8	2	5239	8431	6	1.57	39.9
Fort Sill	N. 34 40	W. 98 30	5.34 a.m.	1200	366	28.82	732.0	30.11	764.8	59.5	15.3	91.2	8	1	......	2	13	4	......	1	2	9084	14619	7	1.74	44.2
Fort Stevenson	N. 47 36	W. 101 23	5.22 a.m.	1750	534	28.22	716.8	30.18	766.6	32.1	0.1	83.5	7	7	2	......	3	5	4	1	2	5393	8679	5	1.26	32.0
Fort Verde...*a*	N. 34 24	W. 111 53	4.38 a.m.	?	?	......	......	......	......	46.2	7.9	65.2	4	8	8	2	3	3	......	2	......	......	......	2	0.20	5.1
Fredericksburg	N. 30 20	W. 98 40	5.33 a.m.	1700	518	28.32	719.3	29.85	758.2	64.7	18.2	92.4	1	4	......	7	5	3	6	1	4	4237	6819	6	3.38	85.9
Galveston	N. 29 18	W. 94 50	5.49 a.m.	40	12	30.01	762.2	30.05	763.3	74.6	23.7	82.5	2	3	......	2	6	10	2	5	1	8575	13800	6	10.38	263.6
Grand Haven	N. 43 05	W. 86 18	6.23 a.m.	620	189	29.42	747.3	30.12	765.0	49.4	9.7	83.6	1	1	1	1	6	3	9	5	4	6777	10906	7	7.87	199.9
Hatteras	N. 35 14	W. 75 30	7.06 a.m.	19	6	30.18	766.6	30.20	767.1	68.7	20.4	78.8	8	......	1	5	4	4	......	8	1	11199	17023	5	6.26	159.0
Helena	N. 46 33	W. 112 02	4.40 a.m.	4100	1250	25.80	655.3	30.39	771.9	33.3	0.7	84.6	......	7	......	......	18	2	......	......	4	3835	6172	5	2.04	51.8
Henrietta	N. 33 42	W. 98 00	5.36 a.m.	980	300	29.08	738.6	29.96	761.0	64.0	17.8	77.4	4	1	......	1	18	5	......	......	2	6793	10932	4	2.38	60.5
Huron	N. 44 21	W. 98 17	5.35 a.m.	1305	398	28.65	727.7	30.11	764.8	37.0	2.8	83.5	6	9	2	......	......	10	1	2	1	7931	12764	4	2.10	53.3
Indianapolis	N. 39 47	W. 86 06	6.24 a.m.	753	229	29.31	744.5	30.14	765.5	55.9	13.3	84.4	4	1	1	3	8	5	2	4	3	3940	6341	6	6.11	155.2
Indianola	N. 28 32	W. 96 38	5.42 a.m.	26	8	30.01	762.2	30.04	763.0	74.1	23.4	85.9	6	2	1	......	4	12	1	4	1	9809	15786	5	5.04	128.0
Jacksboro	N. 33 10	W. 98 00	5.35 a.m.	1120	341	28.89	733.8	30.00	762.0	62.5	16.9	88.8	3	1	4	5	8	6	3	1	......	5559	8946	5	3.17	80.5
Jacksonville	N. 30 24	W. 81 40	6.41 a.m.	43	13	30.09	764.3	30.13	765.3	70.9	21.6	84.1	2	1	......	1	3	3	2	19	......	5835	9390	3	2.87	72.9
Keokuk	N. 40 23	W. 91 25	6.02 a.m.	618	188	29.40	746.7	30.08	764.0	53.1	11.7	88.4	2	2	3	5	5	5	3	5	1	6111	9835	7	8.01	203.5
Key West	N. 24 32	W. 81 48	6.41 a.m.	27	8	30.01	762.2	30.04	763.0	77.8	25.4	81.1	1	......	1	......	1	3	13	11	1	7727	12435	4	1.99	50.5
KittyHawk	N. 36 00	W. 75 23	7.05 a.m.	22	7	30.19	766.8	30.21	767.3	65.8	18.8	82.2	1	2	3	5	2	6	6	5	1	11091	17849	5	5.55	141.0
Knoxville	N. 35 56	W. 83 58	6.32 a.m.	980	299	29.19	741.4	30.26	768.6	55.9	13.3	92.1	4	1	2	2	2	2	2	8	8	3124	5028	5	5.14	130.6
La Crosse	N. 43 48	W. 91 23	6.03 a.m.	702	214	29.28	743.7	30.08	764.0	49.1	9.5	76.9	5	2	3	3	8	4	......	3	3	5619	9043	7	7.56	192.0
La Mesilla	N. 32 17	W. 106 48	5.01 a.m.	3900	1189	26.14	663.9	30.29	769.4	52.3	11.3	83.3	2	......	......	......	1	1	......	......	27	1217	1959	3	2.14	54.4
Laredo ....*f*	N. 27 32	W. 99 26	5.30 a.m.	460	136	29.56	750.8	29.90	759.4	69.0	20.6	87.2	4	1	......	1	1	8	1	3	6	2516	4049	6	5.49	139.4
Leavenworth	N. 39 19	W. 94 58	5.48 a.m.	842	256	29.17	740.9	30.10	764.5	53.6	12.0	81.5	5	4	1	2	8	3	2	2	4	5137	8207	6	5.73	145.5
Lewiston	N. 46 25	W. 116 59	4.20 a.m.	780	238	29.20	741.7	30.08	764.0	42.9	6.1	75.6	1	......	3	2	......	......	5	4	16	1451	2335	7	1.52	38.6
Little Rock	N. 34 40	W. 92 12	5.59 a.m.	298	91	29.77	756.1	30.09	764.3	62.4	16.9	90.6	2	3	......	1	6	3	2	5	9	3459	5567	5	4.69	119.1
Los Angeles	N. 34 03	W. 118 16	4.15 a.m.	371	113	29.61	752.1	29.99	761.7	51.7	10.9	80.9	......	......	2	8	12	7	1	1	......	3846	6190	3	0.82	20.8
Louisville	N. 38 18	W 85 52	6.25 a.m.	530	162	29.56	750.8	30.14	765.5	59.5	15.3	83.5	5	......	1	4	8	4	2	3	4	5395	8682	3	3.44	87.4
Lynchburg	N. 37 30	W. 79 02	6.52 a.m.	652	199	29.50	749.3	30.22	767.6	59.1	15.1	76.4	......	1	......	1	......	1	......	3	25	1457	2345	3	4.09	103.9
Madison	N. 43 03	W. 89 30	6.10 a.m.	949	289	29.05	737.9	30.12	765.0	47.7	8.7	88.6	5	3	3	3	5	3	4	5	......	7044	11336	7	9.12	231.6
Marquette	N. 46 33	W. 87 36	6.19 a.m.	673	205	29.34	745.2	30.10	764.5	42.4	5.8	76.9	2	9	5	5	7	1	2	......	......	6155	9905	7	3.71	94.2
Mason	N. 30 42	W. 99 02	5.32 a.m.	1620	494	28.42	721.9	30.15	765.8	65.1	18.4	85.6	2	3	3	1	5	7	4	1	5	5107	8219	6	2.68	68.1
Memphis	N. 35 07	W. 90 07	6.08 a.m.	321	98	29.80	756.9	30.15	765.8	63.0	17.2	81.6	2	......	1	......	4	7	1	3	13	2846	4580	6	3.22	81.8
Milwaukee	N. 43 03	W. 87 54	6.17 a.m.	697	212	29.33	745.0	30.11	764.8	49.1	9.5	87.3	6	4	1	5	6	3	......	3	3	7968	12823	8	6.04	153.4
Mobile	N. 30 42	W. 87 59	6.16 a.m.	69	21	30.05	763.3	30.12	765.0	68.0	20.0	86.5	8	6	2	1	2	2	8	2	......	5018	8076	5	3.23	82.0
Montgomery	N. 32 22	W. 86 23	6.23 a.m.	219	66	29.93	760.2	30.17	766.3	64.6	18.1	84.6	3	4	4	......	......	4	14	2	......	3656	5884	5	2.72	69.1
Moorhead	N. 46 52	W. 96 40	5.41 a.m.	923	281	29.07	738.4	30.13	765.3	33.2	0.7	89.2	11	4	3	1	3	5	1	3	......	8082	13006	6	2.75	69.8
Morgantown	N. 39 36	W. 79 52	6.48 a.m.	963	293	29.16	740.7	30.15	765.8	54.4	12.4	85.3	4	......	1	8	1	......	1	1	15	3160	5085	5	4.55	115.6
Mt. Washington	N. 44 16	W. 71 16	7.22 a.m.	6279	1914	23.76	603.5	30.13	765.3	28.0	—2.2	88.6	......	28	1	2	......	......	......	......	......	30501	49085	4	18.38	466.8

STATIONS.	Latitude.	Longitude.	Local Time.	Altitude of Barometer above sea. Feet.	Met'rs	Result of Simultaneous Observations for October, 1881. Mean Barometer. Actual. Inch.	Mill.	Reduced. Inch.	Mill.	Mean Temperature. Fah.	Cent.	Mean Rel. Humidity.	Wind. Directions. N	NW	W	SW	S	SE	E	NE	C	Total Movement. Miles	Kil.	Average Cloudiness. 0–10	Total Precipitation. Inch.	Mill.
U.S. Series—*Continued.*	° ′	° ′																								
Nashville	N. 36 11	W. 86 53	6.21 a.m.	507	154	29.62	752.3	30.18	766.6	60.4	15.8	82.7	2	1	3	1	2	8	4	2	8	3131	5039	6	4.74	120.4
New Haven	N. 41 17	W. 72 57	7.16 a.m.	107	32	30.05	763.3	30.17	766.3	51.7	10.9	76.0	10	2	1	9	2	.....	.....	4	3	5208	8381	5	2.78	70.6
New London	N. 41 22	W. 72 09	7.19 a.m.	47	14	30.13	765.3	30.18	766.6	53.9	12.2	76.4	7	5	5	5	.....	.....	2	6	1	5280	8497	4	3.56	90.4
New Orleans	N. 29 58	W. 90 07	6.08 a.m.	52	16	30.03	762.7	30.09	764.3	72.1	22.3	85.5	6	1	2	1	2	5	5	8	1	5636	9070	7	4.84	122.9
Newport	N. 41 29	W. 71 19	7.23 a.m.	44	13	30.12	765.0	30.17	766.3	53.8	12.1	77.4	4	4	4	11	3	.....	1	4	.....	7438	11970	7	2.46	62.5
New River ..... *e*	N. 34 30	W. 77 23	6.58 a.m.	.....	.....	.....	.....	.....	.....	64.8	18.2	80.3	4	3	2	.....	4	2	.....	8	3	.....	.....	4	3.04	77.2
New Shoreham	N. 41 10	W. 71 37	7.22 a.m.	27	8	30.14	765.5	30.16	766.1	55.0	12.8	76.7	5	4	2	11	.....	3	.....	5	1	11052	17786	4	5.29	134.4
New York	N. 40 43	W. 74 00	7.12 a.m.	164	50	30.01	762.2	30.19	766.8	54.8	12.7	80.7	3	3	6	9	3	.....	2	5	.....	6770	10895	5	2.10	53.3
Norfolk	N. 36 51	W. 76 19	7.03 a.m.	30	9	30.17	766.3	30.20	767.1	62.3	16.8	85.0	1	2	3	8	4	1	.....	6	6	5249	8447	5	2.43	61.7
North Platte	N. 41 08	W. 100 53	5.24 a.m.	2841	866	27.10	688.3	30.16	766.1	40.7	4.8	87.5	3	4	3	2	4	5	4	6	.....	9839	15834	5	2.22	56.4
Olympia	N. 47 02	W. 122 56	3.56 a.m.	36	11	29.96	761.0	30.00	762.0	43.8	6.6	89.4	5	2	.....	2	17	1	2	2	.....	3054	4915	7	8.18	207.8
Omaha	N. 41 16	W. 96 00	5.45 a.m.	1113	339	28.90	734.0	30.14	765.5	48.7	9.3	83.6	6	5	.....	2	10	3	2	1	2	6693	10771	7	4.84	122.9
Oswego	N. 43 29	W. 76 35	7.01 a.m.	304	93	29.79	756.7	30.13	765.3	49.4	9.7	78.9	4	4	2	2	9	5	1	4	.....	6003	9661	8	4.61	117.1
Pensacola	N. 30 25	W. 87 12	6.19 a.m.	30	9	30.09	764.3	30.12	765.0	68.9	20.5	88.0	4	5	.....	2	.....	1	2	17	.....	5932	9546	4	4.93	125.2
Philadelphia	N. 39 57	W. 75 10	7.07 a.m.	52	16	30.14	765.5	30.20	767.1	56.2	13.4	81.5	4	1	12	3	1	1	5	4	.....	7031	11315	5	3.04	77.2
Phœnix	N. 33 18	W. 112 00	4.40 a.m.	1120	341	28.81	731.8	30.62	777.7	53.6	12.0	48.2	.....	2	.....	.....	.....	.....	16	.....	13	1094	1761	3	0.25	6.3
Pikes Peak	N. 38 48	W. 104 59	5.07 a.m.	14134	4308	17.76	451.1	29.97	761.2	19.7	—6.8	45.9	1	2	1	22	.....	1	.....	3	1	16358	26325	1	1.85	47.0
Pioche	N. 37 57	W. 114 26	4.30 a.m.	6110	1862	24.07	611.4	30.26	768.6	40.7	4.8	51.3	2	11	.....	3	12	1	.....	.....	2	5882	9466	2	0.56	14.2
Pittsburg	N. 40 32	W. 80 02	6.48 a.m.	776	236	29.35	745.5	30.20	767.1	55.1	12.8	81.3	3	2	5	6	5	.....	2	7	1	4258	6852	6	3.75	95.2
Port Eads	N. 29 00	W. 89 15	6.11 a.m.	7	2	30.08	764.0	30.09	764.3	74.9	23.8	84.8	4	1	2	1	2	2	12	7	.....	10358	16669	3	4.93	125.2
Port Huron	N. 42 58	W. 82 29	6.38 a.m.	633	193	29.43	747.5	30.14	765.5	48.6	9.2	88.7	2	7	.....	4	6	5	3	2	2	6565	10565	7	4.14	105.2
Portland, Maine	N. 43 40	W. 70 16	7.27 a.m.	45	14	30.07	763.8	30.12	765.0	47.2	8.4	76.4	3	10	3	9	.....	1	.....	5	.....	5813	9355	5	2.90	73.7
Portland, Oregon	N. 45 30	W. 122 28	3.57 a.m.	67	20	29.98	761.5	30.05	763.3	46.5	8.1	88.9	2	7	2	2	10	1	1	.....	6	3890	6260	3	6.60	167.6
Portsmouth	N. 35 02	W. 76 04	7.04 a.m.	40	12	.....	.....	.....	.....	68.9	20.5	75.8	2	.....	2	5	4	1	2	15	.....	11881	19120	5	3.62	91.9
Prescott	N. 34 29	W. 112 13	4.38 a.m.	5340	1628	24.76	628.9	30.07	763.8	41.1	5.1	68.1	.....	.....	1	2	21	1	1	.....	5	4346	6994	1	0.33	8.4
Punta Rassa	N. 26 36	W. 82 10	6.40 a.m.	13	4	30.04	763.0	30.05	763.3	74.0	23.3	82.6	2	.....	1	1	2	1	7	17	.....	7674	12350	3	1.58	40.1
Red Bluff	N. 40 10	W. 122 16	3.59 a.m.	350	106	29.65	753.1	30.00	762.0	50.0	10.0	74.3	10	9	.....	2	2	2	.....	.....	6	3788	6096	3	1.61	40.9
Rio Grande City	N. 26 22	W. 98 45	5.33 a.m.	230	70	29.81	757.2	30.02	762.5	70.8	21.6	86.0	7	.....	.....	.....	2	11	6	3	2	4605	7411	4	6.98	177.3
Rochester	N. 43 08	W. 77 51	6.58 a.m.	621	189	29.45	748.0	30.15	765.8	48.9	9.4	80.1	3	7	4	10	1	5	1	.....	.....	7004	11272	4	3.63	92.2
Roseburg	N. 43 10	W. 123 16	3.55 a.m.	511	156	29.48	748.8	30.07	763.8	42.2	5.7	90.3	...	.....	2	1	2	4	1	10	20	1915	3082	5	5.96	151.4
Sacramento	N. 38 35	W. 121 31	4.02 a.m.	70	21	29.95	760.7	30.03	762.7	48.9	9.4	75.9	6	3	.....	1	3	15	1	1	1	4538	7303	2	0.55	14.0
Saint Louis	N. 38 37	W. 90 15	6.07 a.m.	568	173	29.52	749.8	30.15	765.8	56.4	13.6	87.2	5	3	3	.....	9	5	3	2	1	7444	11980	6	7.21	183.1
Saint Paul	N. 44 53	W. 93 05	5.56 a.m.	811	247	29.18	741.2	30.10	764.5	44.3	6.8	84.7	5	7	3	2	2	7	1	3	1	6673	10739	6	4.44	112.8
Saint Vincent *a*	N. 48 58	W. 97 03	5.40 a.m.	804	245	29.19	741.4	30.12	765.0	30.3	—0.9	91.8	4	11	.....	1	10	2	1	.....	1	6696	10776	5	1.30	33.0
Salt Lake City	N. 41 10	W. 112 00	4.40 a.m.	4348	1325	25.62	650.7	30.07	763.8	44.3	6.8	44.7	1	.....	.....	1	2	7	1	2	17	4001	6439	4	2.19	55.6
San Antonio	N. 29 28	W. 98 22	5.34 a.m.	673	205	29.36	745.7	30.08	764.0	67.8	19.9	91.1	3	2	.....	.....	1	3	7	7	8	3520	5665	7	4.19	106.4
San Diego	N. 32 32	W. 117 08	4.20 a.m.	67	20	29.87	758.7	29.94	760.5	57.3	14.1	76.4	6	1	2	3	....	2	5	9	3	4329	6967	6	0.24	6.1
Sandusky	N. 41 27	W. 82 43	6.37 a.m.	639	195	29.43	747.5	30.14	765.5	55.6	13.1	80.4	2	5	1	5	9	6	1	2	....	9257	14898	7	5.58	141.7
Sandy Hook	N. 40 28	W. 74 01	7.12 a.m.	28	8	30.15	765.8	30.18	766.6	58.2	14.6	72.1	3	8	7	5	.....	3	1	4	.....	9727	15654	6	2.71	68.8
San Francisco	N. 37 48	W. 122 26	3.58 a.m.	60	18	29.98	761.5	30.05	763.3	52.4	11.3	85.1	.....	1	9	13	2	1	.....	.....	5	6249	10057	3	0.54	13.7
Santa Fé	N. 35 41	W. 106 10	5.04 a.m.	7054	2153	23.32	592.3	30.31	769.9	41.6	5.3	73.7	3	3	.....	.....	2	6	5	4	8	1873	3014	5	4.19	106.4
Savannah	N. 32 05	W. 81 08	6.44 a.m.	87	26	30.08	764.0	30.17	766.3	68.5	20.3	85.0	9	5	1	3	3	.....	3	7	.....	5763	9274	5	2.72	69.1
Shreveport	N. 32 30	W. 93 45	5.54 a.m.	227	69	29.86	758.4	30.09	764.3	64.8	18.2	91.2	3	2	1	1	9	8	1	3	3	3513	5654	5	8.28	210.3
Silver City	N. 32 48	W. 108 15	4.55 a.m.	5890	1795	24.31	617.5	29.99	761.7	47.2	8.4	75.5	....	5	.....	.....	2	.....	.....	.....	24	1470	2366	3	3.21	81.5
Sitka	N. 57 03	W. 135 19	3.07 a.m.	63	19	29.91 *a*	759.7 *a*	29.98 *a*	761.5 *a*	43.6 *a*	6.4 *a*	76.3 *a*	... *a*	4	1	4	1	2	5	11	2	5585	8988	4 *a*	5.04	128.0
Smithville	N. 33 55	W. 78 01	6.56 a.m.	34	10	30.14	765.5	30.18	766.6	65.9	18.8	85.8	7	5	.....	4	1	1	2	9	2	6517	10488	3	2.83	71.9
Spokane Falls	N. 47 39	W. 117 24	4.18 a.m.	1910?	582?	27.98	710.7	30.05	763.3	38.0	3.3	84.5	.....	4	3	2	8	1	1	7	5	3268	5259	7	2.41	61.2
Springfield, Ill.	N. 39 48	W. 89 48	6.10 a.m.	644	196	29.42	747.3	30.13	765.3	55.5	13.1	85.7	3	1	4	5	9	2	2	4	1	6354	10226	6	10.02	254.5
Springfield, Mass.	N. 42 06	W. 72 36	7.18 a.m.	120	37	30.04	763.0	30.17	766.3	48.6	9.2	80.1	7	5	1	.....	7	.....	3	.....	8	3430	5520	6	3.43	87.1
Stockton	N. 30 50	W. 102 50	5.16 a.m.	3010	917	27.03	686.5	30.18	766.6	58.9	14.9	90.2	1	1	1	3	5	9	.....	3	8	7455	11997	4	2.67	67.8
Thatcher's Island	N. 42 36	W. 70 34	7.26 a.m.	48	15	30.09	764.3	30.14	765.5	49.7	9.8	81.9	3	8	3	9	2	1	1	4	.....	10176	16376	5	3.19	81.0
Toledo	N. 41 40	W. 83 32	6.34 a.m.	651	198	29.41	747.0	30.13	765.3	53.5	11.9	84.7	4	4	8	5	2	5	1	2	.....	5676	9134	6	8.49	215.6
Tucson	N. 32 14	W. 110 56	4.44 a.m.	2369	722	27.50	698.5	29.94	760.5	56.6	13.7	67.5	.....	.....	.....	.....	1	24	4	.....	2	2839	4569	2	0.62	15.7
Umatilla	N. 45 55	W. 119 21	4.11 a.m.	340	103	29.72	754.9	30.15	765.8	42.6	5.9	80.7	1	1	3	5	3	9	4	5	.....	5216	8394	6	1.54	39.1
Uvalde *b*	N. 29 13	W. 99 40	5.29 a.m.	930	283	29.07	738.4	29.87	758.7	67.5	19.7	87.8	1	.....	1	.....	2	7	5	2	11	1743	2805	8	3.15	80.0
Vicksburg	N. 32 23	W. 90 54	6.04 a.m.	244	74	29.86	758.4	30.12	765.0	65.3	18.5	87.0	2	2	.....	.....	3	14	6	4	.....	4132	6650	5	9.69	246.1
Visalia	N. 36 20	W. 119 16	4.11 a.m.	348	106	29.62	752.3	29.99	761.7	45.6	7.6	78.5	.....	10	1	.....	6	8	4	.....	2	2285	3677	1	0.31	7.9
Washington, D.C.	N. 38 53	W. 77 01	7.00 a.m.	106	32	30.08	764.0	30.20	767.1	56.6	13.7	84.2	5	4	2	2	7	.....	.....	1	10	2780	4474	4	3.29	83.6
W. Las Animas *d*	N. 38 04	W. 103 07	5.16 a.m.	3905	1190	26.05	661.7	30.13	765.3	45.2	7.3	68.4	3	8	2	4	3	.....	2	4	1	.....	.....	4	0.21	5.3
Wickenburg	N. 33 58	W. 112 42	4.37 a.m.	?	?	.....	.....	.....	.....	47.8	8.8	71.8	.....	.....	.....	.....	.....	.....	.....	.....	31	.....	.....	3	0.09	2.3
Wilmington	N. 34 11	W. 78 10	6.56 a.m.	52	16	30.13	765.3	30.19	766.8	65.0	18.3	82.4	3	1	3	2	2	.....	4	10	6	4028	6482	4	1.48	37.6
Winnemucca	N. 41 00	W. 119 21	4.17 a.m.	4327	1319	25.61	650.5	30.07	763.8	33.0	0.6	66.5	2	1	.....	8	9	.....	.....	11	.....	5998	9653	3	1.37	34.8
Wood's Holl	N. 41 33	W. 70 40	7.26 a.m.	35	11	30.12	765.0	30.15	765.8	54.5	12.5	79.0	3	6	6	9	.....	3	1	3	.....	11463	18447	5	2.68	68.1
Yankton	N. 42 45	W. 97 30	5.38 a.m.	1228	374	28.75	730.2	30.12	765.0	43.3	6.3	80.6	1	3	2	1	1	1	3	3	16	5360	8626	6	3.47	88.1
Yuma	N. 32 44	W. 114 36	4.30 a.m.	141	43	29.74	755.4	29.88	758.9	59.5	15.3	70.5	1	3	3	3	1	4	1	5	10	2400	3862	1	inap.	inap.
Sub-Series.																										
Bogota	N. 4 36	W. 74 14	7.41 a.m.	8704	2653	22.03	559.6	.....	.....	53.9	12.2	81.9	.....	.....	.....	.....	1	3	1	1	25	.....	.....	8	9.69	246.1
Bridgetown ‡	N. 13 12	W. 59 35	8.10 a.m.	?	?	29.94	760.5	29.95	760.7	83.4	28.6	88.3	.....	.....	.....	.....	4	5	8	2	.....	.....	.....	9	2.24	56.9
Buenaventura *f*	N. 3 50	W. 76 55	7.00 a.m.	18	5	29.98	761.5	30.00	762.0	75.8	24.3	89.2	.....	.....	2	7	8	2	2	.....	.....	.....	.....	.....	17.75	450.8
Gaudeloupe ‡	N. 16 12	W. 61 40	8.01 a.m.	?	?	29.84	757.9	29.84	757.9	80.5	26.9	87.0	.....	1	.....	.....	1	.....	27	2	.....	.....	.....	5	1.80	45.7
Havana	N. 23 09	W. 82 22	6.39 a.m.	50	15	29.99	761.7	30.04	763.0	77.7	25.4	81.7	1	.....	.....	.....	1	2	3	.....	24	.....	.....	7	0.96	24.4
Kingston	N. 18 58	W. 76 48	7.01 a.m.	10	3	29.94	760.5	29.95	760.7	75.8	24.3	87.0	5	.....	.....	.....	.....	.....	1	.....	25	.....	.....	6	6.89	175.0
Navassa	N. 18 25	W. 75 03	7.43 a.m.	77	23	29.85	758.2	29.93	760.2	80.2	26.8	80.2	.....	.....	2	.....	.....	.....	11	18	.....	.....	.....	7	5.22	132.6
Paramaribo	N. 5 50	W. 55 13	8.27 a.m.	6	2	29.97	761.2	29.97	761.2	80.4	26.9	79.9	.....	.....	.....	.....	.....	2	25	4	.....	.....	.....	7	2.33	59.2
Puerto Berrio	N. 6 32	W. 74 28	7.10 a.m.	542	165	29.44	747.8	30.00	762.0	77.1	25.1	89.9	3	.....	.....	.....	3	.....	.....	1	24	.....	.....	6	17.04	432.8
Rivas	N. 11 26	W. 85 47	6.25 a.m.	150	46	.....	.....	.....	.....	72.1	22.3	.....	.....	2	4	7	.....	2	2	6	8	.....	.....	6	29.67	753.6
Santiago de Cuba	N. 19 55	W. 75 50	7.04 a.m.	21	6	29.95	760.7	29.97	761.2	78.4	25.8	79.8	13	2	.....	.....	.....	.....	.....	5	11	.....	.....	5	2.42	61.5
St. Thomas ‡	N. 18 20	W. 64 56	7.48 a.m.	110	33	29.84	757.9	29.95	760.7	80.9	27.2	83.3	.....	1	.....	2	3	2	14	8	.....	.....	.....	5	6.98	177.3
York Factory	N. 57 02	W. 92 26	5.58 a.m.	51	15	29.92	760.0	29.97	761.2	18.6	—7.4	92.6	13	8	2	3	.....	.....	2	3	.....	.....	.....	6	0.31	7.9

Ocean Square Data for October 1881.

Location of centre of each square.		No. of days.	No. of ob's.	Barometer.		Temperature.		Wind Frequency.										Wind force 0–10.
				Inch.	Mill.	Fah.	Cent.	N.	NW.	W.	SW.	S.	SE.	E.	NE.	Calm.	Blank.	
° N. 7.5	° W. 22.5	3	3															
7.5	27.5	1	1															
12.5	22.5	1	1	29.99	761.7	83.8	28.8					5	4	2	17		3	2.1
12.5	27.5	5	5	30.02	762.5	82.3	27.9			2	3	1	1	3	18	1	2	2.2
12.5	37.5	1	1															
12.5	47.5	1	1															
12.5	52.5	1	1															
12.5	57.5	1	1															
17.5	22.5	3	4	30.02	762.5	80.8	27.1	1	2		1	1	3	3	19		1	2.1
17.5	27.5	5	5	30.04	763.0	80.8	27.1	1	2				5	3	18		2	2.0
17.5	32.5	2	2															
17.5	52.5			30.01	762.2	80.9	27.2	1					3	14	9		4	1.2
17.5	57.5	1	1	29.98	761.5	80.6	27.0	1					2	20	8			1.1
22.5	22.5	3	3	30.07	763.8	78.1	25.6		3	1	2		2	3	17		3	1.8
22.5	27.5			30.08	764.0	78.5	25.8		2	1				4	17		7	1.7
22.5	32.5			30.07	763.8	78.0	25.6		3				3	1	17		7	1.2
22.5	37.5			30.06	763.5	78.4	25.8	2	2	1	1		2	4	12		7	1.0
22.5	42.5			30.06	763.5	78.1	25.6	2	1		1		3	2	13		9	1.3
22.5	47.5	2	2	30.06	763.5	78.5	25.8	2	2			1	3	4	10		9	1.2
22.5	52.5	3	3	30.03	762.7	78.6	25.9	3	1			2	1	7	13		4	1.5
22.5	57.5	3	3	30.01	762.2	78.7	25.9	1	2				2	9	12		5	1.4
22.5	62.5			30.01	762.2	78.6	25.9	2	1				3	8	15		2	1.5
22.5	67.5			30.01	762.2	77.9	25.5	1				2	2	6	17		3	1.1
27.5	22.5	1	1	30.10	764.5	74.9	23.8		4	2	2		2	1	15		5	1.4
27.5	27.5			30.11	764.8	74.7	23.7	2	5	1	3			3	11		6	1.2
27.5	32.5			30.11	764.8	74.3	23.5	1	6	1	2	1	4	1	13		2	1.5
27.5	37.5	4	4	30.11	764.8	74.7	23.7	4	7	1	1	3	1	1	10	1	2	2.0
27.5	42.5			30.11	764.8	74.8	23.8	4	4		1	1	2	1	11		7	1.3
27.5	47.5			30.10	764.5	75.2	24.0	5	3	1	2	1	1		12		6	1.1
27.5	52.5	1	1	30.08	764.0	75.5	24.2	5	1			2	1	7	11		4	1.4
27.5	57.5	2	2	30.07	763.8	75.3	24.1	4	4		4		1	4	10		4	1.7
27.5	62.5	2	2	30.06	763.5	74.9	23.8	4	3	2	1	2	2	4	11		2	1.8
27.5	67.5	2	2	30.07	763.8	74.8	23.8	4	2	2		3	1	4	13		2	1.9
27.5	72.5			30.08	764.0	75.6	24.2	3	3			1	1	7	13		3	1.6
27.5	77.5	1	1	30.08	764.0	75.1	23.9	1	2			1	2	8	15		2	1.5
32.5	12.5	1	2	30.07	763.8	72.3	22.4		2	7	9	4	6		2		1	1.5
32.5	17.5	7	7	30.12	765.0	72.5	22.5			4	16	1	7		2		1	1.2
32.5	22.5			30.13	765.3	73.4	23.0		3	4	7	3	3	3	5		3	1.8
32.5	27.5			30.14	765.5	71.9	22.2	2	7	2	3	1	1	1	11		3	1.9
32.5	32.5			30.15	765.8	71.9	22.2	1	5	3	3	3	2	1	12		1	2.3
32.5	37.5	4	4	30.14	765.5	71.7	22.1	1	4	2	4	2	2	3	8		5	2.4
32.5	42.5	2	2	30.12	765.0	71.4	21.9	2	7	1	4	3	2	1	8		3	2.2
32.5	47.5	1	1	30.12	765.0	71.7	22.1	4	5	1	1	5			7		8	2.4
32.5	52.5	4	4	30.11	764.8	71.4	21.9	4	4		4	2	1	3	9		4	2.3
32.5	57.5	6	6	30.12	765.0	71.5	21.9	3	6	2	5		2	3	9		1	2.1
32.5	62.5	5	5	30.11	764.8	71.7	22.1	4	3	1	4	1	4	3	11			2.0
32.5	67.5	4	4	30.12	765.0	71.8	22.1	5	6		2	1	4	3	8		2	1.9
32.5	72.5	3	3	30.14	765.5	72.1	22.3	8	2		1	1	4	2	8		5	1.9
32.5	77.5	3	3	30.16	766.1	69.1	20.6	9	5	3	2	4	3		5			1.6
37.5	12.5	8	8	30.04	763.0	66.4	19.1	6	3	2	5	5	2	1	7			3.1
37.5	17.5	3	3	30.08	764.0	67.7	19.8	4	6	1	7	2		2	7		2	2.5
37.5	22.5	3	4	30.13	765.3	67.8	19.9		5	4	7	2		3	8		2	2.5
37.5	27.5	5	5	30.13	765.3	67.1	19.5	1	9	3	2	1	2	4	7		2	2.5
37.5	32.5	8	9	30.12	765.0	66.9	19.4	1	6	2	3	2	3	5	7		2	2.8
37.5	37.5	5	7	30.11	764.8	66.3	19.1	3	6	4	2	4	4	3	2		3	2.8
37.5	42.5	2	2	30.08	764.0	65.4	18.6	3	7	3	4	4	2	3	2		3	2.6
37.5	47.5	4	8	30.08	764.0	65.1	18.4	2	8	2	4	6	2	1	2		4	2.2
37.5	52.5	6	6	30.07	763.8	65.1	18.4	6	4		8	3		1	3		6	2.9
37.5	57.5	1	1	30.07	763.8	65.0	18.3	5	7	4	4	1	3		4		3	3.0
37.5	62.5	8	8	30.11	764.8	63.7	17.6	6	6	4	5	1	3	1	3		2	2.7
37.5	67.5	9	9	30.15	765.8	63.4	17.4	4	10	1	7	2	1	1	4		1	2.6
37.5	72.5	16	32	30.19	766.8	63.1	17.3	4	7	2	7	3	3		2		3	2.2
42.5	12.5	10	12	29.96	761.0	62.7	17.1	1	5	2	3	7	3		10			2.8
42.5	17.5	5	5	30.00	762.0	63.3	17.4	2	7	2	5	4	3		7		1	3.0
42.5	22.5	1	1	30.03	762.7	63.7	17.6		3	4	8	3	3		8		2	2.2
42.5	27.5	4	4	30.04	763.0	62.0	16.7	1	10	4	4	3	3	1	2		3	2.4
42.5	32.5	2	2	30.02	762.5	61.7	16.5		12	1	6	2	6	1	1		2	3.0
42.5	37.5			30.02	762.5	60.4	15.8	1	12		7	5	2	1			3	3.1
42.5	42.5	1	1	30.01	762.2	59.1	15.1	4	7	3	11	1	1	1			3	3.0
42.5	47.5	7	9	30.05	763.3	57.3	14.1	2	9	2	13	3	1		1			2.9
42.5	52.5	12	16	30.00	762.0	56.9	13.8	2	7	4	11	4	2		1			3.1
42.5	57.5	13	19	30.04	763.0	55.6	13.1	8	5	3	10	4					1	3.2
42.5	62.5	16	25	30.08	764.0	54.0	12.2	3	9	5	8	2	2		2			2.8
42.5	67.5	14	18	30.13	765.3	53.4	11.9	2	11	1	10	2	1	1	2		1	2.5
47.5	12.5	10	13	29.89	759.2	58.1	14.5		2	5	2	3	9	3	7			3.8
47.5	17.5	8	8	29.89	759.2	58.5	14.7		5	4	3	3	8	1	4		3	4.2
47.5	22.5	7	8	29.85	758.2	57.6	14.2	2	5	6	7	6	3		1		1	3.5
47.5	27.5	9	9	29.85	758.2	56.4	13.6	1	12	4	8	3	2		1			3.4
47.5	32.5	9	9	29.85	758.2	55.2	12.9	1	11	7	7	2	2		1			3.6
47.5	37.5	13	16	29.85	758.2	52.9	11.6	3	10	6	8	2	1				1	3.8
47.5	42.5	16	22	29.84	757.9	49.7	9.8	4	10	4	11		1				1	4.2
47.5	47.5	14	21	29.90	759.4	46.9	8.3	4	7	4	11	2	1		1		1	3.1
52.5	12.5	12	13	29.89	759.2	54.9	12.7		3	3	2	1	12	6	4			4.2
52.5	17.5	11	13	29.84	757.9	55.2	12.9	1	3	6	1	4	10	3	3			3.6
52.5	22.5	13	14	29.78	756.4	53.8	12.1	1	5	8	4	5	4	2	2			3.8
52.5	27.5	7	7	29.72	754.9	52.1	11.2	3	7	10	8		3					3.8
52.5	32.5	8	9	29.73	755.1	49.9	9.9	3	7	7	8	1	3		1		1	3.9
52.5	37.5	8	9	29.74	755.4	47.9	8.8	2	11	6	9	2	1					3.9
52.5	42.5	4	4	29.76	755.9	45.4	7.4	4	12	4	6	4	1					3.9
52.5	47.5	3	4	29.79	756.7	42.1	5.6		13	4	6	2			2		4	3.5
57.5	12.5	1	1	29.90	759.4	49.2	9.6		4	2	2	6	8	7	2			3.5
57.5	17.5	2	2	29.85	758.2	48.5	9.2	1	1	5	2	4	9	6	3			4.0
57.5	22.5	2	3	29.79	756.7	47.2	8.4		1	7	2	4	7	1	7		2	3.1
57.5	27.5	4	4	29.74	755.4	45.6	7.6	4	4	4	7	2	4	1	5			3.0
57.5	32.5	4	4	29.68	753.9	43.2	6.2	4	4	3	6	2	4	1	5		2	3.4
57.5	37.5	5	5	29.66	753.4	41.5	5.3	8	6	1	7	3	1	1	4			3.2
57.5	42.5	2	2	29.66	753.4	38.9	3.8	1	11	1	6	2	1		5		4	3.4
57.5	47.5			29.67	753.6	36.7	2.6	4	14	3	2	2			3		3	2.9

NOTE.—See General Remarks, page 9.

GENERAL REMARKS.

All data which appears in the DAILY BULLETIN OF SIMULTANEOUS METEOROLOGICAL OBSERVATIONS are copied from the regular exchanges of this office. The barometer readings for land stations, in the first and second columns, are reduced to freezing and their respective standards; those in the third and fourth columns to sea-level. When necessary, corrections for instrumental error, temperature and reduction to sea-level are applied at this office. In the Naval and Marine Series, corrections for temperature and reduction to sea-level are always applied, while those for instrumental error, only when such corrections can be ascertained with close approximation, as by comparison when vessels are at or near land stations. Relative humidity generally requires computation from the hygrometrical observations. When rain has fallen, but neither the amount or duration is recorded, the word "blank" is published in the rain-fall column. The weather is generally published as given. The following symbols and abbreviations are common to all series, viz.: †, aneroid; *, instrumental error not known; ‡, observations taken at 7.35 a. m., Washington mean time; c, cirrus; k, cumulus; s, stratus; n, nimbus; d, scud; f, fracto; p, pallio; hz, haze; fg, fog; sk, smoke; inap, inappreciable; d. clouds, detached clouds. The movement of the air is published as given on the originals, when indicated by velocity in miles per hour, in meters per second, or by force, all variations of the latter being reduced to the common scale of 0 to 10. Those stations reporting the movement in pounds pressure per square foot are reduced to force on the common scale, and those in kilometers per hour, to meters per second and miles per hour. The distinction between upper and lower clouds is carefully made in the United States and a portion of the Canadian series, and the various formations are indicated by the letters above given and their combinations. In the MONTHLY SUMMARY OF INTERNATIONAL SIMULTANEOUS METEOROLOGICAL OBSERVATIONS the position of stations (latitude and longitude) are obtained from Keith Johnson's Index Geographicus, except where more exact information is furnished. The elevations of stations are obtained either from the annual, semi-annual and monthly publications of the various meteorological bureaus here represented, or from the original forms, upon which are entered the daily observations. In the United States series the elevations are computed from the latest surveys, and are carefully revised each month, in order to note any change in the elevation of the barometer cistern at any station. It is believed for the most part, that throughout the European and other series, the elevations as given represent the height of the barometer cistern above sea-level; at least this should be the case. The local time, where omitted or not given correctly in the originals, is carefully computed at this office. Generally, all conversions are made at this office. A letter placed opposite the name of a station or some portion of the data credited thereto, indicates that a certain number of observations are missing, corresponding to the relative position in the alphabet of the letter so used. The following remarks relate to the individual peculiarities in the *methods* of recording and the *times* of taking the international simultaneous meteorological observations, under the auspices of the various Meteorological Bureaus:

ALGERIAN SERIES.—The originals give the barometer in millimeters reduced to sea-level; temperature in Centigrade. The movement of the air is indicated by force on a scale of 0 to 10. The rain-fall is measured at 7 a. m., local time, and the amount indicated in millimeters.

AUSTRALIAN SERIES.—At Melbourne the conversions are published as given in the originals. The movement of the air is indicated by velocity in miles per hour. The kind of clouds is not given except by inference from general weather terms.

AUSTRO-HUNGARIAN SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. At the following stations rainfall is measured at local time: Lemburg, 7 p. m.; Vienna, 2 p. m.; Trieste, 7 a. m. The weather is given by the Vienna symbols or in general terms. At Gratz, observations are taken at 2 p. m., local time.

BELGIAN SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The weather is occasionally given by the Vienna symbols. Except for Brussels, the distinction between upper and lower clouds is not made. At Furnes, observations are taken at 12.26 p. m., local time, and at Maeseyck at 1 p. m., local time.

BRITISH SERIES.—In general the originals do not give rain-fall or distinction between upper and lower clouds. Relative humidity, except for Bradford and Silloth Rectory, is not given on the originals, but is computed from hygrometrical observations. At Cardington, Galway, Oxford and Sandwick Manse the barometers are given as read off. At Free Town the barometer is reduced to freezing on the originals, but not to sea-level. The movement of the air is indicated by force, on a scale of 0 to 12, except pounds pressure per square foot at Greenwich. At the following stations rain-fall is measured at local time: Bradford, 9 a. m.; Nottingham, 6 p. m.; and Aberdeen, 10 a. m. The wind direction is given to 32 points and weather by the Beaufort notation.

CANADIAN SERIES.—The originals give the barometer reduced to sea-level in English inches and the temperature in Fahrenheit. Charlottetown, St. Andrews, Windsor and those stations marked with a star (*) give the clouds on a scale of 0 to 4, while the remainder report them on a scale of 0 to 10.

CAPE COLONY SERIES.—At Cape Town the barometer is given on the original as corrected for temperature only. Upper and lower clouds are given on a scale of 0 to 10 and the kind occasionally indicated by abbreviating Poëy's classification.

CHINESE SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is given in meters per second and the direction to 16 points. The kind of clouds is occasionally given, and the degree of cloudiness on the scale of 0 to 10; distinction between upper and lower clouds is sometimes made. The weather is given in general (French) terms. The rain-fall is given in millimeters and measured at the moment of simultaneous observation.

COSTA RICAN SERIES.—At San José the originals give the barometer as corrected for temperature only and the thermometer in Centigrade. Relative humidity is not given on the originals, but is computed from the hygrometrical observations. Upper and lower clouds are given, the amount on a scale of 0 to 10 and the kind by Howard's classification. The rain-fall is apparently measured at midnight.

DANISH SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by force, on a scale of 0 to 6. The weather is occasionally given by the Vienna symbols, but it is not certain that they always refer to the moment of simultaneous observations, except at Copenhagen. No distinction is made between upper and lower clouds and the direction of movement, together with the rain-fall, is entirely omitted.

FRENCH SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by force on a scale of 0 to 6, except in meters per second, for Mont Louis and Perpignan. In general, the rain-fall is measured at 9 a. m., local time, but at Lyons at the moment of simultaneous observation. The direction of upper and lower clouds is given, but no distinction is made as to kind. The degree of cloudiness is given on a scale of 0 to 4 at Clermont-Ferrand, Commune de Greasque and Puy de Dome, while at other stations the scale of 0 to 10 is employed, or general weather terms, from which the amount of cloudiness is inferred. The weather is given in general terms, except occasionally by the Vienna symbols at Mont Louis and Perpignan. At Guéret the observations are taken at 12.00, instead of 12:16; at Charlons-sur-Marne, for October, the observations are stated to be taken at 1.27, instead of 0.27. On October 1st, the observatory of Pic-du-Midi was transferred from Plantade to Summit; see change in position and elevation.

GERMAN SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by force on a scale of 0 to 10, except at Carlsruhe, where the scale of 0 to 4 is used. No distinction is made between upper and lower clouds except at Magdeburg where distinction is also made as to direction and kind, but not as to amount. The amount is given on a scale of 0 to 10, but the kind is rarely given. The weather is given in Vienna symbols or in general terms. On October 1st, elevation of barometer cistern at Bamberg changes to 794 feet, or 242 meters, and on the 15th, back to 787 feet, or 240 meters. On October 1st, Stutgart changes elevation to 833 feet, or 254 meters. At Berlin, observations are taken at 2.00 p. m., instead of 1.02 p. m.

GREEK SERIES.—The originals give the barometer corrected for temperature only and the thermometer in Centigrade. Hygrometrical observations are not given, and the rain-fall is omitted. The kind of clouds is occasionally given, and the amount is inferred from the general weather terms. The movement of the air is indicated by force on the scale of 0 to 10.

INDIAN SERIES.—The barometric observations refer to the Calcutta standard, which requires a correction of —0.011 inch, or 0.28 m. m. as compared with the Kew standard. The wind-velocity given is the average rate of wind since the observation of the preceding day. All conversions are published as given in the originals, where the data are recorded to an additional decimal. The weather is given by the Beaufort notation, Vienna symbols, or special symbols.

ITALIAN SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by velocity in kilometers per hour or by force on a scale of 0 to 4 as at Mondovi, Florence and Cagliari. No distinction is made between upper and lower clouds and the amount is given on a scale of 0 to 10. The weather is given in Vienna symbols.

JAPANESE SERIES.—The rain-fall is measured at 9.30 a. m., local time, and the conversions are all published as given in the originals. Distinction is generally made between upper and lower clouds and the amount is given on the scale of 0 to 10. The weather is given in general terms.

MAURITIUS SERIES.—All conversions are published as given in the originals. The direction of the wind is given to 64 points and the rain-fall is measured at 9.30 a. m., local time.

MEXICAN SERIES.—All conversions (subject to correction at this office) are published as given in the originals. The kind of clouds is given, and also the direction and amount of both upper and lower. The degree of cloudiness is indicated on the scale of 0 to 10.

NETHERLANDS SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by pressure in kilograms per square meter, except at Hellevoetsluis, which gives force on the scale of 0 to 12. The humidity is not given on the originals, but for two stations it is computed from the hygrometrical observations. The weather is only given for Utrecht, from which the amount of cloudiness at that station is inferred.

NORWEGIAN SERIES.—The originals give the barometer in millimeters, reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by velocity in meters per second or by force on a scale of 0 to 6. The weather is occasionally given by Vienna symbols. At Bergen, observations upon the weather and degree of cloudiness are made at 2 p. m., local time.

PORTUGUESE SERIES.—In the originals the barometer is given in millimeters and the temperature in Centigrade. The movement of the air is indicated by velocity in kilometers per hour, except at Angra, which gives force on the scale of 0 to 9. The weather is occasionally given by the Vienna symbols. The rain-fall is measured at noon of each day.

RUSSIAN SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. At Astrakhan, the barometer cistern is below sea-level. The movement of the air is indicated by velocity in meters per second. No distinction is made between upper and lower clouds; the amount is given on the scale of 0 to 10 and the kind occasionally. The weather is occasionally given by the Vienna symbols. The rain-fall is not given. At Barnaul, observations are taken at 6.18 p. m., local time.

SCOTTISH SERIES.—The originals give the barometer as read off and the movement of the air is indicated by force on a scale of 0 to 5. Distinction is made between upper and lower clouds as to degree, and the amount of cloudiness is given on a scale of 0 to 10. The direction of upper clouds is given separately. The rain-fall, temperature and humidity are not given at North Unst. The wind direction is given to 32 points.

SPANISH SERIES.—The originals give the barometer at Barcelona, Bilbao, Burgos, Murcia and Santiago as corrected for temperature only. The movement of the air except for sub-series, is given in kilometers per hour. The kind of clouds is occasionally given and the degree of cloudiness on a scale of 0 to 10. The rain-fall at San Juan is measured at 4 p. m., local time and at San Fernando at midnight. The weather is given in general (Spanish) terms.

SWEDISH SERIES.—The originals give the barometer in millimeters reduced to sea-level and the temperature in Centigrade. The movement of the air is indicated by force, on a scale of 0 to 6, except in meters per second for Upsala. The kind of clouds is not given, but the degree of cloudiness is indicated on a scale of 0 to 10. The rain-fall is measured at 8 a. m., local time, and the weather is occasionally given by the Vienna symbols.

SWISS SERIES.—The originals give the barometer in millimeters, corrected for temperature only and the thermometer in Centigrade. The movement of the air is indicated by force on a scale of 0 to 10 and at Zurich on a scale of 0 to 4. The rain-fall at Zurich is measured at 9 a. m., local time, and the remainder of the observation is taken at 1.13 p. m., local time.

TURKISH SERIES.—The originals give the barometer in millimeters reduced to sea-level. The temperature is given in Centigrade. The movement of the air is indicated by force on a scale of 0 to 7 for Valona and on a scale of 0 to 12 for Beirut. At Constantinople the velocity is given in meters per second. The kind of clouds is not given, but the amount is indicated on a scale of 0 to 10, except at Valona, at which station it is inferred from the general weather terms.

UNITED STATES SERIES.—The originals generally give the barometer reduced to sea-level and the temperature in Fahrenheit. At Bogota the barometer is corrected for temperature only; at Navassa and Puerto Berrio is given as read off, and at Rivas is omitted. The amount of cloudiness is given on the scale of 0 to 4, except for Rivas, Paramaribo and York Factory. The movement of the air is generally indicated by velocity in miles per hour, except on a scale of 0 to 10 for Bogota, Paramaribo and Rivas, and 0 to 12 for Puerto Berrio. The wind direction is generally given to 16 points, except 8 points for Bogota and 32 points for Rivas. The rain-fall at Rivas is given in centimeters and millimeters.

BRITISH NAVAL SERIES.—The originals give the barometer as read off. The wind direction is given to 32 points. The movement of the air is indicated by force on a scale of 0 to 12. The distinction between upper and lower clouds is made as to direction, but not as to amount. The height of sea-disturbance is given on the scale of 0 to 9 and the weather by the Beaufort notation. The direction of movement of wind, clouds and sea is compass direction, corrected only for deviation caused by the iron in the ship, while the correction for magnetic variation is applied at this office. The humidity is not given, but is computed from the hygrometrical observations.

GERMAN NAVAL SERIES.—No vessels reporting.

PORTUGUESE NAVAL SERIES.—The originals give the barometer in millimeters, corrected for temperature only and the thermometer in Centigrade. The movement of the air is indicated by force on the scale of 0 to 10. The humidity is not given, but is computed from the hygrometrical observations. The kind of clouds is not given, but the amount is indicated on the scale of 0 to 10; the direction of movement is given without distinction between upper and lower. The height of sea-disturbance is given on the scale of 0 to 9, and the weather by the Beaufort notation. The rain-fall is not measured, but the duration is generally given in hours and minutes.

SWEDISH NAVAL SERIES.—The originals give the barometer as read off. The movement of the air is indicated by force on the scale of 0 to 12, and the direction is corrected for magnetic variation at this office. The humidity is not given, but is computed from the hygrometrical observations. The rain-fall is omitted. The height of the sea-swell is given on the scale of 0 to 9, and the weather by the Beaufort notation.

UNITED STATES NAVAL SERIES.—The originals give the barometer as read off. The humidity is not given, but is computed from the hygrometrical observations. The sea-swell and the weather are given in general terms. The direction of the wind is compass direction, corrected for variation.

MERCHANT-MARINE SERIES.—Same as U. S. Naval.

OCEAN SQUARES.—The table of ocean square data shows, (1) the location of the centres of squares whose sides extend 5° each in latitude and longitude, (2) the number of days for which observations are at hand within the respective squares, and the total number of simultaneous observations reported on those days, (3) the monthly mean pressure and temperature of the air, and the mean force and total frequency of the wind at 7 a. m., Washington time, computed for the centre of each square from daily readings as obtained by interpolation between the isobars and isotherms of the "daily international simultaneous weather maps."

ERRATA.

MONTHLY SUMMARY, May, 1881, page 1, British series, Bradford, total precipitation 8.78 inches, or 223.0 m. m., should read 1.48 inches, or 37.6 m. m.

DAILY BULLETIN, October, 1881, page 3, Danish series, Copenhagen, temperature Fahrenheit 41.9°, should read 49.1°.

6th, page 3, French series, Rodez, actual barometer 28.08 inches, should read 28.04 inches.

7th, page 5, Swedish series, Upsala, humidity 94, should read 64.

10th, page 1, Austro-Hungarian series, Vienna, temperature centigrade, 12.8°, should read 12.2°; page 4, Japanese series, Hiroshima, reduced barometer 769.0 m. m., should read 761.0 m. m.

13th, page 2, Canadian series, Halifax, temperature, centigrade, 1.1°, should read 11.1°; page 5, Tuguegarao, reduced barometer, 754.1 m. m., should read 754.8 m. m.

27th, page 4, Japanese series, Kioto, actual barometer 29.81 inches, should read 29.84 inches.

30th, page 5, Lugan, temperature, centigrade, 3.3°, should read —3.3°.

From December 1st, 1880, observations at Lyon, France, have been taken at St. Genis Laval instead of Park station.

PUBLISHED BY ORDER OF THE SECRETARY OF WAR:

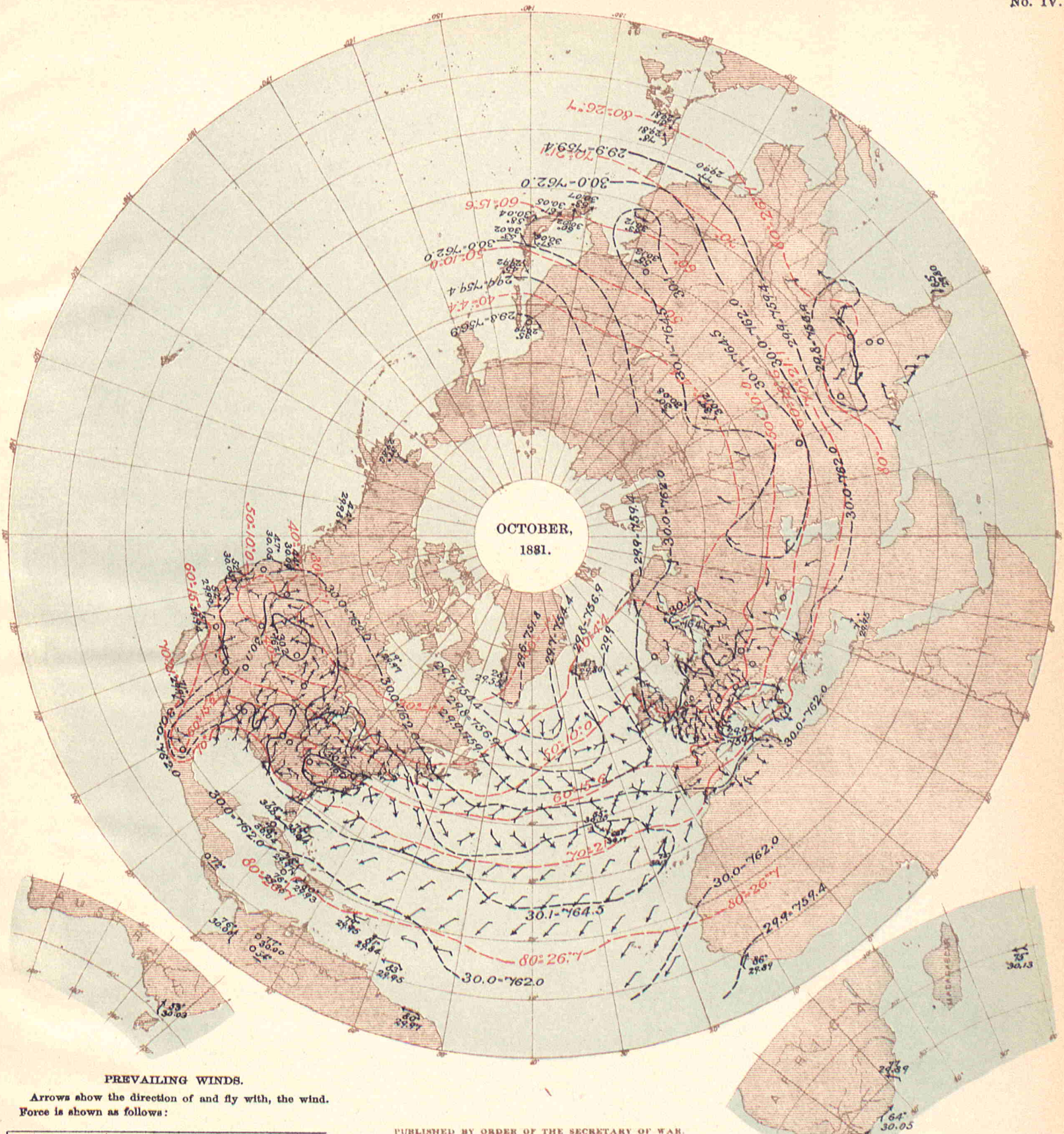
W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l,
Chief Signal Officer, U. S. A.

Office of the Chief Signal Officer,

UNITED STATES ARMY.

Charted from Actual Observations taken Simultaneously, Series commencing January, 1877.

No. IV.



PREVAILING WINDS.

Arrows show the direction of and fly with, the wind. Force is shown as follows:

Symbols.	Force.	Velocity.	
		Miles per hour.	Metres per second.
O	0	0	0
	1, 2	0 to 9	0 to 4.0
	3, 4	9.1 to 22.5	4.1 to 10.1
	5, 6	22.6 to 40.5	10.1 to 18.1
	7, 8	40.6 to 67.5	18.1 to 30.2
	9, 10	67.6 up.	30.2 & over.

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W. B. Hazen

BRIG. & BVT. MAJ. GEN'L.
CHIEF SIGNAL OFFICER, U. S. A.

ISOBARS AND ISOTHERMS.

Isobars in *black*; detached barometer means in English inches.

Isotherms in *red*; detached temperature means in degrees Fahrenheit.

Broken lines, are doubtful.

INTERNATIONAL MONTHLY CHART.

Showing mean pressure, mean temperature, mean force and prevailing direction of winds at 7:00 A. M., Washington mean time, for the month of October, 1881, based on the daily charts of the International Bulletin.