BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 1, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

QL 982 .B85 1876 (Jan.-Feb.)

LIBRARY
SEP 2 3 2002
National Oceanic & Atmospheric Administration
U.S. Dept. of Commerce

LIBRARY
MAR 16 1951
WEATHER BUREAU

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Gén...

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Lemours			30.35	771.0	57.9	14.4	53	NW			1		1			0	0	Clear	Charnot.
Algiers			30.37	771.3	55.4	13.0	88	SSW			0		1			0	0	Clear	Peter.
La Calle																			Kuntz.
Tunis			30.37	771.3	50.7	10.4	84	NE			2		3			0.154	3.9	Fair	Jacques.
Sfax			30.35	771.0	60.1	15.6	53	NE			4		2			0	0	Clear	Chauvey.
Gafda			30.36	771.1	51.8	11.0	30	NE			1		0			0	0	Clear	Grosjean.
Tebessa			30.36	771.1	44.8	7.1		W			2		10			0	0	Hidden	Colin.
Herriville					34.2	1.2	42	N			1		2			0	0	Clear	Buard.
Laghouat			30.37	771.4	48.2	9.0	48	NE			1		1			0	0	Clear	Simon.
Biskra			30.37	771.4	56.3	13.5	55	NE			1		9			0	0	Hidden	Coulon.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.23	767.9	30.0	— 1.1	96	Calm			0		3			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.18	766.5	16.2	— 8.8	100	W			2		10			0.067	1.7		I. R. Observatory.
Eperies			30.20	767.0	12.6	—10.8	86	Calm			0		10			0	0		Julius Mikolik.
Gratz	28.92	734.5	30.21	767.2	25.7	— 3.3	72	SSE			2		0			0	0		Andreas Rospini.
Hermannstadt	28.66	728.0	30.24	768.1	11.1	—11.6	93	N			1		10			0.012	0.30		Prof. Reissenberger.‖
Kremsmünster	28.86	732.9	30.27	768.8	32.7	0.4	82	W			1		3			0	0		Prof. C. Wagner.
Lemberg			30.12	765.0	6.4	—14.2	92	NE			1		10			0.024	0.6		Dr. T. Stanecki.
Lyiregyhaza			30.26	768.7	14.7	— 9.6	100	W			2		10			0.035	0.90		Habzsuda Daniel.
Pola			30.25	768.3	38.5	3.6	63	NW			1		108			0	0		I.R. Hydrographic Of'ce
Szegedin			30.35	770.8	17.6	— 8.0	80	E			1		8			0	0		Karl Stancel.
Trieste			30.24	768.2	41.2	5.1	74	E			1		10			0	0	Covered	Prof. V. Farolfi.
Vienna			30.20	767.1	21.0	— 6.1	92	Calm			0		10			0.370	9.4	Snowing	I. R. Central Institute.¶

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.13	765.4	41.4	5.2	85	SSW			2		10			0	0		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

M06.1
U58s

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.74	755.4	41.0	5.0		S	9	4.0			0			0	0	Clear	William Boswell.
Ardrossan			29.96	761.0				WSW			3		5					*D clouds	Wm. McNeil.
Armagh Observatory			30.05	763.3	40.0	4.4		SW	9	4.0			0					Clear	S. Call, for Dr. Robinson.
Bidston, Liverpool Obs.			30.08	762.7	43.3	6.3		WSW	12	5.4			1					Clear	John Hartnup.
Birr Castle, (Parsonst			30.08	764	39.8	4.3		SSW			1		0					Clear	J. Dreyer.
Bradford			30.08	764	41.6	5.3		S			1		0			0.03	0.8	Clear	J. McLandsborough.
Bridgetown, (Ba			29.89	759	75.0	23.9		SE			2		10					Overcast	Sergt. G. H Hunt.
Cambridge Obs			29.99	761.7	38.	3.3		N			2		10					Raining	H. Todd.
Cardington			30.03	762.7	38.	3.6		W			1		10					Raining	John McLaren.
Carlisle			29	761.7	43.	6.2		W			2		0			0	0	Clear	T Bell, for J. Cartmell.
Chatham, Sch			30	764	47.	8.4		SW			1		8					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.55	725.2	30.09	764.3		2.8		N			5		10					Foggy	R. E. Power.
Donaghadee			30.09	764.6		4.4		W			2		0					Clear	J. Mac Gowan.
Dover			30.05	763		7.2		WSW			4		5					½ clouded	J. Costello.
Eccles, (near Manc						4.3		W					3					Hazy	Thomas Mackereth.
Falmouth Observatory					42.9	6.1		NNW	25	11.2			6					D. clouds	The Staff.
Fort Napier, (Natal)				758.7	84.4	29.1		NE			1		4					D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone,			29.93	760.2	86.	30.0		N			1		6					Clear	tis.
Galway, Queen's College			29.67	753.6	59	9.4		SW			6		10					Gloomy	Bdr. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.25	768.3	60.6	15.4		E			3		3					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.94	760.5	42.1	5.6		SW			2		5					Fine	Wm. M. Stewart.
Great Yarmouth			29.98	761.5	44	6.7		SW			3		8					Raining	G. T. Watson.
Greenwich Royal Obs			29.96	761.0	46.3	6.9		SSW			4		10					Raining	The Staff for G. B. Airy
Guernsey			30.03	762.7	48	8.8		SSW			3		10					Raining	Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.05	763.3	39.4	4.1		W			1		3			Blank	Blank	Hazy	J. J. Cre sley.
Helston			30.05	763.3	46	7.8		N			4		4k			0.4	10.2	Fine	M. P. Moyle.
Holyhead			30.05	763.3	43	6.1		WNW			3		0			0	0	Clear	John Tilston.
Kew Observatory			29.99	761.7	47.2	8.5		SSW	19	8.5			10					Raining	The Staff.
Kingstown			30.06	763.5	43	6.1		W			3		0					Clear	George Mitchell.
Leicester Museum			30.06	763.5	35.7	2.6					2		10					Drizzling	William J. Harrison.
Malta, (Mediterranean)			30.23	767.8	54.5	12.5		NW			2		sk						Fred Travis, Pvt A.H.C
Nairn																			W. D. Penny.
Nassau, (Bahamas)			30.19	766.8	74.4	23.6		NE			5		3					D. clouds	Surg.-Maj. Henry.
Nottingham			30.05	763.3	38.	3.4		W			1		10k, d			Blank	Blan	Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.04	763.0	35.0	1.7		W			0–1		10					Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			30.09	762.0	38	3.		NNW			1		10					Raining	J. Lucas.
Plymouth			30.02	762.5	43	6.1		NNW			3		7					*D. clouds	John Merrifield.
Roche's Point			30.12	765.0	42	5.6		WNW			2		2					Fine	W. Kennedy.
Saint Ann's Head			30.06	763.5	43	6.1		NW			1		5					*D. clouds	John C. Walker.
Saint Helier, (Jersey)			30.09	764.3	45.4	7.4		SW			6		10					Overcast	A. P. Amy.
Sandwick Manse(Orkneys)			29.71	754.6	43	6.1		WSW	28	2.5			0					Bright	Rev. Dr. Clouston.
Scarborough			29.98	761.5	41.4	5.2		W			1		4					*D.clouds	F. Shaw.
Scutari Cemetery(Turkey			30.11	764.8	28.0	-2.2		N			3		7					Snow & rain	Sergt. W. H. Lyne.
Sheffield			30.03	762.7	42.4	5.8		NW			1		5			0.248	6.30	Raining	W. F. Cooper.
Silloth Rectory			30.00	762.0	45.3	7.4		W			1		0			0	0	Clear	Rev Francis Redford.
Stonyhurst Observatory			30.02	762.5	40.6	4.4		W			1		10			Blank	Blank	Hazy	The Staff.
Stornoway, Lews C. (Heb.)			29.61	752.1	44	6.7		WSW			3		5					*D. clouds	John Smith.
Stratfield Turgiss			30.01	762.2	40.0	4.4		SW			1		10					Raining	Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.69	761.7	42	5.6		SW			4		5					*D. clouds	John Trotter.
Truro, Royal Institution			30.07	763.8	45	7.2		N			6		5					*D. clouds	W Newcombe.
Valencia Observatory			30.10	764.5	44.4	6.9		WSW	6	2.7			2					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			30.83	757.7	83.8	28.8	54	SSE	22	9.8			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					47	8.3		W			2	0	0			0	0		
Leith, Restalrig Park			29.96	761.7	42.0	5.6		W			2					0.14	3.6	Fine	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 1. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.89	759.3	35.4	1.9	96	SSW			2		10					Raining	
Fanöe			29.93	760.2	39.2	4.0	100	SW			2		10					Raining	
Godthaab, (Greenland)			29.04	737.6	11.5	-11.4	100	N			7		5						
Stykkisholm, (Iceland)			29.23	742.5	26.8	-2.9	92	SW			4		8						
Thorshavn, (Faröe)			29.33	745.0	37.0	2.8	67	WSW			7		7					Hailing	
Vestervig			29.85	758.2	39.6	4.2	100	SSW			4		6						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.24	768.2	42.8	6	93	SW	.....	.....	1	.....	10	.....	.....	0.299	7.6	Covered	Normal School.
Amiens	.....	.....	30.16	766.0	41.4	5.2	78	SW	.....	.....	3	.....	5	.....	SW	0	0	Cloudy.....	Normal School.
Avignon	.....	.....	30.35	770.8	48.2	9	65	N	.....	.....	1	.....	0	.....	.....	0	0	Very clear...	Normal School.
Bar-sur-Seine	.....	.....	30.29	769.3	36.3	2.4	70	S	.....	.....	2	.....	8	.....	.....	0	0	Very cloudy	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.21	767.2	38.1	3.4	97	SSW	4.0	1.8	.....	.....	.....	.....	.....	0	0	Foggy	Beaumette Obse ratory
Beauvais	.....	.....	30.18	766.6	40.6	4.8	79	SSW	.....	.....	1	.....	5	.....	WSW	0	0	Cloudy.....	Normal School.
Besançon	.....	.....	30.28	769.0	36.7	2.6	75	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourg en Bresse	.....	.....	30.34	770.7	34.2	1.2	98	SSW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourges	.....	.....	30.30	769.6	31.1	— 0.5	88	SW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Brest	.....	.....	30.01	762.2	49.8	9.9	89	SW	.....	.....	4	.....	10	.....	SW	Inap.	Inap.	Raining.....	Naval Observatory
Caen	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Chartres	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Chaumont	.....	.....	30.47	773.8	38.1	3.4	.....	N	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Clermont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Commercy	.....	.....	30.32	770.0	43.9	6.6	75	N	.....	.....	2	.....	8	.....	.....	0	0	Very cloudy	Puy de Dome, Obs.
Commune de Gréasque*	.....	.....	30.32	770.1	38.7	3.7	90	SW	.....	.....	2	.....	5	.....	W	0	0	Cloudy.....	Normal School.
Grenoble	.....	.....	30.34	770.5	44.2	6.8	62	NE	.....	.....	1	.....	5	.....	SW	0	0	½ covered...	
Le Mans	.....	.....	30.10	764.1	24.3	1.3	90	NNE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Loches	.....	.....	30.27	768.8	32.2	0.1	97	SE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Lons-Le-Saulnier	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Mâcon	.....	.....	30.31	769.8	37.6	3.1	96	NW	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Mirecourt	.....	.....	30.32	770.0	32.9	0.5	96	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear.....	Normal School.
Metz	.....	.....	30.30	769.6	36.9	2.7	96	SSW	.....	.....	2	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Nismes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Orleans	.....	.....	30.32	770.3	49.6	9.8	72	NE	.....	.....	2	.....	5	.....	W	0	0	Cloudy.....	Normal School.
Paris Observatory	.....	.....	30.24	768.1	39.4	4.1	93	NNW	.....	.....	3	.....	8	.....	NW	0	0	Very cloudy	Normal School.
Parthenay	.....	.....	30.24	768.1	36.3	2.4	87	SSW	.....	.....	2	.....	8	.....	SSW	0	0	Nearly cov'd	National Observatory.
Privas	.....	....	30.23	767.7	30.2	— 1	89	SW	.....	.....	4	.....	5	.....	SW	0	0	Cloudy.....	Normal School.
La Roche-sur-Yon	.....	.....	30.37	771.4	42.1	5.6	.....	SW	.....	.....	2	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Rochefort, Observatory	.....	.....	30.28	769.0	34.5	1.4	100	E	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Rouen	.....	.....	30.30	769.7	32.9	0.5	94	ENE	.....	.....	2	.....	.....	.....	.....	0	0	Misty	Naval Observatory.
Saint Lo	.....	.....	30.18	766.6	43.3	6.3	72	SSE	.....	.....	2	.....	8	.....	SW	0	0	Very cloudy	Normal School.
Tarbes	.....	.....	30.15	765.9	40.3	4.6	94	SW	.....	.....	2	.....	10	.....	SW	0	0	.....	Normal School.
Toulouse	.....	.....	30.33	770.3	42.8	6	69	SW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Villefranche	.....	.....	30.24	768.2	37.6	3.1	83	NE	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.76	755.8	77.0	25	76	NNE	.....	.....	2	..c	..kn	.....	.....	0.87	22.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Marseilles	.....	.....	30.33	770.4	52.5	11.4	70	SSW	.....	.....	1	.....	0	.....	.....	0	0	.....	Marseilles Observatory —. Faiguère.
Mont-Louis	24.98	634.4	30.10	772.2	40.5	4.7	32	ESE	5.6	2.50	.....	.....	0	.....	.....	0	0	.....	
Montsouris, Paris	.....	.....	30.22	767.5	34.9	1.6	98	SW	.....	.....	2	.....	9	.....	SW	0	0	.....	Montsouris Observ'tory.
Perpignan	.....	.....	30.35	770.8	54.9	12.7	73	SE	3.7	1.67	.....	.....	3	.....	SE	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.37	540.2	.....	.....	30.2	— 1.0	.....	E	.....	.....	1	.....	0	.....	.....	0	0	Clear...	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.2	768.0	34.4	0.8	96	S	.....	.....	2	.....	10	.....	.....	0.012	0.3	Cov. red	E. Renou.
Toulouse	.....	.....	30.31	769.9	37.2	2.9	100	E	.....	.....	1	.....	10	.....	.....	0	0	Dense fog....	Toulouse Observatory.
Tours	.....	.....	30.26	768.5	32.0	0.0	98	SW	.....	.....	1	.....	10	.....	.....	0	0	Foggy	C. Marquet.
Versailles, (near Paris)	.....	.....	30.21	767.3	35.6	2.	96	SW	.....	.....	1	.....	10	.....	.....	0.071	0.18	Misty.....	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,040.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.21	767.2	30.4	— 0.9	88	SW	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.11	764.7	37.4	3.0	85	SW	.....	.....	1	.....	10	.....	.....	0	0	Heavy mist.	Prof. Arndt.
Breslau	.....	.....	30.14	765.5	25.9	— 3.4	97	SSE	.....	.....	1	.....	10	.....	.....	0	0	Snowing.....	Dr. P. Neugebauer.
Carlsruhe	.....	.....	30.28	769.2	32.7	0.4	84	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.11	764.9	34.7	1.5	84	SSW	.....	.....	4	.....	10	.....	.....	0.043	1.1	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.35	770.9	33.8	1.0	92	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	Physical Society.
Friedrichshafen	.....	.....	30.30	771.8	29.7	— 1.3	73	W	.....	.....	.....	.....	6	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	30.04	763.1	38.8	3.8	95	WSW	.....	.....	6	.....	10	.....	.....	0.004	0.1	Fog & rain...	Deutsche Seewarte.
Kiel	.....	.....	30.05	763.2	39.2	4.0	92	SW	.....	.....	3	.....	10	.....	.....	0.039	1.0	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.17	766.3	0.9	— 17.3	74	E	.....	.....	2	.....	6	.....	.....	Inap.	Inap.	Snowing.....	Prof. E. Luther.
Köslin	.....	.....	30.04	763.1	25.7	— 3.5	.....	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.18	766.6	36.3	2.4	87	SW	.....	.....	2	.....	9	.....	.....	0.091	2.3	.....	Prof. Brahms.
Münster	.....	.....	30.16	766.0	41.2	5.1	85	SW	.....	.....	2	.....	10	.....	.....	0.012	0.3	.....	Prof. E. Heis.
Posen	.....	.....	30.13	765.3	26.6	— 3.0	84	SW	.....	.....	1	.....	10	.....	.....	0.091	2.4	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.32	770.2	32.2	0.1	89	SW	.....	.....	1	.....	10	.....	.....	0.024	0.6	.....	Dr. Schur.
Stuttgart	.....	.....	30.31	769.8	30.7	— 0.7	89	NE	.....	.....	.....	.....	5	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.08	764.1	21.2	— 6.0	97	W	.....	.....	4	.....	10	.....	.....	0	0	Snowing.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	30.20	767.1	34.7	1.5	77	S'W	.....	.....	2	.....	10	.....	.....	0	0	Light mist...	Prof. Oesch.
Wustrow, Naval School	.....	.....	30.03	762.8	35.4	1.9	96	SW	.....	.....	5	.....	10	.....	.....	0	0	Raining.....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.19	766.8	34.3	1.3	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	30.22	767.6	36.0	2.2	62	W	.....	.....	2	.....	6	.....	.....	0	0	.....	
Padua	.....	.....	30.24	768.2	34.0	1.1	74	SW	0.7	0.3	.....	.....	6	NE	.....	0	0	.....	
Verona	.....	.....	30.26	768.7	31.1	— 0.5	74	E	.....	.....	1	.....	10	.....	.....	0	0	.....	
Bergamo	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Milan	.....	.....	30.26	768.5	35.6	2.0	82	NW	.....	.....	1	.....	0	.....	.....	0	0	.....	
Moncalieri	.....	.....	30.28	769.1	35.8	2.1	75	NNW	6.9	3.1	.....	.....	0	.....	.....	0	0	.....	
Mondovi	.....	.....	30.26	768.5	37.4	3.0	53	NNE	.....	.....	2	.....	0	.....	.....	0	0	.....	
Porto Maurizio	.....	.....	30.34	770.6	45.5	7.5	.....	W	.....	.....	6	.....	2	.....	.....	0	0	.....	
Genoa	.....	.....	30.32	770.0	47.1	8.4	65	SW	3.1	1.4	.....	.....	10	SW	.....	0	0	.....	
Piacenza	.....	.....	30.27	768.9	37.4	3.0	81	WNW	12.5	5.6	.....	.....	1	.....	.....	0	0	.....	
Bologna	.....	.....	30.28	769.2	39.7	4.3	36	W	.....	.....	1	.....	2	E	.....	0	0	.....	
Florence	.....	.....	30.30	771.1	37.9	3.3	49	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	
Leghorn	.....	.....	30.33	770.3	41.2	5.1	45	NNE	4.9	2.2	.....	.....	3	.....	.....	0	0	.....	
Siena	.....	.....	30.32	770.2	35.6	2.0	68	E	0	0	.....	.....	1	E	.....	0	0	.....	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	30.29	769.4	39.0	3.9	50	NW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Ancona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Rome	.....	.....	30.35	770.9	43.5	6.4	48	N	1.8	0.8	.....	.....	0	.....	.....	0	0	.....	
Naples, O. U	.....	.....	30.34	770.6	46.4	8.0	45	SE	.....	.....	2	.....	0	.....	.....	0	0	.....	
Lecce	.....	.....	30.24	768.2	43.9	6.6	71	NNW	18.1	8.1	.....	.....	5	NW	.....	0	0	.....	
Cosenza	.....	.....	30.32	770.1	44.6	7.0	71	NNW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Riposto, (Sicily)	.....	.....	30.25	768.4	48.2	9.0	63	SSE	.....	.....	2	.....	1	.....	.....	0	0	.....	
Palermo	.....	.....	30.29	769.3	50.9	10.5	51	NE	1.8	0.8	.....	.....	0	.....	.....	0	0	.....	
Caltanissetta	.....	.....	30.28	769.0	45.3	7.4	47	NNW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Sub-Series.																			
Naples, S. R	.....	.....	30.35	771.0	45.9	7.7	55	NE	.....	.....	4	.....	..8	.....	.....	0	0	.....	Prof. F. Brioschi.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of staticns are as given in the originals.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	30.13	765.2	41.2	5.1	.....	SW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	29.99	761.7	39.9	4.4	.....	SW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	30.01	762.2	42.1	5.6	.....	SSW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	30.04	763.1	42.4	5.8	83	SSW	.....	.....	4	.....	8	.....	.....	.....	.....	Very cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	29.72	755.0	59.2	4.0	90	S	7.4	3.3	.....	.....	5	.....	.....	0.197	5.0	.....	
Brönö	.....	.....	29.47	748.5	39.2	4.0	70	SSW	13	6	.....	.....	10	.....	.....	0.480	12.2	Raining	
Christiania	.....	.....	29.70	754.4	40.3	4.6	96	SSW	1.1	0.5	.....	.....	6	.....	.....	0.059	1.5	.....	
Tromsö	.....	.....	29.37	745.9	29.1	— 1.6	80	SW	18	8	.....	.....	10	.....	.....	0	0	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount Up'er 0—10.	Clouds. Amount Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.93	760.1	61.3	16.3	88	SSW	18.4	8.25	.....	.....	6	.....	.....	0.488	12.4	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.32	770.2	47.5	8.6	70	ENE	1.5	0.67	.....	.....	1	.....	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.25	768.3	62 6	17.0	53	SE	2.4	1.07	.....	.....	1	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.36	771.1	44.2	6.8	81	NE	6.3	2.8	.....	.....	0	.....	.....	0	0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.14	765.6	11.5	—11.4	78	NE	4	2	.....	.....	10	.....	.....	.....	.....	Light snow..	Astronomical Obs.
Wilna	.....	.....	30.20	767.0	—12.3	—24.6	65	E	4	2	.....	.....	1	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.35	770.9	—12.5	—24.7	84	NNE	7	3	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.35	770.8	—11.0	—23.9	86	ENE	2	1	.....	.....	3	.....	.....	.....	.....	.....	Central Physical Obs.
Knopio																			Ch. Forsten.
Kieff	.....	.....	30.19	766.8	— 8.0	—22.2	92	W	2	1	.....	.....	3	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.23	767.7	0.7	—17.4	68	NNW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	29.97	761.1	5.7	—14.6	91	NW	25	11	.....	.....	10	.....	.....	.....	.....	Snowing.....	Lagorio.
Moscow	.....	.....	30.24	768.2	11.3	—11.5	97	NE	13	6	.....	.....	10	.....	.....	.....	.....	Snowing.....	Meteorological Obs.
Lugan	.....	.....	29.84	757.9	20.7	— 6.3	87	Calm	0	0	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	30.67	779.0	—18.8	—28.2	90	SE	18	8	.....	.....	0	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.56	725.3	30.01	762.2	39.2	4.0	75	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.10	764.4	36.3	2.4	82	ESE	20	9	.....	.....	9	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.60	777.2	14.4	— 9.8	94	E	7	3	.....	.....	7	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg																			Tschernischef.
Ekaterinburg	.....	.....	30.50	774.7	14.2	— 9.0	33	E	4	2	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.52	775.2	33.4	0.8	89	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.58	725.8	31.35	796.2	—12.8	—24.9	76	N	2	1	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.72	780.4	— 8.1	—13.3	84	W	7	3	.....	.....	10	.....	.....	.....	.....	Snowing.....	Meteorological Obs
Yeniseisk																			Marks.
Irkutsk																			Usolzef.
Gorga																			Mossin.
Peking, (China)	.....	.....	30.48	774.3	18.9	— 7.3	31	NNW	18	8	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.68	703.0	30.00	762.0	—18.0	—25.0	71	NW	7	3	.....	.....	4	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.08	763.9	9.9	—12.3	77	NW	11	5	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—31.0	—35.0	.....	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Knopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Knopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Knopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Gorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.37	771.5	40.5	4.7	72	E	2.9	1.3	.....	0	0	.....	.....	0	0	Clear.....	Royal Observatory.
San Fernando	.....	.....	30.31	769.8	59.2	15.1	61	E	4.0	1.8	.....	0	4	.....	W	0	0	.....	The Naval Observatory.

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.19	766.9	2.8	—16.2	81	SSE	.....	.....	4	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	30.04	763.0	7.5	—13.6	92	S	.....	.....	7	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	29.86	758.5	26.6	— 3.9	96	S	.....	.....	8	.....	10	.....	.....	0	0	Snow, gale...	
Stockholm	.....	.....	29.96	760.9	24.1	— 4.4	91	SSE	.....	.....	6	.....	10	.....	.....	0	0	Foggy	
Wisby	.....	.....	30.12	765.0	23.0	— 5.0	100	SSE	.....	.....	6	.....	10	.....	.....	0	0	Snowing.....	
Sub-Series.																			
Upsala	.....	.....	29.96	761.0	23.0	— 5.0	94	SE	17.9	8.0	.....	.....	10	.....	.....	0.354	9.00	Snowing.....	Dr Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.88	733.6	30.38	771.7	31.6	— 0.2	88	W			1		9			0	0	Foggy	The Observatory.
Zurich	28.67	728.1	30.39	771.8	31.3	— 0.4	86	SE			1		5			0	0	Cloudy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.9 mm.; Thermometer, —1.7; Relative Humidity, +8 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.13	765.2	25.9	— 3.4	95	N	7	3.0			10		N	Blank	Blank		
Fao, (Persian Gulf)			30.20	767.0	63.3	17.4		SE			1		10						
Salonica			30.22	767.6	34.7	1.5		NW			4		0						
Valona			30.02	762.5	41.9	5.5		NE			2		0						
Varna			30.08	764.0	19.4	— 7.0		N			3		0						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			29.83	757.7	61.5	16.4	65	SW			2		5k		SW	0.004	0.11	Fair	Prof. C. V. A. Van Dyck

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.																			
Brockville, Ontario			30.17	766.3	42	5.6		N	1	0.4			10s		N	0.07	1.8	Light rain	
*Chatham, N. B.			29.91	759.7	35	1.7	99	N	1	0.4		2k	8ks	N	N	0.07	1.8	Clearing	
Charlottetown, P. E. Island			29.85	758.2	33	0.6	95	N	14	6.3			10s			0.11	2.8	Cloudy	
Cornwall, Ontario			30.18	766.6	43.2	6.2	90	NE			2		10s			0.065	1.65	Dull	James Smith.
Dalhousie, N. B.																			H. A. Johnson.
Esquimault, B. C.																			
Fredericton, N. B.			29.94	760.5	42.1	5.6	74	NW	8	3.6			10ks			0	0	Fair	
*Fort Garry, Manitoba			30.05	763.3	0	—17.8	88	SE	16	7.2		0	0			0	0	Clear	
Goderich, Ontario			30.09	764.3	43.9	6.6		NE			1		10n			0.220	5.82	Dull	H. J. Strang.
Granton, Ontario			30.08	764.0	44.0	6.7		N			1		10			0	0	Foggy	James Grant
*Halifax, N. S.			29.78	756.4	46	7.8	87	W	4	1.8			8ks			0	0	Cloudy	
*Kingston, Ontario			30.14	765.5	44	6.7	93	NE	6	2.7			10ks		NE	0.10	2.5	Cloudy	
Little Current, Ontario			30.19	766.8	31.6	— 0.2		NE	9	4.0			10s			0.70	17.8		G. B. Abrey, C. E.
*Montreal, Quebec			30.10	764.5	40	4.4	83	N	12	5.4		8k	Haze	N		0.02	0.5	Cloudy	
*Ottawa, Ontario			30.14	765.5	39	3.9	76	W	6	2.7			10ks		W	0	0	Cloudy	
*Parry Sound, Ontario			30.16	766.1	35	1.7	95	NE	12	5.4		5k	5ks	NE	NE	0.35	8.9	Cloudy	
*Port Dover, Ontario			30.09	764.3	51	10.6	93	NE	6	2.7		10k	0			0	0	Cloudy	
Port Hastings, N. S.			29.84?	757.9?	45.7	7.6		W	3	1.3						0	0	Fine	Peter Grant.
*Port Stanley, Ontario			30.07	763.7	46	7.8	98	E	6	2.7			Fog		E	0	0	Foggy	
*Quebec, Quebec			30.06	763.5	39	3.9	91	S	10	4.5		0	0			0.05	1.3	Clear	
St. John, N. B.			29.94	760.5	45	7.2	84	NW	8	3.6		8ks	0	NW		0	0		
*Saugeen, Ontario			30.12	765.0	36	2.2	90	Calm	0	0			10n			0.19	4.8	Light rain	
Stayner, Ontario			30.13	765.3	37	2.8	99	NW	1	0.4			Fog			0.10	2.5	Foggy	
Stratford, Ontario			30.08	764.0	43.3	6.3		E	5	2.2			10s			0.159	4.03	Misty	C. J. MacGregor.
*Sydney, C. B.			29.71	754.6	34	1.1	94	NE	12	5.4			8n		NE	0.17	4.3	Cloudy	
*Toronto, Ontario			30.13	765.3	43	6.1	96	N	4	1.8			10s			0.12	3.0	Cloudy	
Woodstock, Ontario			30.07	763.8	46.0	7.8	98	S	1	0.4			10s			0.11	2.8	Cloudy	

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.06	763.5	47	8.3	92	W	2	0.9	.....	.....	10ks	.....	SW	0	0	Cloudy	
Alpena, Mich.	.....	.....	30.10	764.5	35	1.7	100	NE	2	0.9	.....	.....	10n	.....	.....	0.50	12.7	Light rain	
Atlantic City, N. J.	.....	.....	30.19	766.8	50	10.0	100	W	8	3.6	.....	.....	Fog	.....	.....	0 02	0.5	Foggy	
Augusta, Ga.	.....	.....	30.28	769.1	62	16.7	94	Calm	0	0	.....	.....	10s	.....	SE	0	0	Cloudy	
Baltimore, Md.	.....	.....	30.23	767.8	53.5	11.9	95	W	2	0.9	.....	.....	Fog	.....	.....	Inap.	Inap.	Threatening	
Barnegat, N. J.	.....	.....	30.20	767.1	49	9.4	100	W	7	3.1	.....	.....	Fog	.....	.....	0	0	Foggy	
Benton, Montana	26.90	683.2	29.70	754.4	35	1.7	52	SW	23	10.3	.....	.....	10s	.....	.....	0	0	Cloudy	
Bismarck, Dakota	27.95	709.9	29.69	754.1	11	—11.7	60	SE	5	2.2	.....	5k	0	SE	.....	0	0	Fair	
Boston, Mass.	.....	.....	30.02	762.5	52	11.1	87	SW	12	5.4	.....	5c	Haze	W	.....	0.02	0.5	Fair	
Breckenridge, Minn.	.....	.....	30.03	762.7	8	—13.3	78	SE	17	7.6	.....	0	2s	.....	.....	0	0	Clear	
Buffalo, N. Y.	.....	.....	30.07	763.8	52	11.1	93	E	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Burlington, Vt.	.....	.....	30.09	764.3	48	8.9	100	S	1	0.4	.....	.....	10n	.....	S	0.15	3.8	Light rain	
Cairo, Ill.	.....	.....	29.86	758.4	64	17 8	72	S	20	8.9	.....	0	5s	.....	S	0.15	3.8	Fair	
Cape Hatteras, N. C.	.....	.....	30.25	768.3	61	16.1	94	W	4	1.8	.....	0	Fog	.....	.....	0	0	Foggy	
Cape Henry, Va.	.....	.....	30.29	769.4	60	15.6	87	SW	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Cape May, N. J.	.....	.....	30.23	767.8	49	9.4	100	W	4	1.8	.....	.....	Fog	.....	.....	0.02	0.5	Foggy	
Charleston, S. C.	.....	.....	30.32	770.1	62	16.7	94	NE	3	1.3	.....	.....	10s	.....	SE	0	0	Cloudy	
Cheyenne, Wyoming	23.72	602.5	29.66	753.4	29	— 1.7	67	NW	32	14.3	.....	5ck	0	.....	.....	0	0	Fair	
Chicago, Ill.	.....	.....	29.83	757.7	41	5.0	91	N	9	4.0	.....	.....	10s	.....	.....	0.70	17.8	Threatening	
Cincinnati, Ohio.	.....	.....	30.01	762.2	58	14.4	81	SE	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Cleveland, Ohio.	.....	.....	30.04	763.0	58	14.4	76	SE	10	4.5	.....	0	2ks	.....	SW	Inap.	Inap.	Clear	
Colorado Springs, Col.	23.81	604.8	29.38	753.9	9	—12.8	57	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Corsicana, Texas.	.....	.....	29.94	760.5	46	7.8	92	W	16	7.2	.....	0	8s	.....	W	1.71	43.4	Clearing	
Davenport, Iowa.	.....	.....	29.77	756.1	43	6.1	91	NE	8	3.6	.....	.....	10n	.....	.....	1.78	45.2	Light rain	
Denison, Texas.	.....	.....	29.92	760.0	46	7.8	92	W	9	4.0	.....	.....	10n	.....	SW	2.18	55.4	Light rain	
Denver, Col.	24.52	622.8	29.74	755.4	8	—13.3	33	E	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Detroit, Mich.	.....	.....	30.03	762.7	41	5.0	91	NE	11	4.9	.....	.....	10s	.....	NE	0.06	1.5	Cloudy	
Dodge City, Kan.	27.26	692.4	29.64	752.8	24	— 4.4	74	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair	
Dubuque, Iowa.	.....	.....	29.80	756.9	38	3.3	91	NE	8	3.6	.....	.....	10n	.....	NE	0.94	23.9	Heavy rain	
Duluth, Minn.	.....	.....	30.10	764.5	24	— 4.4	74	E	14	6.3	.....	.....	10s	.....	.....	0	0	Cloudy	
Eastport, Me.	.....	.....	29.91	759.7	46	7.8	92	NW	8	3.6	.....	10cs	2s	W	N	0	0	Cloudy	
Erie, Pa.	.....	.....	30.05	763.3	51	10.6	86	SW	4	1.8	.....	Haze	5ks	.....	SW	0	0	Fair	
Escanaba, Mich.	.....	.....	30.09	764.3	28	— 2.2	88	N	24	10.7	.....	.....	10s	.....	N	0.03	0.8	Cloudy	
Fort Gibson, Indian T.	.....	.....	29.75	755.6	41	5.0	91	NW	12	5.4	.....	.....	10n	.....	.....	0.71	18.0	Light rain	
Fort Sill, Indian T.	28.71	729.2	29.85	758.2	35	1.7	96	NW	4	1.8	.....	.....	10n	.....	N	0.67	17.0	Light snow	
Fort Sully, Dakota	28.07	713.0	29.8	756.9	21	— 6.1	85	E	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Galveston, Texas.	.....	.....	30.04	763.0	57	13.9	81	NW	22	9.8	.....	.....	10s	.....	NW	0.17	4.3	Cloudy	
Grand Haven, Mich.	.....	.....	29.90	759.4	42	5.6	96	E	17	7.6	.....	.....	10n	.....	E	1.08	27.4	Light rain	
Indianapolis, Ind.	.....	.....	29.93	760.2	58	14.4	87	SE	12	5.4	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Indianola, Texas.	.....	.....	30.11	764.8	53	11.7	79	SW	20	8.9	.....	10ck	0	SW	.....	0.24	6.1	Cloudy	
Jacksonville, Fla.	.....	.....	30.21	768.1	64	17.8	88	NE	3	1.3	.....	10k	0	NE	.....	0	0	Cloudy	
Keokuk, Iowa.	.....	.....	29.71	754.8	42	5.6	100	N	6	2.7	.....	.....	10n	.....	N	2.59	65.8	Light rain	
Key West, Fla.	.....	.....	30.13	765.3	71.8	22.1	93	E	12	5.4	.....	0	5ks	.....	E	0.03	0.8	Threatening	
Kittyhawk, N. C.	.....	.....	30.34	770.4	54	12.2	100	W	4	1.8	.....	.....	Fog	.....	.....	0.02	0.5	Foggy	
Knoxville, Tenn.	.....	.....	30.22	767.6	48	8.9	92	E	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
La Crosse, Wis.	.....	.....	29.92	760.0	35	1.7	100	W	1	0.4	.....	.....	10n	.....	.....	0.26	6.6	Heavy rain	
Leavenworth, Kan.	.....	.....	29.77	756.1	33	0.6	89	N	8	3.6	.....	.....	10n	.....	.....	1.10	27.9	Light rain	
Lexington, Ky.	29.00	736.6	30.06	763.5	56	13.3	87	SE	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Long Branch, N. J.	.....	.....	30.19	766.8	45	7.2	100	W	7	3.1	.....	.....	Fog	.....	.....	0	0	Foggy	
Louisville, Ky.	.....	.....	30.04	762.7	59	15.0	76	SE	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Lynchburg, Va.	.....	.....	30.28	769.1	56	13.3	93	SW	3	1.3	.....	.....	10s	.....	.....	0.02	0.5	Cloudy	
Malone, N. Y.	.....	.....	30.03	763.5	45	7.2	92	NW	2	0.9	.....	.....	10n	.....	.....	0.21	5.3	Light rain	
Marquette, Mich.	.....	.....	30.16	766.1	28	— 2.2	88	Calm	0	0	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Memphis, Tenn.	.....	.....	29.88	758.9	65	18.5	83	SE	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy	
Milwaukee, Wis.	.....	.....	29.93	760.2	37	2.8	100	NE	22	9.8	.....	.....	10n	.....	NE	1.31	33.3	Light rain	
Mobile, Ala.	.....	.....	30.11	764.8	68	20.0	88	S	6	2.7	.....	0	5s	.....	SW	0	0	Fair	
Montgomery, Ala.	.....	.....	30.18	766.6	65	18.3	86	SE	10	4.5	.....	10ck	0	S	.....	0	0	Cloudy	
Morgantown, W. Va.	.....	.....	30.19	766.8	46	7.8	92	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Mt. Washington, N. H.	23.65	600.7	30.01	762.2	34	1.1	100	NW	80	35.7	.....	.....	Fog	.....	.....	0	0	Foggy	
Nashville, Tenn.	.....	.....	30.03	762.7	61	16.1	82	SE	6	2.7	.....	0	2s	.....	SW	0	0	Fair	
New Haven, Conn.	.....	.....	30.12	765.0	43	6.1	91	SW	4	1.8	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy	
New London, Conn.	.....	.....	30.12	765.0	43	6.1	87	W	7	3.1	.....	2cs	Haze	W	.....	Inap.	Inap.	Fair	
New Orleans, La.	.....	.....	30.03	762.7	69	20.6	90	S	12	5.4	.....	5k	2ks	S	SE	0.27	6.9	Threatening	
Newport, R. I.	.....	.....	30.03	762.7	42	5.6	91	SW	4	1.8	.....	0	2s	.....	SW	0	0	Fair	
New York, N. Y.	.....	.....	29.97	761.1	40	4.4	100	SW	12	5.4	.....	.....	Fog	.....	.....	0.01	0.3	Foggy	
Norfolk, Va.	.....	.....	30.29	769.4	58.5	14.7	91	SW	5	2.2	.....	.....	Fog	.....	SW	0	0	Foggy	
North Platte, Neb.	26.90	683.2	29.58	751.3	16	— 8.9	83	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Omaha, Neb.	28.77	630.7	29.88	758.9	28	— 2.2	88	N	11	4.9	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow	
Oswego, N. Y.	.....	.....	30.00	762.5	52.5	11.4	90	Calm	0	0	.....	.....	Fog	.....	.....	0.25	6.3	Foggy	
Peck's Beach, N. J.	.....	.....	30.22	767.6	51	10.6	100	W	12	5.4	.....	.....	Fog	.....	.....	0.03	0.8	Foggy	
Pembina, Dakota.	.....	.....	29.90	759.4	0	—17.8	100	S	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Philadelphia, Penn.	.....	.....	30.1	767.3	40	9.4	100	W	4	1.8	.....	.....	Fog	.....	.....	0	0	F ggy	
Pike's Peak, Colorado.	17.40	442.0	29.61	752.1	3	—16.1	73	NW	33	0.6	.....	2cs	0	.....	.....	0	0	Fair	
Pittsburgh, Penn.	.....	.....	30.13	765.3	51	10.6	86	Calm	0	0	.....	0	Fog	.....	.....	0	0	Foggy	
Port Huron, Mich.	.....	.....	30.07	763.8	37	2.8	90	NE	9	4.0	.....	.....	10n	.....	.....	0.34	8.6	Light rain	
Portland, Me.	.....	.....	29.97	761.2	55	12.8	80	W	12	5.4	.....	2c	5s	.....	NW	0	0	Cloudy	
Portland, Oregon.	.....	.....	30.20	767.1	38	3.3	81	SW	4	1.8	.....	.....	10s	.....	SW	1.31	33.3	Cloudy	
Punta Rassa, Fla.	.....	.....	30.18	766.6	65.5	18.6	83	NE	8	3.6	.....	Haze	s'm'e	.....	.....	0	0	Clear	
Rochester, N. Y.	.....	.....	30.09	764.3	53	11.7	.....	E	3	1.3	.....	.....	Fog	.....	.....	0	0	Light rain	
Salt Lake City, Utah.	25.65	651.5	29.98	761.5	26	— 3.3	88	S	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy	
Sandy Hook, N. J.	.....	.....	30.16	766.1	42	5.6	100	W	13	5.8	.....	.....	Fog	.....	.....	0	0	Foggy	
San Diego, Cal.	.....	.....	30.28	769.1	39	— 3.9	63	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear	
San Francisco, Cal.	.....	.....	30.16	766.1	50	10.0	93	SE	14	6.3	.....	.....	10n	.....	.....	0.30	7.6	Light rain	
Santa Fe, N. M.	23.12	587.2	29.66	753.4	18	— 7.8	52	NW	20	8.9	.....	0	0	.....	.....	0	0	Clear	
Savannah, Ga.	.....	.....	30.29	769.4	63	17.2	88	SE	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy	
Shreveport, La.	.....	.....	29.91	759.5	54	12.2	93	W	12	5.4	.....	.....	10n	.....	W	0.46	11.7	Light rain	
Smithville, N. C.	.....	.....	30.33	770.4	60	15.6	97	NE	2	0.9	.....	0	2ks	.....	.....	0.04	1.0	Fair	
Springfield, Mass.	.....	.....	30.08	764.0	37	2.8	90	NE	1	0.4	.....	0	5s	.....	.....	0.01	0.3	Foggy	
St. Louis, Mo.	.....	.....	29.76	755.9	65	18.3	73	S	24	10.7	.....	.....	10s	.....	S	0.03	0.8	Cloudy	
St. Marks, Fla.	.....	.....	30.21	767.3	64	17.8	89	SE	8	3.6	.....	0	0	.....	.....	0	0	Cloudy	
St. Paul, Minn.	.....	.....	30.00	762.0	20	— 6.7	78	N	5	2.2	.....	.....	10s	.....	N	0	0	Cloudy	
St. Paul's Island, Alaska.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Saugan Beach, N. J.	.....	.....	30.42	765.0	49	9.4	93	W	9	4.0	.....	.....	Fog	.....	.....	0	0	Foggy	
Thatcher's Island, Mass.	.....	.....	30.04	763.0	54	12.2	79	W	6	2.7	.....	5c	0	NW	.....	0	0	Clearing	
Toledo, Ohio.	.....	.....	29.98	761.5	50	10.0	85	E	6	2.7	.....	5k	0	SW	.....	0	0	Fair	
Tucson, Arizona.	27.63	701.8	30.10	764.5	30	— 1.1	.....	SE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Tybee Island, Ga.	.....	.....	30.28	769.1	61	16.1	94	Calm	0	0	.....	0	8ke	.....	SW	0	0	Cloudy	
Vicksburg, Miss.	.....	.....	30.10	764.5	68.5	20.3	92	S	11	4.9	.....	.....	10n	.....	S	0.12	3.0	Cloudy	

UNITED STATES SERIES.—Continued.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.91	607.3	29.39	746.5	26	— 3.3	52	SW	20	8.9	.....	1c	0	.....	.....	0	0	Clear	
Washington, D. C	.....	.....	30.23	767.8	56	13.2	100	S	4	1.8	.....	.....	Fog	.....	.....	0.04	1.0	Foggy	
Wilmington, N. C	.....	.....	30.33	770.4	57	13.9	100	N	1	0.4	.....	5k	Fog	SW	.....	0.03	0.8	Foggy	
Wood's Holl, Mass	.....	.....	30.09	764.3	42	5.6	91	W	15	6.7	.....	1c	Fog	W	.....	0	0	Foggy	
Wytheville, Va	27.91	708.9	30.13	765.3	39	3.9	91	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Yankton, Dakota	28.66	728.0	30.03	762.7	21	— 6.1	71	E	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Yuma, Arizona	.....	.....	30.27	768.8	30	— 1.1	.....	N	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Sub-Series.																			
Bridgetown, B'b'does, W. I	.....	.....	29.93	760.2	79	26.1	90	SE	.....	.....	7	2k	10ks	.....	.....	0.50	12.7	Fair	E. Racker.
Pointe-à-Pitre, G'd'loupe, do	.....	.....	29.89	759.2	75	23.9	85	E	.....	.....	.....	5c	5ks	.....	.....	1.45	36.8	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.07	763.8	73	22.8	81	E	0.6	0.3	.....	9fk, k	0	E	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.18	766.6	75	23.9	81	Calm	0	0	.....	0	8s	.....	SE	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.09	764.3	78	25.6	72	ESE	7	3.1	.....	4ck	8kn	E	.....	0.22	5.6	Fair, cloudy	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.77	756.1	72	22.2	76	NNW	12.0	5.4	.....	2c	0	N	.....	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.36	771.1	66.0	18.9	84	Calm	0	0	.....	.....	10k	.....	.....	Inap.	Inap.	Lowering	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.40	772.1	—31	—35.0	.....	Calm	0	0	.....	4c	2s	E	.....	0.01	0.3	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.63	752.6	28.0	— 2.2	100	NE	.....	.....	.....	.....	10n	.....	.....	0.25	6.3	Snowing	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuna.
Clifton, Jamaica, W. I	27.17	690.1	29.96	761.0	64	17.8	88	NNW	8.0	3.6	.....	0	0	.....	.....	1.30	33.0	Fine	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.13	638.3	.....	.....	63.8	17.7	77	.....	0	0	.....	1cs	3ks	SE	.....	0	0	Fair	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.92	760.0	77	25.0	91	E	.....	.....	2	.....	6ck	.....	.....	0.220	5.59	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	29.98	761.6	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.177	4.50	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
Steamer Hibernian,					

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,078 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus and scud, are indicated, respectively, by the letters c, k, s, n and d, as well as their combinations.

Albert J. Myer

Bric. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 2, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:58 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.40	772.2	57.0	13.9	62	Calm			0		0			0	0	Clear	Charnot.
Algiers			30.40	772.1	57.2	14.0	89	NNE			1		0			0	0	Clear	Peter.
La Calle																			Kuntz.
Tunis			30.36	771.2	53.2	11.8	78	NW			3		0			0	0	Clear	Jacques.
Sfax			30.39	771.8	59.0	15.0	48	E			1		2			0	0	Clear	Chauvey.
Saïda			30.43	772.9	51.8	11.0	80	WSW			1		0			0	0	Clear	Grosjean.
Tebessa			30.39	772.0	49.5	9.7		NW			3		2			0	0	Clear	Collin.
Gerlville					32.9	0.5	66	SSW			1		2			0	0	Clear	Buard.
Laghouat			30.45	773.4	48.2	9.0	73	NE			1		1			0	0	Clear	Simon.
Biskra			30.43	772.9	56.1	13.4	55	NW			1		0			0	0	Clear	Coulon.

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.04	763.0	29.8	— 1.2	96	NE			1		4			0	0		Prof. Ivan Stozir.
Hudn-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.84	757.9	32.4	0.2	96	W			3		10			0.087	2.2		I. R. Observatory.
Eperies			29.95	760.6	38.1	3.4	88	S			5		10			0.220	5.60		Julius Mikolik.
Gratz	28.78	731.0	30.01	763.0	32.0	0.0	73	W			2		5			0	0		Andreas Rospini.
Hermannstadt	28.48	723.3	30.02	762.6	31.3	— 0.4	100	SE			1		10			0.083	2.10	Snowing	Prof. Reissenberger.
Kremsmünster	28.76	730.6	30.17	766.2	35.3	1.3	94	W			2		10			0.205	5.2		Prof. C. Wagner.
Lemberg			29.80	757.0	17.6	— 8.0	94	S			1		10			0.169	4.3		Dr. T. Stanecki.
Nyiregyhaza			29.99	761.7	17.6	— 8.0	100	E			3		10			0.283	7.20		Habasuda Daniel.
Pola			30.09	764.3	41.7	5.4	85	Calm			0		88			0	0	Light fog	I.R. Hydrographic Office
Szegedin			29.98	761.6	28.6	— 1.9	86	S			2		10			0.031	0.80		Karl Stancel.
Trieste			30.10	764.5	41.0	5.0	80	Calm			0		10			0	0	Foggy	Prof. V. Faroffi.
Vienna			30.00	761.9	36.7	2.6	80	W			6		10			0.024	0.6		I. R. Central Institute.

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.19	766.8	40.1	4.5	92	N			0		10			0.098	2.50		Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.97	761.2	38.4	3.6		S	8	3.6			9			0	0	Misty	William Boswell.
Ardrossan																			Wm. McNeil.
Armagh Observatory			29.68	753.9	40.9	4.9		SE	33	4.8									S. Call, for Dr. Robinson
Bidston, Liverpool Obs.			29.94	760.5	35.5	1.9		ESE	30	13.4			10					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			29.65	753.1	52.8	11.6		S			1		2					*D. clouds	J. Dreyer.
Bradford																			J. McLandsborough.
Bridgetown, (Barbados)			29.91	759.7	77	25.0		SE			2		10					Gloomy	Sergt. G. H. Hunt.
Cambridge Observatory			30.18	766.6	32.0	0.0		Calm			0		10					Overcast	H. Todd.
Cardington			30.15	765.8	32.6	0.3		SE			1		10					Overcast	John McLaren.
Carlisle			30.00	762.0	38.1	3.4		SE			2		10			0.10	4.1	Threatening	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.19	766.8	42.2	5.7		SW			1		2					Gloomy	Capt. J. Fellowes, R. E.
Dartmoor	28.56	725.4	30.06	763.5	48.8	9.3		SE			6		10					Foggy	R. E. Power.
Donaghadee			29.76	755.9	44	6.7		SSW			5		8					*D. clouds	J. Mac Gowan.
Dover			30.18	766.6	42	5.6		ESE			3		7					¾ clouded	J. Costello.
Eccles, (near Manchester)			30.03	762.7	37.5	3.1		SE	4.6	2.1			10					Gloomy	Thomas Mackereth.
Falmouth Observatory			30.02	762.5	52.8	11.6		SSW	27	12.1			10					Foggy	The Staff.
Fort Napier, (Natal)	27.47	697.7	29.73	755.1	88.0	31.1		N			3		8					*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.96	761.0	82	28.3		E			3		4					Clear	[ties
Galway, Queen's College			29.69	754.0	48	8.9		W			8		10					Gloomy	R. G. Clare, for Prof. Currey.
Gibraltar, (Mediterranean)			30.33	770.4	58.5	14.7		NE			5		2					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.88	758.9	39.9	4.4		SE			1		10					Gloomy	Wm. M. Stewart.
Great Yarmouth			30.17	766.3	32	0.0		Calm			0		8					Foggy	G. T. Watson.
Greenwich Royal Obs.			30.17	766.3	40.3	4.6		S			1		10			Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey			30.13	765.3	49	9.4		SSW			2		10					Drizzling	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.09	764.3	37.1	2.8		SE			1		10					Overcast	C. J. Cresley.
Helston			30.03	762.7	53	11.7		SW			4		10			0.6	15.2	Raining	M. P. Moyle.
Holyhead			29.79	756.7	44	6.7		SSW			6		10					Misty	John Tilston.
Kew Observatory			30.19	766.8	35.8	2.1		SE	1	0.4			10					Rain and fog	The Staff.
Kingstown			29.78	756.4	44	6.7		SSE			5		9			Blank	Blank	Overcast	George Mitchell.
Leicester Museum			30.12	765.0	35.0	1.7		S			1		10					Gloomy	William J. Harrison.
Malta, (Mediterranean)			30.30	769.6	54.5	12.3		NW			1		6k						Fred Travis, Pvt A.H.C
Nairn			29.86	758.4	41	5.0		Calm			0		2					¼ clouded	W. D. Penny.
Nassau, (Bahamas)			30.17	766.3	73.2	22.9		NE			6		0 ?					*D. clouds ?	Surg.-Maj. Henry.
Nottingham			30.11	764.8	33.6	0.9		SSE			1		10cs		SSE			Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.08	764.0	31.9	— 0.1		S			2		10					Misty	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.11	764.8	34	1.1		Calm			0		10					Foggy	J. Lucas.
Plymouth			30.03	762.7	49	9.4		S			1		10					Drizzling	John Merrifield.
Roche's Point			29.76	755.9	52	11.1		SSW			5		10					Raining	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.16	766.1	46.5	8.1		SE			1		10					Overcast	A. P. Amy.
Sandwick Manse(Orkneys)			29.70	754.4	40.1	4.9		S-E	10	4.5			3					Fine	Rev. Dr. Clouston.
Scarborough																			F. Shaw.
Scutari Cemetery(Turkey)			30.13	765.3	27.6	— 2.4		N			2		3					Hazy	Sergt. W. H. Lyne.
Sheffield			30.07	763.8	37.2	2.9		SW			1		9			0	0	Misty	W. F. Cooper.
Silloth Rectory			29.90	759.4	38.4	3.6		SE			4		10			0.186	4.72	Overcast	Rev. Francis Redford.
Stonyhurst Observatory			29.99	761.7	37.8	3.2		S			1							Misty	The Staff.
Stornoway, Lews C. (Hebr.)			29.77	756.1	43	6.1		ESE			4		10					Overcast	John Smith.
Stratfield Turgiss			30.14	765.5	36.4	2.4		SE			0		10					Foggy	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.88	758.9	39	3.9		S			1		10					Overcast	John Trotter.
Truro, Royal Institution			30.02	762.5	53	11.7		SW			7		10					Raining	W. Newcombe.
Valencia Observatory			29.67	753.6	52.2	11.2		SW	30	13.4			8s					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Ho e Obs.			29.85	758.2	80.8	27.1	55	S	32	14.3			7						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					46	7.8		S			4	10	10			0	0		
Leith, Restalrig Park			29.93	760.2	47.9	8.8		SE			1		10s			0	0	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,300 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.97	761.1	33.8	1.0	98	N			2		10					Foggy	
Fanöe			30.11	764.9	37.2	2.9	96	W			4		5						
Godthaab, (Greenland)			29.07	738.3	3.0	—16.1	90	NNE			6		5						
Stykkisholm, (Iceland)			29.51	749.6	42.1	5.6	83	SE			7		8						
Thorshavn, (Faröe)			29.83	757.6	41.0	5.0	83	SW			2		4						
Vestervig			30.02	762.5	38.5	3.6	93	Calm			0		0						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.25	768.3	42.8	6	97	SW	.....	.....	1	.....	10	.....	.....	0.039	1.0	Covered	Normal School.
Amiens	.....	.....	30.15	765.9	42.1	5.6	91	SW	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Avignon	.....	.....	30.24	768.2	47.8	8.8	61	NNW	.....	.....	1	.....	0	.....	.....	0	0	Very clear....	Normal School.
Bar-sur-Seine	.....	.....	30.26	768.5	41.9	5.5	93	SW	.....	.....	2	.....	10	.....	.....	0.138	3.5	Covered	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.24	768.0	50.5	10.3	92	SW	7.8	3.6	.....	.....	.....	.....	SW	0.059	1.5	.....	Beaumette Obse atory
Beauvais	.....	.....	30.23	767.7	46.4	7.9	83	W	.....	.....	1	.....	5	.....	W	0.142	3.6	Cloudy.....	Normal School.
Besançon	.....	.....	30.33	770.4	39.2	4	93	SW	.....	.....	3	.....	8	.....	SW	0.031	0.8	Very cloudy	Normal School.
Bourg en Bresse	.....	.....	30.36	770.9	37.0	2.8	98	SSW	.....	.....	2	.....	10m	.....	NNE	0	0	Covered	Normal School.
Bourges	.....	.....	30.20	768.6	41.4	5.2	100	SW	.....	.....	2	.....	10	.....	SW	0.28	7.	Covered	Normal School.
Brest	.....	.....	30.10	764.5	51.6	10.9	90	SW	.....	.....	3	.....	10	.....	SW	0.069	1.75	Raining.....	Naval Observatory
Caen	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Chartres	.....	.....	30.37	771.3	39.7	4.3	.....	N	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.34	770.6	42.3	5.7	78	N	.....	.....	2	.....	.....	.....	.....	0	0	Misty.....	Puy de Dome, Obs.
Commercy	.....	.....	30.29	769.3	37.8	3.2	93	W	.....	.....	2	.....	10	.....	NW	0.059	1.5	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.22	767.6	44.2	6.8	60	NW	.....	.....	3	.....	2	.....	NW	0	0	¼ covered...	
Grenoble	.....	.....	30.34	770.6	35.2	1.8	96	NNE	.....	.....	1	.....	5ku	.....	E	0	0	Light rain...	Normal School.
Le Mans	.....	.....	30.24	768.0	43.0	6.1	97	S	.....	.....	2	.....	10	.....	.....	0.106	2.7	Covered.....	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lons-Le-Saulnier	.....	.....	30.31	769.8	39.9	4.4	97	W	.....	.....	1	.....	10	.....	.....	0.35	9.	Raining.....	Normal School.
Mâcon	.....	.....	30.29	769.4	35.6	2	85	Calm	.....	.....	0	.....	10	.....	.....	0.047	1.2	.....	Normal School.
Mirecourt	.....	.....	30.25	768.3	36.7	2.6	70	SSW	.....	.....	2	.....	10	.....	SW	0	0	Covered	Normal School.
Metz	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Nismes	.....	.....	30.34	770.6	52.2	11.2	71	NE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Orleans	.....	.....	30.14	765.5	41.7	5.4	91	NW	.....	.....	2	.....	8	.....	NW	0.110	2.8	Very cloudy	Normal School.
Paris Observatory	.....	.....	30.23	767.8	43.3	6.3	85	SW	.....	.....	1	.....	8	.....	W	0.134	3.39	Nearly cov'd	National Observatory.
Parthenay	.....	.....	30.26	768.6	39.2	4	93	SW	.....	.....	2	.....	8	.....	SW	0	0	Very cloudy	Normal School.
Privas	.....	.....	30.32	770.2	43.1	6.6	.....	W	.....	.....	2	.....	2	.....	W	0	0	Slightly cl'dy	Normal School.
La Roche-sur-Yon	.....	.....	30.27	768.8	51.8	11.0	93	E	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Rochefort, Observatory	.....	.....	30.34	770.5	42.8	6.0	98	SW	.....	.....	3	.....	10	.....	NE	0	0	Covered	Naval Observatory.
Rouen	.....	.....	30.21	767.3	46.4	8.0	77	W	.....	.....	1	.....	10	.....	.....	0.413	10.5	Covered	Normal School.
Saint Lo	.....	.....	30.22	767.6	44.2	6.8	95	S	.....	.....	1	.....	10	.....	SW	0.016	0.4	.....	Normal School.
Tarbes	.....	.....	30.40	772.1	41.0	5	62	SW	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	.....	.....	30.38	771.7	34.	1.1	81	SW	.....	.....	2	.....	.....	.....	.....	.....	.....	Foggy	Normal Schoo
Villefranche	.....	.....	30.38	771.7	36.3	2.4	86	SE	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.92	759.9	75.2	24	91	NNE	.....	.....	2	.....	..k,n	.....	.....	1.65	42.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Marseilles	.....	.....	30.22	770.6	47.8	8.8	76	WNW	.....	.....	2	.....	1	.....	.....	0	0	.....	Marseilles Observatory
Mont-Louis	25.02	635.5	30.44	773.2	42.1	5.6	22	ESE	5.6	2.50	.....	.....	1	.....	N	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	30.21	767.4	45.7	7.	82	SW	.....	.....	1	.....	9	.....	WNW	0.114	2.9	.....	Montsouris Observ'tory.
Perpignan	.....	.....	30.30	769.6	53.6	12.0	22	W	1.9	0.85	.....	.....	1	.....	NW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.35	542.3	.....	.....	20.1	— 1.1	.....	N	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.22	767.6	43.5	6.4	91	S	.....	.....	1	.....	8	.....	.....	0.232	5.9	Cover d	E. Renou.
Toulouse	.....	.....	30.38	771.6	31.3	— 0.4	100	W	.....	.....	1	.....	1	.....	.....	0	0	Foggy.....	Toulouse Observatory.
Tours	.....	.....	30.25	768.4	44.8	7.1	97	W	.....	.....	1	.....	10	.....	.....	0.131	3.4	Rainy.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.21	767.2	44.2	6.8	88	SW	.....	.....	1	.....	8	.....	.....	0.144	3.64	Misty.....	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The altitude of Mont-Louis is 1,580.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m. or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,360 m., or 7,702.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.07	763.2	35.1	1.7	91	SW	.....	.....	3	.....	10	.....	.....	0.177	4.5	Snowing.....	Prof. T. Hoh.
Berlin	.....	.....	30.09	764.3	30.1	2.3	82	NW	.....	.....	1	.....	8	.....	.....	0.358	9.1	.....	Prof. Arndt.
Breslau	.....	.....	29.95	760.8	33.1	0.6	88	NW	.....	.....	8	.....	10	.....	.....	0.398	10.1	.....	Dr. P. Neugebauer.
Carlsruhe	.....	.....	30.23	767.9	37.2	2.9	96	SW	.....	.....	3	.....	10	.....	.....	0.335	8.5	Raining.....	A. Senz.
Cassel	.....	.....	30.07	763.8	40.3	4.6	83	NW	.....	.....	2	.....	9	.....	.....	Blank	Blank	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.29	769.4	38.8	3.8	95	WSW	.....	.....	1	.....	10	.....	.....	0.059	1.5	Misty.....	Physical Society.
Friedrichshafen	.....	.....	30.30	769.5	36.3	2.4	77	W	.....	.....	.....	.....	10	.....	.....	0.354	9.0	Rain & snow	M. Wilhelm.
Hamburg	.....	.....	30.13	765.3	39.4	4.1	88	W	.....	.....	2	.....	1	.....	.....	0.283	7.2	Smoke-haze.	Deutsche Seewarte.
Kiel	.....	.....	30.08	763.9	39.4	4.1	83	W	.....	.....	2	.....	7	.....	.....	0.131	3.4	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.99	761.8	4.1	—15.5	95	NE	.....	.....	2	.....	5	.....	.....	0	0	.....	Prof. E. Luther.
Köslin	.....	.....	29.95	760.8	23.0	— 5.0	.....	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.16	766.1	36.9	2.7	77	NW	.....	.....	0	.....	9	.....	.....	0	0	.....	Prof. Bruhns.
Münster	.....	.....	30.23	767.8	40.8	4.9	78	NW	.....	.....	4	.....	10	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	29.97	761.2	21.0	— 6.1	96	N	.....	.....	5	.....	10	.....	.....	0.197	5.0	.....	Dr. Mageuer.
Strassburg, (in Alsace)	.....	.....	30.27	768.8	38.1	3.4	95	Calm	.....	.....	0	.....	10	.....	.....	0.319	8.1	.....	Dr. Schur.
Stuttgart	.....	.....	30.24	768.0	35.1	1.7	89	E	.....	.....	.....	.....	10	.....	.....	0.142	3.6	Raining.....	Mr. Würth.
Thorn	.....	.....	29.91	759.7	11.1	—11.6	95	NE	.....	.....	4	.....	9	.....	.....	0.465	11.8	Raining.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	30.16	766.1	38.5	3.6	70	SW	.....	.....	2	.....	10	.....	.....	0.488	12.4	Light snow..	Prof. Fiesch.
Wustrow, Naval School	.....	.....	30.05	763.2	33.6	0.9	100	WNW	.....	.....	6	.....	10	.....	.....	0	0	M sty.....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.13	765.2	45.3	7.4	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.09	764.2	37.2	2.9	63	ENE			2		10			0	0		
Padua			30.08	764.1	35.8	2.1	64	ENE	2.5	1.1			0			0	0		
Verona			30.08	763.9	32.0	0.0	74	E			1		0			0	0		
Bergamo																			
Milan			30.09	764.3	40.3	4.6	83	S			1		0			0	0		
Moncalieri			30.12	765.0	40.3	4.6	72	SSE	1.3	0.6			1			0	0		
Mondovi			30.11	764.9	41.2	5.1	58	N			2		1	NNW		0	0		
Porto Maurizio			30.17	766.2	50.9	10.5		E			6		0			0	0		
Genoa			30.14	765.6	52.3	11.3	63	SE	5.6	2.5			4	SE		0	0		
Piacenza			30.09	764.3	40.8	4.9	77	WNW	4.9	2.2			1	NW		0	0		
Bologna			30.10	764.5	36.1	2.3	37	W			1		4	SE		0	0		
Florence			30.17	766.3	43.7	6.5	87	SW			1		10			0	0		
Leghorn			30.17	766.3	53.8	12.1	62	W	20.0	9.2			10			0	0		
Siena			30.19	766.7	40.6	4.8	91	S	0	0			10	W		0	0		
Urbino																			
Pesaro			30.10	764.6	40.1	4.5	79	S			4		1	S		0	0		
Ancona																			
Rome			30.22	767.6	50.9	10.5	60	S	0.7	0.3			6	W		0	0		
Naples, O. U			30.23	767.9	52.9	11.6	55	WSW			4		10	W		0	0		
Lecce			30.17	766.4	47.7	8.7	50	NNW	9.4	4.2			4	NW		0	0		
Cosenza			30.25	768.3	48.4	9.1	80	SE			2		9			0.138	3.5		
Riposto, (Sicily)			30.18	766.6	53.2	11.8	63	SSE			2		1			0	0		
Palermo			30.26	768.5	53.4	11.9	52	W	4.9	2.2			10			0	0		
Caltanissetta			30.20	767.0	46.4	8.0	55	WNW			6		3	NNE		0	0		
Sub-Series.																			
Naples, S. R			30.23	767.8	50.4	10.2	65	WSW			4		..ks	SW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.24	768.1	40.6	4.8		SE			2								
Groningen			30.14	765.5	38.3	3.5		NNW			1								
Helder			30.19	766.7	41.2	5.1		WSW			1								
Utrecht			30.17	766.4	41.0	5.0	82	NNW			2		2						Light cloudy

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.03	762.8	31.6	— 0.2	96	Calm	0	0			0			0	0		
Brönö			30.07	763.6	34.2	1.2	82	SW	9	4			7			0	0		
Christiania			30.06	763.4	27.3	— 2.6	92	ENE	0	0			1			0	0		
Tromsö			29.78	756.4	34.3	1.3	65	SW	18	8			5			0.079	2.0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.61	752.1	61.9	16.6	90	S	11.9	5.31	.....	.....	5	.....	.....	0.457	11.6	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.39	771.8	47.7	8.7	59	E	4.8	2.16	.....	.....	2	.....	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.19	766.7	62.6	17.0	59	S	15.0	6.71	.....	.....	10	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.41	772.4	45.3	7.4	77	NE	7.4	3.3	.....	.....	3	WSW	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.87	758.6	7.7	—13.5	88	NE	4	2	.....	.....	9	.....	.....	.....	.....	Light snow.	Astronomical Obs.
Wilna	.....	.....	30.05	763.3	— 6.3	—21.3	66	SE	4	2	.....	.....	5	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.14	765.6	— 1.8	—18.8	84	NW	2	1	.....	.....	8	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.11	764.9	13.0	—10.2	97	E	2	1	.....	.....	10	.....	.....	.....	.....	Snowing	Central Physical Obs.
Kuopio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ch. Forsten.
Kiell	.....	.....	30.11	764.9	— 5.3	—20.7	93	SE	7	3	.....	.....	0	.....	.....	.....	.....	Smoke-haze.	Physical Cabinet.
Nikolaiev	.....	.....	30.19	766.7	3.2	—16.0	62	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.04	763.0	5.2	—14.9	91	NW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.13	765.2	18.9	— 7.3	92	SE	11	5	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.85	758.1	4.3	—15.4	81	WSW	29	13	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	30.40	772.1	3.6	—15.8	93	SE	13	6	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.32	719.3	29.73	755.2	45.9	7.7	77	Calm	0	0	.....	.....	8	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.00	762.0	30.9	— 0.6	81	ESE	18	8	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.57	776.4	16.9	— 8.4	73	SE	9	4	.....	.....	8	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.89	759.1	31.04	788.4	0.1	—17.7	73	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.34	770.7	14.9	— 9.5	77	E	9	4	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.62	726.9	30.40	772 1	30.0	2.2	72	NW	13	6	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.91	785.0	—14.3	—25.7	70	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.54	775.7	— 2.2	—19.0	79	WSW	4	2	.....	.....	8	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolsef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.41	772.4	19.8	— 6.8	31	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.75	704.8	30.13	765.4	—24.2	—31.2	73	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.14	765.6	5.2	—14.9	78	NW	9	4	.....	.....	1	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—33.2	—36.2	.....	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409.7 meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.46	773.6	39.6	4.2	75	E	2.2	1.0	.....	0	0	.....	.....	0	0	Clear	Royal Observatory.
San Fernando	.....	.....	30.37	771.4	59.7	15.4	58	ESE	12.3	5.5	.....	0	3	.....	W	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.30	769.6	— 0.8	—18 2	89	SE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	30.21	767.2	0.7	—17.4	100	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	30.12	765.1	26.2	— 3.2	96	S	.....	.....	2	.....	10	.....	.....	0.102	2.6	Snowing	
Stockholm	.....	.....	30.00	761.9	16.7	— 8.5	82	E	.....	.....	2	.....	10	.....	.....	0	0	Snowing	
Wisby	.....	.....	30.05	763.3	16.9	— 8.4	100	E	.....	.....	6	.....	10	.....	.....	0.161	4.1	.....	
Sub-Series.																			
Upsala	.....	.....	30.07	763.7	17.4	— 8.1	96	E	3.6	1.6	.....	.....	10	.....	E	0.090	2.27	.....	Dr Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zürich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.85	732.8	30.32	770.2	36.0	2.2	84	WSW			1		10			0.012	0.3	Misty.	The Observatory.
Zurich	28.59	726.2	30.29	769.4	36.0	2.2	86	SE			1		10		SW	0.008	0.2	Snow& rain	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.1 mm.; Thermometer, +2.2; Relative Humidity, +4 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.14	765.5	26.6	— 3.0	98	N	3	1.5		4			N	0	0		
Fao, (Persian Gulf)			30.08	764.0	63.1	17.3		SE			4	10							
Salonica			30.07	763.8	41.4	5.2		NW			1	0							
Valona			29.97	761.1	48.7	9.3		NE			1	10							
Varna			30.00	762.0	17.6	— 8.0		N			2	10							
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			29.90	759.4	45.9	7.7	85	SW			7		10n		SW	0.042	1.20	Stormy	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and; except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.			29.70	754.4	50	10.0		SW	6	2.2			8s		W	0	0	Cloudy	Hon. J. Ferguson.
Brockville, Ontario			30.15	765.8	25	— 3.9	99	NE	3	1.3			Haze		NE	0.02	0.5	Sleet	W. R. Bigg.
*Chatham, N. B.			30.21	767.3	29	— 1.7	99	E	5	2.2			8s			Inap.	Inap.	Cloudy	G. A. Blair.
Charlottetown, P. E. Island			29.63	752.6	34.5	1.4	95	E			1		10n			Inap.	Inap.	Threatening	H. J. Cundall, C. E.
Cornwall, Ontario																			James Smith, M. A.
Dalhousie, N. B.			29.91	759.7	38.1	3.4	92	N	2	0.9			10			0	0	Cloudy	H. A. Johnson.
Esquimault, B. C.			30.11	764.8	33.5	0.8	95	S	4	1.8			10s			0.110	2.79	Wet & foggy	W. H. Bévis.
Fredericton, N. B.			30.04	763.0	—12	—24.4	90	NW	10	4.5		0	0			0	0	Clear	Prof. Harrison.
*Fort Garry, Manitoba			29.81	757.2	46.5	4.7	80	SW			2	6k	4n	SW		0	0	Cloudy	James Stewart.
Goderich, Ontario			29.66	753.4	45.0	7.2		SW			5	3cs	0	NE		0	0	Clear	H. J. Strang, M. A.
Granton, Ontario			30.18	766.6	30	— 1.1	87	SE	6	2.7			8n			0	0	Cloudy	Jam s Gran'.
*Halifax, N. S.			29.73	755.1	46	7.8	93	W	10	4.5			10ks		W	0.23	5.8	Cloudy	F. Allison, M. A.
*Kingston, Ontario			29.47	748.5	36.9	2.1		SW	25	11.2			10s			0.68	17.3		S. Woods, M. A.
Little Current, Ontario																0.02	0.5		G. B. Abrey, C. E.
*Montreal, Quebec			29.65	753.1	34	1.1	81	NE	5	2.2			10n		SW	0	0	Threatening	C. H. McLeod, C. E.
*Ottawa, Ontario			29.53	750.0	44	6.7	79	SW	17	7.6		5k	5ks	SW	SW	0.25	6.3	Cloudy	J. B. Haney.
*Parry Sound, Ontario			29.73	755.1	48	8.9	93	SW	25	11.2		0	0			0	0	Clear	Rev. R. Mooley.
*Port Dover, Ontario			30.19	766.8	28.7	— 1.8		Calm	0	0		0	0			0	0	Fine	H. Morgan.
Port Hastings, N. S.			29.78	756.4	39	3.9	82	SW	30	13.4		0	0			0	0	Clear	H. ley Grant.
*Port Stanley, Ontario			29.78	756.4	29	— 1.7	89	W	28	12.5			10n		W	0	0	Cloudy	M. Payne.
*Quebec, Quebec			30.12	765.0	35.0	1.7	90	SE	1	0.4			10s			0.05	1.3		Capt. Ash, R. N.
St. John, N. B.			29.61	752.1	40	4.4	89	SW	12	5.4			10n		W	0.21	5.3	Heavy rain	G. Murdoch, C. E.
*Saugeen, Ontario																0.17	4.3		K. Stewart.
Stayner, Ontario			29.71	754.6	44.0	6.7	68	SW	28	12.5		0	7ks			0	0	Fair	R. J. Cole.
Stratford, Ontario			29.71	754.6	34	1.1	94	NE	12	5.4			10n		NE	0.17	4.3	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			29.65	753.1	45	7.2	92	SW	12	5.4		0	0			0.04	1.0	Clear	T. C. Hill.
*Toronto, Ontario			29.71	754.6	46.1	7.8	65	SW	4	1.8		1cs	2ks			0	0	Fine	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Granton, Stayner and those telegraphed, give the cloudiness by the scale 0 to . The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.84	759.9	48	8.9	92	S	10	4.5	.....	.....	10s	.....	S	0	0	Cloudy.	
Alpena, Mich.	.....	.....	29.47	748.5	38	3.3	71	SW	29	13.0	.....	.....	10s	.....	SW	0.89	22.6	Cloudy.	
Atlantic City, N. J.	.....	.....	30.06	763.5	46	7.8	92	S	6	2.7	.....	0	0	.....	.....	0.02	0.5	Clear.	
Augusta, Ga.	.....	.....	30.19	766.8	55	12.8	93	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair.	
Baltimore, Md.	.....	.....	30.05	763.3	49	9.4	86	Calm	0	0	.....	0	Fog	.....	.....	0	0	Foggy.	
Barnegat, N. J.	.....	.....	30.04	763.0	46	7.8	100	SW	13	5.8	.....	0	0	.....	.....	0	0	Clear.	
Benton, Montana	27.24	691.9	30.04	763.0	2	—16.7	100	NE	20	8.9	.....	0	0	.....	.....	0	0	Clear.	
Bismarck, Dakota	28.24	717.3	30.08	764.0	— 2	—18.9	67	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Boston, Mass.	.....	.....	29.97	761.2	41	5.0	100	SW	12	5.4	.....	.....	Fog	.....	.....	0	0	Foggy.	
Breckenridge, Minn.	.....	.....	30.11	764.8	1	—17.2	71	W	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Buffalo, N. Y.	.....	.....	29.68	753.9	48	8.9	70	SW	24	10.7	.....	0	8ks	.....	SW	0.01	0.3	Fair.	
Burlington, Vt.	.....	.....	29.75	755.6	48	8.9	70	S	18	8.0	.....	2k	5s	.....	S	0	0	Cloudy.	
Cairo, Ill.	.....	.....	30.12	765.0	45	7.2	76	Calm	0	0	.....	0	0	.....	.....	0.15	3.8	Clear.	
Cape Hatteras, N. C.	.....	.....	30.17	766.3	63	17.2	83	SW	8	3.6	.....	.....	8s	.....	SW	0	0	Cloudy.	
Cape Henry, Va.	.....	.....	30.18	766.6	67	19.4	74	S	6	2.7	.....	2k	0	SW	.....	0	0	Fair.	
Cape May, N. J.	.....	.....	30.07	763.8	47	8.3	92	S	10	7.2	.....	0	0	.....	.....	0	0	Clear.	
Charleston, S. C.	.....	.....	30.21	767.3	63	17.2	83	S	3	1.3	.....	5ck	2ks	S	S	0	0	Fair.	
Cheyenne, Wyoming	23.96	608.6	29.90	759.4	26	— 3.3	67	W	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Chicago, Ill.	.....	.....	29.92	760.0	39	3.9	73	W	8	3.6	.....	2k	0	W	.....	0.13	3.3	Fair.	
Cincinnati, Ohio.	.....	.....	29.98	761.5	51	10.6	59	W	6	2.7	.....	2c	2ks	SW	W	0.04	1.0	Fair.	
Cleveland, Ohio.	.....	.....	29.84	757.9	50.1	10.1	60	SW	18	8.0	.....	2k	5s	SW	.....	0	0	Fair.	
Colorado Springs, Col.	24.06	611.1	29.93	760.2	14	—10.0	63	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Cordeana, Texas.	.....	.....	30.11	764.8	42	5.6	75	S	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Davenport, Iowa.	.....	.....	29.98	761.7	35	1.7	80	SW	8	3.6	.....	0	0	.....	.....	0.73	18.5	Clear.	
Denison, Texas.	.....	.....	30.09	764.3	39	3.9	91	W	1	0.4	.....	0	0	.....	.....	0.02	0.5	Clear.	
Denver, Col.	24.77	629.2	29.99	761.7	16	— 8.9	65	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	.....	.....	29.76	755.9	45	7.2	68	N	24	10.7	.....	.....	10ks	.....	W	0	0	Cloudy.	
Dodge City, Kan.	27.53	699.2	29.97	761.2	23	—5.0	73	N	4	1.8	.....	2c	0	W	.....	0	0	Fair.	
Dubuque, Iowa.	.....	.....	29.96	761.0	33	0.6	89	SW	2	0.9	.....	.....	8s	.....	SW	1.98	50.3	Cloudy.	
Duluth, Minn.	.....	.....	29.75	755.6	22	— 5.6	59	NW	16	7.2	.....	0	0	.....	.....	0.13	3.3	Clear.	
Eastport, Me.	.....	.....	30.07	763.8	38	3.3	81	S	7	3.1	.....	.....	10s	.....	S	0	0	Cloudy.	
Erie, Pa.	.....	.....	29.76	755.9	50	10.0	58	SW	24	10.7	.....	0	5ks	.....	SW	0	0	Fair.	
Escanaba, Mich.	.....	.....	29.65	753.1	28	— 2.2	77	W	16	7.2	.....	8k	0	NW	.....	2.08	52.8	Fair.	
Fort Gibson, Indian T.	.....	.....	30.09	764.3	35	1.7	80	E	4	1.8	.....	0	0	.....	.....	0.38	9.7	Clear.	
Fort Sill, Indian T.	28.88	733.5	30.05	763.3	31	— 0.6	69	Calm	0	0	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
Fort Sully, Dakota.	28.35	720.1	30.10	766.1	11	—11.7	70	E	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Galveston, Texas.	.....	.....	30.15	765.8	56	13.3	53	NW	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Grand Haven, Mich.	.....	.....	29.80	756.9	40	4.4	73	W	45	20.1	.....	0	5s	.....	SW	0.49	12.4	Fair.	
Indianapolis, Ind.	.....	.....	30.04	763.0	43	6.1	67	NW	11	4.9	.....	.....	10s	.....	W	0.15	3.8	Cloudy.	
Indianola, Texas.	.....	.....	30.17	766.3	54	12.2	67	Calm	0	0	.....	0	1s	.....	.....	0	0	Clear.	
Jacksonville, Fla.	.....	.....	30.18	766.6	62	16.7	94	SE	3	1.3	.....	0	0	.....	.....	0	0	Clear.	
Keokuk, Iowa.	.....	.....	29.99	761.7	35	1.7	80	S	4	1.8	.....	0	0	.....	.....	0.51	13.0	Clear.	
Key West, Fla.	.....	.....	30.10	764.5	73.1	22.8	85	E	8	3.6	.....	0	2ks	.....	E	0.01	0.3	Fair.	
Kittyhawk, N. C.	.....	.....	30.20	767.1	63	17.2	72	SW	17	7.6	.....	8k	0	SW	.....	0	0	Fair.	
Knoxville, Tenn.	.....	.....	30.03	762.7	60	15.6	94	SW	12	5.4	.....	.....	10n	.....	SW	0.12	3.0	Light rain.	
La Crosse, Wis.	.....	.....	29.86	758.4	32	0.0	69	SE	6	2.7	.....	0	0	.....	.....	0.81	20.6	Clear.	
Leavenworth, Kan.	.....	.....	30.03	762.7	29	— 1.7	77	NW	10	4.5	.....	0	0	.....	.....	0.67	17.0	Clear.	
Lexington, Ky.	28.99	736.3	30.10	764.5	50	10.0	78	W	8	3.6	.....	.....	10ks	.....	SW	0.05	1.3	Cloudy.	
Long Branch, N. J.	.....	.....	30.02	762.5	44	6.7	100	SW	5	2.2	.....	0	Fog	.....	.....	0	0	Fair.	
Louisville, Ky.	.....	.....	30.06	763.5	50	10.0	65	SW	12	5.4	.....	5k	0	.....	.....	0.25	6.3	Fair.	
Lynchburg, Va.	.....	.....	30.08	764.0	57	13.9	87	SW	3	1.4	.....	0	0	.....	.....	0	0	Clear.	
Malone, N. Y.	.....	.....	29.59	751.6	56	13.3	75	SW	20	8.9	.....	8k	0	SW	.....	0	0	Cloudy.	
Marquette, Mich.	.....	.....	29.82	757.4	30	— 1.1	89	W	20	8.9	.....	0	5s	.....	W	0.22	5.6	Fair.	
Memphis, Tenn.	.....	.....	30.15	765.8	44	6.7	84	NW	3	1.3	.....	0	0	.....	.....	0.30	7.6	Clear.	
Milwaukee, Wis.	.....	.....	29.89	759.2	35	1.7	80	W	.....	.....	.....	0	0	.....	.....	0	0	Clear.	
Mobile, Ala.	.....	.....	30.19	766.6	67	19.4	94	Calm	0	0	.....	.....	10s	.....	SW	0	0	Cloudy.	
Montgomery, Ala.	.....	.....	30.19	766.6	64.5	18.1	89	SE	3	1.3	.....	.....	10s	.....	SW	0	0	Cloudy.	
Morgantown, W. Va.	.....	.....	30.10	764.5	58	14.5	78	W	17	7.6	.....	.....	10s	.....	SW	0	0	Threatening.	
Mt. Washington, N. H.	23.62	599.9	29.98	761.5	36	2.2	100	SW	60	26.8	.....	.....	Fog	.....	.....	0	0	Foggy.	
Nashville, Tenn.	.....	.....	30.09	764.3	52	11.1	72	W	2	0.9	.....	2k	0	W	.....	0	0	Fair.	
New Haven, Conn.	.....	.....	30.00	762.0	45	7.2	100	S	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy.	
New London, Conn.	.....	.....	30.00	762.0	45	7.2	100	S	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy.	
New Orleans, La.	.....	.....	30.04	763.0	46	7.8	92	SW	3	1.3	.....	.....	Fog	.....	.....	0	0	Foggy.	
Newport, R. I.	.....	.....	30.09	764.3	64	17.8	73	W	4	1.8	.....	10k	0	W	.....	0.09	2.3	Cloudy.	
New York, N. Y.	.....	.....	30.00	762.0	45	7.2	100	S	12	5.4	.....	.....	Fog	.....	.....	0	0	Foggy.	
Norfolk, Va.	.....	.....	30.00	762.0	47	8.3	100	S	8	3.6	.....	0	Fog	.....	.....	0.03	0.8	Clear.	
North Platte, Neb.	.....	.....	30.18	766.6	59	15.0	88	S	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
Omaha, Neb.	27.18	690.4	29.92	760.0	18	— 7.8	84	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Oswego, N. Y.	28.05	735.3	30.07	763.8	26	— 3.3	76	NW	11	4.9	.....	0	0	.....	.....	0.07	1.8	Threatening.	
Peck's Beach, N. J.	.....	.....	29.99	761.1	56.2	13.4	78	S	8	3.6	.....	.....	10s	.....	W	0.02	0.5	Clear.	
Pembina, Dakota.	.....	.....	30.08	764.0	44	6.7	100	SW	12	5.4	.....	0	Fog	.....	.....	0	0	Clear.	
Philadelphia, Penn.	.....	.....	30.01	762.3	11	—23.9	100	NW	8	3.6	.....	0	2s	.....	.....	0.02	0.5	Clear.	
Pike's Peak, Colorado.	.....	.....	30.03	762.7	50	10.0	93	SW	9	4.0	.....	1ck	0	W	.....	0	0	Clear.	
Pittsburgh, Penn.	17.56	446.5	29.77	756.1	1	—17.2	71	NW	20	8.9	.....	0	0	.....	.....	0	0	Clear.	
Port Huron, Mich.	.....	.....	29.94	760.5	55	12.8	73	W	12	5.4	.....	.....	10s	.....	W	0	0	Cloudy.	
Portland, Me.	.....	.....	29.68	753.9	46	7.8	61	SW	33	0.6	.....	.....	10s	.....	SW	0	0	Cloudy.	
Portland, Oregon.	.....	.....	29.98	761.5	42	5.6	91	S	7	3.1	.....	.....	Fog	.....	.....	0	0	Foggy.	
Punta Rassa, Fla.	.....	.....	30.02	762.5	38	3.3	80	NW	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Rochester, N. Y.	.....	.....	30.18	766.1	67.1	19.5	92	NE	8	3.6	.....	Haze	5ks	.....	SE	0	0	Cloudy.	
Salt Lake City, Utah.	25.65	651.5	29.64	752.8	60	15.6	.....	W	18	8.0	.....	2ck	5s	W	W	Inap.	Inap.	Fair.	
Sandy Hook, N. J.	.....	.....	29.98	761.5	25	— 3.9	75	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
San Diego, Cal.	.....	.....	29.99	761.7	47	8.3	92	S	4	1.8	.....	0	Haze	.....	.....	0.01	0.3	Clear.	
San Francisco, Cal.	.....	.....	30.14	765.5	43	6.1	75	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Santa Fe, N. M.	.....	.....	30.00	763.5	50	10.0	86	SE	8	3.6	.....	.....	10s	.....	.....	0.03	0.8	Clear.	
Savannah, Ga.	23.22	589.8	29.76	755.9	9	—12.8	57	N	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Shreveport, La.	.....	.....	30.19	767.3	62	16.7	88	S	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Smithville, N. C.	.....	.....	30.20	767.1	40	4.4	91	Calm	0	0	.....	0	0	.....	.....	0.02	0.5	Clear.	
Springfield, Mass.	.....	.....	30.23	767.8	63	17.2	83	S	12	5.4	.....	9ck	0	SW	.....	0	0	Cloudy.	
St. Louis, Mo.	.....	.....	29.94	760.5	45	7.2	95	S	4	1.8	.....	.....	Fog	.....	.....	0.05	1.3	Foggy.	
St. Marks, Fla.	.....	.....	30.07	763.8	40	4.4	81	SW	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
St. Paul, Minn.	.....	.....	30.17	766.3	56	13.3	87	Calm	0	0	.....	2k	2s	SE	.....	0	0	Fair.	
St. Paul's Island, Alaska.	.....	.....	29.85	758.2	23	— 5.0	70	SW	8	3.6	.....	8es	0	W	.....	0.13	3.3	Fair.	
Squan Beach, N. J.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Thatcher's Island, Mass.	.....	.....	29.96	761.0	47	8.3	92	SW	8	3.6	.....	0	Haze	.....	.....	0	0	Clear.	
Toledo, Ohio.	.....	.....	30.00	762.0	40	4.4	91	S	17	7.6	.....	.....	.....	.....	.....	Inap.	Inap.	Foggy.	
Tucson, Arizona.	.....	.....	29.84	757.9	47	8.3	62	W	24	10.7	.....	.....	10s	.....	W	0.01	0.3	Cloudy.	
Tybee Island, Ga.	27.09	703.3	30.16	766.1	31	— 0.6	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear.	
Vicksburg, Miss.	.....	.....	30.20	767.1	65	18.3	90	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
	.....	.....	30.26	768.6	49	9.4	77	N	1	0.4	.....	0	0	.....	.....	0.14	3.6	Clear.	

UNITED STATES SERIES.—CONTINUED.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.19	614.4	29.67	753.6	6	—14.4	64	SE	1	0.4	.....	0	0	.....	.....	0.01	0.3	Clear	
Washington, D. C	.....	.....	30.04	763.0	53	11.7	90	S	8	3.6	.....	Haze	2s	.....	.....	0	0	Fair	
Wilmington, N. C	.....	.....	30.21	767.3	65	18.3	73	S	7	3.1	.....	0	8s	.....	SW	0	0	Cloudy	
Wood's Holl, Mass	.....	.....	30.03	762.7	44	6.7	92	SW	15	6.7	.....	.....	10s	.....	SW	0	0	Cloudy	
Wytheville, Va	27.71	703.8	29.82	757.4	58	14.4	69	SW	4	1.8	.....	8k	0	W	.....	0	0	Cloudy	
Yankton, Dakota	28.80	731.5	30.19	766.8	15	— 9.4	65	NW	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.20	767.1	38	3.3	.....	N	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'does, W. I	.....	.....	30.01	762.2	79	26.1	90	NE	5	2.2	.....	5k	8s	E	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	29.93	760.2	75	23.9	85	E	.....	.....	.....	8cs	2n	.....	.....	0.23	5.8	Cloudy	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.07	763.8	75	23.9	81	Calm	0	0	.....	8c, k	1fk	E	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.07	763.8	75	23.9	81	Calm	0	0	.....	2c	1s	SE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.23	767.8	75	23.9	85	ESE	8	3.6	.....	Haze	3kn	.....	.....	0.17	4.3	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.73	755.1	73	22.8	76	N	8.4	3.8	.....	8c	2ks	NNE	.....	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.35	770.9	66.0	18.9	87	N	5.0	2.2	.....	0	10k	.....	.....	Inap.	Inap.	Fair	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	29.70	754.4	— 3	—19.4	84	SE	12	5.4	.....	.....	10s	.....	.....	0	0	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.18	766.6	13.0	—10.6	81	W	.....	.....	.....	0	0	.....	.....	0	0	Fair	John Delanev.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.14	689.3	29.91	759.7	68	20.0	84	NNW	8.0	3.6	.....	2c	2k	N	.....	0.08	2.0	Fine	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Medellin, Colombia, S. A	25.13	638.4	.....	.....	63.5	17.5	77	.....	0	0	.....	1cs	3s	NW	.....	0	0	Fair	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.96	761.0	77	25.0	91	SE	.....	.....	1	.....	7ck, ks	.....	.....	0.700	17.78	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.09	704.2	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.246	6.25	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,078.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.? (?) ft., or 2,091.6 (?) m.; Tucson, 2533? feet, or 772.1 ? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 3, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:18 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudoville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.32	770.1	57.4	14.1	52	N	.....	.....	1	.....	0	.....	.....	0	0	Clear	Charnot.
Algiers	.....	.....	30.32	770.1	57.2	14.0	78	NNW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Peter.
La Calle	.....	.....																	Kuntz.
Tunis	.....	.....	30.27	768.9	54.3	12.4	70	W	.....	.....	3	.....	10	.....	.....	0	0	Hidden.	Jacques.
Sfax	.....	.....	30.32	770.0	60.8	16.0	24	NW	.....	.....	1	.....	2	.....	.....	0	0	Clear	Chauvey.
Saida	.....	.....	30.38	771.7	55.4	13.0	21	S	.....	.....	1	.....	0	.....	.....	0	0	Clear	Grosjean.
Tehessa	.....	.....	30.35	770.9	45.0	7.2	.....	NW	.....	.....	3	.....	1	.....	.....	0	0	Clear	Colin.
Gerlville	.....	.....	30.41	772.3	27.5	— 2.5	56	WSW	.....	.....	1	.....	1	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	30.41	772.4	50.0	10.0	92	NE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Simon.
Biskra	.....	.....	30.38	771.6	56.5	13.6	60	NW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Coulon.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.13	765.4	34.3	1.3	78	Calm	.....	.....	0	.....	10	.....	.....	0.075	1.9	.....	Prof. Ivan Stoair.
Buda-Pesth	.....	.....																	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.08	763.9	17.6	— 8.0	100	NE	.....	.....	3	.....	10	.....	.....	0.020	0.5	.....	I. R. Observatory.
Eperies	.....	.....	30.05	763.3	43.9	6.6	89	Calm	.....	.....	0	.....	10	.....	.....	0.126	3.20	.....	Julius Mikolik.
Gratz	28.83	732.4	30.10	764.5	32.7	0.4	77	SW	.....	.....	0	.....	8	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.60	726.3	30.11	764.8	24.1	— 4.4	86	SE	.....	.....	1	.....	9	.....	.....	0.010	0.25	.....	Prof. Reissenberger.
Kremsmünster	28.71	729.3	30.11	764.8	35.4	1.9	95	WSW	.....	.....	2	.....	10	.....	.....	0.380	9.8	.....	Prof. C. Wagner.
Lemberg	.....	.....	29.99	761.7	15.1	— 9.4	87	NE	.....	.....	1	.....	10	.....	.....	0.240	6.1	.....	Dr. T. Stanecki.
Nylregyhaza	.....	.....	30.13	765.2	19.4	— 7.0	94	S	.....	.....	1	.....	10	.....	.....	0.205	5.19	.....	Hatsanda Daniel.
Pola	.....	.....	30.12	765.0	43.9	6.6	83	WNW	.....	.....	1	.....	88	.....	.....	0	0	Foggy	I.R. Hydrographic Off'ce
Szegedin	.....	.....	30.11	764.8	33.1	0.6	82	S	.....	.....	2	.....	10	.....	.....	0.228	5.80	.....	Karl Stancel.
Trieste	.....	.....	30.10	764.6	46.0	7.8	89	Calm	.....	.....	0	.....	10	.....	.....	0	0	Foggy	Prof. V. Faroffi.
Vienna	.....	.....	30.06	763.4	33.6	0.9	95	Calm	.....	.....	0	.....	10	.....	.....	0	0	Foggy	I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	30.07	763.8	49.6	9.8	99	W	.....	.....	1	.....	10	.....	.....	0.551	14.00	Light rain	Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.96	761.0	43.5	6.4		S	10	4.5			10			0.020	0.51	Raining	William Boswell.
Ardrossan			29.94	760.5	52	11.1		ESE			3		7					*D clouds	Wm. McNeil.
Armagh Observatory			29.95	760.7	52.5	11.4		WSW	18	8.0			10					Gloomy	S. Call, for Dr. Robinson
Bidston, Liverpool Obs.			30.05	763.3	54.1	12.3		SW	14	1.8			6					*D. clouds	John Hartnup.
Birr Castle, (Parsonstown)			29.97	761.2	53.6	12.0		SSW			1		10					Overcast	J. Dreyer.
Bradford			30.02	762.5	50.7	10.4		W			0		10			0.17	4.3	Overcast	J. McLandsborough.
Bridgetown, (Barbados)			29.95	760.7	76	24.4		E			2		3					Overcast	Sergt. G. H. Hunt.
Cambridge Observatory			30.10	764.5	52.0	11.1		SW			1		10					Raining	H. Todd.
Cardington			30.12	765.0	52.6	11.4		W			1		10					Overcast	John McLaren.
Carlisle			30.00	762.0	49	9.4		S			1		10			0.02	0.5	Drizzling	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.13	765.3	54.2	12.3		Calm			0							Threatening	Capt. J. Fellowes, R. E.
Dartmoor	28.74	730.0	30.25	768.3	46.0	7.8		S			4		10					Gloomy	R. E. Power.
Donaghadee			29.95	760.7	51	10.6		S			3		10					Overcast	J. Mac Gowan.
Dover			30.12	765.0	53	11.7		W			2		8					¾ clouded	J. Costello.
Eccles, (near Manchester)			30.06	763 5	50.3	10.2		SE	1.4	0.6			10					Drizzling	Thomas Mackereth.
Falmouth Observatory			30.20	767.1	52.7	11.5		SSW	21	9.4			1					*D. clouds	The Staff.
Fort Napier, (Natal)	27.36	694.9	29.62	752.3	85.4	29.7		E			1		9					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	82	27.8		E			2		5					Blue sky	[illegible]
Galway, Queen's College			29.95	760.7	50	10.0		W			4		5					*D. clouds	B. G. Clare, for Prof. Currey
Gibraltar, (Mediterranean)			30.25	768.3	57.0	13.9		NE			6		8					Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.95	760.7	41.1	5.1		NE			1		10					Raining	Wm. M. Stewart.
Great Yarmouth			30.09	764.3	46	7.8		Calm			0		8					Dense Fog.	G. T. Watson.
Greenwich Royal Obs.			30.14	765.5	53.3	11.8		W			4		10			Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey			30.24	768.1	52	11.1		SW			3		3					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.07	763.8	52.6	11.4		WSW			2		9					Misty	L. J. Crossley.
Helston			30.18	766.6	54	12.2		SW			4		2c					Blue sky	M. P. Moyle.
Holyhead			30.07	763.8	50	10.0		SSW			3		10			0	0	Hazy	John Tilston.
Kew Observatory			30.15	765.8	53.5	11.9		W	11	4.9			10					Misty	The Staff.
Kingstown			30.01	762.2	55	12.8		W			4		7					*D. clouds	George Mitchell.
Leicester Museum			30.11	764.8	52.6	11.4		W			1		10					Overcast	William J. Harrison.
Malta, (Mediterranean)			30.20	767.1	57.8	14.3		NW			3		6k						Fred Travis, Pvt A. H. C.
Nairn			29.84	757.9	48	8.9		Calm			0		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.14	765.5	74.2	23.4		NE			5		4					D. clouds	Surg.-Maj. Henry.
Nottingham			30.05	763.3	52.3	11.3		WSW			1		10k, d		W			Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30. 9	764.3	50.8	10.4		SW			2–3		10					Misty	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.14	765.5	53	11.7		W			1		10					Gloomy	J. Lucas.
Plymouth			30.20	767.1	52.5	11.4		SW			3		2					*D.clouds	John Merrifield.
Roche's Point			30.01	762.2	51	10.6		SW			5		10					Misty	W. Kennedy.
Saint Ann's Head			30.12	765.0	50	10.0		SW			2		2					Hazy	John C. Walker.
Saint Helier, (Jersey)			30.26	768.6	50.0	10.0		W			2		2					¼ clouded	A. P. Amy.
Sandwick Manse (Orkneys)			29.87	758.7	43.8	6.6		SSE	20	8.9			6					Drizzling	Rev. Dr. Clouston.
Scarborough			30.04	763.0	45.0	7.2		SW			1		10					Foggy	F. Shaw.
Scutari Cemetery (Turkey)			30.15	765.8	33.6	0.9		NNW			1		5					Misty	Sergt. W. H. Lyne.
Sheffield			30.05	763.3	54.0	12.2		WSW			1		9					Foggy	W. F. Cooper.
Silloth Rectory			29.98	761.5	50.5	4.7		SW			2		10			0.212	5.38	Overcast	Rev Francis Redford.
Stonyhurst Observatory			30. 6	763.5	49.9	9.9		SW			2					0	0	Misty	The Staff.
Stornoway, Lewis C. (Hebr)			29.74	755.4	51	10.6		SSW			5		10					Drizzling	John Smith.
Stratfield Turgiss			30.16	766.1	53.2	11.8		W			1		10					Drizzling	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.82	757.4	43	6.1		SSE			2		9					Gloomy	John Trotter.
Truro, Royal Institution			30.19	766.8	54	12.2		SW			4		6					*D. clouds	W Newcombe.
Valencia Observatory			29.91	759.7	53.6	12.0		SW	40	17.9			7					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			30.02	762.5	78.4	25.8	35	S	17	7.6			4						The Staff, for E. J. Stone
Calf of Man, (Isle of Man)					45	7.2		S			6	10	10			0.10	2.5		
Leith, Restalrig Park			29.96	761.0	43.2	6.2		NE			2		10s			0.10	2.5	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclauss.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.14	765.6	22.8	— 5.1	74	NNE			4		8						
Faröe			30.23	767.9	30.9	— 0.6	77	E			4		7						
Godthaab, (Greenland)			28.91	734.2	2.5	—16.4	80	ENE			4		5						
Stykkisholm, (Iceland)			28.91	734.3	34.3	1.3	82	SW			4		5						
Thorshavn, (Faröe)			29.65	753.0	45.7	7.6	93	SE			6		10					Raining	
Vestervig			30.23	767.9	30.2	— 1.0	84	E			2		4						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alengon			30.28	769.2	44.6	7	86	NW			2		8nk			0	0	Very cloudy	Normal School.
Amiens			30.15	765.8	50.4	10.2	90	NW			3		10		SW	0.055	1.4	Covered	Normal School.
Avignon			30.19	766.7	55.4	13	66	N			4		0			0	0	Very clear	Normal School.
Bar-sur-Seine			30.24	768.0	46.9	8.3	97	SW			2		10			0.173	4.4	Raining	C. Saillard.
Beaumette, (near Angers)			30.32	770.1	51.8	10.9	86	SW	2.2	1.0					SW	0	0		Beaumette Observatory
Beauvais			30.23	767.7	51.6	10.9	90	WNW			1		10		WNW	0.065	1.65		Normal School.
Besançon			30.30	769.6	45.0	7.2	94	S			3		10		SW	0.220	5.6	Covered	Normal School.
Bourg en Bresse			30.38	771.0	43.0	6.1	100	S			2		10		N	0.299	7.6	Covered	Normal School.
Bourges			30.32	770.1	46.6	8.1	97	SW			2		10		SW	0	0	Covered	Normal School.
Brest			30.21	767.2	52.7	11.5	87	SSW			3		5		SW	0.020	0.50	Half covered	Naval Observatory.
Caen																			Normal School.
Chartres			30.37	771.3	43.5	6.4		E			2		10			0.091	2.3	Covered	Normal School.
Chaumont																			Normal School.
Clermont			30.35	770.9	48.6	9.2	92	N			2					0.035	0.9	Misty	Puy de Dome, Obs.
Commercy			30.26	768.7	47.5	8.6	92	W			2		10		NW	0.12	3.	Covered	Normal School.
Commune de Gréasque*			30.17	766.4	51.4	10.8	65	NW			1		2		NW	0	0	¼ covered	
Grenoble			30.34	770.7	40.6	4.8	92	NNE			1		2n		E	0	0	Slightly cl'dy	Normal School.
Le Mans			30.31	769.8	51.6	10.9	85	W			2		5		W	0.04	1.	Cloudy	Normal School.
Loches																			
Lons-Le-Saulnier			30.32	770.2	44.8	7.1	97	NW			2		5		W	1.10	28.	Raining	Normal School.
Mâcon			30.52	775.3	43.3	6.3	97	Calm			0		10			0.449	11.4	Covered	Normal School.
Mirecourt			30.24	768.0	40.3	4.6	97	S			2		10		W	0.129	3.2	Covered	Normal School.
Metz																			
Nismes																			
Orleans			30.15	765.8	59.4	15.2	48	NW			0		0			0	0	Clear	Normal School.
Paris Observatory			30.19	766.8	42.4	5.8	94	NW			3		8		NW	0.177	4.5	Very cloudy	Normal School.
Parthenay			30.23	767.9	52.2	11.2	86	W			2		10		WNW	0.032	0.79	Covered	National Observatory.
Privas			30.31	769.9	42.8	6	94	W			2		5		W	0.08	2.	Cloudy	Normal School.
La Roche-sur-Yon			30.29	769.4	52.7	11.4		NW			2		5		NW	0	0	Cloudy	Normal School.
Rochefort, Observatory			30.35	770.9	46.8	8.2	100	E			1		10			0	0	Covered	Normal School.
Rouen			30.37	771.4	43.2	6.2	80	SSE			3					0	0	Foggy	Naval Observatory.
Saint Lo			30.24	768.1	52.2	11.2	86	W			4		10		W	0.118	3.0	Covered	Normal School.
Tarbes			30.29	769.1	54.0	12.2	96	NW			2		5		W	0.331	8.4		Normal School.
Toulouse			30.34	770.5	44.6	7	65	NNW			1		0			0	0	Clear	Normal School.
Villefranche			30.36	771.2	36.7	2.6	61	N			2							Foggy	Normal School.
Sub-Series.																			
Fort de France, Martinique			30.37	771.3	45.3	7.4	94	SE			1		10			0.205	5.20	Covered	Normal School.
Gorée			29.89	759.1	77.4	25.2	92	NE			2		..ck,n			1.02	26.		L'Abbé Marchésl.
Marseilles																			
Mont-Louis			30.14	765.6	54.9	12.7	75	NW			1		2			0	0		Marseilles Observatory
Montsouris, Paris	25.02	635.5	30.41	772.5	45.9	7.7	21	SE	3.7	1.67			2		W	0	0		—, Faiguère.
Perpignan			30.2	767.0	51.8	11.0	90	WNW			0		10			0.024	0.6		Montsouris Observ'tory.
Pic du Midi, (Summit) H. P.			30.27	768.9	57.6	14.2	55	N	9.3	4.17			1		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)	21.38	543.1			30.2	— 1.1		N			1		1			0	0	Clear	M. Baylac.
Toulouse			30.23	767.8	51.8	11.0	89	WNW			2		10			0.087	2.2	Covered	E. Renou.
Tours			30.35	770.8	40.3	4.6	83	NE			1		1			0	0	Misty	Toulouse Observatory.
Versailles, (near Paris)			30.31	769.9	50.4	10.2	86	W			2		10		WNW	0.031	0.8		C. Marquet.
Zi-Ka-Wei, (near Shanghai)			30.23	767.9	51.1	10.6	97	W			3		10			0.064	1.63	Light mist	Dr. A. Bérigny.
																			H. Le Lec, S. J.

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,702.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			29.98	761.4	36.0	2.2	87	SW			3		10			0.079	2.0	Misty	Prof. T. Hoh.
Berlin			30.41	764.8	33.4	0.8	79	N			2		6			0.031	0.8		Prof. Arndt.
Breslau			30.10	764.5	42.6	5.9	95	ENE			2		10			0.390	9.9	Snowing	Dr. P. Nasgebauer.
Carlsruhe			30.10	764.4	44.6	7.0	97	SW			8		10			0.846	21.5		A. Senz.
Cassel			29.99	761.7	39.4	4.1	89	ESE			1		10			Blank	Blank		Dr. H. Möhl.
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.15	765.9	38.3	3.5	90	SW			1		10			0.161	4.1	Misty	M. Wilhelm.
Hamburg			30.22	767.6	38.3	3.5	88	SW					10			0.220	5.6	Heavy rain	Deutsche Seewarte.
Kiel			30.14	765.6	34.5	1.4	74	NE			4		8			0.008	0.2		Prof. G. Karsten.
Königsberg			30.17	766.4	33.3	0.7	86	NE			2		10			0.024	0.6		Prof. E. Luther.
Köslin			30.15	765.8	4.1	—15.5	65	SE			2		2			0	0		H. Müller.
Leipsic			30.07	763.8	21.2	— 6.0		Calm			0		10			0	0		Prof. Brühns.
Münster			30.11	764.8	34.9	1.6	69	NW			2		9			0.079	2.0		Prof. E. Hels.
Posen			30.11	764.9	41.9	5.4	88	NE			2		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.13	765.2	46.2	7.9	96	NW			2		9			0.130	3.3		Dr. Schur.
Stuttgart			30.14	765.6	47.7	8.7	84	W			2		10			0.055	1.4		Mr. Würth.
Thorn			30.11	764.7	42.3	5.7	91	W					10			0.465	11.8	Raining	Dr. Hasenbalg.
Treves, (Trier)			30.10	764.4	13.1	—10.5	92	SE			3		10			0	0	Snowing	Prof. Flosch.
Wustrow, Naval School			30.03	762.8	49.3	9.6	99	W			2		10			0.020	0.5	Light mist	E. F. Schütz.
			30.17	766.4	29.5	— 1.4	89	NNE			3		7k			0	0		

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.13	765.4	50.0	10.0		NE										Half clear	

NOTE.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.10	764.4	41.2	5.1	67	NE			2		10			0	0		
Padua			30.11	764.9	36.7	2.6	83	WNW	1.8	0.8			10	W		0	0		
Verona			30.17	766.4	39.4	4.1	67	E			1		10			0	0		
Bergamo																			
Milan			30.18	766.6	32.2	0.1	98	NNE			1		10			0	0	Light snow.	
Moncalieri			30.18	766.5	32.0	0.0	96	ESE	3.1	1.4			10			0	0		
Mondovi			30.17	766.2	39.4	4.1	75	ENE			2		9	NW		0	0		
Porto Maurizio			30.21	767.4	54.5	12.5		NE			4		10			0	0		
Genoa			30.15	765.9	51.1	10.6	71	SE	0	0			10	S		0	0		
Piacenza			30.08	764.1	31.3	— 0.4	98	W	13.0	5.8			10			0	0		
Bologna			30.20	767.0	36.0	2.2	81	W			1		4	S		0	0		
Florence			30.19	766.7	47.1	8.4	81	N			2		10			0	0		
Leghorn			30.15	765.7	53.6	12.0	72	SW	1.8	0.8			7			0	0		
Siena			30.16	766.0	48.0	8.9	79	S	0	0			10	W		0	0		
Urbino																			
Pesaro			30.17	766.2	38.3	3.5	82	NW			1		10			0	0		
Ancona																			
Rome			30.17	766.4	51.1	10.6	63	N	0.7	0.3			3			0	0		
Naples, O. U.			30.19	766.8	52.9	11.6	17	SE			1		10	SW		0	0		
Lecce			30.21	767.2	50.0	10.0	66	NE	4.9	2.2			4	N		0	0		
Cosenza			30.22	767.6	50.5	10.3	74	SW			1		8			0	0		
Riposto, (Sicily)			30.14	765.6	55.4	13.0	75	S			2		4	E		0.236	6.0		
Palermo			30.17	766.2	56.1	13.4	63	W	3.1	1.4			10			0	0		
Caltanissetta			30.17	766.4	44.2	6.8	68	W			2		10	E		0.079	2.0		
Sun-Series.																			
Naples, S. R.			30.19	766.8	51.3	10.7	74	W			4		..ks	SW		0	0		Prof. F. Briosci.i.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.12	765.1	44.6	7.0		NW			3								
Groningen			30.08	764.1	37.8	3.3		ESE			2								
Helder			30.08	764.1	39.6	4.2		ESE			2								
Utrecht			30.04	763.1	41.9	5.5	98	SSE			2		10					Dull	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.18	766.6	34.5	1.4	96	Calm	0	0			0			0	0		
Brönö			30.29	769.4	28.2	— 2.0	70	Calm	0	0			1			0	0		
Christiania			30.26	768.6	29.8	— 1.2	92	ENE	1.6	0.7			10			0	0		
Tromsö			30.24	768.2	33.1	0.6	89	SW	7	3			10			0.08	0.7		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.65	753.2	54.1	12.3	72	NNW	12.3	5.50	.....	.....	2	.....	.....	0.157	4.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.29	769.5	48.9	9.4	51	ENE	9.3	4.17	.....	.....	2	.....	.....	0	0	Solar corona	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.01	762.3	64.4	18.0	68	S	15.7	6.84	.....	.....	10	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.30	769.6	45.0	7.2	76	ENE	4.9	2.2	.....	.....	9	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.10	764.4	7.5	—13.6	79	NNW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.11	764.8	— 4.5	—20.3	70	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.20	769.4	— 7.8	—22.1	83	ESE	4	2	.....	.....	7	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.20	767.0	11.5	—11.4	93	NW	2	1	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs.
Knopio	.....	.....	30.27	768.8	9.1	—12.9	100	Calm	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kieff	.....	.....	30.11	764.7	2.1	—16.6	95	SE	4	2	.....	.....	6	.....	.....	.....	.....	Solar corona.	Physical Cabinet.
Nikolaiev	.....	.....	30.22	767.5	7.5	—13.6	63	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.22	767.6	19.8	— 6.8	78	Calm	0	0	.....	.....	4	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.18	766.6	15.3	— 9.3	87	S	13	6	.....	.....	5	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.95	760.7	9.3	—12.6	88	W	34	15	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	30.39	771.8	10.0	—12.2	89	SE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	.....	.....	30.04	763.1	37.4	3.0	52	NW	25	11	.....	.....	5	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	28.59	726.1	30.09	764.3	29.1	— 1.6	92	ESE	9	4	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.05	778.6	12.9	—10.6	70	SSE	7	3	.....	.....	4	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischof.
Ekaterinburg	29.72	754.8	30.87	784.2	— 5.1	—20.6	74	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.36	771.2	5.2	—14.6	51	NE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.48	723.5	30.28	769.1	31.8	— 0.1	85	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.56	776.2	—20.7	—29.3	75	W	2	1	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.08	764.1	—15.7	—26.5	81	Calm	0	0	.....	.....	2	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Pekin, (China)	.....	.....	30.32	770.1	21.0	— 6.1	38	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.68	703.0	29.98	761.6	— 9.8	—23.2	75	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.19	766.7	0.7	—17.4	73	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	.....
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—35.5	—37.5	.....	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of *Tiflis* is 409. meters, or 1,341.8 feet; Ekaterinburg, 305.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,021.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.41	772.4	40.0	4.8	71	E	2.2	1.0	.....	0	0	.....	.....	0	0	Clear.....	Royal Observatory.
San Fernando	.....	.....	30.20	768.7	57.9	14.4	66	ESE	11.6	5.2	.....	7	0	ESE	.....	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.43	772.9	4.6	—15.2	91	E	.....	.....	2	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	30.40	772.2	8.6	—13.0	100	Calm	.....	.....	0	.....	9	.....	.....	0	0	.....	
Hernosand	.....	.....	30.35	770.9	14.0	—10.0	94	S	.....	.....	4	.....	8	.....	.....	0.035	0.9	.....	
Stockholm	.....	.....	30.10	764.5	14.0	—10.0	87	NNE	.....	.....	4	.....	10	.....	.....	0.043	1.1	.....	
Wisby	.....	.....	30.12	765.1	16.5	— 8.6	100	E	.....	.....	6	.....	5	.....	.....	0.012	0.3	.....	
Sub-Series.																			
Upsala	.....	.....	30.17	766.3	16.7	— 8.5	93	NE	8.5	3.8	.....	.....	10	.....	.....	0.021	0.53	Snowing.....	Dr Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.84	732.6	30.30	769.7	43.0	6.1	91	WSW	.....	.....	1	.....	10	.....	.....	0.051	1.3	Covered	The Observatory.
Zurich	28.54	725.0	30.23	767.7	41.7	5.4	92	W	.....	.....	3	.....	10	.....	SW	0.083	2.1	Raining.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +4.9 mm.; Thermometer, +4.7; Relative Humidity, +11 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.17	766.3	32.7	0.4	90	NNW	3	1.5	.....	.....	3	.....	N	0.709	18.0	.....	
Fao, (Persian Gulf)	.....	.....	30.18	766.5	62.6	17.0	.....	SE	.....	.....	3	.....	10	.....	.....	.....	.....	Raining.....	
Salonica	.....	.....	30.30	769.5	43.2	6.2	.....	NW	.....	.....	4	.....	2	.....	.....	.....	.....	.....	
Valona	.....	.....	30.01	762.2	49.6	9.8	.....	NE	.....	.....	1	.....	5	.....	.....	.....	.....	.....	
Varna	.....	.....	30.04	763.0	17.6	— 8.0	.....	N	.....	.....	2	.....	10	.....	.....	.....	.....	Snowing.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.16	766.0	51.4	10.8	54	W	.....	.....	2	.....	5n	.....	SW	0.003	0.07	Fair.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	29.66	753.4	34.7	1.5	90	W	2.5	1.1	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.11	764.8	33	0.6	.....	SW	3	1.3	.....	.....	10s	.....	SW	0	0	Cloudy.....	W. K. Bigg.
*Chatham, N. B	.....	.....	29.70	754.4	37	2.8	77	SW	7	3.1	.....	2k	2ks	SW	SW	0.22	5.6	Fair.....	G. A. Blair.
Charlottetown P. E. Island	.....	.....	29.73	755.1	36	2.2	88	SW	5	2.2	.....	0	0	.....	.....	0	0	Clear.....	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.98	761.5	33.7	0.9	92	W	.....	.....	1	.....	10s	.....	.....	0	0	Threatening	James Smith, M. A.
Dalhousie, N. B	.....	.....	.....	.....	.....	.....	.....	W	.....	.....	2	1cs	2n	E	.....	0.30	7.6	.....	H. A. Johnson.
Esquimault, B. C	.....	.....	29.44	747.8	41.1	5.1	93	NE	6	2.7	.....	.....	10	.....	.....	0.01	0.3	Cloudy.....	W. H. Bevis.
Fredericton, N. B	.....	.....	29.80	756.9	38.8	3.8	56	W	9	4.0	.....	.....	8ks	.....	.....	0	0	Fair.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.46	773.7	—20	—28.9	90	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	James Stewart.
Goderich, Ontario	.....	.....	30.20	767.1	31.3	— 0.4	84	SW	.....	.....	2	2k	2k	.....	.....	0	0	Clear.....	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.18	766.6	29.2	— 1.6	.....	W	.....	.....	1	0	0	.....	.....	0	0	Clear.....	James Grant.
*Halifax, N. S	.....	.....	29.78	756.4	36	2.2	95	W	4	1.8	.....	0	2ks	.....	S	0.02	0.5	Clear.....	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.11	764.8	33	0.6	74	W	5	2.2	.....	2ck	0	W	.....	0	0	Fair.....	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.99	761.7	27.8	— 2.3	.....	SW	10	4.5	.....	.....	3s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.95	760.7	31	1.1	79	W	18	8.0	.....	8k	2s	.....	.....	0	0	Cloudy.....	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.01	762.2	32	0.0	81	W	16	7.2	.....	0	2s	.....	W	0	0	Clear.....	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.05	763.3	30	— 1.1	80	SW	13	5.8	.....	0	2ks	.....	SW	0.01	0.3	Fair.....	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.18	766.6	32	0.0	79	W	7	3.1	.....	0	0	.....	.....	0	0	Clear.....	H. Morgan.
Port Hastings, N. S	.....	.....	29.71	754.6	39.1	3.9	.....	N	5	2.2	.....	0	0	.....	.....	0	0	Fine.....	Peter Grant.
*Port Stanley Ontario	.....	.....	30.20	767.1	30	— 1.1	77	W	15	6.7	.....	0	0	.....	.....	0	0	Clear.....	M. Payne.
*Quebec, Quebec	.....	.....	29.81	757.2	33	0.6	88	NE	28	12.5	.....	0	0	.....	.....	0.01	0.3	Clear.....	Capt. Ash, R. N.
St. John, N. B	.....	.....	29.87	758.7	35.0	1.7	85	W	3	1.3	.....	.....	.....	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.10	764.5	31	— 0.6	88	W	12	5.4	.....	2cs	0	.....	.....	0.03	0.8	Clear.....	K. Stewart.
Stayner, Ontario	.....	.....	30.05	763.3	32	0.0	59	W	10	4.5	.....	0	0	.....	.....	0.01	0.3	Clear.....	R. J. Cole.
Stratford, Ontario	.....	.....	29.18	741.1	29.7	— 1.3	79	W	8	3.6	.....	0	0	.....	.....	0	0	Fine.....	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	30.26	768.6	25	— 3.9	88	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.....	T. C. Hill.
*Toronto, Ontario	.....	.....	30.15	765.5	33	0.6	76	W	10	4.5	.....	0	0	.....	.....	0	0	Clear.....	Magnetic Observatory.
Woodstock, Ontario	.....	.....	30.18	766.6	26.8	— 2.9	78	W	2	0.9	.....	0	1s	.....	.....	0	0	Fine.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Granton, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1.015 feet, or 309.4 m.; Stratford, 1.182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.02	762.5	34	1.1	90	Calm	0	0	.....	8k	Fog	NW	.....	Inap.	Inap.	Foggy	
Alpena, Mich.	.....	.....	30.01	762.2	27	— 2.8	77	SW	13	5.8	.....	0	0	.....	.....	0	0	Clear	
Atlantic City, N. J.	.....	.....	30.12	765.0	46	7.8	83	W	8	3.6	.....	.....	10s	.....	SW	0.07	1.8	Threatening	
Augusta, Ga.	.....	.....	30.15	765.8	63	17.2	94	Calm	0	0	.....	.....	10s	.....	W	0.24	6.1	Cloudy	
Baltimore, Md.	.....	.....	30.18	766.6	49	9.4	64	NW	4	1.8	.....	5ck	Sm'e	W	.....	0.04	1.0	Smoky	
Barnegat, N. J.	.....	.....	30.08	764.0	46	7.8	85	NW	10	4.5	.....	2cs	5s	W	W	0.22	5.6	Fair	
Benton, Montana	27.26	692.4	30.06	763.5	2	—16.7	100	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Bismarck, Dakota	28.57	725.7	30.50	774.7	11	—11.7	52	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Boston, Mass.	.....	.....	29.97	761.2	38	3.3	80	SW	10	4.5	.....	5c	Sm'e	SW	.....	Inap.	Inap.	Fair	
Breckenridge, Minn	.....	.....	30.57	776.5	— 7	—21.7	80	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Buffalo, N. Y.	.....	.....	30.13	765.3	35	1.7	70	W	12	5.4	.....	0	5ks	.....	W	0	0	Fair	
Burlington, Vt.	.....	.....	29.95	760.7	42	5.6	66	W	4	1.8	.....	5k	2s	W	.....	0	0	Cloudy	
Cairo, Ill.	.....	.....	30.36	771.1	38	3.9	81	N	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Cape Hatteras, N. C.	.....	.....	30.04	763.0	63	17.2	88	SW	8	3.6	.....	2k	Haze	SW	.....	0	0	Fair	
Cape Henry, Va.	.....	.....	30.14	765.5	50	10.0	89	N	14	6.3	.....	.....	10n	.....	.....	0.13	3.3	Light rain	
Cape May, N. J.	.....	.....	30.12	765.0	45	7.2	84	NW	6	2.7	.....	.....	10s	.....	W	0.17	4.3	Clearing	
Charleston, S. C.	.....	.....	30.14	765.5	62	16.7	94	SW	1	0.4	.....	Haze	0	.....	.....	0	0	Clear	
Cheyenne, Wyoming	23.96	608.6	29.90	759.4	17	— 8.3	67	S	4	1.8	.....	2c	5s	.....	.....	0	0	Fair	
Chicago, Ill.	.....	.....	30.27	768.8	30	— 1.1	67	SW	3	3.6	.....	0	0	.....	.....	0	0	Clear	
Cincinnati, Ohio	.....	.....	30.25	768.3	40	4.4	73	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Cleveland, Ohio	.....	.....	30.24	768.1	33.1	0.6	80	W	12	5.4	.....	0	5ks	.....	W	0	0	Fair	
Colorado Springs, Col.	24.04	610.6	29.92	760.0	14	—10.0	28	N	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Corsicana, Texas	.....	.....	30.28	769.1	41	5.0	83	NW	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Davenport, Iowa	.....	.....	30.36	771.1	25	— 3.9	81	W	8	3.6	.....	2ck	0	.....	.....	0	0	Clear	
Denison, Texas	.....	.....	30.26	768.6	39	3.9	80	NE	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Denver, Col.	24.76	628.9	29.98	761.5	7	—13.9	54	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Detroit, Mich.	.....	.....	30.23	767.8	28	— 2.2	82	W	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Dodge City, Kan.	27.55	699.8	29.94	760.5	33	0.6	89	NE	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Dubuque, Iowa	.....	.....	30.32	770.1	25	— 3.9	62	W	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Duluth, Minn.	.....	.....	30.42	772.7	— 6	—21.1	61	SW	8	3.6	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Eastport, Me.	.....	.....	29.84	757.9	37	2.8	70	W	4	1.8	.....	5c	0	SW	.....	0	0	Fair	
Erie, Pa.	.....	.....	30.17	766.3	35	1.7	80	W	12	5.4	.....	1k	1ks	W	W	0	0	Fair	
Escanaba, Mich.	.....	.....	30.08	764.0	16	— 8.9	66	W	10	4.5	.....	1k	0	W	.....	0	0	Clear	
Fort Gibson, Indian T.	.....	.....	30.30	769.6	31	— 0.6	78	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Fort Sill, Indian T.	29.02	737.1	30.20	767.1	33	0.6	79	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Fort Sully, Dakota	28.61	726.7	30.49	774.4	2	—16.7	86	N	5	2.2	.....	0	1s	.....	N	0	0	Clear	
Galveston, Texas	.....	.....	30.27	768.8	57	13.9	81	NE	10	4.5	.....	0	5s	.....	NE	0	0	Fair	
Grand Haven, Mich.	.....	.....	30.18	766.6	36	2.2	62	W	16	7.2	.....	0	0	.....	.....	0	0	Clear	
Indianapolis, Ind.	.....	.....	30.32	770.1	35	1.7	79	NW	2	0.9	.....	Haze	Sm'e	.....	.....	0	0	Smoky	
Indianola, Texas	.....	.....	30.28	769.1	57	13.1	75	NE	12	5.4	.....	2cs	0	SW	.....	0	0	Fair	
Jacksonville, Fla.	.....	.....	30.16	766.1	60	15.6	88	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Keokuk, Iowa	.....	.....	30.33	770.4	27	— 2.8	88	Calm	0	0	.....	8c	0	.....	.....	0	0	Fair	
Key West, Fla.	.....	.....	30.10	764.5	72.4	22.4	95	NE	12	5.4	.....	0	2ks	.....	E	0.04	1.0	Foggy	
Kittyhawk, N. C.	.....	.....	30.10	764.5	54	12.2	93	N	16	7.2	.....	.....	10s	.....	N	0	0	Cloudy	
Knoxville, Tenn.	.....	.....	30.25	768.3	40	7.8	76	N	8	3.6	.....	2c,ck	Haze	SW	.....	0	0	Fair	
La Crosse, Wis.	.....	.....	30.30	769.6	20	— 6.7	56	W	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Leavenworth, Kan.	.....	.....	30.35	770.9	21	— 4.4	88	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Lexington, Ky.	29.16	740.7	30.32	770.1	36	2.2	80	W	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Long Branch, N. J.	.....	.....	30.09	764.3	47	8.3	70	NW	10	4.5	.....	0	2s	.....	.....	0	0	Clear	
Louisville, Ky.	.....	.....	30.30	769.6	38	3.3	81	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Lynchburg, Va.	.....	.....	30.17	766.3	57	13.9	87	SW	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Malone, N. Y.	.....	.....	29.96	761.0	35	1.7	80	W	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy	
Marquette, Mich.	.....	.....	30.08	764.0	11	—11.7	80	NW	16	7.2	.....	.....	10s	.....	NW	0	0	Cloudy	
Memphis, Tenn.	.....	.....	30.33	770.4	41	5.0	83	N	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Milwaukee, Wis.	.....	.....	30.28	769.1	24	— 4.4	74	SW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Mobile, Ala.	.....	.....	30.25	768.3	52	11.1	86	N	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Montgomery, Ala.	.....	.....	30.26	768.6	50.5	10.3	95	N	4	1.8	.....	0	0	.....	.....	0.20	5.1	Clear	
Morgantown, W. Va.	.....	.....	30.24	768.1	30	4.2	85	Calm	0	0	.....	0	2s	.....	NW	0.04	1.0	Fair	
Mt. Washington, N. H.	23.37	593.6	29.73	755.1	15	— 9.4	100	NW	72	32.2	.....	.....	Fog	.....	.....	0	0	Foggy	
Nashville, Tenn.	.....	.....	30.29	769.4	38	3.3	90	NW	2	0.9	.....	0	Fog	.....	.....	0	0	Clear	
New Haven, Conn.	.....	.....	30.01	763.0	40	4.4	72	NW	4	1.8	.....	8c	2s	W	.....	0.05	1.3	Cloudy	
New London, Conn.	.....	.....	30.04	763.0	41	5.0	73	W	3	1.3	.....	5ck	2s	SW	W	0.05	1.3	Fair	
New Orleans, La.	.....	.....	30.24	768.1	56	13.3	60	NE	10	4.5	.....	2cs	0	.....	.....	0	0	Clear	
Newport, R. I.	.....	.....	30.00	762.0	41	5.0	82	W	9	4.0	.....	5c	0	W	.....	0.07	1.8	Fair	
New York, N. Y.	.....	.....	30.09	764.3	42	5.6	65	W	8	3.6	.....	2c	0	W	.....	0.10	2.5	Clear	
Norfolk, Va.	.....	.....	30.16	766.1	50	10.0	96	NE	8	3.6	.....	.....	10n	.....	.....	0.29	7.4	Heavy rain	
North Platte, Neb.	27.16	689.8	29.92	760.0	16	— 8.9	83	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Omaha, Neb.	29.16	740.6	30.32	770.1	22	— 5.6	100	Calm	0	0	.....	2c	0	.....	.....	0	0	Fair	
Oswego, N. Y.	.....	.....	30.09	764.3	37	2.8	69	NW	12	5.4	.....	.....	10ks	.....	W	0	0	Cloudy	
Peck's Beach, N. J.	.....	.....	30.14	765.5	47	8.3	77	NW	12	5.4	.....	.....	10n	.....	.....	0.08	2.0	Light rain	
Pembina, Dakota	.....	.....	30.46	773.7	—20	—28.9	100	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Philadelphia, Penn.	.....	.....	30.14	765.5	45	7.2	60	NW	13	5.8	.....	8cs	Sm'e	W	.....	0.05	1.3	Cloudy	
Pike's Peak, Colorado	17.61	447.3	29.82	757.4	9	—12.8	57	W	48	21.5	.....	0	0	.....	.....	0	0	Clear	
Pittsburgh, Penn.	.....	.....	30.19	766.8	37	2.8	60	Calm	0	0	.....	2c	0	.....	.....	0	0	Fair	
Port Huron, Mich.	.....	.....	30.22	767.6	28	— 2.2	88	W	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Portland, Me.	.....	.....	29.92	760.0	42	5.6	66	SW	6	2.7	.....	2c	Haze	W	.....	0.03	0.8	Fair	
Portland, Oregon	.....	.....	29.54	750.3	40	4.4	83	Calm	0	0	.....	.....	10n	.....	.....	0.34	8.6	Light rain	
Punta Rassa, Fla.	.....	.....	30.16	766.1	66.8	19.3	90	NE	8	3.6	.....	Haze	Sm'e	.....	.....	Inap.	Inap.	Clear	
Rochester, N. Y.	.....	.....	30.10	764.5	30	2.2	.....	W	8	3.6	.....	.....	10s	.....	W	0	0	Threatening	
Salt Lake City, Utah	25.43	645.9	29.76	755.9	36	2.2	80	S	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy	
Sandy Hook, N. J.	.....	.....	30.07	763.8	42	5.6	74	NW	13	5.8	.....	8c	2s	W	W	0.06	1.5	Cloudy	
San Diego, Cal.	.....	.....	30.08	764.0	50	10.0	93	E	8	3.6	.....	0	8s	.....	E	0	0	Fair	
San Francisco, Cal.	.....	.....	29.97	761.0	50	10.0	86	S	6	2.7	.....	0	8n	.....	.....	1.04	26.4	Light rain	
Santa Fe, N. M.	.....	.....	29.87	758.4	21	6.1	43	NE	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Savannah, Ga.	23.32	592.3	29.86	758.4	21	6.1	43	NE	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Shreveport, La.	.....	.....	30.15	765.8	62	16.7	88	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Smithville, N. C.	.....	.....	30.34	770.6	42	5.6	96	Calm	0	0	.....	5cs	0	SW	.....	0	0	Fair	
Springfield, Mass.	.....	.....	30.14	765.5	61	16.1	94	W	4	1.8	.....	1c,k	0	W	.....	0	0	Fair	
St. Louis, Mo.	.....	.....	30.02	762.5	44	6.7	63	W	8	3.6	.....	8cs	0	S	.....	0.03	0.8	Fair	
St. Marks, Fla.	.....	.....	30.33	770.4	32	0.0	70	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear	
St. Paul, Minn.	.....	.....	30.17	766.3	61	16.1	94	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
St. Paul's Island, Alaska	.....	.....	30.39	771.9	0	—17.8	68	NW	12	5.4	.....	1cs	0	NW	.....	0	0	Clear	
Squan Beach, N. J.	.....	.....	30.05	763.3	43	6.1	58	NW	2	0.9	.....	5ck	2s	.....	NW	0.03	0.8	Fair	
Thatcher's Island, Mass.	.....	.....	29.97	761.2	38	3.3	80	W	8	3.6	.....	5c	0	NW	.....	0	0	Clearing	
Toledo, Ohio	.....	.....	30.25	768.3	32	0.0	69	S	9	4.0	.....	0	Haze	.....	.....	0	0	Clear	
Tucson, Arizona	27.66	701.6	30.01	763.0	35	1.7	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Tybee Island, Ga.	.....	.....	30.15	765.8	62	16.7	94	Calm	0	0	.....	0	Fog	.....	E	0	0	Clear	
Vicksburg, Miss.	.....	.....	30.38	771.6	43.5	6.4	79	NE	1	0.4	.....	2ck	Sm'e	SW	.....	0	0	Fair	

UNITED STATES SERIES.—CONTINUED.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.96	608.6	29.44	747.8	18	— 7.8	68	Calm	0	0	.....	5k	0	S	.....	Inap.	Inap.	Cloudy	
Washington, D. C	.....	.....	30.18	766.6	48	8.9	60	NW	12	5.4	.....	2c	8s	.....	W	0.07	1 8	Clearing	
Wilmington, N. C	.....	.....	30.13	765.3	61	16.1	94	SW	5	2.2	.....	0	2s	.....	.....	Inap.	Inap.	Fair	
Wood's Holl, Mass	.....	.....	30.00	762.0	40	4.4	73	W	7	3.1	.....	0	5s	.....	W	0	0	Fair	
Wytheville, Va	27.81	706.4	30.02	762.5	42	5.6	66	N	2	0.9	.....	5c	0	W	.....	Inap.	Inap.	Fair	
Yankton, Dakota	28.99	736.3	30.40	772.1	15	— 9.4	65	N	18	8.0	.....	0	2s	.....	NW	0	0	Fair	
Yuma, Arizona	.....	.....	30.09	764.3	38	3.3	.....	E	.....	.....	.....	5c	0	W	.....	0	0	Fair	
Sub-Series.																			
Bridgetown, B'b'does, W. I	.....	.....	30.00	762.0	80	26.7	86	NE	.....	.....	6	0	5s	.....	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	29.96	761.0	76	24.4	82	E	.....	.....	.....	10pc	0	.....	.....	0.04	1.0	Cloudy	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.10	764.5	76	24.4	81	Calm	0	0	.....	1fk, k	1ks	E	E	0.08	2.0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.07	763.8	76	24.4	75	Calm	0	0	.....	8c	8s	NE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.23	767.8	76	24.4	76	E	6	2.7	.....	2ck	5k	E	N	0.07	1.8	Clearing	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.73	755.1	74	23.3	78	N	6.0	2.7	.....	8ck	3s	NE	.....	.....	.....	Cloudy	*Robert Mason.*
St. Georges, Bermudas	.....	.....	30.30	769.6	66.5	19.2	87	Calm	0	0	.....	5ck	8fk	.....	.....	0	0	Squally	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.13	765.3	—21	—29.4	.....	W	18	8.0	.....	.....	10n	.....	.....	0.03	0.8	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.51	749.5	34.0	1.1	89	SE	.....	.....	.....	.....	10n	.....	.....	0.18	4.6	Cloudy	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.15	689.6	29.94	760.5	63.0	17.2	88	SE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dull	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.14	638.6	.....	.....	66.4	19.1	84	.....	0	0	.....	2ck	4ks	E	.....	0.14	3.6	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.96	761.0	78	25.6	86	E	.....	.....	2	.....	7ck	.....	.....	0.320	8.13	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.07	763.6	81.5	27.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.541	13.75	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 4, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.15	765.9	59.0	15.0	55	NE			1		9			0	0	Hidden	Charnot.
Aiglers			30.14	765.5	57.9	14.4	84	WNW			1		0			0	0	Clear	Peter.
La Calle																			Kuntz.
Tunis			30.05	763.3	59.0	15.0	56	W			4		0			0	0	Clear	Jacques.
Sfax			30.11	764.8	61.2	16.2	33	SW			5		1			0	0	Clear	Chauvey.
Saida			30.24	768.0	55.4	13.0	25	SSW			3		2			0	0	Clear	Grosjean.
Tebessa			30.17	766.4	57.7	14.3		W			2		0			0	0	Clear	Colin.
Gerlville			30.26	768.7	35.6	2.0	25	SSW			2		2			0	0	Clear	Buard.
Laghouat			30.26	768.5	55.4	13.0	55	NW			3		0			0	0	Clear	Simon.
Biskra			30.20	767.1	59.0	15.0	44	NW			1		0			0	0	Clear	Coulon.

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			30.26	768.7	31.3	— 0.4	94	NE			3		10			0.055	1.4	Snowing	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.17	766.3	4.5	—15.2	91	NE			3		10			0.031	0.8		I. R. Observatory.
Eperies			29.95	760.7	50.7	10.4	67	N			2		0	S	N	0	0		Julius Mikolik.
Gratz	28.66	727.9	29.93	760.3	25.5	— 3.6	46	NW			5		8			0.039	1.0		Andreas Rospini.
Hermannstadt	28.34	719.8	29.84	757.7	27.7	— 2.4	85	SSE			1		10			0.024	0.60		Prof. Reissenberger.
Kremsmünster	28.77	730.7	30.22	767.5	20.5	— 6.4	63	NW			1		3			0.067	1.7		Prof. C. Wagner.
Lemberg			29.98	761.5	58.1	14.5	96	NE			2		10			0.311	7.9		Dr. T. Stanecki.
Nyiregyhaza			29.87	758.6	19.4	— 7.0	83	NE			3		5			0.213	5.41		Habasuda Daniel.
Pola			29.78	756.4	43.7	6.5	88	Calm			0		10ks			0	0		I.R. Hydrographic Of'ce
Szegedin			29.86	758.1	29.3	— 1.5	94	S			2		10			0.022	0.55		Karl Stancel.
Trieste			29.78	756.4	45.3	7.4	77	Calm			0		10			0	0		Prof. V. Farolfi.
Vienna			30.05	763.3	19.0	— 6.7	72	NW			4		10			0.185	4.7	Snowing	I. R. Central Institute.

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels			30.31	769.9	34.7	1.5	87	E			2		10			0.230	5.85		Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.17	766.3	45.1	7.3		SSE	25	11.2			9			0.260	6.60	Gloomy	William Boswell.
Ardrossan			29.97	761.2	49	9.4		SE			3		8					Overcast	J. Mayes.
Armagh Observatory			30.13	765.3	50.6	10.3		S	13	5.8			7					*D. clouds	S. Call, for Dr. Robinson.
Bidston, Liverpool Obs.			30.23	767.8	48.5	9.2		ESE	14	6.3			6					*D. clouds	John Hartnup.
Birr Castle, (Parsonstown)			30.08	764.0	49.6	9.8		SSE			1-2		10					Overcast	J. Dreyer.
Bradford			30.22	767.6	49.1	9.5		SE			1		0			0	0	Blue sky	J. McLandsborough.
Bridgetown, (Barbados)			29.92	760.0	83.6	28.7		NE			4		6					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.31	769.9	42.5	5.8		SSE			1		10					Raining	H. Todd.
Cardington			30.30	769.6	44.0	6.7		E			1		9					Foggy	John McLaren.
Carlisle			30.18	766.6	46.4	8.0		S			1		10			0	0	Overcast	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.33	770.4	45.2	7.3		W			1							Threatening	Capt. J. Fellowes, R. E.
Dartmoor	28.84	732.5	30.37	771.4	42.4	5.8		S			4		10					Overcast	R. E. Power.
Donaghadee			30.13	765.3	49	9.4		S			3		5					*D. clouds	J. Mac Gowan.
Dover			30.29	769.4	43	6.1		E			3		7					Gloomy	J. Costello.
Eccles, (near Manchester)			30.25	768.3	49.4	9.7		SE	0.4	0.2			7					Misty	Thomas Mackereth.
Falmouth Observatory			30.23	767.8	49.6	9.8		SSE	20	8.9			10					Overcast	The Staff.
Fort Napier, (Natal)	27.58	700.5	29.82	757.4	62.5	16.9		S			2		10					Gloomy	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	83	28.3		N			0		7					*D. clouds	(tis)
Galway, Queen's College			29.98	761.5	50	10.0		W			3		7					*D. clouds	B.G. Clare, for Prof. Curtis
Gibraltar, (Mediterranean)			30.13	765.3	57.8	14.3		NE			2		4					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.13	765.3	49.1	9.5		SSE			1		10					Overcast	Wm. M. Stewart.
Great Yarmouth			29.84	757.9	34	1.1		WSW			2		6					Misty	G. T. Watson.
Greenwich Royal Obs.			30.30	769.6	45.7	7.6		ESE			1		10					Overcast	The Staff for G. B. Airy
Guernsey			30.28	769.1	46.5	8.1		SSW			1		7					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.29	769.4	44.3	6.8		Calm			0		5					Foggy	L. J. Crossley.
Helston			30.22	767.6	53	11.7		S			4		6			0	0	Gloomy	M. P. Moyle.
Holyhead			30.21	767.3	49	9.4		SSE			3		5					Hazy	John Tilston.
Kew Observatory			30.30	769.6	46.4	8.1		SW	3	1.3								Foggy	The Staff.
Kingstown			30.17	766.3	49	9.4		SSE			4		6					*D. clouds	George Mitchell.
Leicester Museum			30.31	769.9	43.5	6.4		SS			1		10					Misty	William J. Harrison.
Malta, (Mediterranean)			30.04	763.0	57.2	14.0		NW			4		8k						Fred Travis, Pvt A.H.C.
Nairn			30.02	762.5	49	9.4		Calm			0		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.14	765.5	74.4	23.6		N			6		5					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.30	769.6	40.0	4.4		ESE			1		10s		E			Foggy	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.27	768.8	44.8	7.1		Calm			0		9					Misty	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.19	766.8	49	9.4		Calm			0		10					Misty	J. Lucas.
Plymouth			30.25	768.3	49	9.4		SE			1		10					Overcast	John Merrifield.
Roche's Point			30.09	764.3	50	10.0		SSW			5		5					Cloudy	W. Kennedy.
Saint Ann's Head			30.21	767.3	48	8.9		SE			4		5					*D. clouds	John C. Walker.
Saint Helier, (Jersey)			30.29	769.4	44.8	7.1		Calm			0		5					½ clouded	A. P. Amy.
Sandwick Manse (Orkneys)			30.01	763.0	45.8	7.7		S	18	8.0			10					Hazy	Rev. Dr. Clouston.
Scarborough			30.30	769.6	41.0	5.0		SSE			3		10					Overcast	F. Shaw.
Scutari Cemetery (Turkey)								SE										*D. clouds	Sergt. W. H. Lyne.
Sheffield			30.27	768.8	48.0	8.9		SW			1		5			0	0	*D. clouds	W. F. Cooper.
Silloth Rectory			30.19	766.8	50.0	10.0		SSW			1		10			0	0	Overcast	Rev Francis Rodford.
Stonyhurst Observatory			30.24	768.1	47.4	8.6		S			1		8						The Staff.
Stornoway, Lewis C. (Hebr)			29.93	760.2	51	10.6		SSW			6		10					Gloomy	John Smith.
Stratfield Turgiss			30.30	769.6	46.4	8.0		SW			0-1		10					Overcast	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			30.01	762.2	46	7.8		S			2		7					*D. clouds	John Trotter.
Truro, Royal Institution			30.21	767.3	51	10.6		SE			4		10					Gloomy	W. Newcombe.
Valencia Observatory			29.98	761.5	51.2	10.7		SSE	36	16.1			10					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			30.04	763.0	74.0	23.7	49	S	29	13.0			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					46	7.8		S			4	10	10			0	0		
Leith, Restalrig Park			30.19	766.8	51.2	10.7		SW			2		8k			0.01	0.3	Cloudy	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.46	773.6	29.7	—6.3	76	NNE			4		8						
Fanöe			30.53	775.4	23.9	— 4.5	75	E			4		5						
Godthaab, (Greenland)			29.22	742.2	7.2	—13.8	71	NNE			2		8						
Stykkisholm, (Iceland)			29.19	741.3	33.6	0.9	96	SW			6		10						
Thorshavn, (Faröe)			29.73	755.2	50.2	10.1	91	S			4		10					Snowing	
Vestervig			30.52	775.2	23.0	— 5.0	93	E			2		0					Raining	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols: no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.24	768.2	46.4	8	90	NW	.....	.....	2	.....	2n,k	.....	.....	0	0	Slightly cl'dy	Normal School.
Amiens	.....	.....	30.26	768.6	47.8	8.8	89	NW	.....	.....	1	.....	10	.....	.....	0.031	0.8	Covered	Normal School.
Avignon	.....	.....	29.95	760.8	55.9	13.3	64	N	.....	.....	0	.....	0	.....	.....	0	0	Very clear...	Normal School.
Bar-sur-Seine	.....	.....	30.20	767.0	48.2	9.0	90	NE	.....	.....	2	.....	10	.....	.....	0.307	7.8	Foggy	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.26	768.6	40.8	4.9	100	N	4.8	1.9	.....	.....	.....	.....	.....	0.016	0.4	Foggy	Beaumette Observatory
Beauvais	.....	.....	30.28	769.1	48.7	9.3	81	NNW	.....	.....	2	.....	10	.....	N	0	0	Covered	Normal School.
Besançon	.....	.....	30.19	766.8	45.7	7.6	91	NNE	.....	.....	2	.....	10	.....	SW	1.032	26.2	Covered	Normal School.
Bourg en Bresse	.....	.....	30.23	767.8	45.7	7.6	98	NE	.....	.....	2	.....	.....	.....	SW	0.445	11.3	Foggy.....	Normal School.
Bourges	.....	.....	30.26	768.7	45.7	7.6	98	SW	.....	.....	2	.....	10	.....	SW	0	0	Covered	Normal School.
Brest	.....	.....	30.18	766.5	45.9	7.7	85	SE	.....	.....	2	.....	10	.....	SE	0	0	Covered	Naval Observatory.
Caen	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Chartres	.....	.....	30.26	768.6	40.3	4.6	.....	N	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.24	768.1	49.1	9.5	84	N	.....	.....	2	.....	.....	.....	.....	0	0	Misty.....	Puy de Dome, Obs.
Commercy	.....	.....	30.22	767.6	41.5	5.3	84	NNE	.....	.....	4	.....	5	.....	NNE	0.177	4.5	Cloudy.....	Normal School.
Commune de Gréasque*	.....	.....	29.89	759.2	54.5	12.5	68	NW	.....	.....	2	.....	2	.....	NW	0	0	¼ covered...	
Grenoble	.....	.....	30.13	765.4	42.6	5.9	91	NE	.....	.....	1	.....	2kn	.....	E	0	0	Slightly cl'dy	Normal School.
Le Mans	.....	.....	30.30	769.7	37.9	3.3	97	N	.....	.....	2	.....	8	.....	N	0	0	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lons-Le-Saunier	.....	.....	30.18	766.6	44.1	6.7	97	NE	.....	.....	2	.....	5	.....	.....	0	0	Cloudy.....	Normal School.
Mâcon	.....	.....	29.83	757.8	49.5	9.7	92	NNW	.....	.....	4	.....	5	.....	SE	0.213	5.4	Cloudy.....	Normal School.
Mirecourt	.....	.....	29.79	756.6	41.5	5.3	87	N	.....	.....	2	.....	10	.....	N	0	0	Covered.....	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Nismes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	Clear.....	Normal School.
Orleans	.....	.....	30.12	765.0	59.7	15.4	45	N	.....	.....	8	.....	0	.....	.....	0	0	Cloudy.....	Normal School.
Paris Observatory	.....	.....	30.26	768.7	46.8	8.2	92	N	.....	.....	3	.....	5	.....	N	0	0	Covered	National Observatory.
Parthenny	.....	.....	30.25	768.4	48.0	8.9	87	NNW	.....	.....	2	.....	10	.....	NW	0	0	Very cloudy	Normal School.
Privas	.....	.....	30.25	768.3	41.0	5	93	NE	.....	.....	2	.....	8	.....	NE	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	30.11	764.7	52.9	11.6	.....	NW	.....	.....	4	.....	10	.....	NW	0	0	Covered	Normal School.
Rochefort, Observatory	.....	.....	30.19	769.3	42.4	5.8	97	NE	.....	.....	2	.....	10	.....	.....	0.051	1.3	Covered	Normal School.
Rouen	.....	.....	30.24	768.1	44.4	6.9	98	ENE	.....	.....	4	.....	.....	.....	.....	0	0	Misty.....	Naval Observatory.
Saint Lo	.....	.....	30.26	768.6	46.8	8.2	92	WSW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Tarbes	.....	.....	30.33	770.3	35.6	2	93	W	.....	.....	1	.....	10	.....	.....	Inap.	Inap.	.....	Normal School.
Toulouse	.....	.....	30.17	766.4	51.8	11	50	NW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Villefranche	.....	.....	30.23	767.7	35.4	1.9	96	S	.....	.....	1	.....	.....	.....	.....	.....	.....	Foggy	Normal School.
	.....	.....	30.40	772.1	48.2	9	77	NNW	.....	.....	1	.....	5	.....	NE	0.087	2.20	Cloudy..	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.82	757.3	75.4	24.1	91	Calm	.....	.....	0	.....	..ck	.....	.....	0.24	6.	.....	L'Abbé Marchésl.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Marseilles	.....	.....	29.85	758.3	57.7	14.3	57	WNW	.....	.....	2	.....	0	.....	.....	0	0	.....	Marseilles Observatory
Mont-Louis	.....	.....	30.26	768.6	46.8	8.2	41	NW	9.3	4.17	.....	.....	0	.....	.....	0	0	.....	—. Falguère.
Montsouris, Paris	24.89	632.2	30.26	768.0	48.0	8.9	81	NNW	.....	.....	4	.....	10	.....	.....	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.26	768.0	48.0	8.9	81	NNW	.....	.....	.....	.....	10	.....	.....	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.31	541.3	30.01	763.1	64.8	18.2	40	N	16.8	7.50	.....	.....	0	.....	.....	0	0	.....	M. Baylac.
Pic du Midi, (Plantade)	.....	.....	.....	.....	28.4	— 2.0	.....	NE	.....	.....	1	.....	1	.....	.....	0	0	Clear.....	E. Renou.
Saint Maur, (near Paris)	.....	.....	30.31	769.2	48.2	9.0	85	NNW	.....	.....	1	.....	10	.....	.....	0	0	Very cloudy	Toulouse Observatory.
Toulouse	.....	.....	30.19	766.7	33.1	0.6	100	SE	.....	.....	1	.....	10	.....	.....	0	0	Dense fog....	C. Marquet.
Tours	.....	.....	30.26	768.7	45.1	7.3	91	NE	.....	.....	2	.....	10	.....	NE	0	0	.....	Dr. A. Bérigny.
Versailles, (near Paris)	.....	.....	30.24	768.1	47.8	8.8	94	N	.....	.....	2	.....	10	.....	.....	0.004	0.10	Light mist...	
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,360 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. T. Hoh.
Berlin	.....	.....	30.18	766.5	22.1	— 5.5	57	NNE	.....	.....	7	.....	4	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.37	771.3	23.0	— 5.0	80	N	.....	.....	3	.....	7	.....	.....	0	0	Snowing.....	Dr. P. Neugebauer.
Carlsruhe	.....	.....	30.28	769.0	1.2	—17.1	92	NNW	.....	.....	3	.....	10	.....	.....	0.394	10.0	.....	A. Senz.
Cassel	.....	.....	30.28	769.0	32.4	0.2	71	NE	.....	.....	3	.....	10	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	30.29	769.4	27.0	— 2.8	66	NE	.....	.....	2	.....	1	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.031	0.8	.....	Physical Society.
Friedrichshafen	.....	.....	30.44	773.2	29.1	— 1.6	82	NE	.....	.....	5	.....	5	.....	.....	0	0	Rain & snow	M. Wilhelm.
Hamburg	.....	.....	30.20	767.0	35.8	2.1	66	NE	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	Deutsche Seewarte.
Kiel	.....	.....	30.47	773.8	23.0	— 5.0	84	NE	.....	.....	4	.....	8	.....	NE	0.008	0.2	Light snow..	Prof. G. Karsten.
Königsberg	.....	.....	30.47	773.9	24.6	— 4.1	64	NE	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. E. Luther.
Köslin	.....	.....	30.33	770.4	4.8	—15.4	71	NE	.....	.....	2	.....	2	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.30	769.7	16.9	— 8.4	.....	Calm	.....	.....	0	.....	10	.....	.....	0.661	16.8	.....	Prof. Bruhns.
Münster	.....	.....	30.36	771.2	20.5	— 6.4	82	N	.....	.....	5	.....	8	.....	.....	0	0	Light snow..	Prof. E. Heis.
Posen	.....	.....	30.35	770 9	28.2	— 2.1	87	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.31	769.0	0.9	—17.3	74	NE	.....	.....	5	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.27	768.8	33.8	1.0	81	NE	.....	.....	4	.....	10	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.26	768.6	29.1	— 1.6	75	E	.....	.....	.....	.....	10	.....	.....	0.161	4.1	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.20	768.5	2.3	—16.5	93	ENE	.....	.....	2	.....	2	.....	.....	0.102	2.6	.....	Prof. Flesch.
Wustrow, Naval School	.....	.....	30.23	767.7	30.5	2.5	71	NE	.....	.....	0	.....	10	.....	.....	0	0	Light mist...	E. F. Schütz.
	.....	.....	30.45	773.4	25.0	— 3.9	69	NNE	.....	.....	8	.....	8k	.....	.....	0	0	.....	

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.95	760.7	52.0	11.1	.....	SW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Covered	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	29.82	757.5	42.3	5.7	64	N	.....	.....	2	.....	8	.....	.....	0	0	.....	
Padua	.....	.....	29.67	753.7	36.0	2.2	93	SSW	3.1	1.4	.....	.....	10	.....	.....	0	0	.....	
Verona	.....	.....	29.78	756.4	38.3	3.5	83	E	.....	.....	1	.....	10	.....	.....	0	0	.....	
Bergamo	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Milan	.....	.....	29.85	758.1	33.3	0.7	100	NE	.....	.....	1	.....	10	.....	.....	0	0	Light snow.	
Moncalieri	.....	.....	29.82	757.5	37.2	2.9	88	SSW	10.5	4.7	.....	.....	2	.....	.....	0	0	.....	
Mondovi	.....	.....	29.84	758.0	57.0	13.9	37	SSE	.....	.....	2	.....	1	NW	.....	0	0	.....	
Porto Maurizio	.....	.....	29.97	761.1	52.3	11.3	.....	W	.....	.....	4	.....	9	.....	.....	0	0	.....	
Genoa	.....	.....	29.85	758.2	51.3	10.7	71	SW	3.8	1.7	.....	.....	10	SW	.....	0	0	.....	
Piacenza	.....	.....	29.83	757.7	33.3	0.7	96	SE	4.3	1.9	.....	.....	10	.....	.....	0	0	Light snow.	
Bologna	.....	.....	29.87	758.6	35.4	1.9	47	NW	.....	.....	1	.....	10	.....	.....	0	0	.....	
Florence	.....	.....	29.84	757.9	48.7	9.3	85	E	.....	.....	4	.....	10	.....	.....	0	0	.....	
Leghorn	.....	.....	29.85	758.1	52.7	11.5	76	W	9.4	4.2	.....	.....	10	.....	.....	0	0	.....	
Siena	.....	.....	29.89	759.2	42.1	5.6	95	S	0	0	.....	.....	10	W	.....	0.012	0.3	.....	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	29.82	757.4	26.9	2.7	96	NW	.....	.....	1	.....	10	.....	.....	0	0	.....	
Ancona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Rome	.....	.....	29.87	758.7	51.1	10.6	79	SE	4.3	1.9	.....	.....	4	SSW	.....	0	0	.....	
Naples, O. U.	.....	.....	29.93	760.2	57.6	14.2	63	NW	.....	.....	2	.....	5	SW	.....	0	0	.....	
Lecce	.....	.....	29.99	761.7	53.6	12.0	60	SW	18.6	8.3	.....	.....	9	SW	.....	0	0	.....	
Cosenza	.....	.....	29.99	761.8	50.7	10.4	83	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Riposto, (Sicily)	.....	.....	29.90	759.4	56.5	13.6	80	NNE	.....	.....	2	.....	3	S	.....	0	0	.....	
Palermo	.....	.....	29.91	759.7	56.8	13.8	63	W	13.7	6.1	.....	.....	10	W	.....	0	0	.....	
Caltanissetta	.....	.....	29.94	760.4	49.6	9.8	79	W	.....	.....	6	.....	10	E	.....	0	0	.....	
Sub-Series.																			
Naples, S. R.	.....	.....	29.90	759.4	53.6	12.0	76	WSW	.....	.....	4	.....	..k	W	.....	0	0	.....	Prof. F. Briosci.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,144.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	30.38	771.6	35.6	2.0	.....	E	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	30.39	772.0	28.4	— 2.0	.....	E	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	30.39	771.9	32.0	0.0	.....	E	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	30.35	771.0	31.5	— 0.3	74	E	.....	.....	3	.....	8	.....	.....	.....	.....	Very cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	30.41	772.4	30.9	— 0.6	92	S	10.5	4.7	.....	.....	5	.....	.....	0	0	.....	
Brönö	.....	.....	30.38	771.7	29.5	— 1.4	72	Calm	0	0	.....	.....	1	.....	.....	0	0	.....	
Christiania	.....	.....	30.55	775.9	24.1	— 4.4	86	Calm	0	0	.....	.....	10	.....	.....	0	0	.....	
Tromsö	.....	.....	30.28	769.0	32.4	0.2	89	SW	7	3	.....	.....	10	.....	.....	0.039	1.0	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.00	762.1	52.7	11.5	74	NW	6.5	2.92	.....	.....	1	.....	.....	0.079	2.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.17	766.4	46.4	8.0	56	E	4.5	2.00	.....	.....	9	SSW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	29.91	759.7	63.9	17.7	68	W	5.4	2.41	.....	.....	8	.....	.....	1.110	28.2	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.13	765.4	47.0	8.3	79	NE	8.7	3.9	.....	.....	6	SSW	.....	0	0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.																			
Warsaw	.....	.....	30.22	767.6	2.3	—16.5	85	NNE	9	4	.....	.....	10	.....	.....	.....	.....	Light snow..	Astronomical Obs.
Wilna	.....	.....	30.32	770.2	5.0	—15.0	64	NE	4	2	.....	.....	3	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.41	772 3	12.2	—11.0	89	ENE	2	1	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.42	772.7	16.2	— 8.8	94	E	2	1	.....	.....	10	.....	.....	.....	.....	Fog, snow....	Central Physical Obs.
Kuopio	.....	.....	30.44	773.2	13.6	—10.2	97	Calm	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kiefl	.....	.....	30.19	766.7	6.8	—14.0	100	SE	4	2	.....	.....	10	.....	.....	.....	.....	Snowing.....	Physical Cabinet.
Nikolaiev	.....	.....	30.21	767.2	16.9	— 8.4	73	NE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.09	764.2	30.0	— 1.1	78	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.47	773.9	4.5	—15.3	86	SE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.21	767.3	0.9	—17.3	79	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.48	774.3	8.6	—13.0	92	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.84	732.6	30.32	770.1	36.7	2.6	46	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.48	774.1	12.0	—11.1	82	WSW	4	2	.....	.....	1	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.77	781.5	10.4	—12.0	70	SE	4	2	.....	.....	3	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kasaly	29.57	751.1	30.69	779.6	7.5	—13.6	61	W	4	2	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Tashkend	.....	.....	30.39	772.0	5.2	—14.9	55	NE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Barnaul	28.63	727.3	30.44	773.1	30.0	— 1.1	92	Calm	0	0	.....	.....	4	.....	.....	.....	.....	.....	Michelson.
Yeniseisk	.....	.....	30.16	766.0	— 7.2	—21.8	76	SW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs
Irkutsk	.....	.....	29.95	760.6	—25.2	—31.8	78	WNW	2	1	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Gorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Peking, (China)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Nertchinsk	.....	.....	30.38	771.6	23.0	— 5.0	41	Calm	0	0	.....	.....	2	.....	.....	.....	.....	.....	Physical Observatory.
Vladivostock	27.86	707.5	30.24	768.1	—23.4	—30.8	85	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Nikolaievsk, on the Amoor	.....	.....	30.43	772.8	2.3	—16.5	80	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	—25.4	—31.9	.....	NW	7	3	.....	.....	0	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Gorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.																			
Madrid	.....	.....	30.64	778.3	43.3	6.3	61	E	2.9	1.3	.....	3	0	W	.....	0	0	Light clouds	Royal Observatory.
San Fernando	.....	.....	30.20	767.0	57.2	14.0	78	ESE	4.0	1.8	.....	1	8	ESE	ESE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Stations.																			
Haparanda	.....	.....	30.48	774.1	—13.4	—25 2	.....	N	.....	.....	2	.....	0	.....	.....	0	0	.....	.....
Umea	.....	.....	30.50	774.7	— 5.8	—21.0	86	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	.....
Hernosand	.....	.....	30.53	775.5	9.7	—12.4	94	NNW	.....	.....	2	.....	6	.....	.....	0.020	0.5	.....	
Stockholm	.....	.....	30.37	771.4	21.0	— 6.1	98	NNW	.....	.....	4	.....	10	.....	.....	0.016	0.4	Hailing	
Wisby	.....	.....	30.41	772.5	23.7	— 4.6	95	NE	.....	.....	4	.....	10	.....	.....	0.043	1.1	Snowing.....	
Sub-Series.																			
Upsala	.....	.....	30.45	773.5	19.8	— 6.8	100	NNW	8.3	3.7	.....	.....	10	.....	.....	0	0	Foggy.....	Dr Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.67	728.6	30.15	765.8	42.1	5.6	97	NNE	.....	.....	1	.....	10	.....	.....	0.035	0.9	Foggy	The Observatory.
Zurich	28.48	723.3	30.17	766.3	38.1	3.4	93	NE	.....	.....	2	.....	10	.....	NE	0.110	2.8	Overcast	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.9 mm.; Thermometer, +4.2; Relative Humidity, +17 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.01	762.2	38.8	3.8	63	SE	21	9.5	.....	.....	6	.....	SW	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.17	766.4	62.6	17.0	.....	NW	.....	.....	4	.....	10	.....	.....	.....	.....	Raining	
Salonica	.....	.....	29.86	758.4	39.7	4.3	.....	NW	.....	.....	1	.....	10	.....	.....	.....	.....	Raining	
Valona	.....	.....	29.70	754.3	53.8	12.1	.....	S	.....	.....	1	.....	5	.....	.....	.....	.....	.....	
Varna	.....	.....	29.88	759.0	37.4	3.0	.....	N	.....	.....	2	.....	10	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.16	766.0	56.1	13.4	60	NW	.....	.....	1	.....	1k	.....	SW	0.000	0.01	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.77	756.1	16.5	— 8.6	79	NW	11.2	5.0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.56	776.2	4	—15.6	.....	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.73	755.1	20	— 6.7	95	NW	18	8.0	.....	.....	10s	.....	NW	0.02	0.5	Light snow	G. A. Blair.
Charlottetown P. E. Island	.....	.....	29.67	753.6	26	— 3.3	95	Calm	0	0	.....	.....	8s	.....	.....	0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.47	773.9	3.7	—15.7	82	NW	.....	.....	3	.....	.....	.....	.....	0.01	0.3	Bright	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.80?	756.9?	12.0	—11.1	90	NW	.....	.....	4	.....	2s	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.48	748.8	40.1	4.5	92	N	1	0.4	.....	.....	10	.....	.....	0	0	Cloudy	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.72	754.9	25.0	— 3.9	73	NW	16	7.2	.....	.....	10n	.....	.....	0	0	Cloudy	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.44	773.2	—18	—27.8	93	SE	6	2.7	.....	.....	10n	.....	.....	0	0	Cloudy	James Stewart.
Goderich, Ontario	.....	.....	30.62	777.7	15.7	— 9.1	72	NE	.....	.....	1	.....	10n	.....	.....	Inap.	Inap.	Threatening	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.55	776.0	13.4	—10.3	.....	N	.....	.....	2	.....	10n	.....	.....	0	0	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	29.70	754.4	27	— 2.8	73	W	5	2.2	.....	0	0	.....	.....	0	0	Clear	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.61	777.2	7	—13.9	88	W	10	4.5	.....	0	0	.....	.....	0	0	Clear	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.59	779.5	3.7	—15.7	.....	NE	2	0.9	.....	.....	9s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.42	772.7	5	—15.6	75	NW	20	8.9	.....	0	Haze	.....	.....	0.01	0.3	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.50	774.7	0	—17.8	85	W	10	4.5	.....	0	0	.....	.....	0.02	0.5	Clear	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.64	778.2	— 3	—19.4	83	W	3	1.3	.....	0	0	.....	.....	0.02	0.5	Clear	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.57	776.5	12	—11.1	75	N	8	3.6	.....	0	0	.....	.....	0	0	Clear	H. Morgan.
Port Hastings, N. S.	.....	.....	29.71	754.6	31.7	— 0.2	.....	Calm	0	0	.....	0	0	.....	.....	0	0	Fine	Peter Grant.
*Port Stanley, Ontario	.....	.....	30.54	775.7	18	— 7.8	70	NE	6	2.7	.....	.....	10n	.....	N	0	0	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	30.20	767.1	6	—14.4	76	SE	19	8.5	.....	0	0	.....	.....	0	0	Clear	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.77	756.4	26.0	— 3.3	63	W	7	3.1	.....	5k	0	.....	.....	0.01	0.3	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.57	776.5	10	—12.2	100	E	4	1.8	.....	.....	10n	.....	.....	0.02	0.5	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	30.59	777.0	11	—11.7	79	SE	1	0.4	.....	.....	Haze	.....	.....	Inap.	Inap.	Hazy	R. J. Cole.
Stratford, Ontario	.....	.....	30.59	777.0	9.3	—12.6	80	N	4	1.8	.....	0	2s	.....	.....	0	0	Fine	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.68	753.9	37	2.8	90	W	4	1.8	.....	2k	2ks	NW	NW	0	0	Fair	T. C. Hill.
*Toronto, Ontario	.....	.....	30.59	777.0	12	—11.1	73	N	10	4.5	.....	.....	10ks	.....	N	Inap.	Inap.	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	30.58	776.7	11.4	—11.4	67	N	1	0.4	.....	2cs	6s	NE	.....	0	0	Fine	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Granton, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.37	771.4	16	— 8.9	66	NW	15	6.7	.....	0	0	.....	.....	0	0	Clear.	
Alpena, Mich.	.....	.....	30.57	776.5	10	—12.2	79	W	7	3.1	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy.	
Atlantic City, N. J.	.....	.....	30.34	770.6	34	1.1	61	W	6	2.7	.....	1cs	0	NW	.....	0	0	Clear.	
Augusta, Ga.	.....	.....	30.42	772.7	47	8.3	62	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Baltimore, Md.	.....	.....	30.38	771.6	39	3.9	56	W	3	1.3	.....	0	Sm'e	.....	.....	0	0	Smoky.	
Barnegat, N. J.	.....	.....	30.32	770.1	33	0.6	79	NW	17	7.6	.....	2c	0	W	.....	0	0	Fair.	
Benton, Montana	26.87	682.5	29.07	753 6	12	—11.1	100	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Bismarck, Dakota	28.13	714.5	29.96	761.0	- 2	—18.9	89	E	7	3.1	.....	.....	10ks	.....	.....	0	0	Threatening	
Boston, Mass.	.....	.....	30.19	766.8	22	— 5.6	59	NW	24	10.7	.....	0	Haze	.....	.....	0	0	Clear.	
Breckenridge, Minn.	.....	.....	30.06	763.5	2	—16.7	72	SE	26	11.6	.....	.....	10s	.....	SE	0	0	Cloudy.	
Buffalo, N. Y.	.....	.....	30.54	775.7	16	— 8.9	66	NW	4	1.8	.....	.....	10n	.....	N	0	0	Light snow.	
Burlington, Vt.	.....	.....	30.42	772.7	10	—12.2	68	NW	6	2.7	.....	5k	0	W	.....	0.01	0.3	Fair.	
Cairo, Ill.	.....	.....	30.37	771.4	40	4.4	82	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Cape Hatteras, N. C.	.....	.....	30.33	770.4	48	8.9	49	NE	19	8.5	.....	0	0	.....	.....	0.04	1.0	Clear.	
Cape Henry, Va.	.....	.....	30.41	772.4	40	4.4	37	NW	1	0.4	.....	0	0	.....	.....	0.31	7.9	Clear.	
Cape May, N. J.	.....	.....	30.35	770.9	39	3.9	55	NW	14	6.3	.....	0	0	.....	.....	0	0	Clear.	
Charleston, S. C.	.....	.....	30.39	771.9	51	10.6	79	N	10	4.5	.....	0	Haze	.....	.....	0	0	Clear.	
Cheyenne, Wyoming	23.81	604.8	29.75	755.6	35	1.7	52	SW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Chicago, Ill.	.....	.....	30.42	772.7	31	— 0.6	79	E	11	4.9	.....	0	10ks	.....	E	0	0	Cloudy.	
Cincinnati, Ohio.	.....	.....	30.40	772.1	34	1.1	69	S	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Cleveland, Ohio.	.....	.....	30.51	774.9	25	— 3.9	84	N	6	2.7	.....	.....	10ks	.....	N	0	0	Cloudy.	
Colorado Springs, Col.	24.91	6 7.3	29.78	756.4	28	— 2.2	67	NE	8	3.6	.....	0	8s	.....	.....	0	0	Fair.	
Corsicana, Texas.	.....	.....	30.27	768.8	43	6.1	91	S	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Davenport, Iowa.	.....	.....	30.33	770.4	27	— 2.8	77	E	16	7.2	.....	2cs	0	E	.....	0	0	Clear.	
Denison, Texas.	.....	.....	30.22	767.6	45	7.2	75	SE	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
Denver, Col.	24.59	624.6	29.81	757.2	27	— 2.8	53	W	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	.....	.....	30.56	776.2	14	—10.0	81	N	6	2.7	.....	0	Haze	.....	.....	0	0	Clear.	
Dodge City, Kan.	27.30	693.4	29.61	752.1	39	3.9	56	S	8	3.6	.....	2c	Sm'e	SW	.....	0	0	Fair.	
Dubuque, Iowa.	.....	.....	30.36	771.1	22	— 5.6	45	E	8	3.6	.....	5c	0	N	.....	0	0	Fair.	
Duluth, Minn.	.....	.....	30.51	774.9	1	—17.2	72	SW	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.	
Eastport, Me.	.....	.....	29.77	756.1	24	— 4.4	61	NW	27	12.1	.....	2c	5s	NW	NW	0	0	Fair.	
Erie, Pa.	.....	.....	30.52	775.2	21	— 6.1	85	N	12	5.4	.....	.....	10n	.....	NE	0	0	Light snow.	
Escanaba, Mich.	.....	.....	30.57	776.5	4	—15.6	74	N	5	2.2	.....	.....	10s	.....	NW	0.01	0.3	Cloudy.	
Fort Gibson, Indian T.	.....	.....	30.19	766 8	43	6.1	75	SE	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Fort Sill, Indian T.	28.94	735.1	30.10	764.5	35	1.7	69	S	1	0.4	.....	2cs	0	S	.....	0	0	Clear.	
Fort Sully, Dakota.	28.16	715.3	29.95	760.7	9	—12.8	78	SE	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.	
Galveston, Texas.	.....	.....	30.26	768.8	58	14.4	76	E	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Grand Haven, Mich.	.....	.....	30.54	775.7	15	— 9.4	83	E	8	3.6	.....	5cs	0	.....	.....	0	0	Fair.	
Indianapolis, Ind.	.....	.....	30.40	772.1	32	0.0	69	Calm	0	.....	.....	Haze	Haze	.....	.....	0	0	Hazy.	
Indianola, Texas.	.....	.....	30.26	768.6	59	15.0	81	NE	12	5.4	.....	0	.....	.....	.....	0	0	Clear.	
Jacksonville, Fla.	.....	.....	30.28	769.1	61	16.1	83	N	14	6.3	.....	.....	10s	.....	NE	0	0	Cloudy.	
Keokuk, Iowa.	.....	.....	30.23	767.8	31	— 0.6	79	N	9	4.0	.....	5c	0	N	.....	0	0	Fair.	
Key West, Fla.	.....	.....	30.13	765.3	72	22.2	85	NE	16	7.2	.....	0	Haze	.....	NE	0.12	3.0	Clear.	
Kittyhawk, N. C.	.....	.....	30.40	772.1	47	8.3	55	NE	12	5.4	.....	0	0	.....	.....	0.10	2.5	Clear.	
Knoxville, Tenn.	.....	.....	30.45	773.4	35	1.7	90	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair.	
La Crosse, Wis.	.....	.....	30.38	771.6	12	—11.1	84	NE	4	1.8	.....	10cs	Haze	E	.....	0	0	Cloudy.	
Leavenworth, Kan.	.....	.....	30.07	763.8	42	5.6	75	S	14	6.3	.....	0	5s	.....	.....	0	0	Fair.	
Lexington, Ky.	29.30	744.2	30.47	773.9	35	1.7	52	E	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Long Branch, N. J.	.....	.....	30.34	770.6	34	1.1	52	NW	24	10.7	.....	0	0	.....	.....	0	0	Clear.	
Louisville, Ky.	.....	.....	30.4	772.7	36	2.2	80	Calm	0	0	.....	0	Fog	.....	.....	0	0	Clear.	
Lynchburg, Va.	.....	.....	30.45	773.4	35	1.7	89	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Malone, N. Y.	.....	.....	30.50	774.7	4	—15.6	74	NW	12	5.4	.....	5k	0	NW	.....	0.05	1.3	Fair.	
Marquette, Mich.	.....	.....	30.58	776.7	7.5	—13.6	89	W	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.	
Memphis, Tenn.	.....	.....	30.36	771.1	40	4.4	82	E	4	1.8	.....	0	Fog	.....	.....	0	0	Clear.	
Milwaukee, Wis.	.....	.....	30.49	774.4	23	— 5.0	73	E	.....	.....	.....	.....	10ks	.....	NE	0	0	Cloudy.	
Mobile, Ala.	.....	.....	30.30	769.6	46	7.8	85	N	3	1.3	.....	0	0	.....	.....	0	0	Clear.	
Montgomery, Ala.	.....	.....	30.37	771.4	44	6.7	80	N	4	1.8	.....	0	Sm'e	.....	.....	0	0	Clear.	
Morgantown, W. Va.	.....	.....	30.48	774.2	29	— 1.7	72	SW	1	0.4	.....	0	Sm'e	.....	.....	0	0	Clear.	
Mt. Washington, N. H.	23.28	591.3	29.64	752.8	—16	—26.7	100	N	70	31.3	.....	.....	Fog	.....	.....	0	0	Foggy.	
Nashville, Tenn.	.....	.....	30.39	771.9	36	2.2	90	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
New Haven, Conn.	.....	.....	30.31	769.9	23	— 5.0	60	N	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
New London, Conn.	.....	.....	30.27	768.8	24	— 4.4	74	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
New Orleans, La.	.....	.....	30.27	768.8	53.5	11.9	64	NE	6	2.7	.....	0	Sm'e	.....	.....	0	0	Clear.	
Newport, R. I.	.....	.....	30.24	767.3	26	— 3.3	63	W	20	8.9	.....	0	0	.....	.....	0	0	Clear.	
New York, N. Y.	.....	.....	30.35	770.9	28	— 2.2	67	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Norfolk, Va.	.....	.....	30.42	772.7	42.5	5.8	62	NW	3	1.3	.....	0	Haze	.....	.....	0.21	5.3	Clear.	
North Platte, Neb.	26.90	683.2	29.54	7 0 3	27	— 2.8	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy.	
Omaha, Neb.	28.83	732.3	29.94	760.5	30	— 1.1	89	SE	12	5.4	.....	8cs	0	.....	.....	0	0	Fair.	
Oswego, N. Y.	.....	.....	30.5	774.9	14.5	— 9.7	82	NW	6	2.7	.....	Haze	5ks	.....	NW	0	0	Fair.	
Peck's Beach, N. J.	.....	.....	30.37	771.4	34	1.1	69	W	8	3.6	.....	0	0	.....	.....	0.01	0.3	Clear.	
Pembina, Dakota.	.....	.....	30.31	769.9	—12	—24.4	100	SE	8	3.6	.....	.....	10n	.....	.....	0.06	1.5	Heavy snow	
Philadelphia, Penn.	.....	.....	30.38	771.6	33	0.6	61	N	13	5.8	.....	0	Sm'e	.....	.....	0	0	Clear.	
Pike's Peak, Colorado.	17.52	445.0	29.73	755.1	3	—16.1	73	SW	45	20.1	.....	5ck	2s	SW	.....	0	0	Fair.	
Pittsburgh, Penn.	.....	.....	30.47	773.9	30	— 1.1	78	N	3	1.3	.....	0	0	.....	.....	0	0	Clear.	
Port Huron, Mich.	.....	.....	30.57	776.5	13	—10.4	84	W	7	3.1	.....	.....	8s	.....	NE	0	0	Cloudy.	
Portland, Me.	.....	.....	30.11	764.8	22	— 5.6	45	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Portland, Oregon.	.....	.....	29.6	753.6	43	6.1	84	SW	12	5.4	.....	.....	10s	.....	.....	0.26	6.6	Cloudy.	
Punta Rassa, Fla.	.....	.....	30.18	766.6	65.1	18.4	74	NE	10	4.5	.....	0	2ks	.....	SW	0	0	Clear.	
Rochester, N. Y.	.....	.....	30.54	775.7	14	—10.0	.....	NW	14	6.3	.....	Haze	2s	.....	NW	Inap.	Inap.	Fair.	
Salt Lake City, Utah	25.38	644.6	29.74	755.6	38	3.3	71	SE	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Sandy Hook, N. J.	.....	.....	30.31	769.9	31	— 0.6	68	NW	31	13.9	.....	0	0	.....	.....	0	0	Clear.	
San Diego, Cal.	.....	.....	30.18	766.6	49	9.4	85	NE	12	5.4	.....	0	0	.....	.....	0.04	1.0	Clear.	
San Francisco, Cal.	.....	.....	30.00	762.0	50	10.0	89	NW	4	1.8	.....	0	5s	.....	NW	1.00	25.4	Fair.	
Santa Fe, N. M.	23.26	590.8	29.8	756.9	25	— 3.9	62	E	2	0.9	.....	Haze	5s	.....	.....	0	0	Fair.	
Savannah, Ga.	.....	.....	30.35	770.9	51	10.6	71	NE	8	3.6	.....	0	2s	.....	.....	0	0	Clear.	
Shreveport, La.	.....	.....	30.31	770.6	41.5	5.3	93	Calm	0	0	.....	0	Fog	.....	E	0	0	Fair.	
Smithville, N. C.	.....	.....	30.40	772 1	44	6.7	92	N	8	3.6	.....	0	0	.....	.....	0	0	C ear.	
Springfield, Mass.	.....	.....	30.28	769.1	21	— 6.1	55	NW	12	5.4	.....	1k	0	.....	.....	0	0	Clear.	
St. Louis, Mo.	.....	.....	30.29	769.4	41	5.0	56	S	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
St. Marks, Fla.	.....	.....	30.07	763.8	50	10.0	78	N	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
St. Paul's, Minn.	.....	.....	30.32	770.1	3.5	—15.8	72	E	19	8.5	.....	10cs	0	.....	.....	0	0	Cloudy.	
St. Paul's Island, Alaska.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squan Beach, N. J.	.....	.....	30.36	768.6	31	— 0.6	60	NW	13	5.8	.....	0	Haze	.....	.....	0	0	Clear.	
Thatcher's Island, Mass.	.....	.....	30.18	766.6	22	— 5.6	44	NW	40	17.9	.....	0	0	.....	.....	0	0	Clear.	
Toledo, Ohio.	.....	.....	30.52	775.2	23	— 5.0	73	E	16	7.2	.....	.....	10s	.....	SE	0	0	Cloudy.	
Tucson, Arizona.	27.72	704.1	30.19	766.8	32	0.0	.....	S	.....	.....	.....	2cs	0	SW	.....	0	0	Fair.	
Tybee Island, Ga.	.....	.....	30.33	770.4	53	11.7	79	NE	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Vicksburg, Miss.	.....	.....	30.40	772.1	47	8.3	64	E	1	0.4	.....	0	Sm'e	.....	.....	0	0	Clear.	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.89	606.8	29.37	746.0	19	— 7.2	69	SE	1	0.4	.....	10ck	0	SW	.....	0	0	Cloudy	
Washington, D. C	.....	.....	30.40	772.1	39	3.9	52	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Clear	
Wilmington, N. C	.....	.....	30.41	772.4	43	6.1	91	NE	6	2.7	.....	0	0	.....	.....	0.02	0.5	Clear	
Wood's Holl, Mass	.....	.....	30.17	766.3	29	— 1.7	59	NW	26	11.6	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va	28.00	711.2	30.30	769.6	30	— 1.1	68	W	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.70	729.0	30.09	764.3	14	—10.0	72	E	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy	
Yuma, Arizona	.....	.....	30.17	766.3	42	5.6	.....	E	.....	.....	.....	5cs	0	SW	.....	0	0	Fair	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	29.99	761.7	79	26.1	90	E	7	3.1	7	0	5s	.....	E	0	0	Fair	E Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	29.93	760.2	75	23.9	85	E	.....	.....	.....	8cs	0	.....	.....	0	0	Fair	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.07	763.8	75	23.9	72	NNE	8.4	3.8	.....	4c	1ks,n	NNE	NNE	0.25	6.3	Cloudy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.18	766.6	77	25.0	90	Calm	0	0	.....	8c	8s	NE	.....	0.43	10.9	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.17	766.3	78	25.6	72	E	8	3.6	.....	8ck	5k	E	.....	0	0	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.71	754.6	75	23.9	76	NNW	6.0	2.7	.....	.....	8ks	.....	N	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.13	765.3	66.5	19.2	84	SW	12.0	5.4	.....	5ck	5k	SW	.....	0	0	Fine	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.41	772.4	−37.5	−38.6	.....	SW	2	0.9	.....	0	Haze	.....	.....	0.03	0.8	Aurora	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.79	756.7	26.0	— 3.3	100	S	.....	.....	.....	.....	10n	.....	.....	0	0	Snowing	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acosta.
Clifton, Jamaica, W. I	27.20	690.9	30.00	762.0	63	17.2	88	.....	.....	.....	.....	.....	.....	.....	.....	3.23	82.0	Raining	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.16	639.1	.....	.....	65.4	18.6	80	.....	0	0	.....	.....	8n	.....	.....	0	0	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.98	761.5	78	25.6	86	SE	.....	.....	2	.....	7ks	.....	.....	0.410	10.41	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.04	763.0	78.8	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.532	13.50	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Bric. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN
OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,
TAKEN SIMULTANEOUSLY ON JANUARY 5, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Nemours	.....	.....	30.07	763.7	60.6	15.9	90	Calm	.....	.....	0	.....	2	.....	.....	0	0	Clear	Charnot.
Algiers	.....	.....	30.05	763.3	57.2	14.0	73	WNW	.....	.....	1	.....	4	.....	.....	0	0	Fair	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kunts.
Tunis	.....	.....	30.23	767.8	58.1	14.5	60	W	.....	.....	5	.....	9	.....	.....	0.118	3.0	Hidden.	Jacques.
Sfax	.....	.....	30.03	762.7	60.8	16.0	30	SW	.....	.....	4	.....	1	.....	.....	0	0	Clear	Chauvey.
Saïda	.....	.....	30.11	764.9	57.2	14.0	18	SSE	.....	.....	1	.....	2	.....	.....	0	0	Clear	Grosjean.
Tebessa	.....	.....	30.08	763.9	55.6	13.1	.....	SSW	.....	.....	3	.....	2	.....	.....	0	0	Clear	Colin.
Geriville	.....	.....	30.10	764.6	29.3	— 1.5	39	SW	.....	.....	1	.....	2	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	30.12	765.0	57.2	14.0	47	SE	.....	.....	1	.....	2	.....	.....	0	0	Clear	Simon.
Biskra	.....	.....	30.10	764.4	58.5	14.7	37	NW	.....	.....	2	.....	2	.....	.....	0	0	Clear	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.10	764.6	11.3	—11.5	93	NE	.....	.....	2	.....	10	.....	.....	0.394	10.0	Snowing	Prof. Ivan Stosir.
Buda-l'esth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.45	773.3	1.0	—17.2	95	W	.....	.....	2	.....	10	.....	.....	0.039	1.0	.....	I. R. Observatory.
Eperies	.....	.....	30.19	766.7	51.8	11.0	72	N	.....	.....	4	.....	9	.....	8	0.109	2.78	.....	Julius Mikolik.
Gratz	.....	.....	30.10	764.5	17.1	— 8.3	72	NW	.....	.....	8	.....	10	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.80	731.4	29.85	758.1	23.2	— 4.9	93	E	.....	.....	1	.....	10	.....	.....	0.154	3.90	Snowing	Prof. Reissenberger.
Kremsmünster	28.34	719.7	30.43	772.9	13.3	—10.4	86	W	.....	.....	2	.....	10	.....	.....	0.165	4.2	.....	Prof. C. Wagner.
Lemberg	28.94	735.2	30.29	769.4	11.5	—11.4	99	NE	.....	.....	3	.....	8	.....	.....	0.579	14.7	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	29.98	761.6	18.3	— 7.6	89	N	.....	.....	5	.....	10	.....	.....	0.400	10.15	.....	Habsauda Daniel.
Pola	.....	.....	30.03	762.8	26.1	— 3.3	75	NNE	.....	.....	3	.....	10ks	.....	.....	0	0	.....	I.R. Hydrographic Of'ce
Szegedin	.....	.....	29.85	758.1	14.0	—10.0	.....	N	.....	.....	4	.....	10	.....	.....	0.532	13.50	.....	Karl Stancel.
Trieste	.....	.....	30.02	762.4	28.0	— 2.2	83	N	.....	.....	2	.....	2k	.....	.....	0	0	.....	Prof. V. Faroli.
Vienna	.....	.....	30.27	768.8	11.5	—11.4	88	NW	.....	.....	4	.....	10	.....	.....	0.059	1.5	Snowing	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	30.45	773.3	29.1	— 1.6	77	ESE	.....	.....	2	.....	1	.....	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.24	768.1	43.2	6.2		S	9	4.0			10			0	0	Raining	William Boswell.
Ardrossan			30.23	767.8	47	8.3		S			4		8					Overcast	J. Mayes.
Armagh Observatory			30.23	767.8	47.0	8.3		S	14	6.3			10					Gloomy	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs.			30.32	770.1	43.0	6.1		SE	10	4.5			7					*D. clouds	John Hartnup.
Birr Castle, (Parsonstown)			30.21	767.3	49.0	9.4		S			1		10					*D. clouds	J. Dreyer.
Bradford			30.31	769.9	49.9	9.9		SE			0		10			0.01	0.3	Overcast	J. McLandsborough.
Bridgetown, (Barbados)			29.95	760.7	78	25.6		NE			2		5					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.39	771.9	40.0	4.4		SSE			1		0					Blue sky	H. Todd.
Cardington			30.41	772.4	33.0	0.6		S			1		3					*D. clouds	John McLaren.
Carlisle			30.31	769.9	44.1	6.7		S			1		9			0.02	0.5	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.39	771.9	35.9	2.2		NE			1		5					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.83	732.3	30.36	771.1	39.0	3.9		SE			1		10					Foggy	R. E. Power.
Donaghadee			30.23	767.8	46	7.8		SSW			3		10					Overcast	J. Mac Gowan.
Dover			30.40	772.1	35	1.7		SE			3		5					½ clouded	J. Costello.
Eccles, (near Manchester)			30.33	770.4	41.8	5.4		SE	2.2	1.0			10					Gloomy	Thomas Mackereth.
Falmouth Observatory			30.32	770.1	47.6	8.7		SSE	13	5.8			6					*D. clouds	The Staff.
Fort Napier, (Natal)	27.69	703.3	29.94	760.5	63.7	17.6		E			3		10					Gloomy	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	83	28.3		NE			1		6					Blue sky	[tis.
Galway, Queen's College			30.26	768.6	48	8.9		S			2		10					Misty	B. G. Claro, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.98	761.5	61.8	16.6		W			5		9					Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.23	767.8	44.0	6.7		S			1		10					Overcast	Wm. M. Stewart.
Great Yarmouth			30.42	772.7	35	1.7		SE			7		1					Blue sky	G. T. Watson.
Greenwich Royal Obs.			30.39	771.9	36.6	2.6		ESE			1		0					Blue sky	The Staff for G. B. Airy
Guernsey			30.28	769.1	43.5	6.4		ESE			1		10					Misty	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.37	771.4	40.1	4.5		ESE			1		10					Foggy	L. J. Crossley.
Helston			30.28	769.1	51	10.6		SE			2		8			0	0	*D. clouds	M. P. Moyle.
Holyhead			30.28	769.1	46	7.8		S			3		5					Misty	John Tilston.
Kew Observatory			30.40	772.1	37.0	2.8		ESE	6	2.7			1			Blank	Blank	Blue sky	The Staff.
Kingstown			30.24	768.1	49	9.4		SSE			3		6					*D. clouds	George Mitchell.
Leicester Museum			30.40	772.1	36.2	2.3		S			1		9					*D. clouds	William J. Harrison.
Malta, (Mediterranean)			29.95	760.7	58.2	14.6		NW			3		6k						Fred Travis, Pvt A.H.C
Nairn			30.17	766.3	48	8.9		Calm			0		10					Overcast	W. D. Penny.
Nassau, (Bahamas)			30.21	767.3	74.6	23.7		NE			6		7					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.40	772.1	37.2	2.9		SSE			1		10d		SSE			Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.36	771.1	37.0	2.8		SE			1		10					Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.38	771.6	36	2.2		S			1		8					Overcast	J. Lucas.
Plymouth			30.30	769.6	47.3	8.5		E			1		10					Overcast	John Merrifield.
Roche's Point			30.23	767.8	50	10.0		S			3		8					Cloudy	W. Kennedy.
Saint Ann's Head			30.31	769.9	47	8.3		SSE			2		10					Overcast	John C. Walker.
Saint Helier, (Jersey)			30.29	769.4	42.8	6.0		ENE			2		10					Overcast	A. P. Amy.
Sandwick Manse (Orkneys)			30.15	765.8	45.9	7.7		SW	10	4.5			10					Raining	Rev. Dr. Clouston.
Scarborough			30.39	771.9	35.2	1.8		SSW			1		10					Overcast	F. Shaw.
Scutari Cemetery (Turkey)			29.75	755.6	49.8	9.9		SSE			3		9					Showery	Sergt. W. H. Lyne.
Sheffield			30.36	771.1	40.3	4.6		SSE			1		10			0	0	Overcast	W. F. Cooper.
Silloth Rectory			30.27	768.8	45.5	7.5		SW			1		6			0	0	*D. clouds	Rev. Francis Redford.
Stonyhurst Observatory			30.33	770.4	41.6	5.3		S			1		10					Gloomy	The Staff.
Stornoway, Lews C. (Hebr.)			30.14	765.5	43	6.1		WSW			1		2					Blue sky	John Smith.
Stratfield Turgiss			30.38	771.6	36.9	2.7		NE			1		3					Blue sky	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			30.14	765.5	45	7.2		Calm			0		10					Raining	John Trotter.
Truro, Royal Institution			30.30	769.6	52	11.1		SE			4		4					*D. clouds	W. Newcombe.
Valencia Observatory			30.17	766.3	51.2	10.7		SE	30	13.4			10					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.95	760.7	80.6	27.0	41	SSW	24	10.7			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					45	7.2		S			4	10	10			0	0		
Leith, Restalrig Park			30.27	768.8	44.8	7.1		SW			1		10s			0	0	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind-direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.51	775.0	25.9	— 3.4	91	ENE			2		10					Snowing	
Fanöe			30.59	776.9	27.3	— 2.6	85	N			2		10						
Godthaab, (Greenland)			29.34	745.1	8.2	—13.2	68	NNE			4		8						
Stykkisholm, (Iceland)			29.26	743.2	37.9	3.3	92	SE			4		10					Raining	
Thorshavn, (Faroe)			30.00	762.0	43.5	6.4	73	WSW			4		5						
Vestervig			30.57	776.4	46.2	— 3.2	82	ENE			2		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.24	768.1	48.2	9	58	NE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Amiens	.....	.....	30.32	770.2	35.2	1.8	82	WSW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Avignon	.....	.....	30.01	762.3	41.4	5.2	37	N	.....	.....	4	.....	0	.....	.....	0	0	Very clear	Normal School.
Bar-sur-Seine	.....	.....	30.37	771.4	29.5	— 1.4	.....	E	.....	.....	2	.....	0	.....	.....	0	0	Clear	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.28	769.0	37.9	3.3	69	E	6.3	2.9	.....	.....	.....	.....	NE	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	30.41	772.4	30.2	— 1	84	E	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Besançon	.....	.....	30.53	775.4	28.0	— 2.2	.....	NNE	.....	.....	6	.....	0	.....	.....	0	0	Clear	Normal School.
Bourg en Bresse	.....	.....	30.28	769.2	27.9	— 2.3	98	N	.....	.....	4	.....	.....	.....	S	0	0	Foggy	Normal School.
Bourges	.....	.....	30.31	769.8	33.42	0.81	85	NE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Brest	.....	.....	30.21	767.3	45.1	7.3	83	NE	.....	.....	1	1c	.....	.....	.....	0	0	Clear	Naval Observatory
Caen	.....	.....	30.34	770.5	45.5	7.5	83	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Chartres	.....	.....	30.28	769.1	32.5	0.3	.....	E	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.25	768.4	37.9	3.3	72	N	.....	.....	2	.....	0	.....	.....	0	0	Clear	Puy de Dome, Obs.
Commercy	.....	.....	30.43	773.0	25.7	— 3.5	78	E	.....	.....	6	.....	0	.....	.....	0	0	Clear	Normal School.
Commune de Gréasque*	.....	.....	29.95	760.8	46.2	7.9	48	NW	.....	.....	2	.....	2	.....	NW	0	0	¼ covered	
Grenoble	.....	.....	30.15	765.7	34.3	1.3	96	N	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Le Mans	.....	.....	30.32	770.0	35.1	1.7	60	NE	.....	.....	3	.....	0	.....	.....	0	0	Clear	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.25	768.4	31.3	— 0.4	96	NNE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Mâcon	.....	.....	30.32	770.1	29.5	— 1.4	.....	N	.....	.....	4	.....	0	.....	.....	0	0	Clear	Normal School.
Mirecourt	.....	.....	30.39	771.9	35.4	1.9	61	NE	.....	.....	4	.....	8	.....	N	0	0	Very cloudy	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.08	763.0	44.6	7	60	N	.....	.....	6	.....	0	.....	.....	0	0	Clear	Normal School.
Orleans	.....	.....	30.34	770.6	31.3	— 0.4	80	ENE	.....	.....	3	.....	0	.....	.....	0	0	Clear	Normal School.
Paris Observatory	.....	.....	30.38	771.7	31.5	— 0.3	59	E	.....	.....	1	.....	0?	.....	.....	0	0	Misty?	National Observatory.
Parthenay	.....	.....	30.20	767.0	39.2	4	97	NE	.....	.....	2	.....	5	.....	NE	0	0	Cloudy	Normal School.
Privas	.....	.....	30.12	765.1	39.2	4	.....	NW	.....	.....	4	.....	0	.....	.....	0	0	Clear	Normal School.
La Roche-sur-Yon	.....	.....	30.30	769.7	41.7	5.4	91	NE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Rochefort, Observatory	.....	.....	30.20	767.0	44.8	7.1	70	NE	.....	.....	4	.....	2	.....	.....	0	0	¼ covered	Naval Observatory.
Rouen	.....	.....	30.36	771.2	35.2	1.8	56	SSE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Saint Lo	.....	.....	30.34	770.6	40.6	4.8	87	E	.....	.....	3	.....	1	.....	SW	0	0	.....	Normal School.
Tarbes	.....	.....	30.10	764.6	50.0	10	73	SW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Toulouse	.....	.....	30.13	765.4	35.2	1.8	95	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Villefranche	.....	.....	30.04	763.7	32.9	0.5	91	NE	.....	.....	4	.....	0	.....	.....	0	0	Clear	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.83	757.7	75.2	24	83	NE	.....	.....	2	.....	5k	.....	.....	0.04	1.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	29.92	759.9	48.9	9.4	57	NW	.....	.....	2	.....	0	.....	.....	0	0	.....	Marseilles Observatory
Mont-Louis	24.32	630.3	30.18	766.6	45.0	7.2	26	NNE	13.0	5.83	.....	.....	0	.....	.....	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	30.25	771.0	32.0	0.0	60	ENE	.....	.....	2	.....	0	.....	.....	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.00	762.1	61.7	16.5	30	NE	16.8	7.50	.....	.....	0	.....	.....	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.19	538.3	.....	.....	30.2	— 1.0	.....	N	.....	.....	1	.....	3	.....	.....	0	0	Fair	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.37	771.4	31.5	— 0.3	53	E	.....	.....	2	.....	2ck	.....	.....	0	0	Clear	E. Renou.
Toulouse	.....	.....	30.3	765.3	33.8	1.0	100	NNW	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Toulouse Observatory.
Tours	.....	.....	30.27	768.9	36.0	2.2	72	NE	.....	.....	2	.....	0	.....	.....	0	0	Clear	C. Marquet.
Versailles, (near Paris)	.....	.....	30.34	770.7	32.0	0.0	58	E	.....	.....	3	.....	2	.....	.....	0.004	0.09	Clear, hazy	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.0 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.37	771.5	18.7	— 7.4	73	NNE	.....	.....	5	.....	3	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.50	770.2	16.2	— 8.8	63	E	.....	.....	2	.....	6	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.48	774.2	1.8	—16.8	87	NNW	.....	.....	3	.....	10	.....	.....	0.028	0.7	.....	Dr. P. Neugebauer.
Carlsruhe	.....	.....	30.45	773.4	25.5	— 3.6	71	NW	.....	.....	2	.....	1	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.39	772.0	30.2	— 1.0	81	N	.....	.....	2	.....	1	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.58	776.7	20.6	— 3.0	70	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	Physical Society.
Friedrichshafen	.....	.....	30.45	773.5	20.0	— 6.6	47	E	.....	.....	.....	.....	7	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	30.55	775.9	26.2	— 3.2	82	NNW	.....	.....	2	.....	10	.....	.....	0	0	Snowing	Deutsche Seewarte.
Kiel	.....	.....	30.54	775.8	28.6	— 1.9	73	NNW	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.55	776.0	10.4	—12.0	82	NE	.....	.....	2	.....	5	.....	.....	0	0	.....	Prof. E. Luther.
Koslin	.....	.....	30.52	775.1	6.1	—14.4	.....	Calm	.....	.....	0	.....	10	.....	.....	0	0	Snowing	H. Müller.
Leipsic	.....	.....	30.57	776.5	12.2	—11.0	76	E	.....	.....	1	.....	4	.....	.....	0	0	.....	Prof. Bruhns.
Münster	.....	.....	30.54	775.8	29.3	— 1.5	92	N	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.54	775.6	3.9	—15.6	34	NE	.....	.....	4	.....	9	.....	.....	0.063	1.6	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.47	773.8	25.0	— 3.9	62	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.45	773.5	22.5	— 5.3	68	N	.....	.....	.....	.....	5	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.47	774.0	5.9	—14.5	94	W	.....	.....	2	.....	10	.....	.....	Inap.	Inap.	.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	30.38	771.7	27.0	— 2.8	63	NE	.....	.....	6	.....	0	.....	.....	0	0	.....	Prof. Flesch.
Wustrow, Naval School	.....	.....	30.50	776.2	27.7	— 2.4	88	N	.....	.....	2	.....	7k	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.70	754.4	61.7	16.5	.....	S	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Half clear
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.00	762.0	30.6	— 0.8	20	NE			4		6			0	0		
Padua			30.04	762.9	30.0	— 1.1	73	SE	7.4	3.3			5	N		0	0		
Verona			30.00	762.1	34.9	1.6	71	E			4		0			0	0		
Bergamo																			
Milan			30.03	762.7	30.9	— 0.6	81	NW			2		0			0	0		
Moncalieri			30.10	764.4	33.1	0.6	90	SSW	3.1	1.4			1			0	0		
Mondovi			30.08	764.0	28.9	— 1.7	79	NNW			2		0			0	0		
Porto Maurizio			30.05	763.2	52.0	11.1		E			6		2			0	0		
Genoa			30.01	762.2	39.6	4.2	41	NE	12.5	5.6			0			0	0		
Piacenza			30.00	762.1	34.2	1.2	78	WNW	11.9	5.3			0			0	0		
Bologna			30.04	763.1	34.2	1.2	31	SW			1		4	S		0	0		
Florence			30.04	763.1	34.9	1.6	36	NE			4		0			0	0		
Leghorn			29.97	761.3	36.1	2.3	41	E	13.7	6.1			1			0	0		
Siena			29.98	761.5	27.7	— 2.4	67	NE	2.5	1.1			2	N		0	0		
Urbino																			
Pesaro			30.03	762.8	29.3	— 1.5	70	NE			6		10	NE		0	0	Snowing	
Ancona																			
Rome			29.93	760.1	34.5	1.4	47	NNE	15.4	6.9			1			0	0		
Naples, O. U.			29.87	758.7	37.0	2.8	59	NNE			6		8	NW		0.343	8.6		
Lecce			29.85	758.3	39.2	4.0	50	N	19.2	8.6			9	N		0	0		
Cosenza			29.84	757.8	39.6	4.2	80	N			2		5			0	0		
Riposto, (Sicily)			29.77	756.1	51.8	11.0	85	SE			6		9	W		0	0		
Palermo			29.74	755.5	55.0	12.8	41	NNW	8.7	3.9			0			0	0		
Caltanissetta			29.77	756.1	48.4	9.1	66	WNW			6		6	ESE		0	0		
Sub-Series.																			
Naples, S. R.			29.86	758.4	33.1	0.6	66	NE			6		..ks	NW		0.622	15.8		Prof. F. Briosch.i.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 550 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.49	774.5	30.9	— 0.6		SE			4								
Groningen			30.49	774.5	26.8	— 2.9		SE			2								
Helder			30.50	774.6	28.8	— 1.8		SW			2								
Utrecht			30.47	773.8	27.9	— 2.3	71	SE			3		0					Clear	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.43	772.8	52.4	0.2	96	S	26.8	12.0			10			0	0		
Brönö			30.30	769.6	32.0	0.0	74	Calm	0	0			8			0	0		
Christiania			30.05	778.5	17.6	— 8.0	83		0.2	0.1			10			0	0		
Tromsö			30.04	763.0	39.6	4.2	63	SW	13	6			10			0.079	2.0	Raining	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount Up'er 0—10.	Clouds. Amount Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.10	764.5	56.5	13.6	82	NNW	5.3	2.36	.....	.....	4	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.07	763.7	49.6	9.8	63	SE	0.8	0.34	.....	.....	10	SE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	29.91	759.6	62.7	17.0	61	NW	2.2	0.98	.....	.....	1	.....	.....	0.016	0.4	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.07	763.7	48 6	9.3	97	Calm?	2.5?	1.1?	.....	.....	10	S	.....	0.075	1.9	Raining.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.46	773.6	10.8	—11.8	89	NNE	4	2	.....	.....	2	.....	.....	.....	.....	Light snow..	Astronomical Obs.
Wilna	.....	.....	30.61	777.5	10.6	—11.9	77	E	4	2	.....	.....	9	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.78	781.7	11.7	—11.3	88	SE	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.81	782.5	4.3	—15.4	93	ESE	7	3	.....	.....	10	.....	.....	.....	.....	Light snow..	Central Physical Obs.
Kuopio	.....	.....	30.76	781.2	10.0	—12.2	100	S	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kief	.....	.....	30.44	773.2	11.5	—11.4	97	NE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.26	768.6	25.7	— 3.6	93	NW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.21	767.4	30.0	— 1.1	82	ESE	13	6	.....	.....	6	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.88	784.3	7.9	—13.8	83	E	9	4	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.40	774.5	7.5	—13.6	75	ENE	29	13	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.65	778.4	5.0	—15.0	92	SSW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	.....	.....	30.65	778.4	5.0	—15.0	92	SSW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	28.89	733.8	30.38	771.6	34.2	1.2	72	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Sobastianof.
Kasan	.....	.....	30.65	778.6	10.8	—11.8	97	N	2	1	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	30.82	782.8	4.6	—15.2	77	NNE	2	1	.....	.....	2	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.61	752.2	30.76	781.2	18.3	— 7.6	89	Calm	0	0	.....	.....	5	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.34	770.6	5.9	—14.5	52	N	9	4	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.56	725.5	30.37	771.3	30.2	— 1.0	96	Calm	0	0	.....	.....	4	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.33	770.4	—13.5	—25.3	77	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.39	772.0	—17.5	—27.5	92	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Uscinef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Pekling, (China)	.....	.....	30.28	769.0	20.7	— 6.3	56	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.98	710.8	30.31	769.8	— 6.3	—21.3	65	NNW	7	3	.....	.....	7	.....	.....	.....	.....	.....	Meteorological Obs.
Vladiwostock	.....	.....	30.41	772.5	5.0	—14.5	69	NE	4	2	.....	.....	1	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—11.4	—24.1	100	NW	13	6	.....	.....	0	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.10	764.4	43.0	6.1	46	E	3 8	1.7	.....	1	0	NE	.....	0	0	Almost clear	Royal Observatory.
San Fernando	.....	.....	30.05	763.3	52.7	11.5	63	NE	9.2	4.1	.....	5	5	NE	NE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.03	777.9	4.6	—15.2	81	SE	.....	.....	2	.....	5	.....	.....	0	0	.....	
Umea	.....	.....	30.05	778.6	0.0	—17.8	100	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	30.04	778.3	15.8	— 0.0	94	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Stockholm	.....	.....	30.57	776.5	22.5	— 5.8	90	SE	.....	.....	2	.....	10	.....	.....	0.024	0.6	Snowing.....	
Wisby	.....	.....	30.58	776.6	21.6	— 5.8	100	ESE	.....	.....	4	.....	10	.....	.....	0.110	2.8	.....	
Sub-Series.																			
Upsala	.....	.....	30.04	778.3	22.5	— 5.3	98	ENE	8.8	1.7	.....	.....	10	.....	.....	0	0	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.75	730.2	30.26	768.5	27.7	— 2.4	71	NNE	.....	.....	8	.....	1	.....	.....	0	0	Clear	The Observatory.
Zurich	28.68	728.4	30.43	773.0	21.6	— 5.8	67	NE	.....	.....	2	.....	1	.....	NE	0.252	6.4	Clear	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +2.4 mm.; Thermometer, —3.8; Relative Humidity, —9 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	29.78	756.3	48.6	9.2	69	SSE	27	12.0	.....	.....	10	.....	SW	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.37	771.5	47.8	8.8	.....	NW	.....	.....	3	.....	10	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.61	752.2	40.6	4.8	.....	E	.....	.....	2	.....	10	.....	.....	.....	.....	Raining	
Valona	.....	.....	29.67	753.7	38.3	3.5	.....	N	.....	.....	1	.....	5	.....	.....	.....	.....	Snowing	
Varna	.....	.....	29.69	754.0	23.9	— 4.5	.....	NW	.....	.....	3	.....	10	.....	.....	.....	.....	Raining	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.24	768.2	63.0	17.2	51	SW	.....	.....	2	.....	5s	.....	SW	0	0	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	30.51	774.9	— 2.5	—19.2	83	Calm	0	0	.....	.....	.....	.....	.....	Inap.	Inap.	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.45	773.4	10	—12.2	.....	E	5	2.2	.....	.....	10s	.....	W	0	0	Cloudy	W. R. Bigg.
*Chatham, N. B	.....	.....	30.51	774.9	— 3	—19.4	90	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	G. A. Blair.
Charlottetown P. E. Island	.....	.....	30.46	773.7	6	—14.4	71	NW	13	5.8	.....	.....	8s	.....	.....	0.03	0.8	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.47	773.9	6.7	—14.1	88	NE	.....	.....	4	.....	10s	.....	.....	0	0	Threatening	James Smith, M. A.
Dalhousie, N. B	.....	.....	30.48	774.2	5.5	—14.7	93	W	.....	.....	4	.....	.....	.....	.....	0	0	Bright	H. A. Johnson.
Esquimault, B. C	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.21	5.3	.....	W. H. Bevis.
Fredericton, N. B	.....	.....	30.62	777.7	— 0.4	—18.0	81	NW	7	3.1	.....	.....	.....	.....	.....	Inap.	Inap.	Fair	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.23	767.8	—12	—24.4	95	W	4	1.8	.....	Haze	Haze	.....	.....	0.27	6.9	Hazy	James Stewart.
Goderich, Ontario	.....	.....	29.96	761.0	34.0	1.1	80	SW	.....	.....	3	5ck	3s	S	.....	0	0	Clear	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.06	763.5	25.2	— 3.8	.....	SE	.....	.....	2	4cs	0	NW	.....	0	0	Clear	James Grant.
*Halifax, N. S	.....	.....	30.47	773.9	5	—15.0	88	NW	8	3.6	.....	0	0	.....	.....	0.05	1.3	Clear	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.41	772.4	15	— 9.4	90	E	6	2.7	.....	10ck	0	W	.....	0	0	Fair	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.97	761.2	27.3	— 2.6	.....	SE	6	2.7	.....	.....	10s	.....	.....	0.20	5.1	Snowing	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.52	775.2	3	—16.1	93	E	10	4.5	.....	Haze	Haze	.....	.....	0	0	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.44	773.2	4	—15.6	78	E	20	8.9	.....	.....	10ks	.....	E	0	0	Cloudy	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.10	764.5	18	— 7.8	84	E	21	9.4	.....	2ck	5ks	S	S	0	0	Fair	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.16	766.1	21	— 6.1	85	Calm	0	0	.....	8k	0	.....	.....	0	0	Fair	H. Morgan.
Port Hastings, N. S	.....	.....	30.33	770.4	12.4	—10.9	.....	N	20	8.9	.....	0	0	.....	.....	0	0	Fine	Peter Grant.
*Port Stanley Ontario	.....	.....	30.13	765.3	30	— 1.1	95	E	22	9.8	.....	.....	10n	.....	E	0	0	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	30.61	777.5	— 3	—19.4	66	NE	8	3.6	.....	.....	10n	.....	NE	0	0	Cloudy	Capt. Ash, R. N.
St. John, N. B	.....	.....	30.62	777.7	3.0	—16.1	73	NW	8	3.6	.....	.....	.....	.....	.....	Inap.	Inap.	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.97	761.2	30	— 1.1	95	SE	10	4.5	.....	0	8cs	.....	.....	0	0	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	30.07	763.8	25	— 3.9	87	SE	13	5.8	.....	10ck	0	.....	.....	0	0	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	30.08	764.0	22.9	— 5.1	85	SE	8	3.6	.....	.....	10s	.....	.....	0	0	Fair	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	29.72	754.9	19	— 7.2	97	SW	1	0.4	.....	5k	0	W	.....	0	0	Fair	T. C. Hill.
*Toronto, Ontario	.....	.....	30.19	766.8	26	— 3.3	88	E	14	6.3	.....	0	5s	.....	.....	0	0	Fair	Magnetic Observatory.
Woodstock, Ontario	.....	.....	30.10	764.5	21.9	— 5.6	84	S	1	0.4	.....	3ck	5cs	W	.....	0.10	2.5	Fine	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Granton, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.54	775.9	14	—10.0	72	Calm	0	0	.....	2cs	0	.....	.....	0	0	Clear.	
Alpena, Mich.	.....	.....	29.85	757.9	29	— 1.7	89	S	26	11.6	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.	
Atlantic City, N. J.	.....	.....	30.57	776.5	24	— 4.4	87	NW	2	0.9	.....	0	c	.....	.....	0	0	Clear.	
Augusta, Ga.	.....	.....	30.42	772.7	48	8.9	70	NE	1	0.4	.....	2k	0	N	.....	0	0	Fair.	
Baltimore, Md.	.....	.....	30.58	776.7	20	— 1.7	67	NE	2	0.9	.....	2ck	Sm'e	.....	.....	0	0	Fair.	
Barnegat, N. J.	.....	.....	30.56	776.2	31	— 0.6	78	SE	11	4.9	.....	0	0	.....	.....	0	0	Clear.	
Benton, Montana	27.23	691.6	30.03	762.7	32	0.0	49	SW	10	4.5	.....	5c	0	SW	.....	0	0	Fair.	
Bismarck, Dakota	28.28	718.3	30.11	764.8	0	—17.8	39	N	1	0.4	.....	0	0	.....	.....	0.01	0.3	Clear.	
Boston, Mass.	.....	.....	30.61	777.5	12	—11.1	70	NE	8	3.6	.....	8cs	Sm'e	NW	.....	0	0	Fair.	
Breckenridge, Minn	.....	.....	30.17	766.3	9	—12.8	79	NW	8	3.6	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.	
Buffalo, N. Y.	.....	.....	30.15	765.8	28	— 2.2	77	S	4	1.8	.....	8c	Sm'e	SW	.....	Inap.	Inap.	Fair.	
Burlington, Vt.	.....	.....	30.57	776.5	12	—11.1	80	S	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Cairo, Ill.	.....	.....	30.10	764.5	50	10.0	71	S	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Cape Hatteras, N. C.	.....	.....	30.44	773.2	51	10.6	65	NE	16	7.2	.....	0	5s	.....	SW	0	0	Fair.	
Cape Henry, Va.	.....	.....	30.54	775.7	42	5.6	66	SE	14	6.3	.....	0	0	.....	.....	0	0	Clear.	
Cape May, N. J.	.....	.....	30.56	776.2	26	— 3.3	76	NE	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Charleston, S. C.	.....	.....	30.40	772.1	53	11.7	86	N	6	2.7	.....	5k	0	N	.....	0	0	Fair.	
Cheyenne, Wyoming	24.12	612.6	30.06	763.5	27	— 2.8	67	W	40	17.9	.....	0	0	.....	.....	0	0	Clear.	
Chicago, Ill.	.....	.....	29.83	757.7	47	8.3	62	SW	10	4.5	.....	.....	10s	.....	.....	0	0	Cloudy.	
Cincinnati, Ohio	.....	.....	30.12	765.0	45	7.2	60	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Cleveland, Ohio	.....	.....	30.08	764.0	38.8	3.8	51	SE	16	7.2	.....	5cs	0	W	.....	0	0	Fair.	
Colorado Springs, Col.	24.73	615.4	30.10	764.5	23	—5.0	47	N	12	5.4	.....	1cs	0	.....	.....	0	0	Clear.	
Corsicana, Tex.	.....	.....	30.22	767.6	55	12.8	93	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Davenport, Iowa	.....	.....	29.84	757.9	43	6.1	75	SW	8	3.6	.....	2k	2s	.....	W	0.06	1.5	Fair.	
Denison, Tex.	.....	.....	30.17	766.3	52	11.1	79	W	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
Denver, Col.	24.97	634.2	30.19	766.8	33	0.6	52	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	.....	.....	29.95	760.7	39	3.9	63	SW	14	6.3	.....	5cs	0	W	.....	0	0	Fair.	
Dodge City, Kan.	27.62	701.5	30.04	763.0	28	— 2.2	67	W	20	8.9	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	29.82	757.4	43	6.1	75	NW	6	2.7	.....	.....	10s	.....	NW	0	0	Cloudy.	
Duluth, Minn.	.....	.....	30.01	762.2	14	—10.0	63	NW	16	7.2	.....	0	2s	.....	.....	0.07	1.8	Clear.	
Eastport, Me.	.....	.....	30.59	777.0	4	—15.6	74	N	14	6.3	.....	0	2s	.....	N	0	0	Fair.	
Erie, Pa.	.....	.....	30.09	764.3	37	1.5	54	SE	28	12.5	.....	8c	Haze	.....	.....	Inap.	Inap.	Fair.	
Escanaba, Mich.	.....	.....	29.82	757.4	28	— 2.2	60	N	12	5.4	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.	
Fort Gibson, Indian T.	.....	.....	30.06	763.5	49	9.4	77	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Fort Sill, Indian T.	.....	.....	30.10	764.5	42	5.6	67	N	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
Fort Sully, Dakota	28.90	718.8	30.08	764.0	16	— 8.9	83	NW	5	2.2	.....	0	2s	.....	NW	0	0	Fair.	
Galveston, Tex.	.....	.....	30.26	768.6	62	16.7	94	E	2	0.9	.....	0	5s	.....	.....	0	0	Fair.	
Grand Haven, Mich.	.....	.....	29.83	757.7	42	5.6	79	S	22	9.8	.....	.....	10s	.....	SW	0.04	1.0	Cloudy.	
Indianapolis, Ind.	.....	.....	30.02	762.5	45	7.2	68	S	6	2.7	.....	5cs	0	SW	.....	0	0	Fair.	
Indianola, Tex.	.....	.....	30.25	768.9	62	16.7	100	E	4	1.8	.....	1ck	0	SW	.....	0	0	Clear.	
Jacksonville, Fla.	.....	.....	30.33	770.4	56	13.3	87	N	4	1.8	.....	0	Fog	.....	.....	0	0	Fair.	
Kookuk, Iowa	.....	.....	29.85	758.2	47	8.3	85	SW	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy.	
Key West, Fla.	.....	.....	30.16	766.1	72.3	22.4	90	E	12	5.4	.....	1k	2ks	E	E	0	0	Clear.	
Kittyhawk, N. C.	.....	.....	30.54	775.7	45	7.2	68	SE	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Knoxville, Tenn.	.....	.....	30.40	772.1	32	0.0	89	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy.	
La Crosse, Wis.	.....	.....	29.85	758.2	31	— 0.6	79	N	8	3.6	.....	.....	10s	.....	W	0	0	Cloudy.	
Leavenworth, Kan.	.....	.....	29.98	761.5	38	3.3	80	NW	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Lexington, Ky.	29 10	739.1	30.25	768.3	39	3.9	56	S	12	5.4	.....	2c	0	SW	.....	0	0	Clear.	
Long Branch, N. J.	.....	.....	30.59	777.0	25	— 3.9	50	E	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Louisville, Ky.	.....	.....	30.16	765.8	46	7.8	54	SE	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Lynchburg, Va.	.....	.....	30.54	775.7	35	1.7	90	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Malone, N. Y.	.....	.....	30.47	773.9	14	—10.0	64	E	3	1.3	.....	.....	10s	.....	W	0	0	Cloudy.	
Marquette, Mich.	.....	.....	29.88	758.9	28	— 2.2	88	Calm	0	0	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.	
Memphis, Tenn.	.....	.....	30.19	766.8	50	10.0	78	SE	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy.	
Milwaukee, Wis.	.....	.....	29.80	756.9	42	5.6	91	W	.....	.....	.....	.....	10n	.....	W	0.03	0.8	Light rain.	
Mobile, Ala.	.....	.....	30.31	769.9	56	13.3	93	E	2	0.9	.....	0	8s	.....	S	0	0	Cloudy.	
Montgomery, Ala.	.....	.....	30.38	771.6	50	10.0	75	E	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy.	
Morgantown, W. Va.	.....	.....	30.29	769.4	31	— 0.6	78	Calm	0	0	.....	0	Haze	.....	.....	0	0	Clear.	
Mt. Washington, N. H.	23.80	604.5	30.16	766.1	1	—17.2	71	N	10	4.5	.....	8s	0	.....	.....	0	0	Fair.	
Nashville, Tenn.	.....	.....	30.23	767.8	47	8.3	62	SE	2	0.9	.....	2cs	0	.....	.....	0	0	Clear.	
New Haven, Conn.	.....	.....	30.02	777.7	18	— 7.8	83	NE	4	1.8	.....	0	2s	.....	.....	0	0	Clear.	
New London, Conn.	.....	.....	30.62	777.7	19	— 7.2	61	NE	2	0.9	.....	2ck	0	SW	.....	0	0	Clear.	
New Orleans, La.	.....	.....	30.27	768.8	58	14.4	91	E	4	1.8	.....	2k	Fog	S	.....	0	0	Foggy.	
Newport, R. I.	.....	.....	30.61	777.5	18	— 7.8	84	NE	3	1.3	.....	2cs	0	W	.....	0	0	Fair.	
New York, N. Y.	.....	.....	30.60	777.2	22	— 5.6	72	NE	10	4.5	.....	0	Fog	.....	.....	0	0	Clear.	
Norfolk, Va.	.....	.....	30.53	775.4	39.5	4.7	82	SE	1	0.4	.....	0	Fog	.....	.....	0	0	Clear.	
North Platte, Neb.	27.23	691.6	29.93	760.2	28	— 2.2	77	W	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Omaha, Neb.	28.94	735.1	30.00	762.5	26	— 3.3	88	NW	11	4.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Oswego, N. Y.	.....	.....	30.34	770.6	19.5	— 6.9	76	SE	8	3.6	.....	Haze	5s	NW	NW	0	0	Cloudy.	
Peck's Beach, N. J.	.....	.....	30.58	776.7	21	— 6.1	85	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Pembina, Dakota	.....	.....	30.46	773.7	—20	—28.9	100	Calm	0	0	.....	0	0	.....	.....	0.02	0.5	Clear.	
Philadelphia, Penn.	.....	.....	30.59	777.0	22	— 5.6	72	E	6	2.7	.....	0	Sm'e	.....	.....	0	0	Clear.	
Pike's Peak, Colorado	17.70	449.6	29.90	759.4	1	—17.2	56	W	39	17.4	.....	0	0	.....	.....	0	0	Clear.	
Pittsburgh, Penn.	.....	.....	30.27	768.8	29	— 1.7	78	E	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Port Huron, Mich.	.....	.....	29.98	761.0	36	2.2	70	S	18	8.0	.....	5c	2s	W	.....	0	0	Cloudy.	
Portland, Me.	.....	.....	30.63	778.0	14	—10.0	82	N	4	1.8	.....	1c	Haze	.....	.....	0	0	Fair.	
Portland, Oregon	.....	.....	29.85	758.2	44	6.7	75	S	2	0.9	.....	.....	10s	.....	.....	0.11	2.8	Cloudy.	
Punta Rassa, Fla.	.....	.....	30.22	767.6	67.5	19.7	90	NE	12	5.4	.....	Haze	2s	NE	.....	0	0	Cloudy.	
Rochester, N. Y.	.....	.....	30.23	768.1	21	— 6.1	.....	SE	11	4.9	.....	5c	2s	W	.....	0	0	Fair.	
Salt Lake City, Utah	25.86	656.8	30.19	766.8	28	— 2.2	67	Calm	0	0	.....	0	0	.....	.....	0.09	2.3	Clear.	
Sandy Hook, N. J.	.....	.....	30.57	776.5	5	— 3.9	87	E	6	2.7	.....	1c	0	W	.....	0	0	Clear.	
San Diego, Cal.	.....	.....	30.12	765.0	48	8.9	42	E	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
San Francisco, Cal.	.....	.....	30.63	762.7	51	10.6	79	SE	12	5.4	.....	.....	10s	.....	.....	0.08	2.0	Cloudy.	
Santa Fe, N. M.	23.42	594.9	29.96	761.0	20	— 6.7	57	N	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Savannah, Ga.	.....	.....	30.39	771.9	50	10.0	77	NE	4	1.8	.....	Haze	Sm'e	.....	.....	0	0	Smoky.	
Shreveport, La.	.....	.....	30.36	768.6	56	13.3	81	SW	3	1.3	.....	10k	0	W	.....	0	0	Cloudy.	
Smithville, N. C.	.....	.....	30.45	773.1	51	12.2	86	NE	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Springfield, Mass.	.....	.....	30.01	777.5	15	— 9.4	62	E	4	1.8	.....	5cs	2s	W	.....	0	0	Fair.	
St. Louis, Mo.	.....	.....	29.95	760.7	50	10.0	51	SW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
St. Marks, Fla.	.....	.....	30.34	770.6	54	12.2	86	NE	5	2.2	.....	5k	2s	SE	.....	0	0	Fair.	
St. Paul, Minn.	.....	.....	30.09	762.0	14.5	9.7	82	NW	9	4.0	.....	.....	10s	.....	NW	Inap.	Inap.	Cloudy.	
St. Paul's Island, Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squan Beach, N. J.	.....	.....	30.50	774.7	31	— 0.6	68	SE	10	4.5	.....	0	Haze	.....	.....	0	0	Clear.	
Thatcher's Island, Mass.	.....	.....	30.61	777.5	17	— 8.3	67	NE	3	1.3	.....	0	2s	.....	SE	0	0	Fair.	
Toledo, Ohio	.....	.....	29.97	761.2	42	5.6	66	S	20	8.9	.....	.....	10s	.....	SE	0	0	Cloudy.	
Tucson, Arizona	.....	.....	30.09	764.3	34	1.1	.....	E	.....	.....	.....	10c	0	W	.....	0	0	Cloudy.	
Tybee Island, Ga.	27.64	702.0	30.37	771.4	56	13.3	93	NE	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Vicksburg, Miss.	.....	.....	30.34	770.6	51	10.6	64	S	4	1.8	.....	Haze	5ck	.....	W	0	0	Fair.	

UNITED STATES SERIES.—CONTINUED.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.36	618.7	29.84	757.9	13	—10.6	62	SE	5	2.2	.....	1c	0	W	.....	Inap.	Inap.	Clear	
Washington, D. C	.....	.....	30.57	776.5	26 5	— 3.1	67	E	4	1.8	.....	10k	Sm'e	S	.....	0	0	Cloudy	
Wilmington, N. C	.....	.....	30.45	773.4	45	7.2	84	E	7	3.1	.....	0	0	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	30.61	777.5	18	— 7.8	68	NE	5	2.2	.....	2c	0	E	.....	0	0	Clear	
Wytheville, Va	27.99	710.9	30.28	769.1	31	— 0.6	79	N	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.81	731.8	30.21	767.3	16	— 8.9	74	NW	10	4.5	.....	.....	10s	.....	.....	0	0	Cloudy	
Yuma, Arizona	.....	.....	30.23	767.8	43	6.1	.....	NE	.....	.....	.....	2c	0	E	.....	0	0	Fair	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.00	762.0	80	26.7	86	NE	9	4.0	.....	2c	5s	W	E	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	29.92	760.0	75	23.9	81	Calm	0	0	.....	10pc	2ks	.....	.....	0	0	Cloudy	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.11	764.8	70	21.1	84	SSE	3.6	1.6	.....	8pk	1n	NE	NE	0.49	12.4	Cloudy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.12	765.0	78	25.6	86	Calm	0	0	.....	8c	8s	NE	.....	0.12	3.0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.22	767.6	77	25.0	76	ENE	8	3.6	.....	8ck	2k	E	N	0	0	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.74	755.4	74	23.3	76	NE	7.2	3.2	.....	0	5ks	.....	NE	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.41	772.4	60.0	15.6	60	N	13.0	5.8	.....	0	10k	.....	.....	0	0	Cloudy	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.30	769.6	—27.5	—33.1	.....	Calm	0	0	.....	0	6s	.....	.....	0	0	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.96	761.0	11.0	—11.1	.....	N	.....	.....	.....	.....	10n	.....	.....	0.05	1.3	Snowing	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.18	690.4	29.96	761.0	66	18.9	90	N	0.5	0.2	.....	.....	10k	.....	.....	2.28	57.9	Very dull	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.13	638.3	.....	.....	64.5	18.1	85	.....	0	0	.....	.....	10n	.....	.....	0.30	7.6	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.96	761.0	81	27.2	82	E	.....	.....	3	.....	7ks	.....	.....	0.700	17.78	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.03	762.8	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.354	9.00	.....	Dr. H. Groot.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft.. or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,208.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 6, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	29.97	761.3	57.7	14.3	45	Calm	.....	.....	0	.....	6	.....	.....	0	0	Fair	Charnot.
Algiers	.....	.....	29.97	761.1	55.0	12.8	87	E	.....	.....	4	.....	3	.....	.....	0	0	Fair	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.07	763.8	49.3	9.6	62	E	.....	.....	3	.....	10	.....	.....	0.091	2.3	Hidden	Jacques.
Sfax	.....	.....	30.04	763.0	55.4	13.0	55	N	.....	.....	2	.....	5	.....	.....	0	0	Fair	Chauvey.
Saida	.....	.....	30.03	762.7	55.4	13.0	16	S	.....	.....	1	.....	2	.....	.....	0	0	Clear	Grosjean.
Tebessa	.....	.....	30.06	763.4	57.6	14.2	.....	SW	.....	.....	3	.....	7	.....	.....	0	0	Cloudy	Colin.
Geriville	.....	.....	30.02	762.6	37.8	3.2	25	SSE	.....	.....	2	.....	2	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	30.06	763.5	48.2	9.0	48	SE	.....	.....	3	.....	2	.....	.....	0	0	Clear	Simon.
Biskra	.....	.....	30.06	763.5	63.5	17.5	53	NE	.....	.....	4	.....	4	.....	.....	0	0	Fair	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.13	765.4	21.7	— 5.7	85	NE	.....	.....	3	.....	7	.....	.....	0.020	0.5	.....	Prof. Ivan Stozir.
Budn-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.21	767.4	21.6	— 5.8	100	NE	.....	.....	4	.....	10	.....	.....	0.059	1.5	.....	I. R. Observatory.
Eperies	.....	.....	30.10	764.5	44.2	6.8	81	N	.....	.....	1	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	28.84	732.5	30.13	765.2	21.5	— 4.7	72	Calm	.....	.....	0	.....	8	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.39	721.1	29.92	760.0	17.4	— 8.1	97	NW	.....	.....	1	.....	10	.....	.....	0.120	3.05	.....	Prof. Reissenberger.
Kremsmünster	28.77	730.8	30.24	768.0	15.8	— 9.0	88	NW	.....	.....	3	.....	10	.....	.....	0.322	8.2	.....	Prof. C. Wagner.
Lemberg	.....	.....	30.25	768.4	14.7	— 9.6	97	NE	.....	.....	7	.....	10	.....	.....	0.146	3.7	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.06	763.5	19.0	— 7.2	90	NE	.....	.....	2	.....	10	.....	.....	0	0	.....	Habsuda Daniel.
Pola	.....	.....	30.02	762.6	32.7	0.4	68	ESE	.....	.....	3	.....	9cs	.....	.....	0	0	.....	I.R. Hydrographic Of'ce
Szegedin	.....	.....	30.05	763.2	5.2	—14.9	.....	Calm	.....	.....	0	.....	10	.....	.....	0.256	6.50	.....	Karl Stancel.
Trieste	.....	.....	30.03	762.8	31.3	— 0.4	85	E	.....	.....	3	.....	10	.....	.....	0	0	Partly cov'd	Prof. V. Farolfi.
Vienna	.....	.....	30.18	766.6	15.1	— 9.4	76	NNW	.....	.....	2	.....	6	.....	.....	0.087	2.2	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	30.35	770.9	28.2	— 2.1	84	ENE	.....	.....	3	.....	10	.....	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.52	775.2	39.0	3.9		SE	23	10.3			9			0.210	6.10	Raining	William Boswell.
Ardrossan			30.42	772.7	45	7.2		ESE			3		8					Foggy	J. Mayes.
Armagh Observatory			30.41	772.4	44.3	6.8		S	1	0.4			9					Gloomy	S. Cab. for Dr. Robinson
Bidston, Liverpool Obs			30.45	773.4	34.2	1.2		ESE	22	9.8			10					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			30.37	771.4	46.5	8.1		SSE			1		9					Drizzling	J. Dreyer.
Bradford			30.44	773.2	34.4	1.3		SE			1		10			0	0	Drizzling	J. McLandsborough.
Bridgetown, (Barbados)			29.93	760.2	80.6	27.0		NE			4		6					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.49	774.4	31.0	— 0.6		S by E			1		10					Overcast	H. Todd.
Cardington			30.48	774.2	31.0	— 0.6		E			1		10					Overcast	John McLaren.
Carlisle			30.44	773.2	38	3.3		SE			1		10			0	0	Overcast	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.47	773.9	33.2	0.7		Calm			0		7					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.82	732.0	30.37	771.4	31.8	1.0		E			3		10					Overcast	R. E. Power.
Donaghadee			30.40	772.1	46	7.8		S			2		10					Overcast	J. Mac Gowan.
Dover			30.41	772.4	34	1.1		E			4		5					½ clouded	J. Costello.
Eccles, (near Manchester)			30.45	773.4	35.3	1.8		SE	2.2	1.0			10					Misty	Thomas Mackereth.
Falmouth Observatory			30.36	771.1	42.9	6.1		ENE	19	8.5			9					Overcast	The Staff.
Fort Napier, (Natal)	27.73	704.3	29.99	761.7	64.9	18.3		E			3		10						Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	85	29.4		N			2		7					*D. clouds	[tis.
Galway, Queen's College			30.29	769.4	48	8.9		SE			1		7					*D. clouds	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.95	760.7	56.8	13.8		NE			6		10					Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.42	772.7	45.4	7.4		NE			1		10					Foggy	Wm. M. Stewart.
Great Yarmouth			30.45	773.4	34	1.1		E			5		6					Snowy	G. T. Watson.
Greenwich Royal Obs			30.44	773.2	31.3	— 0.4		ENE			1		10					Overcast	The Staff for G. B. Airy
Guernsey			30.33	770.4	38.5	3.6		NE			2		7					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.52	775.2	31.8	— 0.1		ESE			2		10					Threatening	L. J. Crossley.
Helston			30.34	770.6	49	9.4		NE			2		4			0	0		M. P. Moyle.
Holyhead			30.40	772.1	44	6.7		SSE			2		10					Misty	John Tilston.
Kew Observatory			30.46	773.7	31.8	— 0.4		NE	10	4.5			10					Misty	The Staff.
Kingstown			30.40	772.1	47	8.3		SSE			1		10					Misty	George Mitchell.
Leicester Museum			30.52	775.2	32.4	0.2		E			1		9					Misty	William J. Harrison.
Malta, (Mediterranean)			30.10	764.5	52	11.1		NW			2		8k						Fred Travis, Pvt A.H.C.
Nairn			30.39	771.9	43	6.1		Calm			0								W. D. Penny.
Nassau, (Bahamas)			30.19	766.8	73.6	23.2		NE			6		6					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.52	775.2	33.0	0.6		ESE			1		10k		ESE	0	0	Ove cast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.49	774.4	31.1	— 0.5		ENE			1–2		10					Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			30.44	773.2	32	0.0		E			1		10					Overcast	J. Lucas.
Plymouth			30 36	771.1	40.1	4.5		ENE			2		10					Overcast	John Merrifield.
Roche's Point			30.37	771.4	49	9.4		S			2		8					Cloudy	W. Kennedy.
Saint Ann's Head			30.38	771.6	42	5.6		ESE			2		10					Misty	John C. Walker.
Saint Helier, (Jersey)			30.32	770.1	36.5	2.5		E			2		8					¾ clouded	A. P. Amy.
Sandwick Manse (Orkneys)			30.44	773.2	42.1	5.6		SSE	35	15.6			10					Foggy	Rev. Dr. Clouston.
Scarborough			30.52	775.2	33.1	0.6		SSW			1		10					Hailing	F. Shaw.
Scutari Cemetery (Turkey)			29.87	758.7	58.2	14.6		SSE			2		2					*D. clouds	Sergt. W. H. Lyne.
Sheffield			30.51	774.9	35.4	1.9		SSE			1		6			0	0	*D. clouds	W. F. Cooper.
Siloth Rectory			30.43	772.9	39.3	4.1		E			2		10			0.030	0.76	Misty	Rev Francis Redford.
Stonyhurst Observatory			30.47	773.9	35.7	2.1		E			2		10					Gloomy	The Staff.
Stornoway, Lews C. (Hebr)			30.32	770.1	43	6.1		S			1		10					Overcast	John Smith.
Stratfield Turgiss			30.45	773.4	30.3	— 1.0		E			1		10					Snowing	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			30.42	772.7	42	5.6		SSE			4		10					Overcast	John Trotter.
Truro, Royal Institution			30.37	771.4	45	7.2		E			6		7					*D. clouds	W. Newcombe.
Valencia Observatory			30.32	770.1	49.5	9.7		SSE	11	4.9			8					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.95	760.7	93.4	34.1	30	S	8	3.6			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					44	6.7		S			4	10	10			0	0		
Leith, Restalrig Park			30.49	774.4	39.0	3.9		SE			2		10s			0.01	0.3	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.74	780.7	26.1	— 3.3	80	ENE			7		10						
Fanöe			30.72	780.4	25.9	— 3.4	82	ENE			6		10						
Godthaab, (Greenland)			29.58	751.2	6.8	—14.0	79	NNW			2		8						
Stykkisholm, (Iceland)			29.47	748.6	34.7	1.5	93	SW			4		10					Raining	
Thorshavn, (Faröe)			30.27	768.8	45.7	7.6	77	S			4		7						
Vestervig			30.77	781.5	26.2	— 3.2	91	E			4		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.42	772.7	44.6	7	78	NE			1		0			0	0	Clear	Normal School.
Amiens			30.37	771.5	27.0	— 2.8	82	W			3		6		W	0	0	Cloudy	Normal School.
Avignon			30.04	763.0	35.2	1.8	40	N			6		0			0	0	Very clear	Normal School.
Bar-sur-Seine			30.30	769.5	30.7	— 1.0		NE			8		8k			0	0	Very cloudy	C. Sallard.
Beaumette, (near Angers)			30.20	768.5	32.2	0.1	97	NE	2.7	1.2					NNW	0	0		Beaumette Observatory
Beauvais			30.38	771.7	27.1	— 2.7		ENE			2		5		ENE	0	0	Cloudy	Normal School.
Besançon			30.26	768.7	27.0	— 2.8		NE			3		8		N	0	0	Very cloudy	Normal School.
Bourg en Brosse			30.26	768.6	27.3	— 2.6	97	NW			2		5k		SE	0	0	Cloudy	Normal School.
Bourges			30.29	769.4	25.7	— 3.3	91	NE			2		0			0	0	Clear	Normal School.
Brest			30.23	767.8	39.0	3.9	73	N			1		5		NE	0	0	Half covered	Naval Observatory.
Caen			30.33	771.4	41.0	5	100	NE			2		0			0	0	Clear	Normal School.
Chartres			30.30	769.6	35.7	2		NE			2		0			0	0	Clear	Normal School.
Chaumont																			Normal School.
Clermont																			Normal School.
Commercy			30.29	769.3	33.1	0.6	82	NW			2		0			0	0	Clear	Puy de Dome, Obs.
Commune de Gréasque*			30.34	770.6	24.3	— 4.3	95	E			6		10		E	0	0	Covered	Normal School.
Grenoble			29.97	761.2	36.0	2.2	58	NW			3		2		NW	0	0	¼ covered	
Le Mans			30.17	766.3	30.2	— 1	100	ENE			1		0			0	0	Clear	Normal School.
Loches			30.31	769.9	30.7	— 0.7	61	NE			3		0			0	0	Clear	Normal School.
Lons-Le-Saulnier																			
Mâcon			30.24	768.0	29.5	— 1.4	82	NE			2		2		N	0	0	Slightly cl'dy	Normal School.
Mirecourt			30.18	766.6	25.3	— 3.7		Calm			0		10			0	0	Covered	Normal School.
Metz			30.04	770.5	34.3	1.3	85	S			4		8		SW	0	0	Almost cov'd	Normal School.
Nismes																			
Orleans			30.10	764.	37.8	3.2	57	N			6		0			0	0	Clear	Normal School.
Paris Observatory			30.31	769.9	27.7	— 2.4	100	NE			3		0			0	0	Clear	Normal School.
Parthenay			30.36	771.2	28.4	— 2.1	68	NE			2		0			0	0	Foggy	National Observatory.
Privas			30.25	768.3	34.7	1.5	82	NE			4		5		NE	0.20	5.	Cloudy	Normal School.
La Roche-sur-Yon			30.18	766.5	32.7	0.4		NW			4		2		NW	0	0	Slightly cl'dy	Normal School.
Rochefort, Observatory			30.27	768.8	36.7	2.6	80	NE			3		2		SW	0	0	Slightly cl'dy	Normal School.
Rouen			30.2	767.5	38.7	3.7	47	ENE			4		0			0	0		Naval Observatory.
Saint Lo			30.34	770.7	34.4	0.9	89	NE			3		0			0	0	Clear	Normal School.
Tarbes			30.38	771.6	32.4	0.	100	SE			1		5		E	0	0		Normal School.
Toulouse			30.18	766.6	42.8	6	90	SW			1					0	0	Foggy	Normal School.
Villefranche			30.20	767.1	30.	— 1.0	87	N			2							Foggy	Normal School.
Sub-Series.			30.34	770.0	29.	— 1.4	90	N			3		0			0	0	Clear	Normal School.
Fort de France, Martinique			29.87	758.7	75.0	23.3	91	NE			2		5kn			0.24	6.		L'Abbé Marchési.
Gorée																0	0		
Marseilles			29.89	759.2	38.1	3.4	70	NNW			4		0			0	0		Marseilles Observatory
Mont-Louis			30.10	764.	33.8	1.0	74	ESE	9.3	4.17			0			0	0		—. Faiguère.
Montsouris, Paris	24.77	629.0	30.12	765.1	35.6	2.0	81	NNE			2		0			0	0		Montsouris Observ'tory
Perpignan			30.12	765.1	46 0	7.8	58	SE	7.4	3.31			0			0	0		Dr. Fines.
Pic du Midi, (Summit) H. P.	21.08	535.3			21.	— 5.7		N			3		0			0	0	Clear	M. Baylac.
Saint Maur, (near Paris)			30.32	770.0	29.8	— 1.2	62	NE			1		2			0	0	Clear	E. Renou.
Toulouse			30.15	765.8	28.2	— 2.1	100	NN			1		10			0	0	Foggy	Toulouse Observatory.
Tours			30.27	768.8	31.6	— 0.3		NE			1		0			0	0	Clear	C. Marquet.
Versailles, (near Paris)			30.30	769.6	28.4	— 2.0	63	E			2		0			0	0	Clear, hazy	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lee, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,080.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			30.20	767.1	18.1	— 7.7	81	NE			6		8			0	0	Snowing	Prof. T. Hoh.
Berlin			30.48	774.3	17.8	— 7.9	65	E			2		7			0.047	1.2		Prof. Arndt.
Breslau			30.28	769.4	20.6	— 6.4	94	NE			5		9			0.390	9.9	Snowing	Dr. P. Naugebaue
Carlsruhe			30.34	770.6	22.8	— 5.1	97	NE			3		9			0	0		A. Senx.
Cassel			30.25	768.4	25.7	— 3.5	73	NE			2		0			Blank	Blank		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main			30.47	773.0	24.3	— 4.3	90	NE			3		2			0	0		Physical Society.
Friedrichshafen			30.32	770 1	19.9	— 6.7	93	E					8			0	0	Light snow	M. Wilhelm.
Hamburg			30.62	777.7	18.1	— 7.7	80	E			3		2			0.012	0.3	Smoke-haze	Deutsche Seewarte.
Kiel			30.61	777.5	24.4	— 4.2	75	ENE			3		10			0.008	0.2		Prof. G. Karsten.
Königsberg			30.74	780.9	14.4	— 9.8	77	NE			2		6			0.020	0.5	Snowing	Prof. E. Luther.
Köslin			30.61	777.4	20.3	— 6.5		E			1		7			0	0		H. Müller.
Leipsic			30.42	772.7	13.3	— 10.4	93	N			6		10			0	0	Snowing	Prof. Bruhns.
Münster			30.47	774.0	27.0	— 2.3	90	NE			2		0			0	0		Prof. E. Heis.
Posen			30.43	772.8	22.8	— 5.1	96	N			8		10			0.012	0.3		Dr. Magener.
Strassburg, (in Alsace)			30.35	770.8	22.0	— 5.2	66	NE			2		9			0.028	0.7		Dr. Schur.
Stuttgart			30.36	771.2	19.0	— 7.2	75	N					10			0.016	0.4	Light snow	Mr. Würth.
Thorn			30.47	773.8	22.1	— 5.5	94	NE			4		10			0	0	Snowing	Dr. Hasenbalg.
Treves, (Trier)			30.28	769.2	27.1	— 2.7	96	NE			6		6			0.012	0.3	Light fog	Prof. Fiesch.
Wustrow, Naval School			30.67	779.1	21.4	— 5.9	94	ENE			3		6s			0	0		E. F Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			29.80	756.3	52.8	11.3		W										Half clear	

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.01	762.3	30.9	0.6	47	S			4		10			0	0		
Padua			29.97	761.1	34.3	1.3	57	ESE	3.1	1.4			0			0	0		
Verona			29.93	760.1	37.4	3.0	83	E			1		10			0	0		
Bergamo																			
Milan			30.00	762.0	32.4	0.2	73	ESE			2		3			0	0		
Moncalieri			29.98	761.4	35.2	1.8	67	NNW	3.1	1.4			1	W		0	0		
Mondovi			29.96	760.9	36.0	2.2	43	NW			2		0			0	0		
Porto Maurizio			29.95	760.6	43.7	6.5		W			2		0			0	0		
Genoa			29.97	761.2	47.3	8.5	41	S	2.5	1.1			1	E		0	0		
Piacenza			29.98	761.4	35.6	2.0	64	ESE	1.8	0.8			4			0	0		
Bologna			30.01	762.3	37.9	3.3	28	SE			1		4	E		0	0		
Florence			30.02	762.5	35.8	2.1	42	NE			1		0			0	0		
Leghorn			29.98	761.4	43.5	6.4	69	SW	7.4	3.3			9			0	0		
Siena			30.01	762.2	30.4	— 0.9	88	SE	0	0			9	SW		0	0	Snowy	
Urbino																			
Pesaro			30.03	762.8	32.4	0.2	80	SW			1		1			0	0		
Ancona																			
Rome			30.08	764.1	37.8	3.2	52	SE	2.5	1.1			4			0	0		
Naples, O. U			30.16	766.1	37.4	3.0	56	NE			2		1			0	0		
Lecce			30.07	763.6	35.2	1.8	96	W	24.8	11.1			4	W		0	0		
Cosenza			30.12	765.0	34.0	1.1	87	ESE			1		0			0	0		
Riposto, (Sicily)			30.05	763.2	43.5	6.4	59	SW			6		5	SSW		0.874	22.2		
Palermo			30.05	763.3	43.9	6.6	39	NE	8.1	3.6			5			0	0		
Caltanissetta			29.93	762.7	37.8	3.2	66	NE			2		1	SW		0	0		
Sub-Series.																			
Naples, S. R			30.03	762.7	36.7	2.6	62	NE			4					0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.47	773.8	30.6	— 0.8		ENE			2								
Groningen			30.47	773.9	28.4	— 2.0		E			2								
Helder			30.45	774.2	31.1	— 0.5		ENE			4								
Utrecht			30.44	773.1	28.4	— 2.0	94	E			3		10					Dull	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.05	778.6	30.9	— 0.6	70	S	5.1	2.3			8			0	0		
Brönö			30.05	778.6	35.2	1.8	67	S	9	4			10			0	0		
Christiania			30.03	785.6	20.5	— 6.4	90	E	1.3	0.6			10			0	0	Snowing	
Tromsö			30.46	773.7	38.3	3.5	75	W	7	3			10			0.067	1.7	Raining	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.02	762.6	56.7	13.7	88	Calm	0	0	.....	.....	5	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.98	761.6	52.7	11.5	45	NE	6.2	2.75	.....	.....	6	NE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	29.90	759.4	62.4	16.9	62	N	.....	.....	.....	.....	1	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.02	762.5	48.6	9.2	62	NE	12.5	5.6	.....	.....	6	.....	.....	0.193	4.9	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.43	772.9	23.0	— 5.0	100	NE	25	11	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.85	783.7	11.7	—11.3	88	NE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	31.11	790.1	— 1.8	—18.8	89	SE	2	1	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	31.03	788.2	2.5	—16.4	89	NW	4	2	.....	.....	10	.....	.....	.....	.....	Light snow.	Central Physical Obs.
Kuopio	.....	.....	30.86	783.9	17.4	— 8.1	100	WSW	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kiefi	.....	.....	30.59	777.0	10.6	—11.9	89	ENE	13	6	.....	.....	9	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.35	770.9	19.4	— 7.0	83	NNE	31	14	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.30	771.1	21.6	— 5.8	85	E	13	6	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.98	786.9	— 1.3	—18.5	89	NNW	9	4	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.65	778.6	5.0	—14.5	82	NE	18	8	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	30.51	774.9	11.8	—11.2	93	W	18	8	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	.....	.....	30.42	772.7	33.8	1.0	73	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	28.93	734.9	30.72	780.3	1.0	—17.2	89	N	4	2	.....	.....	0	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.47	774.0	8.2	—13.2	88	W	4	2	.....	.....	10	.....	.....	.....	.....	Snowing.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	29.46	748.3	30.04	778 3	—18.2	—27.9	94	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	.....	.....	30.22	767.6	— 0.8	—18.2	77	N	4	2	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	28.54	725.0	30.36	771.2	25.9	— 3.4	100	NW	13	6	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs
Yeniselsk	.....	.....	30.36	771.1	—13.5	—25.3	77	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	30.57	776.4	—23.3	—30.7	88	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Usolsef.
Gorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	30.25	768.4	25.5	— 3.6	54	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	27.79	705.9	30.15	765.7	—19.1	—28.4	75	SSW	4	2	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	30.09	764.2	9.1	—12.7	57	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	—16.4	—26.9	.....	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 300.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.04	763.1	47.1	8.4	32	NE	7.4	3.3	.....	1	0	.....	.....	0	0	Light clouds	Royal Observatory.
San Fernando	.....	.....	29.99	761.7	56.1	13.4	75	ESE	16.3	7.3	.....	0	10	.....	E	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.08	779.2	16.5	— 8.6	88	SW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.83	783.0	20.8	— 6.2	95	W	.....	.....	2	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	30.89	784.7	23.0	— 5.0	95	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Stockholm	.....	.....	30.93	785.5	21.4	— 5.9	90	NE	.....	.....	2	.....	10	.....	.....	0.008	0.2	.....	
Wisby	.....	.....	30.87	784.1	23.0	— 5.0	95	ESE	.....	.....	4	.....	0	.....	.....	0.008	0.2	.....	
Sub-Series.																			
Upsala	.....	.....	30.98	786.8	20.1	— 6.6	93	SE	4.7	2.1	.....	.....	10	.....	.....	0	0	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper, From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.71	729.2	30.23	767.7	26.2	— 3.2	59	ENE			2		9			0	0	Covered	The Observatory.
Zurich	28.53	724.6	30.28	769.2	21.6	— 5.8	73	NE			1		8			0	0	Cloudy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.5 mm.; Thermometer, —4.6; Relative Humidity, —21 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			29.80	759.2	57.4	14.1	62	S	12	5.5			3		SW	0.433	11.0		
Fao, (Persian Gulf)			30.35	771.0	50.0	10.0		NW			4		5						
Salonica			29.87	758.6	40.6	4.8		N			1		2			Blank	Blank		
Valona			29.85	758.3	34.3	1.3		NE			1		10					Snowing	
Varna			29.76	756.0	46.4	8.0		NW			3		10						
Sub-Searle																			
Beirut, (Syria,) Lee Obs'y			30.30	769.6	61.5	16.4	58	NW			1		0			0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B			30.15	765.8	9.5	—12.5	87	NE	8.2	3.7						0.50	12.7		Hon. J. Ferguson.
Brockville, Ontario			30.10	764.5	16	— 8.9		NW	3	1.3			10s		NW	0.18	4.6	Light snow	W. R. Bigg.
*Chatham, N. B			30.16	766.1	11	—11.7	90	NE	7	3.1			10s		NE	0.39	9.9	Light snow	G. A. Blair.
Charlottetown P. E. Island			30.17	766.8	14	—10.0	95	SE	11	4.9			10n			0.20	5.1	Light snow	H. J. Cundall, C. E.
Cornwall, Ontario			29.97	761.2	15.7	— 9.1	88	NE			1		10n			0.15	3.8	Unsettled	James Smith, M. A.
Dalhousie, N. B			30.16	766.1	7.5	—13.6	100	E			4		10n			0.30	7.6	Snowing	H. A. Johnson.
Esquimault, B. C			29.80	756.8	137.1	2.8	77	NE	1	0.4		9cs				0	0	Cloudy	W. H. Bevis.
Fredericton, N. B			30.06	763.5	9.1	—12.7	96	W	2	0.9			10n			0.40	10.2	Snowing	Prof. Harrison.
*Fort Garry, Manitoba			29.88	758.9	8	—13.3	91	SE	15	6.7		Haze	Haze	SE	SE	0	0	Hazy	James Stewart.
Goderich, Ontario			30.33	770.4	27.5	— 2.5	86	NW			2		10n			0.21	5.3	Cloudy	H. J. Strang, M. A.
Granton, Ontario			30.24	767.5	27.2	— 2.7		NW			2		10n			0.32	8.1	Cloudy	James Grant.
*Halifax, N. S			30.15	765.8	28	— 2.2	91	S	6	2.7			8n			Inap.	Inap.	Cloudy	F. Allison, M. A.
*Kingston, Ontario			29.98	761.5	17	— 8.3	90	NW	6	2.7			10s			0.14	3.3	Cloudy	S. Woods, M. A.
Little Current, Ontario			30.36	771.1	6	—14.4		N	2	0.9		0	1s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			29.96	760.7	13	—10.6	87	N	18	8.0			10n			0.45	11.4	Light snow	C. H. McLeod, C. E.
*Ottawa, Ontario			30.01	762.2	13	—10.6	71	W	15	6.7			10n		W	0.60	15.2	Threatening	J. B. Haney.
*Parry Sound, Ontario			30.43	767.6	12	—11.1	90	NW	9	4.0		2ck	5ks	NW	NW	0.02	0.5	Fair	Rev. R. Mooley.
*Port Dover, Ontario			30.18	766.6	32	0.0	90	NW	14	6.3		10k	0	NW		0.19	4.8	Cloudy	H. Morgan.
Port Hastings, N. S			30.27	743.4	10.1	— 7.2		SE	7	3.1						0.80	20.3	Fine	P. ter Grant.
*Port Stanley, Ontario			30.23	767.6	20	— 1.7	84	NW	42	18.8			10n		W	0.12	3.0	Cloudy	M. Payne.
*Quebec, Quebec			29.99	761.7	9	—12.8	100	NE	40	17.9			10n		NE	0.35	8.9	Light snow	Capt. Ash, R. N.
St. John, N. B.			30.00	762.0	30.0	— 1.1	95	SE	17	7.6			10n			0.76	19.3		G. Murdoch, C. E.
*Sangeen, Ontario			30.22	767.6	25	— 3.9	87	N	11	4.9			10n		W	0.18	4.6	Cloudy	K. Stewart.
Stayner, Ontario			30.25	768.3	21	— 6.1	85	N	13	5.8			10n		N	0.06	1.5	Threatening	R. J. Cole.
Stratford, Ontario			30.20	767.1	26.8	— 2.9	82	NW	16	7.2			10s			0.395	10.04	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B			30.32	770.1	9	—12.8	79	NW	10	4.5		5k	5n	NW	NW	0	0	Fair	T. C. Hill.
*Toronto, Ontario			30.16	766.1	30	— 1.1	85	NW	19	8.5			10ks		N	0.20	5.1	Cloudy	Magnetic Observatory.
Woodstock, Ontario			30.17	766.3	28.3	— 2.1	84	NW	3	1.3			10s			0.20	5.1	Fine	J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Granton, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.84	757.9	36	2.2	90	Calm	0	0	.....	5s	5n	W	W	0	0	Light rain...	
Alpena, Mich.	.....	.....	30.20	769.4	20	— 6.7	85	NW	19	8.5	.....	.....	10s	.....	NW	0.04	1.0	Cloudy.....	
Atlantic City, N. J.	.....	.....	29.94	760 5	44	6.7	92	W	8	3.6	.....	8k	0	SW	.....	0.02	0.5	Cloudy.....	
Augusta, Ga.	.....	.....	30.25	768.3	52	11.1	93	NW	3	1.3	.....	0	0	.....	.....	0	0	Clear.....	
Baltimore, Md.	.....	.....	30.01	762.2	47	8.3	85	W	4	1.8	.....	5k	Sm'e	W	.....	0	0	Fair.....	
Barnegat, N. J.	.....	.....	29.89	759.2	44	6.7	92	W	9	4.0	.....	5k	5ks	W	W	0.02	0.5	Cloudy.....	
Benton, Montana	27.23	691.6	30.03	762.7	32	0.0	40	SW	10	4.5	.....	5c	0	SW	.....	0	0	Fair.....	
Bismarck, Dakota	28.09	713.5	30.11	764.8	0	—17.8	39	N	1	0.4	.....	0	0	.....	.....	0.01	0.3	Clear.....	
Boston, Mass.	.....	.....	29.84	757.9	41	5.0	91	SW	10	4.5	.....	5k	5s	SW	.....	0.02	0.5	Cloudy.....	
Breckenridge, Minn	.....	.....	30.03	762.7	12	—11.1	80	SE	28	12.5	.....	2c	0	SE	.....	0	0	Clear.....	
Buffalo, N. Y.	.....	.....	30.11	764.8	32	0.0	79	NW	12	5.4	.....	.....	10n	.....	NW	0.27	6.9	Light sleet..	
Burlington, Vt.	.....	.....	29.88	758.9	18	— 7.8	84	N	14	6.3	.....	.....	10n	.....	.....	0.05	1.3	Light snow.	
Cairo, Ill.	.....	.....	30.11	764.8	32	0.0	79	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
Cape Hatteras, N. C.	.....	.....	30.52	775.2	34	1.1	69	N	10	4.5	.....	.....	10n	.....	W	Inap.	Inap.	Light rain...	
Cape Henry, Va.	.....	.....	30.02	762.5	60	15.6	88	W	17	7.6	.....	.....	10n	.....	W	Inap.	Inap.	Light rain...	
Cape May, N. J.	.....	.....	30.05	763.3	52	11.1	86	W	12	5.4	.....	2k	0	W	.....	0.04	1.0	Fair.....	
Charleston, S. C.	.....	.....	29.96	761.0	45	7.2	84	W	12	5.4	.....	.....	10cs	.....	W	0	0	Cloudy..	
Cheyenne, Wyoming	.....	.....	30.24	768.1	57	13.9	87	W	4	1.8	.....	0	Haze	.....	.....	Inap.	Inap.	Clear.....	
Chicago, Ill.	24.04	610.6	29.98	761.5	33	0.6	41	SW	16	7.2	.....	0	0	.....	.....	0	0	Clear.....	
Cincinnati, Ohio	.....	.....	30.44	773.2	25	— 3.9	75	NW	5	2.2	.....	.....	10s	.....	W	0	0	Cloudy.....	
Cleveland, Ohio	.....	.....	30.35	770.9	37	2.8	71	NW	10	4.5	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Colorado Springs, Col.	.....	.....	30.25	768.3	33	1.1	81	W	20	8.9	.....	.....	10ks	.....	W	0.19	4.8	Cloudy.....	
Corsicana, Texas	24.27	616.4	30.04	763.0	15	— 9.4	47	N	4	1.8	.....	2cs	0	.....	.....	0	0	Clear.....	
Davenport, Iowa	.....	.....	30.46	773.7	30	3.9	86	N	5	2.2	.....	2c	0	.....	.....	0	0	Clear.....	
Denison, Texas	.....	.....	30.50	774.7	21	6.1	71	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Denver, Col.	.....	.....	30.48	774.2	38	3.3	71	N	7	3.1	.....	0	0	.....	.....	0	0	Clear.....	
Detroit, Mich.	24.86	631.4	30 8	764.0	22	— 5.6	58	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Dodge City, Kan.	.....	.....	30.27	768.8	32	0.0	79	NW	11	4.9	.....	.....	10ks	.....	NW	0.01	0.3	Cloudy.....	
Dubuque, Iowa	27.71	703.8	30.13	765.3	33	0.6	69	SE	12	5.4	.....	5c	0	.....	.....	0	0	Fair.....	
Duluth, Minn.	.....	.....	30.48	774.2	18	— 7.8	52	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Eastport, Me.	.....	.....	30.34	770.6	0	—17.8	51	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Erie, Pa.	.....	.....	29.92	760.0	34	1.1	100	S	15	6.7	.....	.....	10n	.....	S	0.04	1.0	Light snow.	
Escanaba, Mich.	.....	.....	30.17	766.3	33	0.6	80	NW	24	10.7	.....	.....	10ks	.....	NW	0.21	5.3	Light snow.	
Fort Gibson, Indian T.	.....	.....	30.38	771.6	18	— 7.8	84	N	4	1.8	.....	.....	10s	.....	N	0	0	Cloudy.....	
Fort Sill, Indian T.	.....	.....	30.49	774.4	31	0.0	70	N	2	0.9	.....	8cs	0	NW	.....	0	0	Fair.....	
Fort Sully, Dakota	29.21	741.9	30.41	772.4	34	1.1	61	Calm	0	0	.....	2cs	5ck	N	N	0	0	Fair.....	
Galveston, Texas	28.25	717.5	29.96	761.0	32	0.0	49	W	3	1.3	.....	0	8c	.....	.....	0	0	Cloudy.....	
Grand Haven, Mich.	.....	.....	30.36	771.1	57	13.9	57	NE	16	7.2	.....	0	0	.....	.....	0	0	Clear.....	
Indianapolis, Ind.	.....	.....	30.37	771.4	28	— 2.2	77	N	9	4.0	.....	.....	10s	.....	NW	0	0	Cloudy..	
Indianola, Texas	.....	.....	30.42	772.7	30	— 0.6	72	W	8	3.6	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Jacksonville, Fla.	.....	.....	30.40	772 1	57	13.9	57	NE	24	10.7	.....	0	0	.....	.....	0	0	Clear.....	
Keokuk, Iowa	.....	.....	30.29	769.4	61	16.1	88	NW	8	3.6	.....	.....	10n	.....	.....	0	0	Light rain...	
Key West, Fla.	.....	.....	30.19	774.4	26	— 3.3	75	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Kittyhawk, N. C.	.....	.....	30.17	766.3	71.6	21.9	94	NE	12	5.4	.....	0	Sm'e	.....	NE	0.10	2.5	Smoky.....	
Knoxville, Tenn.	.....	.....	30.10	764 5	54	12.2	100	W	10	4.5	.....	5k	0	W	.....	0.40	10.2	Fair.....	
La Grosse, Wis.	.....	.....	30.36	771.1	46	7.8	80	NW	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	
Leavenworth, Kan.	.....	.....	30.43	772.9	13	—10.6	62	E	3	1.3	.....	0	0	.....	.....	0	0	Clear.....	
Lexington, Ky.	.....	.....	30.46	773.7	30	— 0.6	89	S	1	0.4	.....	0	0	.....	.....	0	0	Clear.....	
Long Branch, N. J.	29.26	743.2	30.41	772.2	34	1.1	79	W	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy..	
Louisville, Ky.	.....	.....	29.90	759.4	43	6.1	92	SW	13	5.8	.....	5c	2s	SW	SW	0	0	Cloudy.....	
Lynchburg, Va.	.....	.....	30.13	772.9	35	1.7	70	W	10	4.5	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Malone, N. Y.	.....	.....	30.09	764.3	48	8.9	74	SW	3	1.3	.....	0	0	.....	.....	0	0	Clear.....	
Marquette, Mich.	.....	.....	29.96	761.0	16	— 8.9	83	NW	1	0.4	.....	.....	10n	.....	W	0.30	7.6	Heavy snow	
Memphis, Tenn.	.....	.....	30.25	768.3	16	— 8.9	83	Calm	0	0	.....	0	5s	.....	NW	Inap.	Inap.	Fair.....	
Milwaukee, Wis.	.....	.....	30. 8	774.	44	6.7	67	NW	5	2.2	.....	0	0	.....	.....	0	0	Clear.....	
Mobile, Ala.	.....	.....	30.18	174.2	18	— 7.8	76	NW	.....	.....	.....	.....	10ks	.....	.....	Inap.	Inap.	Cloudy..	
Montgomery, Ala.	.....	.....	30.34	770.0	58	14.4	100	S	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy.....	
Morgantown, W. Va.	.....	.....	30.36	771.1	53	11.7	97	NE	1	0.4	.....	.....	Fog	.....	NE	0	0	Foggy.....	
Mt. Washington, N. H.	23.40	594.4	29.21	767.3	42	5.6	57	NW	14	6.3	.....	.....	10s	.....	NW	0.03	0.8	Cloudy.....	
Nashville, Tenn.	.....	.....	29.76	755.9	17	— 8.3	100	N	18	8.0	.....	.....	Fog	.....	.....	0	0	Foggy	
New Haven, Conn.	.....	.....	30.14	773.2	40	4.4	73	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
New London, Conn.	.....	.....	29.86	758.4	41	5.0	83	Calm	0	0	.....	5ck	Fog	W	.....	0.07	1.8	Fair.....	
New Orleans, La.	.....	.....	29.87	758.7	41	5.0	91	S	2	0.9	.....	0	5s	.....	SW	0.10	2.5	Clearing.....	
Newport, R. I.	.....	.....	30.34	770.6	60	15.6	76	N	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
New York, N. Y.	.....	.....	29.84	757.9	42	5.6	91	SW	6	2.7	.....	.....	10s	.....	SW	0.04	1.0	Cloudy.....	
Norfolk, Va.	.....	.....	29.90	759.4	39	3.9	91	SW	8	3.6	.....	0	Fog	.....	.....	0.01	0.3	Clear.....	
North Platte, Neb.	.....	.....	30.06	763.5	51.6	10.8	86	SW	11	4.9	.....	2k	Haze	SW	.....	0.18	4.6	Fair.....	
Omaha, Neb.	27.21	690.9	29.88	758.9	32	0.0	59	Calm	0	0	.....	0	5s	.....	.....	0	0	Fair.....	
Oswego, N. Y.	29.20	741.7	30.13	770.4	31	— 0.6	79	S	7	3.1	.....	5c	0	.....	.....	0	0	Fair.....	
Peck's Beach, N. J.	.....	.....	30.04	763.0	23	— 5.0	93	.....	16	7.2	.....	.....	10n	.....	.....	0.06	1.5	Light snow.	
Pembina, Dakota	.....	.....	29.96	761.0	45	7.2	92	W	16	7.2	.....	2k	5ks	W	W	Inap.	Inap.	Cloudy.....	
Philadelphia, Penn.	.....	.....	29.84	757.9	7	—13.9	100	S	16	7.2	.....	2c	2s	.....	.....	0	0	Fair.....	
Pike's Peak, Colorado	.....	.....	29.94	760.5	42	5.6	91	W	4	1.8	.....	8k	Fog	W	.....	0.01	0.3	Foggy	
Pittsburgh, Penn.	17.77	451.4	29.98	761.5	11	—11.7	60	W	42	18.8	.....	0	1s	.....	.....	0	0	Clear.....	
Port Huron, Mich.	.....	.....	30.15	765.8	39	3.9	81	NW	12	5.4	.....	.....	10s	.....	NW	0.20	5.1	Cloudy.....	
Portland, Me.	.....	.....	30.29	769.4	28	— 2.2	77	NW	14	6.3	.....	.....	10s	.....	NW	0.14	3.6	Cloudy.....	
Portland, Oregon	.....	.....	29.87	758 7	30	— 1.1	89	N	2	0.9	.....	.....	10s	.....	.....	0.09	2.3	Cloudy.....	
Punta Rassa, Fla.	.....	.....	29.84	757 7	40	4.4	91	N	4	1.8	.....	.....	10n	.....	.....	0.34	8.6	Light rain...	
Rochester, N. Y.	.....	.....	30.22	767.6	65.6	18.6	94	NE	8	3.6	.....	Haze	1ks	.....	.....	0	0	Clear.....	
Salt Lake City, Utah	.....	.....	30.0	763.3	31	— 0.6	.....	NW	20	8.9	.....	.....	10n	.....	NW	0.18	4.6	Light snow.	
Sandy Hook, N. J.	25.08	652.3	30.11	765.2	30	— 1.1	68	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
San Diego, Cal.	.....	.....	29.88	758.9	41	5.0	91	W	15	6.7	.....	0	8ks	.....	W	0.03	0.8	Cloudy.....	
San Francisco, Cal.	.....	.....	29.96	761.0	54	12.2	38	NE	4	1.8	.....	0	8ks	.....	.....	0	0	Fair.....	
Santa Fe, N. M.	.....	.....	29.76	755.9	50	10.0	75	NW	4	1.8	.....	0	2s	.....	.....	0	0	Clear	
Savannah, Ga.	23.45	595.6	29.99	761.7	32	0.0	60	NE	4	1.8	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Shreveport, La.	.....	.....	30.26	768.6	50	13.3	94	W	3	1.3	.....	.....	For	.....	.....	0.11	2.8	Foggy	
Smithville, N. C.	.....	.....	30.48	774.2	46	7.8	72	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Springfield, Mass.	.....	.....	30.18	766.6	57	13.9	63	W	4	1.8	.....	5ck	5ks	W	W	0.09	2.3	Cloudy.....	
St. Louis, Mo.	.....	.....	29.84	757.9	41	5.0	82	S	4	1.8	.....	2k	5s	N	.....	0.05	1.3	Cloudy.....	
St. Marks, Fla.	.....	.....	30.56	776.2	29	— 1.7	67	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
St. Paul, Minn.	.....	.....	30.0	762.0	57	13.9	93	Calm	0	0	.....	2c	Fog	N	.....	0.04	1.0	Fair.....	
St. Paul's Island, Alaska	.....	.....	29.53	750.0	0.7	—17.2	75	E	8	3.6	.....	.....	Fog	.....	.....	0	0	Foggy	
Squan Beach, N. J.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Thatcher's Island, Mass.	.....	.....	29.88	758.9	44	6.7	84	W	12	5.4	.....	2ck	8ks	W	W	0	0	Cloudy.....	
Toledo, Ohio	.....	.....	29.84	757.9	40	4.4	91	SW	6	2.7	.....	.....	10s	.....	W	0	0	Cloudy.....	
Tucson, Arizona	.....	.....	30.20	769.4	34	1.1	79	W	12	5.4	.....	2cs	Haze	SW	.....	0	0	Clear.....	
Tybee Island, Ga.	27.65	702.3	30.05	763.3	58	14.4	.....	S	.....	.....	.....	5ck	0	W	.....	0	0	Fair.....	
Vicksburg, Miss.	.....	.....	30.24	768.1	57	13.9	87	NW	14	6.3	.....	0	0	.....	.....	0	0	Clear.....	
	.....	.....	30.48	774.2	49.1	9.7	92	NE	1	0.4	.....	0	0	.....	.....	0	0		

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.20	614.7	29.68	753.9	17	— 8.3	50	SE	1	0.4	.....	1c	0	.....	.....	0	0	Clear	
Washington, D. C	.....	.....	30.04	763.0	48	8.9	71	NW	8	3.6	.....	2k	5s	W	NW	0	0	Fair	
Wilmington, N. C	.....	.....	30.17	766.3	58	14.4	87	W	9	4.0	.....	.....	10s	.....	W	0.02	0.5	Cloudy	
Wood's Holl, Mass	.....	.....	29.88	758.9	44	6.7	84	W	10	4.5	.....	.....	10s	.....	W	0	0	Cloudy	
Wytheville, Va	27.80	706.1	29.99	761.7	44	6.7	52	NW	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.86	733.0	30.20	767.1	35	1.7	61	S	15	6.7	.....	5c	0	W	.....	0	0	Fair	
Yuma, Arizona	.....	.....	30.18	766.6	43	6.1	.....	N	.....	.....	.....	.....	10s	.....	W	0	0	Cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.03	762.7	79	26.1	86	N	4	1.8	.....	2ck	5s	W	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	29.90	759.4	76	24.4	81	E	.....	.....	.....	2c	2ks	E	.....	0	0	Fair	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.14	765.5	74	23.3	72	E	2.4	1.1	.....	2fk	0	E	.....	Blank	Blank	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.15	765.8	82	27.8	74	Calm	0	0	.....	5c	2s	NE	.....	0.26	6.6	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.22	767.6	77	25.0	69	E	9	4.0	.....	5ck	2k	E	.....	0.02	0.5	Fair	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.85	758.2	74	23.3	76	NE	4.8	2.1	.....	0	2ks	.....	.....	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.36	771.1	60.5	15.8	71	SE	7.0	3.1	.....	.....	10pk	.....	.....	Inap.	Inap.	Fair	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	29.68	753.9	— 2.5	—19.2	100	S	24	10.7	.....	.....	10n	.....	.....	0.14	3.6	Heavy snow	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.44	773.2	4.0	—15.6	74	W	.....	.....	.....	2k	2s	.....	.....	0	0	Fair	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.18	690.4	29.98	761.5	61	16.1	94	N	0.5	0.2	.....	2c	2k	N	.....	2.65	67.3	.....	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.17	639.2	.....	.....	63.5	17.5	85	.....	0	0	.....	5ck	3s	.....	.....	0	0	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.97	761.2	81	27.2	81	SE	.....	.....	2	.....	8ck,ks	.....	.....	0.350	8.89	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.00	762.0	77.4	25.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.138	3.50	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 7, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	29.87	758.6	57.2	14.0	50	Calm	.....	.....	0	.....	4	.....	.....	0	0	Fair.....	Charnot.
Algiers	.....	.....	29.83	757.7	56.8	13.8	58	N	.....	.....	2	.....	3	.....	.....	0	0	Fair.....	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	29.95	760.7	55.0	12.8	66	SE	.....	.....	3	.....	8	.....	.....	0	0	Cloudy.....	Jacques.
Sfax	.....	.....	29.98	761.4	59.7	15.4	73	E	.....	.....	1	.....	5	.....	.....	0.213	5.4	Fair.....	Chauvey.
Saida	.....	.....	29.96	761.0	54.5	12.5	29	WNW	.....	.....	1	.....	2	.....	.....	0	0	Clear.....	Grosjean.
Tebessa	.....	.....	29.98	761.5	47.1	8.4	.....	SW	.....	.....	2	.....	8	.....	.....	0	0	Cloudy.....	Colin.
Gerlville	.....	.....	30.00	762.0	39.0	4.2	69	SSW	.....	.....	3	.....	6	.....	.....	0	0	Fair.....	Buard.
Laghouat	.....	.....	30.02	762.4	48.2	9.0	61	SW	.....	.....	1	.....	3	.....	.....	0	0	Fair.....	Simon.
Biskra	.....	.....	29.99	761.7	51.3	10.7	77	SE	.....	.....	3	.....	10	.....	.....	0	0	Hidden.	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.31	769.8	14.4	— 9.8	97	NE	.....	.....	2	.....	0	.....	.....	0.071	1.8	.....	Prof. Ivan Stosir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.41	772.3	19.8	— 6.8	92	NNE	.....	.....	4	.....	10	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.42	772.6	46.0	7.8	77	S	.....	.....	2	.....	8	.....	.....	0	0	.....	Julius Mikolik.
Gratz	29.04	737.5	30.35	770.9	18.0	— 7.8	65	S	.....	.....	2	.....	0	.....	.....	0.087	2.2	.....	Andreas Rospini.
Hermannstadt	28.87	733.3	30.40	774.4	2.5	—16.4	95	NNW	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.77	730.7	30.24	768.1	13.5	—10.3	83	ENE	.....	.....	5	.....	7	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	.....	.....	30.45	773.4	14.4	— 9.8	97	SE	.....	.....	4	.....	10	.....	.....	0 201	7.4	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.43	773.0	15.1	— 9.4	87	E	.....	.....	2	.....	0	.....	.....	0	0	.....	Habasuda Daniel.
Pola	.....	.....	30.02	762.4	32.7	— 0.4	90	E	.....	.....	5	.....	10s	.....	.....	0	0	Heavy snow	I.R. Hydrographic Of'c
Szegedin	.....	.....	30.39	771.8	9.3	—12.6	88	E	.....	.....	2	.....	0	.....	.....	0.215	5.45	.....	Karl Stancel.
Trieste	.....	.....	30.08	764.1	25.7	— 3.5	89	ENE	.....	.....	2	.....	10	.....	.....	0	0	Snowing.....	Prof. V. Farolfi.
Vienna	.....	.....	30.32	770.2	15.8	— 9.0	90	NE	.....	.....	2	.....	10	.....	.....	0.024	0.6	Snowing.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	30.13	765.2	25.9 — 3.4		94	E	.....	.....	1	.....	2	.....	.....	0.059	1.50	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.66	778.7	38.0	3.3		SE	20	8.9			9			0.020	0.51	Gloomy	William Boswell.
Ardrossan			30.58	776.7	38	3.3		E			3		5					*D. clouds	J. Mayes.
Armagh Observatory			30.53	775.4	37.4	3.0		E	8	3.6			10					Gloomy	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs			30.44	773.2	36.0	2.2		NE	23	10.2			7					*D. clouds	John Hartnup.
Birr Castle, (Parsonstown)			30.46	773.7	35.9	2.2		ESE			1		7					*D. clouds	J. Dreyer.
Bradford			30.38	771.6	36.0	2.2		NE			1		10			0.04	1.0	Drizzling	J. McLandsborough.
Bridgetown, (Barbados)			29.95	760.7	82	27.8		SE			1		7					Gloomy	Sergt. G. H. Hunt.
Cambridge Observatory			30.24	768.1	34.0	1.1		NE			2		10					Overcast	H. Todd.
Cardington			30.26	768.6	34.0	1.1		NE			6		10					Overcast	John McLaren.
Carlisle			30.50	774.7	37.5	3.1		E			4		6			0	0	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E			30.26	768.6	35.2	1.8		NE			2							Gloomy	Capt. J. Fellowes, R. E.
Dartmoor	28.66	728.0	30.23	767.8	30.0	— 1.1		NE			6		6					*D. clouds	R. E. Power.
Donaghadee			30.55	776.0	38	3.3		SE			4		5					*D. clouds	J. Mac Gowan.
Dover			30.12	765.0	34	1.1		NE			4		7					¾ clouded	J. Costello.
Eccles, (near Manchester)			30.41	772.4	36.2	2.3		E	5.6	2.5			10					Gloomy	Thomas Mackereth.
Falmouth Observatory			30.24	768.1	35.3	1.8		NE	30	13.4			10					Overcast	The Staff.
Fort Napier, (Natal)	27.64	702.0	29.88	758.9	77.3	25.2		NE			3		4					*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	86	30.0		N			1		2					Blue sky	[tis.
Galway, Queen's College			30.39	771.9	36	2.2		E			1		8					*D. clouds	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			29.81	757.2	60.6	15.9		W			3		6					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.58	776.7	36.1	2.3		E			1		9					*D. clouds	Wm. M. Stewart.
Great Yarmouth			30.23	767.8	34	1.1		E			7		7					Hail & snow	G. T. Watson.
Greenwich Royal Obs			30.17	766.3	32.3	0.2		NE			4		10					Snowing	The Staff for G. B. Airy
Guernsey			30.12	765.0	30.5	— 0.8		ENE			1		10					Snowing	Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.44	773.2	31.8	— 0.1		ENE			3		10					Threatening	L. J. Cr sley.
Helston			30.22	767.6	38	3.3		NE			4		6c			0	0	Fine	M. P. Moyle.
Holyhead			30.42	772.7	37	2.8		ENE			6		5					*D. clouds	John Tilston.
Kew Observatory			30.19	766.8	33.2	0 7		NE	28	12.5			10					Snowing	The Staff.
Kingstown			30.47	773.9	41	5.0					5		8					Overcast	George Mitchell.
Leicester Museum			30.33	770.4	35.0	1.7		NE			4		10					Threatening	William J. Harrison.
Malta, (Mediterranean)			30.03	762.7	54.2	12.4		SE			2		8k						Fred Travis, Pvt A.H.C
Nairn			30.02	777.7	37	2.8		SE			2		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.24	768.1	73.4	23.0		NE			6		7					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.34	770.6	43	6.1		NNE			5		10		NE	Blank	Blank	Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.32	770.1	33.9	1.1		NNE			6		10					Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			30.21	767.3	35	1.7		NE			4		10					Gloomy	J. Lucas.
Plymouth			30.21	767.3	35.7	2.1		NE			6		7					*D. clouds	John Merrifield.
Roche's Point			30.40	772.1	39	3.9		ESE			5		10					Overcast	W. Kennedy.
Saint Ann's Head			30.35	770.9	37	2.8		ENE			4		3					*D. clouds	John C. Walker.
Saint Helier, (Jersey)			30.09	764.3	29.8	— 1.2		E			4		10					Overcast	A. P. Amy.
Sandwick Manse(Orkneys)			30.62	777.7	37.8	3.2		S	26	11.6			9					Fine	Rev. Dr. Clouston
Scarborough			30.45	773.4	37.1	2.8		ENE			6		10					Overcast	F. Shaw.
Scutari Cemetery(Turkey)			30.36	771.1	36.0	2.2		NNE			3		10					Sleeting	Sergt. W. H. Lyne.
Sheffield			30.40	772.1	36.6	2.6		NE			3		9			0	0	Gloomy	W. F. Cooper.
Silloth Rectory			30.51	774.9	38.5	3.6		NNE			4		2			0	0	*D. clouds	Rev. Francis Redford.
Stonyhurst Observatory			30.43	772.9	35.9	2.2		NE			3		6					Hazy	The Staff.
Stornoway, Lews C. (Hebr)			30.54	775.7	36	2.2		S			5		2					Blue sky	John Smith.
Stratfield Turgiss			30.21	767.3	34.8	1.6		NE			2-3		10					Overcast	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			30.61	777.5	37	2.8		S			3		5					*D. clouds	John Trotter.
Truro, Royal Institution			30.23	767.8	38	3.3		NE			7		6					*D. clouds	W. Newcombe.
Valencia Observatory			30.36	771.1	39.8	4.3		E	25	11.2			4					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.74	755.4	83.0	28.3	51	SSE	14	6.3			0						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					37	2.8		SE			3	5	5			0	0		
Leith, Restalrig Park			30.62	777.7	37.5	3.1		E			2		10k			0	0	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.63	778.0	30.0	— 1.1	74	E			6		0						
Fanöe			30.60	777.2	30.7	— 0.7	71	E			6		1						
Godthaab, (Greenland)			29.87	758.7	4.6	—15.2	95	NW			2		10						
Stykkisholm, (Iceland)			29.43	747.5	33.8	1.0	100	Calm			0		8						
Thorshavn, (Faröe)			30.40	772.1	45.0	7.3	85	SW			6		8						
Vestervig			30.67	779.1	28.4	— 2.0	76	ENE			6		0						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.46	773.6	41.0	5	65	NE	.....	.....	1	..e	5n	.....	.....	0	0	Cloudy	Normal School.
Amiens	.....	.....	30.06	763.4	27.3	— 2.6	92	W	.....	.....	6	.....	10	.....	.....	0	0	Covered	Normal School.
Avignon	.....	.....	29.93	760.1	31.5	— 0.3	89	N	.....	.....	1	.....	8	.....	S	0	0	Light snow	Normal School.
Bar-sur-Seine	.....	.....	30.08	764.1	21.6	— 5 8	.....	E	.....	.....	2	.....	0	.....	.....	0	0	Clear	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.99	761.7	29.5	— 1.4	77	NE	28.6	12.8	.....	.....	.....	.....	NE	0	0	Snowing	Beaumette Observatory
Beauvais	.....	.....	30.11	764.8	25.0	— 3.4	.....	E	.....	.....	2	.....	5	.....	E	0	0	Cloudy	Normal School.
Besançon	.....	.....	30.02	762.4	24.1	— 4.4	.....	NE	.....	.....	3	.....	5	.....	SW	0	0	Cloudy	Normal School.
Bourg en Bresse	.....	.....	29.97	761.2	20.7	— 6.3	100	NW	.....	.....	2	.....	5	.....	SE	0	0	Cloudy	Normal School.
Bourges	.....	.....	30.02	762.4	24.8	— 4	83	NE	.....	.....	2	.....	10	.....	NE	0	0	Covered	Normal School.
Brest	.....	.....	30.03	762.7	32.9	0.5	92	NE	.....	.....	3	.....	10	.....	NE	0	0	Snowing	Naval Observatory.
Caen	.....	.....	30.05	763.2	35.6	2	100	NE	.....	.....	2	.....	10	.....	S	0	0	Covered	Normal School.
Chartres	.....	.....	30.21	767.4	19.6	— 6.9	.....	NE	.....	.....	2	.....	3	.....	NE	0	0	.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.97	761.3	23.0	— 5.0	51	N	.....	.....	2	.....	10	.....	.....	0.236	6.0	Covered	Puy de Dome, Obs.
Commercy	.....	.....	30.11	764.8	17.6	— 8	94	E	.....	.....	4	.....	0	.....	.....	0	0	Clear	Normal School.
Commune de Gréasque*	.....	.....	29.87	758.7	37.8	3.2	50	NE	.....	.....	1	.....	10	.....	SE	0.008	0.2	Covered	
Grenoble	.....	.....	30.33	770.4	31.1	— 0.5	90	WNW	.....	.....	1	.....	10	.....	.....	0	0	Snowing	Normal School.
Le Mans	.....	.....	30.06	763.5	19.6	— 6.9	73	NE	.....	.....	4	.....	5	.....	NE	0	0	Cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	29.87	758.6	25.5	— 3.6	87	NNW	.....	.....	2	.....	5	.....	SW	0	0	Cloudy	Normal School.
Mâcon	.....	.....	29.93	760.1	21.4	— 5.9	.....	N	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.03	762.8	31.1	— 0.5	63	N	.....	.....	4	.....	1	.....	SW	0	0	Clear	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	29.93	760.2	31.(	— 0.2	73	N	.....	.....	2	.....	5	.....	E	0	0	Cloudy	Normal School.
Orleans	.....	.....	30.03	762.7	17.2	— 8.2	100	ENE	.....	.....	3	.....	8	.....	NE	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	30.07	763.7	21.(	— 5.8	58	E	.....	.....	2	.....	0	.....	.....	0	0	Clear	National Observatory
Parthenay	.....	.....	30.03	762.7	22.1	— 5.5	84	NE	.....	.....	2	.....	8	.....	NE	0	0	Very cloudy	Normal School.
Privas	.....	.....	29.99	761.8	27.7	— 2.4	.....	SSW	.....	.....	4	.....	8	.....	SSW	0	0	Very cloudy	Normal School.
La Roche-sur-Yon	.....	.....	29.96	761.0	21.4	— 4.2	67	NE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Rochefort, Observatory	.....	.....	29.96	760.9	30.(	— 0.8	98	NE	.....	.....	4	.....	10	.....	S	0	0	Covered	Naval Observatory.
Rouen	.....	.....	30.06	763.4	28.2	— 2.1	85	NE	.....	.....	4	.....	5	.....	E	0	0	Cloudy	Normal School.
Saint Lo	.....	.....	30.12	765.0	25.2	— 3.8	100	E	.....	.....	6	.....	10	.....	E	0	0	.....	Normal School.
Tarbes	.....	.....	30.13	765.2	46.4	8	96	W	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Toulouse	.....	.....	29.90	759.5	30.(	— 1.1	96	N	.....	.....	2	.....	10	.....	.....	.....	.....	Snowing	Normal School.
Villefranche	.....	.....	30.04	762.9	21.4	— 5.1	66	NE	.....	.....	2	.....	5	.....	N	0	0	Cloudy	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.88	759.0	78.8	26	84	NE	.....	.....	2	.....	2k	.....	.....	0.16	4.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	29.87	758.6	39.4	4.1	80	NNW	.....	.....	1	.....	10	.....	.....	0.008	0.20	.....	Marseilles Observatory
Mont-Louis	24.47	621.6	29.90	759.5	25.(	— 3.7	85	ESE	9.3	4.17	.....	.....	10	.....	SW	0	0	.....	—, Falguère.
Montsouris, Paris	.....	.....	30.01	763.0	42.4	5.8	64	ENE	.....	.....	4	.....	1	.....	SE	Inap.	Inap.	.....	Montsouris Observ'tory
Perpignan	.....	.....	29.90	759.4	34.3	1.3	72	SE	7.4	3.33	.....	.....	10	.....	SE	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	20.73	526.5	.....	.....	11.3	—11.5	.....	NNW	.....	.....	3	.....	10	.....	.....	0	0	Covered	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.05	763.2	21.7	— 5.7	59	NE	.....	.....	2	.....	2	.....	.....	0	0	Slightly cl'dy	E. Renou.
Toulouse	.....	.....	29.87	758.8	26.6	— 3.0	100	WNW	.....	.....	1	.....	7	.....	.....	0	0	.....	Toulouse Observatory.
Tours	.....	.....	30.01	762.2	19.9	— 6.7	.....	NE	.....	.....	3	.....	3	.....	ENE	0.012	0.3	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.02	762.6	22.3	— 5.4	52	E	.....	.....	3	.....	3	.....	.....	0	0	Clear, haze	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 398 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.10	764.5	19.8	— 6.8	86	ESE	.....	.....	2	.....	3	.....	.....	0.079	2.0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.43	773.0	22.1	— 5.5	81	E	.....	.....	3	.....	10	.....	.....	0.102	2.6	.....	Prof. Arndt.
Breslau	.....	.....	30.41	772.5	21.9	— 5.6	91	E	.....	.....	3	.....	10	.....	.....	0.110	2.8	.....	Dr. P. Neugebauer.
Carlsruhe	.....	.....	30.16	766.0	15.1	— 9.4	74	NE	.....	.....	3	.....	1	.....	.....	0.039	1.0	.....	A. Senz.
Cassel	.....	.....	30.12	765.0	21.2	— 6.0	78	ENE	.....	.....	3	.....	6	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.31	769.8	22.8	— 5.1	76	E	.....	.....	2	.....	6	.....	.....	0.035	0.9	.....	Physical Society.
Friedrichshafen	.....	.....	30.14	765.5	16.5	— 8.6	58	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	30.41	772 4	24.3	— 4.3	81	E	.....	.....	5	.....	8	E	.....	0	0	Smoke-haze	Deutsche Seewarte.
Kiel	.....	.....	30.52	775.2	32.0	0.0	73	NE	.....	.....	6	.....	10	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.78	781.8	16.2	— 8.8	63	E	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. K. Luther.
Köslin	.....	.....	30.58	776.7	20.5	— 6.4	.....	E	.....	.....	1	.....	2	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.35	770.9	20.5	— 6.4	93	ENE	.....	.....	8	.....	10	.....	.....	0	0	Snowing	Prof. Bruhns.
Münster	.....	.....	30.45	773.3	25.2	— 3.8	91	E	.....	.....	1	.....	4	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.50	774.7	19.8	— 6.8	88	NE	.....	.....	7	.....	9	.....	.....	0.004	0.1	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.13	765.3	15.8	— 9.0	78	NE	.....	.....	1	.....	1	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.17	766.4	18.7	— 7.4	68	NE	.....	.....	.....	.....	4	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.55	775.9	20.3	— 6.5	68	ENE	.....	.....	6	.....	10	.....	.....	0.051	1.3	Snowing	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	30.08	763.9	20.7	— 6.3	63	E	.....	.....	5	.....	1	.....	.....	0	0	.....	Prof. Flesch.
Wustrow, Naval School	.....	.....	30.54	775.8	27.5	— 2.5	95	NE	.....	.....	5	.....	6s	.....	.....	0	0	.....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.29	769.4	47.8	8.8	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Cloudy	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.11	764.8	27.3	— 2.6	64	SE			2		10			0	0	Snowing	
Padua			30.07	763.6	28.6	— 1.9	86	NNE	15.4	6.9			10			0	0		
Verona			30.02	762.6	35.6	2.0	64	E			2		10			0	0		
Bergamo																			
Milan			30.08	764.0	32.2	0.1	79	WSW			1		10			0	0		
Moncalieri			30.11	764.7	31.6	— 0.2	89	NNW	0.7	0.3			10			0	0	Snowing	
Mondovi			30.07	763.8	26.4	— 3.1	82	NW			4		10			0	0	Snowing	
Porto Maurizio			29.99	761.7	42.8	6.0		NNE			6		9			0.122	3.1		
Genoa			29.98	761.5	35.8	2.1	60	N	13.0	5.8			4	N		0	0		
Piacenza			30.09	764.2	31.5	— 0.3	100	SW	0	0			10			0	0	Snowing	
Bologna			30.07	763.7	29.5	— 1.4	46	WNW			1		10			0	0	Snow ng	
Florence			29.98	761.6	35.2	1.8	72	NE			1		10			0	0	Snowing	
Leghorn			29.92	759.9	36.7	2.6	62	ENE	16.8	7.5			10			0	0		
Siena			29.94	760.4	32.0	0.0	100	E	0	0			10			0.063	1.6	Snowing	
Urbino																			
Pesaro			30.01	762.3	34.3	1.3	94	SW			1		10			0.098	2.5	Raining	
Ancona																			
Rome			29.96	761.0	39.6	4.2	87	NE	11.2	5.0			10	SSW		0	0		
Naples, O. U			30.09	764.3	47.8	8.8	63	SW			6		8	W		0.071	1.8		
Lecce			30.26	768.7	43.0	6.1	80	ESE	9.4	4.2			2	SE		0	0		
Cosenza			30.19	766.8	38.7	3.7	87	ESE			2		7			0	0		
Riposto, (Sicily)			30.10	764.5	47.5	8.6	92	ENE			4		10	W		0.220	5.6		
Palermo			29.95	760.8	52.3	11.3	58	E	11.9	5.3			10			0	0		
Caltanissetta			30.02	762.4	40.8	4.9	84	E			6		10	W		0.024	0.6		
Sub-Series.																			
Naples, S. R			30.07	763.6	46.0	7.8	61	SE			6		c	E		0.083	2.1		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.19	776.9	29.8	— 1.2		E			5								
Groningen			30.32	770.0	25.9	— 3.4		E			5								
Helder			30.30	769.5	29.3	— 1.5		ENE			5								
Utrecht			30.25	767.3	24.1	— 4.4	99	E			5		10					Dull	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.80	782.4	24.8	— 4.0	77	Calm	0	0			0			0	0		
Brönö			30.80	782.4	34.2	1.2	78	SSW	13	6			9			0	0		
Christiania			31.02	787.8	15.1	— 9.4	87	ENE	2.0	0.9			1			0.028	0.7		
Tromsö			30.49	774.5	40.3	4.6	71	SW	9	4			10			0.028	0.7	Raining	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.83	757.6	56.5	13.6	91	Calm	0	0	.....	.....	10	.....	.....	0.630	16.0	Raining.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.82	757.4	48 2	9.0	51	SSE	3.5	1.58	.....	.....	2	.....	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	29.90	759.4	64.0	17.8	68	NNW	3.6	1.61	.....	.....	4	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	29.86	758.4	51.4	10.8	74	Calm?	3.8?	1.7?	.....	.....	9	NW	.....	0	0	.....	The Observatory.
.....	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.55	776.0	19.0	— 7.2	61	E	18	8	.....	.....	1	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.85	783.6	10.9	—11.7	67	NE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	31.01	787.6	1.4	—17.0	91	WNW	2	1	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.89	784.5	15.8	— 9.0	97	WNW	2	1	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	30.85	783.5	16.5	— 8.6	100	NW	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kief	.....	.....	30.58	776.8	13.3	—10.4	90	NNE	9	4	.....	.....	1	.....	.....	.....	.....	Solar corona.	Physical Cabinet.
Nikolaiev	.....	.....	30.45	773.5	20.8	— 6.2	59	N	13	6	.....	.....	8	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.37	771.3	26.2	— 3.2	85	NE	2	1	.....	.....	1	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.67	779.1	12.9	—10.6	86	N	9	4	.....	.....	10	.....	.....	.....	.....	Light snow.	Meteorological Obs.
Lugan	.....	.....	30.40	772.2	0.7	—17.4	68	Calm	0	0	.....	.....	3	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.61	777.5	26.2	— 3.2	96	WNW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.82	731.9	30.30	769.7	33.4	0.8	89	Calm	0	0	.....	.....	9	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.40	772.2	7.5	—13.6	92	WNW	2	1	.....	.....	3	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.62	777.8	—16.2	—26.8	77	NE	7	3	.....	.....	4	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.21	741.8	30.71	779.9	—31.0	—35.0	77	NW	13	6	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.05	763.3	— 5.1	—20.6	26	N	4	2	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.70	729.0	30.56	776.2	26.8	— 2.9	94	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.35	770.8	— 9.2	—22.7	76	NE	2	1	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.59	776.9	—27.6	—33.1	89	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.26	768.7	24.4	— 4.2	73	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.76	705.1	30.11	764.9	—18.8	—28.2	80	Calm	0	0	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	29.97	761.2	11.3	—11.5	68	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—27.2	—32.9	.....	N	4	2	.....	.....	0	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.81	757.2	42.1	5.6	55	NE	2.2	1.0	.....	2	0	SW	.....	0	0	Light clouds.	Royal Observatory.
San Fernando	.....	.....	29.85	758.2	58.8	14.9	64	SW	4.9	2.2	.....	2	4	NE	N	0.043	1.1	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.78	781.9	9.0	—12.8	76	SW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.80	783.0	— 7.6	—22.0	100	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	30.95	786.0	— 3.3	—19.6	100	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Stockholm	.....	.....	30.93	785.5	18.7	— 7.4	89	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	30.95	786.1	23.7	— 4.6	100	SE	.....	.....	4	.....	3	.....	.....	0	0	.....	
Upsala	Sub-Series.																		
	.....	.....	30.99	787.2	16.5	— 8.6	100	W	5.1	2.3	.....	.....	10	.....	.....	0.059	0.15	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of *Professor* R. Wolf, Director of the Observatory at Zurich, and of *Professor* E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.48	723.4	30.04	762.9	25.3	— 3.7	69	N			5		9			0	0	Cloudy	The Observatory.
Zurich	28.35	720.1	30.13	765.2	16.3	— 8.7	73	NE			3		1			0	0	Clear	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —4.5 mm.; Thermometer, —5.1; Relative Humidity, —11 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.38	771.7	35.1	1.7	93	N	17	7.5			10		N	0	0		
Fao, (Persian Gulf)			30.31	769.8	48.2	9.0		NW			4		0						
Salonica			30.38	771.7	40.6	4.8		W			1		0						
Valona			30.02	762.5	42.1	5.6		N			1		0						
Varna			30.28	769.0	30.2	— 1.0		N			3		0						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			30.25	768.3	61.0	16.1	55	NNE			2		4c			0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.			30.19	766.8	6.5	—14.2	91	NW	6.0	2.7						0	0		Hon. J. Ferguson.
Brockville, Ontario			30.39	771.9	7	—13.9		Calm	0	0			Haze			Inap.	Inap.	Hazy	W. R. Bigg.
*Chatham, N. B.			30.23	767.8	6	—14.4	90	N	10	4.5		8c	0	N		0.41	10.4	Fair	G. A. Blair.
Charlottetown P. E. Island.			29.91	759.7	15	— 9.4	95	N	29	13.0			10n			0.55	14.0	Heavy snow	H. J. Cundall, C. E.
Cornwall, Ontario			30.33	770.4	2.8	—16.2	100	SE			1		1s			0	0	Clearing	James Smith, M. A.
Dalhousie, N. B.			30.28	769.1	4.5	—15.3	100	NW			2		2cs			0	0	Bright	H. A. Johnson.
Esquimault, B. C.			29.68	753.9	33.1	0.6	70	N	1	0.4		4cs				0	0	Clear	W. H. Bevis.
Fredericton, N. B.			30.20	767.1	9.3	—12.6	94	N	5	2.2			10s			0.46	11.7	Fair	Prof. Harrison.
*Fort Garry, Manitoba			30.26	768.6	7	—21.7	96	Calm	0	0		0	0			0	0	Clear	James Stewart.
Goderich, Ontario			30.22	767.6	30.7	— 0.7	84	SW			2	3k		W		0	0	Fine	H. J. Strang, M. A.
Granton, Ontario			30.22	767.6	25.2	— 3.8		SW			1	0	0			0	0	Clear	James Grant.
*Halifax, N. S.			29.76	755.9	21	— 6.1	86	NW	14	6.3			8n			0.57	14.5	Cloudy	F. Allison, M. A.
*Kingston, Ontario			30.35	770.9	12	—11.1	94	SE	3	1.3		10cs	0			0	0	Cloudy	S. Woods, M. A.
Little Current, Ontario			30.11	764.8	29.8	— 1.2		W	2	0.9			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.35	770.9	8	—13.3	89	S	8	3.6			10s			0.02	0.5	Clouds	C. H. McLeod, C. E.
*Ottawa, Ontario			30.35	770.9	0	—17.8	77	Calm	0	0			Sm'e			0	0	Smoky	J. B. Haney.
*Parry Sound, Ontario			30.16	766.1	22	— 5.6	93	S	8	3.6		5k	5ks	S	S	0.01	0.3	Cloudy	Rev. R. Mooley.
*Port Dover, Ontario			30.26	768.6	32	0.0	90	SW	19	8.5		5k	0	SW		0	0	Fair	H. Morgan.
Port Hastings, N. S.			29.69	754.1	25.9	— 3.4		NW	5	2.2						0.90	22.9	Stormy	Peter Grant.
*Port Stanley, Ontario			30.27	768.8	31	— 0.6	94	SW	20	8.9		0	0			0	0	Clear	M. Payne.
*Quebec, Quebec			30.35	770.9	3	—16.1	73	N	6	2.7			10n		N	0.30	7.6	Cloudy	Capt. Ash, R. N.
St. John, N. B.			30.13	765.3	8.0	—13.3	100	N	17	7.6			4ks			0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.15	765.8	32	0.0	90	SW	14	6.3			10n		W	0	0	Cloudy	K. Stewart.
Stayner, Ontario			30.18	766.6	30	— 1.1	78	W	9	4.0			8s		NW	0	0	Cloudy	R. J. Cole.
Stratford, Ontario			30.24	768.1	24.8	— 4.0	90	SW	6	2.7		0	0			0	0	Fine	C. J. MacGregor, M. A.
*Sydney, C. B.			30.34	770.6	13	—10.6	91	SW	1	0.4			10n			0.01	0.3	Light snow	T. C. Hill.
*Toronto, Ontario			30.23	767.8	29	— 1.7	83	SW	7	3.1		2c	2ks	NW	NW	Inap.	Inap.	Fair	Magnetic Observatory.
Woodstock, Ontario			30.26	768.6	27.5	— 2.5	98	Calm	0	0		0	0			0	0	Fine	J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Granton, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.33	770.4	13	--10.6	71	NW	7	3.1	.....	2k	2s	W	W	0	0	Fair.	
Alpena, Mich.	.....	.....	30.09	764.3	29	-- 1.7	89	SW	3	1.3	.....	.....	10s	.....	SW	0	0	Cloudy.	
Atlantic City, N. J.	.....	.....	30.38	771.6	26	— 3.3	88	W	4	1.8	.....	10cs	0	W	.....	0	0	Cloudy.	
Augusta, Ga.	.....	.....	30.50	774.7	37	2.8	90	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Baltimore, Md.	.....	.....	30.42	772.7	33	0.6	69	NW	1	0.4	.....	2ok	Sm'e	.....	.....	0	0	Smoky.	
Barnegat, N. J.	.....	.....	30.34	770.6	29	— 1.7	78	NW	15	6.7	.....	8cs	0	NW	.....	Inap.	Inap.	Fair.	
Benton, Montana	.....	.....	30.34	770.6	29	— 1.7	78	NW	15	6.7	.....	8cs	0	NW	.....	Inap.	Inap.	Fair.	
Bismarck, Dakota	28.86	682.2	29.66	753.4	17	— 8.3	100	E	5	2.2	.....	.....	10s	.....	.....	0.05	1.3	Cloudy.	
Boston, Mass	28.04	712.2	29.79	756.7	12	—11.1	61	E	9	4.0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Breckenridge, Minn	.....	.....	30.27	768.8	16	— 8.9	83	NW	13	5.8	.....	1cs	Haze	.....	.....	Inap.	Inap.	Clear.	
Buffalo, N. Y.	.....	.....	30.08	764.0	6	--14.4	76	Calm	0	0	.....	0	5s	.....	.....	0	0	Fair.	
Burlington, Vt.	.....	.....	30.23	767.8	32	0.0	79	SW	15	6.7	.....	.....	10ks	.....	.....	0.01	0.3	Cloudy.	
Cairo, Ill.	.....	.....	30.38	771.6	12	—11.1	86	E	5	2.2	.....	.....	10s	.....	.....	0.09	2.3	Cloudy.	
Cape Hatteras, N. C.	.....	.....	30.41	772.4	36	2.2	80	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Cape Henry, Va	.....	.....	30.37	771.4	40	4.4	73	NE	9	4.0	.....	2c	Haze	.....	.....	Inap.	Inap.	Fair.	
Cape May, N. J.	.....	.....	30.43	772.9	40	4.4	73	N	4	1.8	.....	5c	Haze	NW	.....	0	0	Fair.	
Charleston, S. C.	.....	.....	30.38	771.6	38	0.6	61	NW	14	6.3	.....	Haze	0	NW	.....	0	0	Fair.	
Cheyenne, Wyoming	23.95	608.3	29.89	759.2	28	— 2.2	67	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Chicago, Ill.	.....	.....	30.49	774.4	46	7.8	61	NW	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
Cincinnati, Ohio	.....	.....	30.20	767.1	34	1.1	79	SW	8	3.6	.....	0	5s	.....	.....	0	0	Fair.	
Cleveland, Ohio	.....	.....	30.20	767.1	34	1.1	79	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Colorado Springs, Col.	.....	.....	30.36	771.1	33	0.6	69	SE	3	1.3	.....	2c	0	E	.....	0	0	Clear.	
Corsicana, Tex.	24.04	610.6	29.92	760.0	33	0.6	61	SW	4	1.8	.....	8c	0	W	.....	Inap.	Inap.	Fair.	
Davenport, Iowa	.....	.....	30.35	770.9	43	6.1	83	SE	5	2.2	.....	5cs	0	.....	.....	0	0	Fair.	
Davenport, Iowa	.....	.....	30.35	770.9	43	6.1	83	SE	5	2.2	.....	2c	0	.....	.....	0	0	Clear.	
Davenport, Iowa	.....	.....	30.20	767.1	33	0.6	79	SW	4	1.8	.....	5cs	0	SW	.....	0	0	Fair.	
Denison, Tex.	.....	.....	30.31	769.9	45	7.2	67	SE	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
Denver, Col.	24.74	628.4	29.96	761.0	36	2.2	61	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	.....	.....	30.25	768.3	29	-- 1.7	89	SW	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Dodge City, Kan.	27.43	696.7	29.77	756.1	39	3.9	81	S	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	30.18	766.5	30	— 1.1	78	Calm	0	0	.....	5c	0	.....	.....	0	0	Fair.	
Duluth, Minn	.....	.....	30.12	765.0	18	— 7.8	68	NW	4	1.8	.....	5c	0	.....	.....	0	0	Fair.	
Eastport, Me.	.....	.....	30.08	764.0	14	—10.0	81	NE	23	10.3	.....	0	0	.....	.....	0	0	Clear.	
Erie, Pa.	.....	.....	30.08	764.0	14	—10.0	81	NE	23	10.3	.....	2c	2s	N	NE	0.12	3.0	Fair.	
Escanaba, Mich	.....	.....	30.27	768.8	30	— 1.1	89	S	16	7.2	.....	Haze	1s	.....	.....	Inap.	Inap.	Clear.	
Fort Gibson, Indian T.	.....	.....	30.15	765.8	18	— 7.8	84	W	4	1.8	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
Fort Sill, Indian T.	.....	.....	30.28	769.1	44	6.7	59	SE	5	2.2	.....	1c	0	.....	.....	0	0	Clear.	
Fort Sully, Dakota	29.03	737.3	30.20	767.1	37	2.8	63	S	1	0.4	.....	2cs	0	S	.....	0	0	Clear.	
Galveston, Tex.	28.11	714.0	29.81	757.2	31	— 0.6	85	SE	14	6.3	.....	.....	8s	.....	SE	0	0	Cloudy.	
Grand Haven, Mich.	.....	.....	30.37	771.4	57	13.9	81	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Indianapolis, Ind.	.....	.....	30.17	766.3	40	4.4	77	W	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Indianola, Texas	.....	.....	30.32	770.1	32	0.0	79	S	4	1.8	.....	2cs	Fog	.....	.....	0	0	Fair.	
Jacksonville, Fla.	.....	.....	30.38	771.6	59	15.0	94	NE	7	3.1	.....	1c	0	W	.....	0	0	Clear.	
Keokuk, Iowa	.....	.....	30.43	772.9	52	11.1	73	N	6	2.7	.....	0	0	.....	.....	0.09	2.3	Clear.	
Key West, Fla.	.....	.....	30.20	767.1	39	3.9	82	NW	12	5.4	.....	8c	0	NW	.....	0	0	Fair.	
Kittyhawk, N. C.	.....	.....	30.23	767.8	70.2	21.2	84	NE	17	7.6	.....	1k	Haze	NE	NE	Inap.	Inap.	Hazy.	
Knoxville, Tenn.	.....	.....	30.45	773.4	36	2.2	80	NW	3	1.3	.....	2c	5ks	.....	.....	0	0	Fair.	
La Crosse, Wis.	.....	.....	30.50	774.7	32	0.0	89	NE	2	0.9	.....	0	Fog	.....	.....	0	0	Fair.	
Leavenworth, Kan.	.....	.....	30.10	764.5	26	— 1.7	59	S	5	2.2	.....	2c	Haze	.....	E	0	0	Hazy.	
Lexington, Ky.	.....	.....	30.15	765.8	37	2.8	85	S	6	2.7	.....	0	5s	.....	.....	0	0	Fair.	
Long Branch, N. J.	29.27	743.4	30.45	773.4	30	— 1.1	89	S	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Louisville, Ky.	.....	.....	30.35	770.9	32	0.0	70	NW	15	6.7	.....	10cs	0	.....	.....	0	0	Cloudy.	
Lynchburg, Va.	.....	.....	30.40	772.1	33	0.6	89	SE	1	0.4	.....	0	Fog	.....	.....	0	0	Fair.	
Malone, N. Y.	.....	.....	30.45	773.4	30	— 1.1	84	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Smoky	
Marquette, Mich.	.....	.....	30.33	770.4	11	--11.7	79	Calm	0	0	.....	5cs	0	W	.....	0.10	2.5	Fair.	
Memphis, Tenn.	.....	.....	30.11	764.8	24	— 4.4	87	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Milwaukee, Wis.	.....	.....	30.44	773.2	35	1.7	80	Calm	0	0	.....	2cs	Fog	.....	.....	0	0	Fair.	
Mobile, Ala.	.....	.....	30.19	766.8	32	0.0	79	W	10	4.5	.....	5c	0	NW	.....	0	0	Fair.	
Montgomery, Ala.	.....	.....	30.44	773.2	45	7.2	76	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Clear.	
Morgantown, W. Va.	.....	.....	30.48	774.2	40.5	4.7	69	N	3	1.3	.....	0	Sm'e	.....	.....	0	0	Clear.	
Mt. Washington, N. H.	23.56	598.4	29.92	760.0	4	—15.6	74	E	16	7.2	.....	0	5s	.....	.....	0	0	Fair.	
Nashville, Tenn.	.....	.....	30.43	772.9	31	— 0.6	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
New Haven, Conn.	.....	.....	30.31	769.9	24	- 4.4	73	Calm	0	0	.....	Haze	5s	.....	NW	0	0	Fair.	
New London, Conn.	.....	.....	30.31	769.9	22	- 5.6	51	NW	7	3.1	.....	2c	0	W	.....	0.04	1.0	Clear.	
New Orleans, La.	.....	.....	30.40	772.1	53.5	11.9	64	NE	3	1.3	.....	2cs	0	.....	.....	0	0	Clear.	
Newport, R. I.	.....	.....	30.27	768.8	21	— 6.1	85	NW	16	7.2	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
New York, N. Y.	.....	.....	30.36	771.1	28	— 2.2	67	W	12	5.4	.....	0	8ks	.....	W	Inap.	Inap.	Fair.	
Norfolk, Va.	.....	.....	29.44	773.2	37	2.7	70	W	3	1.3	.....	5k	Fog	W	.....	0	0	Fair.	
North Platte, Neb.	27.02	686.3	29.73	755.1	21	— 6.1	85	Calm	0	0	.....	0	5s	.....	.....	0	0	Fair.	
Omaha, Neb.	28.93	734.8	30.04	763.0	33	0.6	90	S	6	2.7	.....	2c	0	.....	.....	0	0	Fair.	
Oswego, N. Y.	.....	.....	30.31	769.9	21.6	-- 5.8	85	SE	8	3.6	.....	.....	10s	.....	W	Inap.	Inap.	Threatening	
Peck's Bench, N. J.	.....	.....	30.40	772.1	29	— 1.7	78	NW	12	5.4	.....	5c	5s	.....	.....	0	0	Cloudy	
Pembina, Dakota	.....	.....	30.22	767.6	- 9	—22.8	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Philadelphia, Penn.	.....	.....	30.39	771.9	32	0.0	69	SW	10	4.5	.....	10k	Sm'e	NW	.....	0	0	Cloudy.	
Pike's Peak, Colorado	17.08	449.1	29.90	759.4	12	—11.1	61	SW	48	21.5	.....	0	1s	.....	.....	0	0	Clear.	
Pittsburgh, Penn.	.....	.....	30.51	774.9	30	— 1.1	68	SW	7	3.1	.....	1c	0	N	.....	0.10	2.5	Clear.	
Port Huron, Mich.	.....	.....	30.22	767.6	27	— 2.8	77	SW	12	5.4	.....	0	2s	.....	.....	0	0	Clear.	
Portland, Me.	.....	.....	30.24	768.1	15	— 9.4	65	N	12	5.4	.....	2c	Haze	.....	.....	0.02	0.5	Fair.	
Portland, Oregon	.....	.....	29.68	753.9	39	3.9	81	N	2	0.9	.....	.....	ton	.....	.....	0.49	12.4	Light rain.	
Punta Rassa, Fla.	.....	.....	30.30	769.6	63.1	17.3	73	N	12	5.4	.....	Haze	Sm'e	N	N	Inap.	Inap.	Hazy.	
Rochester, N. Y.	.....	.....	30.25	768.3	26	- 3.3	.....	SE	7	3.1	.....	.....	10s	.....	W	0	0	Cloudy.	
Salt Lake City, Utah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sandy Hook, N. J.	.....	.....	30.12	770.1	29	— 1.7	67	NW	22	9.8	.....	0	8s	.....	NW	Inap.	Inap.	Cloudy.	
San Diego, Cal.	.....	.....	29.94	760.5	57	13.9	93	S	10	7.2	.....	.....	10s	.....	S	0.16	4.1	Cloudy.	
San Francisco, Cal.	.....	.....	29.64	752.8	52	11.1	79	SE	8	3.6	.....	.....	10s	.....	.....	0.71	18.0	Thr atening	
Santa Fe, N. M.	23.36	593.3	29.90	759.4	31	— 1.1	57	Calm	0	0	.....	0	5 s	.....	SW	0	0	Fair.	
Savannah, Ga.	.....	.....	30.47	773.9	46	7.8	54	N	4	1.8	.....	0	Fog	.....	.....	0	0	Fair.	
Shreveport, La.	.....	.....	30.43	772.9	40	4.4	100	Calm	0	0	.....	5c	Fog	W	.....	0	0	Fair.	
Smithville, N. C.	.....	.....	30.47	773.9	36	2.2	61	N	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Springfield, Mass.	.....	.....	30.33	770.4	29	— 6.7	54	NW	4	1.8	.....	2ck	5s	W	.....	0	0	Fair.	
St. Louis, Mo.	.....	.....	30.33	770.4	37	2.8	62	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
St. Marks, Fla.	.....	.....	30.43	772.9	43	6.1	83	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
St. Paul, Minn.	.....	.....	30.06	763.5	19	— 7.2	92	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
St. Paul's Island, Alaska.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squan Beach, N. J.	.....	.....	30.26	768.6	28	— 2.2	77	NW	8	3.6	.....	2cs	5ks	.....	NW	0	0	Cloudy.	
Thatcher's Island, Mass.	.....	.....	30.24	768.1	19	— 7.2	69	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Toledo, Ohio	.....	.....	30.37	771.4	32	0.0	69	SW	12	5.4	.....	2cs	Haze	SW	.....	0	0	Clear.	
Tucson, Arizona	27.60	701.0	29.98	761.5	45	7.2	.....	SE	.....	.....	.....	2c	5ks	W	SW	0	0	Fair.	
Tybee Island, Ga.	.....	.....	30.48	774.2	55	12.8	73	N	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Vicksburg, Miss.	.....	.....	30.40	774.4	45	7.2	60	SE	4	1.8	.....	2cs	0	.....	.....	0	0	Fair.	

UNITED STATES SERIES.—CONTINUED.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	23.96	608.6	29.44	747.8	27	— 2.8	55	SW	1	0.4	.....	1c	0	W	.....	0	0	Clear	
Washington, D. C	.....	.....	30.44	773.2	28	— 2.2	72	NW	4	1.8	.....	0	2s	.....	W	0	0	Fair	
Wilmington, N. C	.....	.....	30.47	773.9	37	2.8	71	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	30.27	768.8	20	— 6.7	70	NW	17	7.6	.....	0	0	.....	.....	0.12	3.0	Clear	
Wytheville, Va	28.00	711.2	30.29	769.4	30	— 1.1	68	W	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.68	728.5	30.06	763.5	15	— 9.4	73	N	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	29.95	760.7	50	10.0	.....	NE	.....	.....	.....	.....	10n	.....	W	0.18	4.6	Cloudy	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I.	.....	.....	29.98	761.5	79	26.1	95	E	7	3.1	.....	2k	5ks	W	NE	0	0	Cloudy	E Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	29.96	761.0	74	23.3	85	E	.....	.....	.....	2k	0	.....	.....	0	0	Clear	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	30.17	766.3	73	22.8	85	E	3.6	1.6	.....	9fk, k	0	E	.....	0	0	Cloudy	Charles Hasselbrink
Kingston, Jamaica, W. I.	.....	.....	30.17	766.3	79	26.1	82	Calm	.....	.....	.....	8c	8s	NE	.....	0.83	21.1	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.22	767.6	76	24.4	76	E	4	1.8	.....	2ck	2kn	.....	.....	0.01	0.3	Fair	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.80	759.4	74	23.3	81	N	8.4	3.8	.....	8c	2n	N	NE	Blank	Blank	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.14	765.5	60.5	15.8	69	N	30.0	13.4	.....	0	10k	.....	.....	0.22	5.6	Stormy	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A.	.....	.....	29.87	758.7	—13.5	—25.3	75	W	26	11.6	.....	5cs	3s	NW	.....	0.06	1.5	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.43	747.5	23.0	— 5.0	100	NE	.....	.....	.....	.....	10n	.....	.....	0.25	6.3	Snowing	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I.	27.20	690.9	30.03	762.7	64	17.8	90	Calm	0	0	.....	.....	10k	.....	.....	1.56	39.6	Raining	C. Partridge.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A.	25.18	639.5	.....	.....	61.8	16.6	83	.....	0	0	.....	2cs	7s	.....	.....	0.20	5.1	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A.	.....	.....	29.99	761.7	82	27.8	83	E	.....	.....	2	.....	7k, ks	.....	.....	0.240	6.10	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A.	.....	.....	30.00	762.0	83.8	28.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.748	19.00	.....	Dr. H. Groot.
MARINE SERIES.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 8, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	29.97	761.1	67.1	19.5	24	SW	.....	.....	3	.....	8	.....	.....	0	0	Cloudy	Charnot.
Algiers	.....	.....	29.90	759.5	59.7	15.4	64	W	.....	.....	1	.....	8	.....	.....	0.118	3.0	Cloudy	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	29.91	759.6	59.4	15.2	53	W	.....	.....	2	.....	2	.....	.....	0	0	Clear	Jacques.
Sfax	.....	.....	29.96	761.0	58.5	14.7	58	SW	.....	.....	4	.....	2	.....	.....	0	0	Clear	Chauvey.
Safda	.....	.....	29.98	761.5	57.2	14.0	28	SW	.....	.....	2	.....	2	.....	.....	0	0	Clear	Grosjean.
Tebessa	.....	.....	29.98	761.5	57.2	14.0	28	W	.....	.....	5	.....	3	.....	.....	0	0	Fair	Colin.
Geriville	.....	.....	29.97	761.1	50.2	10.1	.....	W	.....	.....	5	.....	3	.....	.....	0	0	Fair	Colin.
Laghouat	.....	.....	30.01	762.2	44.2	6.8	59	WNW	.....	.....	3	.....	2	.....	.....	0.059	1.5	Clear	Buard.
Biskra	.....	.....	30.02	762.4	57.2	14.0	47	SW	.....	.....	2	.....	1	.....	.....	0	0	Clear	Simon.
	.....	.....	29.98	761.5	56.5	13.6	21	NE	.....	.....	1	.....	2	.....	.....	Inap.	Inap.	Clear	Coulon.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.50	774.7	17.6	— 8.0	86	SW	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.68	779.3	7.5	—13.6	83	NE	.....	.....	1	.....	0	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.56	776.3	50.0	10.0	71	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.52	775.2	18.5	— 7.5	59	S	.....	.....	0	.....	0	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	29.20	741.8	30.61	777.4	— 3.1	—19.5	100	NNW	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.90	735.6	30.32	770.1	19.8	— 6.8	78	ENE	.....	.....	3	.....	0	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	28.82	731.9	30.07	763.8	4.6	—15.2	93	E	.....	.....	2	.....	9	.....	.....	0.008	0.2	.....	Dr. T. Stanecki.
Syiszyhaza	.....	.....	30.54	775.8	8.6	—13.0	70	E	.....	.....	2	.....	0	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.19	766.8	34.3	1.3	68	ENE	.....	.....	4	.....	9cs	.....	.....	0.777	19.72	.....	I.R. Hydrographia Of'ce
Szegedin	.....	.....	30.50	774.6	6.1	—14.4	92	N	.....	.....	2	.....	0	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.24	768.0	30.7	— 0.7	85	ENE	.....	.....	3	.....	10	.....	.....	0	0	Covered	Prof. V. Farolfi.
Vienna	.....	.....	30.50	774.6	17.1	— 8.3	75	SE	.....	.....	1	.....	1	.....	.....	0.012	0.3	.....	I. R. Central Institute.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	30.05	763.3	20.8	— 6.2	93	E	.....	.....	2	2	4	SSW	.....	0	0	.....	Royal Observatory.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.24	768.1	38.0	3.3	.....	ESE	33	14.8	.....	.....	6	.....	.....	0.068	1.65	Squally	William Boswell.
Ardrossan	.....	.....	30.12	765.0	37	2.8	.....	E	.....	.....	3	.....	8	.....	.....	.....	.....	Raining	J. Mayes.
Armagh Observatory	.....	.....	30.08	764.0	34.6	1.4	.....	E	9	4.0	.....	.....	10	.....	.....	.....	.....	Squally	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	30.03	762.7	30.8	— 0.7	.....	E	1	0.4	.....	.....	10	.....	.....	.....	.....	Snowing	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.04	763.0	34.6	1.4	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Drizzling	J. Dreyer.
Bradford	.....	.....	29.99	761.7	34.9	1.6	.....	E	.....	.....	1	.....	10	.....	.....	0.03	0.8	Snowing	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	29.92	760.0	76.4	24.7	.....	SE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.06	763.5	30.0	— 1.1	.....	ESE	.....	.....	1	.....	5	.....	.....	.....	.....	*D. clouds	H. Todd.
Cardington	.....	.....	30.06	763.5	28.6	— 1.9	.....	SE	.....	.....	2	.....	8	.....	.....	.....	.....	Overcast	John McLaren.
Carlisle	.....	.....	30.02	762.5	30.9	— 0.6	.....	E	.....	.....	3	.....	8	.....	.....	0	0	Snowing	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.12	765.0	29.2	— 1.6	.....	NE	.....	.....	1	.....	4	.....	.....	.....	.....	*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.50	723.9	30.09	764.3	27.0	— 2.8	.....	E	.....	.....	2	.....	10	.....	.....	.....	.....	Snowing	R. E. Power.
Donaghadee	.....	.....	30.08	764.0	38	3.3	.....	E	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast	J. Mac Gowan.
Dover	.....	.....	30.02	762.5	25	— 3.9	.....	E	.....	.....	4	.....	7	.....	.....	.....	.....	¾ cl uded	J. Costello.
Eccles, (near Manchester)	.....	.....	30.02	762.5	31.5	— 0.3	.....	E	.....	.....	.....	.....	10	.....	.....	.....	.....	Snowing	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.01	762.2	30.8	— 0.7	.....	NNE	17	7.6	.....	.....	10	.....	.....	.....	.....	Overcast	The Staff.
Fort Napier, (Natal)	27.53	700.5	29.76	755.9	81.5	27.5	.....	E	.....	.....	1	.....	1	.....	.....	.....	.....	*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.94	760.5	81	27.2	.....	N	.....	.....	1	.....	6	.....	.....	.....	.....	*D. clouds	[tis.
Galway, Queen's College	.....	.....	29.99	761.7	36	2.2	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Gloomy	B. G. Clare, for Prof. Car-
Gibraltar, (Mediterranean)	.....	.....	29.88	758.9	55.0	12.8	.....	NW	.....	.....	6	.....	1	.....	.....	.....	.....	*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.11	764.8	36.4	2.4	.....	E	.....	.....	2	.....	10	.....	.....	.....	.....	Threatening	Wm. M. Stewart.
Great Yarmouth	.....	.....	30.08	764.0	28	— 2.2	.....	ESE	.....	.....	6	.....	7	.....	.....	.....	.....	*D. clouds	G. T. Watson.
Greenwich Royal Obs.	.....	.....	30.02	762.5	25.8	— 3.4	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	The Staff for G. B. Airy
Guernsey	.....	.....	29.93	760.2	31	— 0.6	.....	ENE	.....	.....	2	.....	8	.....	.....	0.350	8.89	Gloomy	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.06	763.5	29.7	— 1.3	.....	ESE	.....	.....	2	.....	10	.....	.....	.....	.....	Snowing	L. J. Cr sley..
Helston	.....	.....	30.03	762.7	34	1.1	.....	NE	.....	.....	4	.....	4	.....	.....	.....	.....	*D. clouds	M. P. Moyle.
Holyhead	.....	.....	30.01	762.2	38	3.3	.....	E	.....	.....	2	.....	10	.....	.....	0	0	Misty	John Tilston.
Kew Observatory	.....	.....	30.04	763.0	26.6	— 3.0	.....	E	14	6.3	.....	.....	10	.....	.....	.....	.....	Snowing	The Staff.
Kingstown	.....	.....	30.06	763.5	28	— 3.3	.....	ESE	.....	.....	4	.....	10	.....	.....	.....	.....	Gloomy	George Mitchell.
Leicester Museum	.....	.....	30.05	763.5	28.9	— 1.7	.....	E	.....	.....	1	.....	9	.....	.....	.....	.....	Snowing	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.01	763.0	57.6	14.2	.....	SW	.....	.....	2	.....	6k	.....	.....	.....	.....	.....	Fred Travis, Pvt A. H. C
Nairn	.....	.....	30.22	767.6	39	3.9	.....	SE	.....	.....	1	.....	5	.....	.....	.....	.....	.....	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.31	769.9	70.2	21.2	.....	NE	.....	.....	6	.....	7	.....	.....	.....	.....	½ clouded	Surg.-Maj. Henry.
Nottingham	.....	.....	30.08	764.0	29.0	— 1.7	.....	ESE	.....	.....	2	.....	10k,d	.....	ESE	Blank	Blank	*D. clouds	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.02	762.5	27 2	— 2.7	.....	E	.....	.....	1	.....	9	.....	.....	.....	.....	Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	30.02	762.5	28	— 2.2	.....	E	.....	.....	2	.....	8	.....	.....	.....	.....	Snowi g	J. Lucas.
Plymouth	.....	.....	30.01	762.0	30	— 1.1	.....	NE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	John Merrifield.
Roche's Point	.....	.....	30.14	765.5	37	2.8	.....	ENE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	W. Kennedy.
Saint Ann's Head	.....	.....	30.05	763.3	32	0.0	.....	ENE	.....	.....	2	.....	7	.....	.....	.....	.....	*D. clouds	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.93	760.2	29.2	— 1.6	.....	E	.....	.....	4	.....	5	.....	.....	.....	.....	¼ c ouded	A. P. Amy.
Sandwick Manse (Orkneys)	.....	.....	30.30	769.6	39.4	4.1	.....	SE	30	13.4	.....	.....	8	.....	.....	.....	.....	Bright	Rev. Dr. Clouston
Scarborough	.....	.....	30.08	764.0	29.0	— 1.7	.....	SE	.....	.....	6	.....	10	.....	.....	.....	.....	Snowing	F. Shaw.
Scutari Cemetery (Turkey)	.....	.....	30.38	771.6	38.0	3.3	.....	NE	.....	.....	2	.....	10	.....	.....	.....	.....	Gloomy	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.04	763.0	33.4	0.8	.....	E	.....	.....	2	.....	10	.....	.....	0	0	Snowing	W. F. Cooper.
Silloth Rectory	.....	.....	30.04	763.0	35.1	1.7	.....	E	.....	.....	5	.....	10	.....	.....	0.023	0.52	Snowing	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.01	762.2	31.9	— 0.1	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Snowing	The Staff.
Stornoway, Lews C. (Hebr)	.....	.....	30.16	766.1	39	3.9	.....	SSE	.....	.....	3	.....	5	.....	.....	.....	.....	*D. clouds	John Smith.
Stratfield Turgiss	.....	.....	30.03	762.7	26.8	— 2.8	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	30.24	768.1	40	4.4	.....	SE	.....	.....	5	.....	4	.....	.....	.....	.....	*D. clouds	John Trotter.
Truro, Royal Institution	.....	.....	30.02	762.5	32	0.0	.....	NE	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds	W. Newcombe.
Valencia Observatory	.....	.....	30.01	762.2	40.0	4.4	.....	ESE	4	1.8	.....	.....	10	.....	.....	.....	.....	*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.92	760.0	74.2	23.4	71	S	26	11.6	.....	.....	10	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	35	1.7	.....	SE	.....	.....	4	10	10	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	30.14	765.5	36.5	2.5	.....	E	.....	.....	4	.....	10k	.....	.....	0	0	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.60	777.3	30.4	— 0.9	76	ESE	.....	.....	6	.....	8	.....	.....	.....	.....	.....	.....
Fanöe	.....	.....	30.45	773.4	30.4	— 0.9	56	E	.....	.....	6	.....	0	.....	.....	.....	.....	.....	.....
Godthaab, (Greenland)	.....	.....	30.13	765.4	3.2	—16.0	85	ENE	.....	.....	4	.....	2	.....	.....	.....	.....	.....	.....
Stykkisholm, (Iceland)	.....	.....	29.53	750.1	38.7	3.7	83	SE	.....	.....	4	.....	8	.....	.....	.....	.....	.....	.....
Thorshavn, (Faröe)	.....	.....	30.19	766.7	40.6	4.8	76	S	.....	.....	6	.....	10	.....	.....	.....	.....	.....	.....
Vestervig	.....	.....	30.52	775.1	27.0	— 2.8	83	E	.....	.....	6	.....	0	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.98	761.4	39.2	4	93	E			1		2ck					Slightly cl'dy	Normal School.
Amiens			30.00	761.9	24.8	— 4.0	81	N			6		10			0	0	Covered	Normal School.
Avignon			29.79	756.6	35.6	2	64	NNE			1		8			0.335	8.5	Cloudy	Normal School.
Bar-sur-Seine			29.93	760.2	28.6	— 1.9		S			2		10			0	0	Snowing	C. Saillard.
Beaumette, (near Angers)			29.83	757.7	27.7	— 2.4	84	N	4.3	1.9					SE	0	0		Beaumette Obse. vatory
Beauvais			30.01	762.3	23.9	— 4.5		ESE			3		10			0.049	1.25	Covered	Normal School.
Besançon			29.98	761.4	26.6	— 3		ENE			3		8		SW	0	0	Very cloudy	Normal School.
Bourg en Bresse			29.92	760.0	26.4	— 3.1	98	W			2		10n		E	0	0	Covered	Normal School.
Bourges			29.93	760.3	30.2	— 1	80	NE			2		10			0.08	2.	Covered	Normal School.
Brest			29.85	758.3	33.3	0.7	82	NE			3		1		NE	0	0	Clear	Naval Observatory.
Caen			29.95	760.6	33.3	1	100	SE			2		0			0	0	Clear	Normal School.
Chartres			29.94	760.4	23.5	— 4.7		N			2		10			0	0	Covered	Normal School.
Chaumont																			Normal School.
Clermont			29.91	759.8	28.9	— 1.7	79	N			2		10			0.512	13.0	Covered	Puy de Dome, Obs.
Commercy			30.09	764.3	21.9	— 5.6	90	E			4		10		E	0	0	Covered	Normal School.
Commune de Gréasque*			29.78	756.4	43.2	— 6.2	76	N			6		10		SE	0	0	Covered	
Grenoble			30.25	768.3	31.1	— 0.5	81	NW			2		10n		S	0	0	Covered	Normal School.
Le Mans			29.94	760.4	24.3	— 4.3	77	E			4		2		E	0	0	Slightly cl'dy	Normal School.
Loches																			
Lons-Le-Saulnier			29.93	760.3	30.2	— 1	76	NE			1		10			0	0	Snowing	Normal School.
Mâcon			29.85	759.3	25.2	— 3.8		N			1		10			0	0	Covered	Normal School.
Mirecourt			30.06	763.5	24.8	— 4	80	N			4		10		SW	0	0	Covered	Normal School.
Metz																			
Nismes			29.79	756.6	38.1	3.4	73	NW			2		10		S	0.04	24.	Covered	Normal School.
Orleans			29.92	759.9	23.0	— 5	100	NE			3		10		NE	0	0	Covered	Normal School.
Paris Observatory			29.98	761.5	23.2	— 4.9	81	ENE			1		10			0	0	Covered	National Observatory.
Parthenay			29.89	758.0	25.7	— 3.5	87	NE			4		5		NE	0	0	Cloudy	Normal School.
Privas			29.93	760.1	28.0	— 2.2		SE			2		10		SE	0	0	Covered	Normal School.
La Roche-sur-Yon			30.09	764.2	24.3	— 3.2	96	NE			2		10			0	0	Covered	Normal School.
Rochefort, Observatory			29.85	758.8	27.0	— 2.8	76	ENE			3		8	NW		0	0	⅔ covered	Naval Observatory.
Rouen			29.87	761.2	28.0	— 2.2	56	SE			3		5		SE	0	0	Cloudy	Normal School.
Saint Lo			29.98	761.4	24.6	— 4.1	100	E			1		4		E	0	0		Normal School.
Tarbes			30.15	765.7	46.4	8	85	W			2		10		E	0	0	Covered	Normal School.
Toulouse			29.88	759.0	32.0	0.0	100	NW			2		10					Snowing	Normal School
Villefranche			29.99	761.8	27.7	— 2.4	73	NW			1		10			0.08	2.	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.85	758.2	75.6	24.2	90	NE			2		8ck			0.35	9.		L'Abbé Marchésl.
Gorée																			
Marseilles			29.75	75 .6	47.1	8.7	87	SE			6		10			0.291	7.40		Marseilles Observatory
Mont-Louis	24.43	620.2	29.85	758.1	23.2	— 4.9	82	NW	11.2	5.00			10			0.322	8.2		—. Faiguère.
Montsouris, Paris			29.97	761.1	41.0	5.0	87	ENE			1		10			Inap.	Inap.		Montsouris Observ'tory
Perpignan			29.77	756.2	32.7	0.4	85	N	9.3	4.17			10			0.146	3.7		Dr. Fines.
Pic du Midi, (Summit) H. P.	20.66	524.9			5.4	—14.0		NW			3		10			0.91	23.		M. Baylac.
Saint Maur, (near Paris)			29.97	764.1	23.7	— 4.6	86	ENE			2		10			0	0	Covered	E. Renou.
Toulouse			29.84	758.0	30.4	— 0.9	100	SE			1		10			0	0		Toulouse Observatory.
Tours			29.89	759.2	26.2	— 3.2		NE			2		9		E	0	0		C. Marquet.
Versailles, (near Paris)			29.94	760.4	23.7	— 4.6	71	E			1		10			0	0	Misty	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,580.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			30.09	764.3	25.2	— 3.8	71	E			4		4			0	0		Prof. T. Hoh.
Berlin			30.50	774.7	19.2	— 7.1	74	E			4		0			0	0		Prof. Arndt.
Breslau			30.58	776.7	12.9	—10.6	92	SE			5		0			0	0		Dr. P. Naugebauer.
Carlsruhe			30.09	764.2	24.8	— 4.0	74	NE			3		1			0	0		A. Senz.
Cassel			30.20	767.0	24.6	— 4.1	63	ENE			2		0			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main			30.26	768.6	27.5	— 2.5	66	E			2		1			0	0		Physical Society.
Friedrichshafen			30.12	765.0	19.4	— 7.0	62	NE					6			0	0		M. Wilhelm.
Hamburg			30.41	772.4	24.1	— 4.4	77	ESE			5		2			0	0	Smoke-haze	Deutsche Seewarte.
Kiel			30.51	775.0	26.2	— 3.2	61	E			4		0			0	0		Prof. G. Karsten.
Königsberg			30.78	781.9	12.9	—10.0	75	E			2		0			0	0		Prof. E. Luther.
Köslin			30.63	778.0	16.9	— 8.4		E			1		3			0	0		H. Müller.
Leipsic			30.87	771.3	22.3	— 5.4	68	E			7		0			0.197	5.0		Prof. Bruhns.
Münster			30.21	767.4	25.7	— 3.5	83	NE			2		0			0	0		Prof. E. Hois.
Posen			30.50	774.8	14.9	— 9.5	93	E			2		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.11	764.7	21.9	— 5.6	77	NE			2		10			0	0		Dr. Schur.
Stuttgart			30.13	765.2	21.3	— 4.3	62	N					5			0	0		Mr. Würth.
Thorn			30.68	779.3	16.5	— 8.6	82	NE			5		0			Inap.	Inap.		Dr. Hasenbalg.
Treves, (Trier)			30.01	762.2	39.4	4.1	63	NE			4		10			0	0		Prof. Fiesch.
Wustrow, Naval School			30.58	776.7	23.2	— 4.9	79	ESE			5		0			0	0		E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.24	768.0	45.7	7.6		NE										Cloudy	

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.27	768.8	30.9	— 0.6	58	E			4		10			0	0		
Padua			30.24	768.1	30.6	— 0.8	94	NE	18.1	8.1			10			0	0	Snowing	
Verona			30.26	768.6	35.6	2.0	91	E			2		10			0	0		
Bergamo																			
Milan			30.27	768.8	31.1	— 0.5	89	N			1		10			0	0	Snowing	
Moncalieri			30.26	768.5	32.4	0.2	91	N	0	0			10			0	0	Snowing	
Mondovi			30.23	767.9	27.1	— 2.7	91	W			2		10			0	0	Snowing	
Porto Maurizio			30.07	763.6	40.3	4.6		N			6		10			0	0		
Genoa			30.08	764.0	36.9	2.7	54	N	13.0	5.8			10		S	0.008	0.2		
Piacenza			30.27	768.8	28.9	— 1.7	100	NE	1.3	0.6			10			0	0	Snowing	
Bologna			30.27	768.8	28.8	— 1.8	53	W			6		10			0	0	Snowing	
Florence			30.09	764.3	42.1	5.6	55	NE			4		10			0	0		
Leghorn			30.01	762.3	41.9	5.5	65	ENE	16.8	7.5			10			0	0		
Siena			30.05	763.2	41.5	5.3	90	SE	0	0			7		S	0.075	1.9	Snowy	
Urbino																			
Pesaro			30.21	767.2	32.4	0.2	94	NW			4		10			0.220	5.8	Raining	
Ancona																			
Rome			29.98	761.5	52.5	11.4	50	ENE	4.9	2.2			7	SSE		0	0		
Naples, O. U			29.97	761.3	55.4	13.0	49	E			6		6	SW		0	0		
Lecce			30.08	764.1	46.8	8.2	86	ESE	11.2	5.0			10	SE		0	0		
Cosenza			30.06	763.4	39.0	3.9	82	ESE			1		10			0.024	0.6		
Riposto, (Sicily)			29.89	759.1	51.4	10.8	90	S			2		10	W		2.395	60.9		
Palermo			29.85	758.3	55.8	13.2	64	W	5.3	1.4			10			0	0		
Caltanissetta			29.89	759.3	45.9	7.7	78	ENE			2		10	WSW		0	0		
Sub-Series.																			
Naples, S. R			29.98	761.5	51.6	10.9	67	N			4		.8	NE		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.10	764.6	24.4	— 4.2		ESE			4								
Groningen			30.19	766.8	21.9	— 5.6		E			5								
Helder			30.15	765.8	23.0	— 5.0		E			5								
Utrecht			30.10	764.4	22.8	— 5.1	79	E			4		2						Light cloudy

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.00	777.1	27.7	— 2.4	83	Calm	0	0			9			0	0		
Brönö			30.04	778.3	34.5	1.4	64	ENE	7	3			2			0	0		
Christiania			30.80	782.4	12.2	—11.0	86	E	0.9	0.4			0			0	0		
Tromsö			30.33	770.3	38.8	3.8	80	SSW	11	5			10			0.039	1.0	Raining	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.14	765.6	58.8	14.8	84	ENE	14.7	6.56	.....	.....	4	.....	.....	1.339	34.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.93	760.2	45.1	7.3	32	NNW	21.4	9.58	.....	.....	1	.....	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	29.89	759.1	61.0	16.1	79	.....	8.2	3.67	.....	.....	10	.....	.....	0.697	17.7	Rain & fogt.	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.01	762.2	48.6	9.2	33	NNE	17.4	7.8	.....	.....	0	.....	.....	0	0	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.30	769.7	15.4	— 9.2	72	E	11	5	.....	.....	6	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.85	783.5	10.9	—11.7	82	SE	4	2	.....	.....	10	.....	.....	.....	.....	Snowing	Astronomical Obs.
Dorpat	.....	.....	30.87	784.1	3.2	—16.0	93	W	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.72	780.2	10.2	—12.1	100	WNW	16	7	.....	.....	10	.....	.....	.....	.....	Light snow	Central Physical Obs.
Kuopio	.....	.....	30.63	778.1	18.5	— 7.5	100	WNW	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kieff	.....	.....	30.74	780.8	4.1	—15.5	86	NE	13	6	.....	.....	8	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.68	779.2	9.3	—12.6	81	N	13	6	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.57	776.5	12.4	—10.9	79	NE	13	6	.....	.....	9	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.69	779.4	12.4	—10.9	90	S	9	4	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.75	781.1	— 4.5	—20.3	67	E	13	6	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	30.25	768.4	21.2	— 6.0	95	WNW	22	10	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.70	728.9	30.14	765.6	43.5	6.4	52	N	25	11	.....	.....	6	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.85	783.7	—14.1	—25.6	75	NE	13	6	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.46	773.7	—12.9	—24.6	81	S	7	3	.....	.....	10	.....	.....	.....	.....	Light snow	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	29.14	740.2	30.33	770.3	—23.8	—31.0	80	W	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	.....	.....	30.32	770.1	—30.5	—34.7	.....	N	9	4	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	28.71	729.2	30.55	775.9	21.4	— 5.9	95	Calm	0	0	.....	.....	10	.....	.....	.....	.....	Light snow	Meteorological Obs
Yeniseisk	.....	.....	30.33	770.4	6.3	—14.3	66	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	30.51	775.0	—13.2	—25.1	95	N	2	1	.....	.....	0	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	30.42	772.7	23.2	— 4.9	26	NW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	27.89	708.3	30.24	768.1	—18.8	—28.2	80	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	30.08	764.0	6.8	—14.0	91	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	—18.2	—27.9	.....	N	2	1	.....	.....	0	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.86	758.4	36.9	2.7	64	W	7.4	3.3	.....	0	2	.....	.....	0	0	Clouds	Royal Observatory.
San Fernando	.....	.....	29.92	760.0	50.9	10.5	68	WNW	15.2	6.8	.....	1	2	N	WNW	0.083	2.1	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.58	776.8	— 5.8	—21.0	100	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	30.80	782.2	13.3	—10.4	100	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	30.80	782.3	— 1.1	—18.4	94	N	.....	.....	2	.....	1	.....	.....	0	0	.....	
Stockholm	.....	.....	30.75	781.1	4.3	—15.4	86	Calm	.....	.....	0	.....	2	.....	.....	0.008	0.2	.....	
Wisby	.....	.....	30.84	783.3	23.0	— 5.0	100	ESE	.....	.....	4	.....	10	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.82	782.9	— 3.6	—10.8	100	NNW	0	0	.....	.....	0	.....	.....	0.003	0.07	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.49	723.7	30.01	762.2	26.8	— 2.9	73	NE	.....	.....	1	.....	10	.....	.....	0	0	Covered	The Observatory.
Zurich	28.33	719.6	30.09	764.2	21.9	— 5.6	76	NW	.....	.....	1	.....	8	.....	.....	0	0	Cloudy.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —4.0 mm.; Thermometer, —4.2 cent.; Relative Humidity, —7 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Constantinople	.....	.....	30.41	772.3	36.7	2.6	69	NNE	16	6.5	.....	.....	10	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.29	769.4	58.1	14.5	.....	NW	.....	.....	3	.....	0	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.39	771.9	40.5	4.7	.....	W	.....	.....	1	.....	2	.....	.....	.....	.....	.....	
Valona	.....	.....	29.94	760.4	48.0	8.9	.....	SW	.....	.....	1	.....	5	.....	.....	.....	.....	.....	
Varna	.....	.....	30.39	772.0	21.2	— 6.0	.....	W	.....	.....	2	.....	10	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.36	771.2	63.3	17.4	62	NE	.....	.....	2	.....	10c	.....	.....	0	0	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Bathurst, N. B.	.....	.....	30.02	762.5	3.5	—15.8	84	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.19	766.8	23	— 5.0	.....	.....	2	0.9	.....	.....	Haze	.....	.....	0.05	1.3	Hazy.....	W. R. Bigg.
*Chatham, N. B.	.....	.....	30.06	763.5	—12	—24.4	91	SW	2	0.9	.....	8cs	2ks	SW	SW	0	0	Cloudy.....	G. A. Blair.
Charlottetown P. E. Island.	.....	.....	30.05	763.3	1	—17.2	91	W	11	4.9	.....	0	2s	.....	.....	0.15	3.8	Fair.....	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.15	765.8	16.8	— 8.4	90	E	.....	.....	1	.....	10s	.....	.....	0.02	0.5	Unsettled....	James Smith, M. A.
Dalhousie, N. B.	.....	.....	30.12	765.0	7.0	—13.9	84	W	.....	.....	4	1ck	2cs	.....	.....	0	0	Bright.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	30.02	762.5	33.1	0.6	79	NW	1	0.4	.....	.....	10	.....	.....	0	0	Cloudy..	W. H. Bovis.
Fredericton, N. B.	.....	.....	30.14	765.5	— 1.9	—18.8	97	Calm	0	0	.....	.....	10s	.....	.....	Inap.	Inap.	Fair.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	29.77	756.1	— 9	—22.8	100	W	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	James Stewart.
Goderich, Ontario	.....	.....	29.88	758.9	39.2	4.0	72	S	.....	.....	2	4k	6n	SW	.....	0	0	Cloudy.....	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.93	760.2	35.0	1.7	.....	S	.....	.....	1	.....	10n	.....	.....	0	0	Cloudy... ..	James Grant.
*Halifax, N. S.	.....	.....	30.09	764.3	3	—16.1	78	NW	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.14	765.5	31	— 0.6	89	SE	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy.....	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.81	757.2	32.9	0.5	.....	SE	3	1.3	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.16	766.1	15	— 9.4	91	S	8	3.6	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy.....	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.15	765.8	14	—10.0	64	E	4	1.8	.....	.....	10ks	.....	E	0.05	1.3	Cloudy.....	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.91	759.7	30	— 1.1	89	SE	14	6.3	.....	2ck	5ks	SE	SE	0	0	Fair.....	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.01	762.2	36	2.2	80	SW	6	2.7	.....	10k	0	SW	.....	0	0	Cloudy.....	H. Morgan.
Port Hastings, N. S.	.....	.....	30.02	762.5	9.9	—12.5	.....	N	.....	.....	.....	.....	.....	.....	.....	0	0	Fine.....	Peter Grant.
*Port Stanley Ontario	.....	.....	30.01	762.2	35	1.7	85	E	6	2.7	.....	.....	10n	.....	W	0	0	Cloudy.....	M. Payne.
*Quebec, Quebec	.....	.....	30.20	767.1	11	—11.7	90	W	10	4.5	.....	.....	10n	.....	W	0	0	Cloudy.....	Capt. Ash, R. N.
St. John, N. B.	.....	.....	30.18	766.6	6.0	—14.4	76	W	1	0.4	.....	.....	2s	.....	.....	Inap.	Inap.	.....	G. Murdoch, C. E.
*Sangeen, Ontario	.....	.....	29.85	758.2	36	2.2	80	S	3	1.3	.....	.....	10cs	.....	SW	0	0	Cloudy.....	K. Stewart.
Stayner, Ontario	.....	.....	29.87	758.7	31	— 0.6	89	SE	9	4.0	.....	.....	10s	.....	NW	0	0	Cloudy.....	R. J. Cole.
Stratford, Ontario	.....	.....	29.94	760.5	34.6	1.4	81	SW	9	4.0	.....	.....	10s	.....	.....	0	0	Cloudy.....	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.67	753.6	22	— 5.6	94	NE	27	12.1	.....	.....	10n	.....	.....	0.48	12.2	Heavy snow	T. C. Hill.
*Toronto, Ontario	.....	.....	30.01	762.2	32	0.0	91	E	2	0.9	.....	.....	10n	.....	.....	0	0	Cloudy.....	Magnetic Observatory.
Woodstock, Ontario	.....	.....	29.96	761.0	35.6	2.0	80	S	1	0.4	.....	.....	10s	.....	.....	0.10	2.5	Gloomy.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Granton, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1.015 feet, or 309.4 m.; Stratford, 1.182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.17	766.3	25	— 3.9	88	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Alpena, Mich.	.....	.....	29.71	754.6	36	2.2	70	S	7	3.1	.....	.....	10s	.....	S	0	0	Cloudy.	
Atlantic City, N. J.	.....	.....	30.26	768.6	32	0.0	89	Calm	0	0	.....	2c	Haze	SW	.....	0	0	Fair.	
Augusta, Ga.	.....	.....	30.41	772.4	37	2.8	90	Calm	0	0	.....	0	Haze	.....	.....	0	0	Fair.	
Baltimore, Md.	.....	.....	30.20	767.6	34	1.1	80	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy.	
Barnegat, N. J.	.....	.....	30.24	768.1	34	1.1	89	SW	9	4.0	.....	5cs	0	.....	.....	0	0	Fair.	
Benton, Montana	27.16	689.8	29.96	761.0	6	—14.4	100	S	7	3.1	.....	0	8s	.....	S	0.05	1.3	Fair.	
Bismarck, Dakota	27.88	708.1	30.54	760.3	8	—13.3	66	N	8	3.6	.....	.....	10ks	.....	.....	0	0	Cloudy.	
Boston, Mass.	.....	.....	30.22	767.6	32	0.0	79	SW	6	2.7	.....	2ks	Haze	.....	.....	0	0	Fair.	
Breckenridge, Minn.	.....	.....	29.60	751.8	10	—12.2	80	NW	16	7.2	.....	.....	10s	.....	N	0	0	Cloudy.	
Buffalo, N. Y.	.....	.....	29.97	761.2	39	3.9	52	S	12	5.4	.....	.....	10s	.....	W	0	0	Threatening	
Burlington, Vt.	.....	.....	30.18	766.6	26	— 3.3	75	S	2	0.9	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.	
Cairo, Ill.	.....	.....	30.10	764.5	49	9.4	50	S	8	3.6	.....	5c	0	W	.....	0	0	Fair.	
Cape Hatteras, N. C.	.....	.....	30.31	769.9	60	10.0	71	W	8	3.6	.....	Haze	Haze	.....	.....	0	0	Hazy.	
Cape Henry, Va.	.....	.....	30.30	769.6	41	5.0	74	SW	14	6.3	.....	2c	Haze	.....	.....	0	0	Fair.	
Cape May, N. J.	.....	.....	30.26	768.3	30	3.9	81	SW	6	2.7	.....	0	2ks	.....	W	0	0	Fair.	
Charleston, S. C.	.....	.....	30.41	772.4	50	10.0	86	SW	4	1.8	.....	5cs	Haze	SW	.....	0	0	Fair.	
Cheyenne, Wyoming	23.75	603.2	29.69	754.1	36	2.2	45	W	24	10.7	.....	0	1s	.....	.....	0	0	Clear.	
Chicago, Ill.	.....	.....	29.75	755.6	46	7.8	54	S	14	6.3	.....	.....	10s	.....	.....	0	0	Cloudy.	
Cincinnati, Ohio	.....	.....	30.06	763.5	48	8.9	56	SW	7	3.1	.....	.....	10c	.....	SW	0	0	Cloudy.	
Cleveland, Ohio	.....	.....	29.96	761.0	42.1	5.6	53	SE	16	7.2	.....	.....	10ks	.....	W	0	0	Cloudy.	
Colorado Springs, Col.	23.83	605.3	29.70	754.4	47	8.3	34	SW	20	8.9	.....	0	8s	.....	SW	0	0	Fair.	
Corsicana, Texas	.....	.....	30.18	765.3	53	11.7	93	S	12	5.4	.....	2c	0	W	.....	0	0	Fair.	
Davenport, Iowa	.....	.....	29.69	754.1	45	7.2	67	SW	16	7.2	.....	.....	10ks	.....	SW	0	0	Cloudy.	
Denison, Texas	.....	.....	29.90	759.5	53	11.7	93	S	16	7.2	.....	.....	10s	.....	S	0	0	Cloudy.	
Denver, Col.	.....	.....	29.90	761.7	56	13.3	81	S	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.	
Detroit, Mich.	24.64	623.3	29.75	755.6	38	3.3	54	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Dodge City, Kan.	.....	.....	29.88	758.9	40	4.4	64	SW	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy.	
Dubuque, Iowa	27.16	689.8	29.87	746.0	55	12.8	50	S	16	7.2	.....	5c	2s	.....	.....	0	0	Fair.	
Duluth, Minn.	.....	.....	29.64	752.8	43	6.1	75	S	8	3.6	.....	10c	0	W	.....	0	0	Cloudy.	
Eastport, Me.	.....	.....	29.54	750.3	31	1.1	79	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Erie, Pa.	.....	.....	30.15	765.8	11	—11.7	79	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Escanaba, Mich.	.....	.....	29.98	761.5	41	5.0	56	S	16	7.2	.....	.....	10ks	.....	SW	0	0	Cloudy.	
Fort Gibson, Indian T.	.....	.....	29.52	749.8	33	0.6	89	SW	4	1.8	.....	.....	10s	.....	SW	0	0	Cloudy.	
Fort Sill, Indian T.	.....	.....	29.97	761.2	58	14.4	69	S	13	5.8	.....	2c	1s	.....	W	0	0	Fair.	
Fort Sully, Dakota	28.76	730.5	29.88	758.9	48	8.9	92	S	9	4.0	.....	.....	10s	.....	S	0	0	Cloudy.	
Galveston, Tex.	27.83	706.9	29.51	749.5	28	— 2.2	88	E	3	1.3	.....	0	2s	.....	E	0	0	Fair.	
Grand Haven, Mich.	.....	.....	30.21	767.3	62	16.7	88	SE	4	1.8	.....	0	2s	.....	SE	0	0	Fair.	
Indianapolis, Ind.	.....	.....	29.76	755.6	44	6.7	71	S	23	10.3	.....	.....	10s	.....	W	0	0	Cloudy.	
Indianola, Texas	.....	.....	29.90	761.0	49	9.4	57	S	6	2.7	.....	5cs	Haze	W	.....	0	0	Clear.	
Jacksonville, Fla.	.....	.....	30.21	767.3	60	15.6	94	SE	3	1.3	.....	1c	0	.....	.....	0	0	Clear.	
Keokuk, Iowa	.....	.....	30.41	772.4	47	8.3	85	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Key West, Fla.	.....	.....	29.[illegible]	7[illegible].4	50	10.0	72	SW	12	5.4	.....	.....	10s	.....	SW	0	0	Cloudy.	
Kittyhawk, N. C.	.....	.....	30.29	769.4	68.9	20.5	75	E	16	7.2	.....	1k	5ks	E	E	0	0	Fair.	
Knoxville, Tenn.	.....	.....	30.35	770.9	43	6.1	83	SW	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
La Crosse, Wis.	.....	.....	30.17	771.4	32	0.0	89	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair.	
Leavenworth, Kan.	.....	.....	29.56	750.8	41	5.0	73	S	10	4.5	.....	.....	10s	.....	S	0	0	Cloudy.	
Lexington, Ky.	.....	.....	29.64	752.8	53	11.7	73	S	24	10.7	.....	0	5s	.....	SW	0	0	Fair.	
Long Branch, N. J.	29.05	737.9	30.19	766.8	42	5.6	58	S	20	8.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Louisville, Ky.	.....	.....	30.24	768.1	33	0.6	80	W	4	1.8	.....	5cs	Haze	.....	.....	0	0	Fair.	
Lynchburg, Va.	.....	.....	30.19	766.5	47	8.3	55	S	8	3.6	.....	0	5s	.....	S	0	0	Fair.	
Malone, N. Y.	.....	.....	30.31	769.9	31	— 0.6	84	Calm	0	0	.....	10c	0	W	.....	0	0	Cloudy.	
Marquette, Mich.	.....	.....	30.11	765.5	27	— 2.8	28	Calm	0	0	.....	.....	10s	.....	.....	0.07	1.8	Cloudy.	
Memphis, Tenn.	.....	.....	29.44	747.8	35	1.7	80	SW	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Milwaukee, Wis.	.....	.....	30.19	766.8	45	7.2	76	S	3	1.3	.....	2cs	Haze	.....	.....	0	0	Fair.	
Mobile, Ala.	.....	.....	29.72	754.9	42	5.6	74	SW	9	4.0	.....	.....	10ks	.....	SW	0	0	Cloudy.	
Montgomery, Ala.	.....	.....	30.34	770.6	49	9.4	93	NE	2	0.9	.....	0	Sm'e	.....	.....	0	0	Clear.	
Morgantown, W. Va.	.....	.....	30.39	771.9	44	6.7	92	Calm	0	0	.....	2c	Fog	.....	.....	0	0	Clear.	
Mt. Washington, N. H.	23.54	597.9	29.90	759.4	10	—12.2	79	NW	60	26.8	.....	.....	10s	.....	W	0	0	Cloudy.	
Nashville, Tenn.	.....	.....	30.20	767.1	38	3.3	62	Calm	0	0	.....	2c	5s	NW	NW	0	0	Fair.	
New Haven, Conn.	.....	.....	30.21	767.3	45	7.2	60	SE	3	1.3	.....	0	5s	.....	.....	0	0	Fair.	
New London, Conn.	.....	.....	30.24	768.1	28	— 2.2	77	Calm	0	0	.....	Haze	Fog	.....	.....	0	0	Fair.	
New Orleans, La.	.....	.....	30.24	768.1	29	— 1.7	.....	N	1	0.4	.....	2c	Fog	NW	.....	0	0	Fair.	
Newport, R. I.	.....	.....	30.29	769.4	56	13.3	87	E	4	1.8	.....	0	Sm'e	.....	.....	0	0	Clear.	
New York, N. Y.	.....	.....	30.21	767.3	35	1.7	80	SW	1	0.4	.....	5cs	0	W	.....	0	0	Fair.	
Norfolk, Va.	.....	.....	30.24	768.1	32	0.0	79	SW	5	2.2	.....	5ck	Fog	W	.....	0	0	Fair.	
North Platte, Neb.	.....	.....	30.00	762.6	39.5	4.2	82	SW	10	4.5	.....	0	Haze	.....	.....	0	0	Clear.	
Omaha, Neb.	26.76	679.7	29.36	745.7	31	— 0.6	70	NW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Oswego, N. Y.	28.41	721.6	29.44	747.8	49	9.4	93	S	9	4.0	.....	5cs	0	W	.....	0	0	Fair.	
Peck's Beach, N. J.	.....	.....	30.08	764.0	32	0.0	89	S	8	3.6	.....	.....	10s	.....	.....	Inap.	Inap.	Threatening	
Pembina, Dakota	.....	.....	30.27	768.8	32	0.0	89	Calm	0	0	.....	8cs	0	.....	.....	0	0	Fair.	
Philadelphia, Penn.	.....	.....	29.81	757.2	— 8	—22.2	100	NW	8	3.6	.....	0	2s	.....	.....	0	0	Fair.	
Pike's Peak, Colorado	.....	.....	30.26	768.8	32	0.0	89	W	7	3.1	.....	8ck	Sm'e	W	.....	0	0	Cloudy.	
Pittsburgh, Penn.	17.47	443.7	29.68	754.0	9	—12.8	100	W	12	5.4	.....	0	Fog	.....	.....	0	0	Foggy.	
Port Huron, Mich.	.....	.....	30.11	764.8	39	3.9	55	S	4	1.8	.....	.....	10s	.....	S	0	0	Cloudy.	
Portland, Me.	.....	.....	29.88	758.9	40	4.4	64	S	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Portland, Oregon	.....	.....	30.20	767.1	22	- 5.6	86	Calm	0	0	.....	Haze	Fog	.....	.....	0	0	Clear.	
Punta Rassa, Fla.	.....	.....	30.14	764.5	87	2.8	80	S	2	0.9	.....	.....	10s	.....	.....	0.09	2.3	Cloudy.	
Rochester, N. Y.	.....	.....	30.36	771.1	60.6	15.9	73	NE	8	3.6	.....	2ck	2ks	SE	.....	0	0	Fair.	
Salt Lake City, Utah	.....	.....	30.01	762.7	30	2.2	.....	S	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Sandy Hook, N. J.	25.36	644.1	29.98	753.9	39	3.9	86	S	6	2.7	.....	.....	10n	.....	.....	0.12	3.0	Light rain.	
San Diego, Cal.	.....	.....	30.21	767.3	35	1.7	89	SW	8	3.6	.....	5c	Haze	W	.....	0	0	Fair.	
San Francisco, Cal.	.....	.....	30.12	765.0	49	9.4	100	Calm	0	0	.....	0	5s	.....	.....	0.38	9.7	Fair.	
Santa Fe, N. M.	.....	.....	29.97	761.2	49	9.4	82	N	2	0.9	.....	.....	10s	.....	.....	0.93	23.6	Cloudy.	
Savannah, Ga.	23.19	589.0	29.73	755.1	35	1.7	90	SE	4	1.8	.....	.....	1 s	.....	.....	0.09	2.3	Threatening	
Shreveport, La.	.....	.....	30.42	772.7	40	7.8	85	S	1	0.4	.....	0	Fog	.....	.....	0	0	Fair.	
Smithville, N. C.	.....	.....	30.24	768.1	49	9.4	93	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Springfield, Mass.	.....	.....	30.41	772.4	49	9.4	85	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
St. Louis, Mo.	.....	.....	30.22	767.6	29	— 1.7	67	Calm	0	0	.....	8cs	Fog	.....	.....	0	0	Fair.	
St. Marks, Fla.	.....	.....	29.91	759.7	50	10.0	51	SW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
St. Paul, Minn.	.....	.....	30.39	771.9	42	5.6	91	Calm	0	0	.....	2c	Fog	.....	N	0	0	Fair.	
St. Paul's Island, Alaska	.....	.....	29.48	748.8	34	1.1	84	SE	1	0.4	.....	8cs	0	W	.....	0	0	Fair.	
Squan Beach, N. J.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Thatcher's Island, Mass.	.....	.....	30.17	766.3	28	— 2.2	77	SW	2	0.9	.....	2c	2ks	W	SW	0	0	Fair.	
Toledo, Ohio	.....	.....	30.12	765.0	31	— 0.6	69	W	9	4.0	.....	0	0	.....	.....	0	0	Clear.	
Tucson, Arizona	.....	.....	29.88	758.9	45	7.2	60	S	12	5.4	.....	.....	10s	.....	SW	0.03	0.8	Cloudy.	
Tybee Island, Ga.	27.55	699.8	29.88	758.9	54	12.2	.....	Calm	.....	.....	.....	.....	10s	.....	SW	0.24	6.1	Cloudy.	
Vicksburg, Miss.	.....	.....	30.43	772.9	47	8.3	77	S	4	1.8	....	0	Fog	.....	SW	0	0	Fair.	
	.....	.....	30.35	770.9	51	10.6	86	S	10	4.5	....	2ck	0	S	.....	0	0	Fair.	

UNITED STATES SERIES.—Continued.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.87	606.3	29.35	745.5	26	— 3.3	76	NW	1	0.4	.....	2c	0	.....	.....	0	0	Fair	
Washington, D. C	.....	.....	30.26	768.6	28.5	— 1.9	88	Calm	0	0	.....	5cs	2s	W	.....	0	0	Smoky	
Wilmington, N. C	.....	.....	30.40	772.1	44	6.7	84	SW	5	2.2	.....	0	Fog	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	30.24	768.1	37	2.8	80	SW	4	1.8	.....	2c	2s	.....	S	0	0	Fair	
Wytheville, Va	27.90	708.6	30.14	765.5	38	3.3	54	W	3	1.3	.....	10cs	0	W	.....	0	0	Cloudy	
Yankton, Dakota	28.23	717.0	29.54	750.3	25	— 3.9	75	N	1	0.4	.....	2cs	0	NW	.....	0	0	Fair	
Yuma, Arizona	.....	.....	30.04	763.0	52	11.1	.....	NW	.....	.....	.....	.....	10s	.....	SW	0.26	6.6	Cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.02	762.5	78	25.6	95	NE	5	2.2	.....	.....	10ks	.....	NW	3.00	76.2	Cloudy	E Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	29.93	760.2	75	23.9	81	E	.....	.....	.....	10c	0	.....	.....	0	0	Cloudy	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.23	767.8	71	21.7	67	E	10.8	4.8	.....	3fk, k	0	E	.....	0.096	2.44	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.18	766.6	76	24.4	86	Calm	0	0	.....	5c	5s	NE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.25	768.3	77	25.0	72	E	9	4.0	.....	2c	5kn	W	.....	0	0	Clear	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.90	759.4	73	22.8	76	NE	3.6	1.6	.....	4ck	2n	NE	NE	Blank	Blank	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.33	770.4	59.5	15.3	67	N	18.0	8.0	.....	0	8fk	.....	.....	0.03	0.8	Fair	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.10	764.5	—25.5	—31.9	.....	NW	3	1.3	.....	7k	0	W	.....	0.10	2.5	.....	
St. Johns, Newfoundland	.....	.....	29.36	745.7	20.0	— 6.7	85	W	.....	.....	.....	0	0	.....	.....	1.20	30.5	Clear	J. Fortescue.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Delaney
Clifton, Jamaica, W. I	27.20	690.9	30.02	762.5	61	16.1	94	NE	8	3.6	.....	2c	8k	NE	.....	2.11	53.6	Raining	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Partridge.
Medellin, Colombia, S. A	25.19	639.7	.....	.....	60.0	15.6	80	.....	0	0	.....	2ck	7s	.....	.....	0.21	5.3	Cloudy	
Paramaribo, D. Guiana, S. A	.....	.....	29.97	761.2	78	25.6	91	E	.....	.....	3	.....	8ks	.....	.....	0.580	14.73	.....	Thomas Herran.
Batavia, Dutch Guiana, S. A	.....	.....	29.98	761.4	77.9	25.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.748	19.00	.....	C. J. Hering.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 9, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. nches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	29.97	761.1	59.2	15.5	47	Calm	.....	.....	0	.....	2	.....	.....	0	0	Clear	Charnot.
Algiers	.....	.....	30.0	762.1	52.9	11.6	70	WSW	.....	.....	2	.....	2	.....	.....	0.079	2.0	Rainy	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kunts.
Tunis	.....	.....	30.01	762.2	57.4	14.1	47	NW	.....	.....	3	.....	2	.....	.....	0	0	Clear	Jacques.
Sfax	.....	.....	30.05	763.3	61.3	16.3	58	S	.....	.....	3	.....	1	.....	.....	0	0	Clear	Chauvey.
Saida	.....	.....	29.98	761.6	51.8	11.0	38	SSW	.....	.....	1	.....	1	.....	.....	0	0	Clear	Grosjean.
Tebessa	.....	.....	30.11	764.9	53.8	12.1	.....	W	.....	.....	4	.....	0	.....	.....	0	0	Clear	Colin.
Geriville	.....	.....	30.02	762.4	42.4	5.8	67	WSW	.....	.....	1	.....	2	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	30.04	763.0	53.6	12.0	33	NW	.....	.....	1	.....	1	.....	.....	0	0	Clear	Simon.
Biskra	.....	.....	30.03	762.8	57.6	14.2	30	NE	.....	.....	5	.....	0	.....	.....	0	0	Clear	Coulon.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fal is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.34	770.6	13.1	—10.5	86	SW	.....	.....	1	.....	10	.....	.....	0.185	4.7	Snowing	Prof. Ivan Stozir.
Ofen-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.40	772.2	9.0	—12.8	96	NE	.....	.....	1	.....	10	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.48	774.3	54.7	12.6	69	Calm	.....	.....	0	.....	3	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.36	771.2	13.1	—10.5	76	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	29.04	737.4	30.36	771.2	13.1	—10.5	76	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	Andreas Rospini.
Kremsmünster	28.91	734.3	30.48	774.3	13.5	—10.3	87	ESE	.....	.....	1	.....	2	.....	.....	0	0	.....	Prof. Reissenberger.
Lemberg	28.54	724.8	29.98	761.5	18.0	— 7.8	72	ENE	.....	.....	3	.....	2	.....	.....	0	0	.....	Prof. C. Wagner.
Nyiregyhaza	.....	.....	30.58	776.8	6.8	—14.0	91	SE	.....	.....	2	.....	1	.....	.....	0.008	0.2	.....	Dr. T. Stanecki.
Pola	.....	.....	30.47	773.9	9.0	—12.8	84	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	Habzsuda Daniel.
Szegedin	.....	.....	29.95	760.7	40.3	4.6	82	E	.....	.....	4	.....	9cks	.....	.....	0	0	.....	I.R. Hydrographic Of'ce
Trieste	.....	.....	30.30	772.0	8.8	—12.9	88	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	Karl Stancel.
Vienna	.....	.....	30.04	762.9	32.0	0.0	87	ENE	.....	.....	2	.....	10	.....	.....	0	0	Light snow	Prof. V. Farolfi.
	.....	.....	30.21	767.4	13.8	—10.1	76	SSE	.....	.....	5	.....	8	.....	.....	0	0	.....	I. R. Central Institute.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	29.97	761.2	23.9	— 4.5	88	NE	.....	.....	0	1c	0	WNW	.....	0	0	.....	Royal Observatory
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.31	769.9	26.0	— 3.3		W	6	2.7			3			0.100	2.54		William Boswell.
Ardrossan																			J. Mayes.
Armagh Observatory			30.37	771.4	27.7	— 2.4		SSE	2	0.9									S. Cal., for Dr. Robinson
Bidston, Liverpool Obs			30.28	769.1	29.8	— 1.2		N	6	2.7			1					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			30.35	770.9	30.0	— 1.1		Calm			0		0					Blue sky	J. Dreyer.
Bradford																			J. McLandsborough.
Bridgetown, (Barbados)			29.95	760.7	79.0	26.1		NE			4		6					Gloomy	Sergt. G. H Hunt.
Cambridge Observatory			30.15	765.8	31.0	— 0.6		N			2		10					Overcast	H. Todd.
Cardington			30.17	766.3	32.0	0.0		N			1		10					Overcast	John McLaren.
Carlisle			30.32	770.1	28.6	— 1.9		W			1		1			0	0	Blu sky	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.23	767.8	34.2	1.2		NE			1		3					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.64	727.4	30.24	768.1	24.5	— 4.2		NE			4		5					*D. clouds	R. E. Power.
Donaghadee			30.30	769.6	28	— 2.2		NW			1		0					Blue sky	J. Mac Gowan.
Dover			30.04	763.0	34	1.1		NNE			4		6					¾ clouded	J. Costello.
Eccles, (near Manchester)			30.25	768.3	32.5	0.3		N	0.8	0.4			8					Misty	Thomas Mackereth.
Falmouth Observatory			30.19	766.8	33.2	0.7		N	20	8.9			0					Blue sky	The Staff.
Fort Napier, (Natal)	27.61	701.3	29.84	757.9	77.1	25.1		NE			2		9					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	83	28.3		NE			0		6					*D. clouds	[tis.
Galway, Queen's College			30.34	770.6	33	0.6		ENE			1							Foggy	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			29.95	760.7	54.5	12.5		W			1		0					Blue sky	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.30	769.6	29.1	— 1.6		E			1		5					Misty	Wm. M. Stewart.
Great Yarmouth			30.11	764.8	34	1.1		NNE			4		6					*D. clouds	G. T. Watson.
Greenwich Royal Obs			30.13	765.3	32.4	0.2		N			3		10					Overcast	The Staff for G. B. Airy
Guernsey			30.0	763.8	33.5	2.5		NNE			3		8					Gloomy	Dr. S. E. Hoskins.
Halifax, Moorside Obs																			L. J. Cr slev.
Helston			30.17	766.3	35	1.7		N			2		4c			0	0	*D. clouds	M. P. Moyle.
Holyhead			30.29	769.4	34	1.1		NNE			3		5					*D. clouds	John Tilston.
Kew Observatory			30.15	765.8	33.5	0.8		NNE	19	8.5			10					Gloomy	The Staff.
Kingstown			30.33	770.4	34	1.1		WNW			1		1					Blue sky	George Mitchell.
Leicester Museum			30.23	767.8	31.1	— 1.1		N			1		10					Overcast	William J. Harrison.
Malta, (Mediterranean)			29.97	761.5	58.4	14.7		SW			2		6k						Fred Travis, Pvt A.H.C
Nairn			30.34	769.6	28	— 2.2		Calm			0		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.30	769.6	70.2	21.2		NE			5		6					½ clouds	Surg.-Maj. Henry.
Nottingham			30.23	767.8	30.7	— 0.7		N			3		10k		NNE			Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.23	767.8	27.2	— 2.7		NNW			3		10					Misty	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			30.16	766.1	30	— 1.1		N			2		10					Overcast	J. Lucas.
Plymouth			30.16	766.1	33.5	0.8		NE			1		0					Blue sky	John Merrifield.
Roche's Point			30.30	769.6	35	1.7		NE			3		2					Fine	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.04	763.0	38.4	3.6		ENE			4		10					Overcast	A. P. Amy.
Sandwick Manse (Orkneys)			30.35	770.9	29	— 1.7		S	2	0.4			0						Rev. Dr. Clouston
Scarborough																			F. Shaw.
Scutari Cemetery (Turkey)			30.38	771.6	39.2	4.0		NE			3		9					Showery	Sergt. W. H. Lyne.
Sheffield			30.23	767.8	32.4	0.2		NE			1		9			0.043	1.10	Misty	W. F. Cooper.
Silloth Rectory			30.30	769.6	27.8	— 2.3		Calm			0		0			0	0	Blue sky	Rev Francis Redford.
Stonyhurst Observatory			30.28	769.1	26.8	— 2.9		NE			0								The Staff.
Stornoway, Lews C. (Hebr)			30.26	768.6	34	1.1		SW			2		8					*D.clouds	John Smith.
Stratfield Turgiss			30.14	765.5	32.4	0.2		N			1		10					Overcast	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			30.28	769.1	27	— 2.8		Calm			0		0					Hazy	John Trotter.
Truro, Royal Institution			30.18	766.6	36	2.2		N			2		0					Blue sky	W Newcombe.
Valencia Observatory			30.32	770.1	37.8	3.2		NE	5	2.2			1					Hazy	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.86	758.4	88.4	31.3	40	S	14	6.3			0						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					34	1.1		NE			1	0	0			0	0		
Leith, Restalrig Park			30.33	770.4	38.8	3.8		W			1					0	0	Fine	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.39	771.9	28.6	— 1.9	84	E			6		7						
Fanöe			30.32	770.2	28.0	— 2.2	71	E			4		1						
Godthaab, (Greenland)			29.15	740.4	19.2	— 7.1	84	Calm			0		10						
Stykkisholm, (Iceland)			30.02	762.5	29.7	— 1.3	88	S			4		8						
Thorshavn, (Faröe)			30.17	766.3	40.3	4.6	68	N W			2		5						
Vestervig			30.41	772.3	28.4	— 2.0	84	ESE			4		6					Raining	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.02	762.4	37.4	3	73	NE	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	29.98	761.5	28.8	— 1.8	92	NW	.....	.....	1	.....	8	.....	NW	0	0	Very cloudy	Normal School.
Avignon	.....	.....	29.78	756.3	34.3	1.3	78	N	.....	.....	1	.....	8	.....	.....	0.205	5.2	Rainy	Normal School.
Bar-sur-Seine	.....	.....	29.91	759.8	28.6	— 1.9	.....	SW	.....	.....	1	2c	.....	.....	.....	0.055	1.4	Slightly cl'dy	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.90	761.0	32.5	0.3	92	NE	2.0	0.9	.....	.....	.....	.....	E	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	30.01	762.2	27.1	— 2.7	.....	NNE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Besançon	.....	.....	29.93	760.1	30.9	— 0.6	.....	ENE	.....	.....	2	.....	2	.....	N	0	0	Slightly cl'dy	Normal School.
Bourg en Bresse	.....	.....	29.92	760.0	27.1	— 2.7	96	W	.....	.....	2	.....	10n	.....	E	0	0	Covered	Normal School.
Bourges	.....	.....	29.92	760.0	29.1	— 1.6	86	WSW	.....	.....	2	.....	2	.....	WSW	0	0	Slightly cl'dy	Normal School.
Brest	.....	.....	30.00	762.0	37.2	2.9	86	NNE	.....	.....	3	.....	10	.....	NNE	0	0	Covered	Naval Observatory.
Caen	.....	.....	29.98	761.6	37.4	3	83	NE	.....	.....	6	.....	10	.....	NE	0	0	Covered	Normal School.
Chartres	.....	.....	29.96	761.0	28.6	— 1.9	.....	N	.....	.....	2	.....	5	.....	N	0	0	Cloudy	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.94	760.5	29.3	— 1.5	76	N	.....	.....	1	.....	10	.....	.....	0	0	Covered	Puy de Dome, Obs.
Commercy	.....	.....	29.94	760.4	28.0	— 2.2	96	E	.....	.....	2	.....	2	.....	E	0	0	Slightly cl'dy	Normal School.
Commune de Gréasque*	.....	.....	29.71	754.6	40.2	7.9	64	SE	.....	.....	4	.....	10	.....	SE	0.039	1.0	Covered	
Grenoble	.....	.....	29.96	761.0	35.2	1.8	80	SW	.....	.....	2	.....	2ck	.....	S	0	0	Clear	Normal School.
Le Mans	.....	.....	29.98	761.4	32.4	0.2	74	NE	.....	.....	2	.....	8	.....	NE	0.138	3.5	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	29.92	760.0	28.8	— 1.8	70	NW	.....	.....	2	.....	10	.....	.....	0	0	Snowing	Normal School.
Mâcon	.....	.....	29.85	758.3	29.3	— 1.5	.....	SSE	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	29.99	759.5	30.7	— 0.7	69	SSW	.....	.....	4	.....	1	.....	NW	0	0	Clear	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	29.79	756.6	35.6	2	96	NE	.....	.....	2	.....	10	.....	S	1.02	26.	Covered	Normal School.
Orleans	.....	.....	29.92	760.0	28.4	— 2	100	NE	.....	.....	3	.....	0	.....	.....	0	0	Clear	Normal School.
Paris Observatory	.....	.....	29.96	761.0	29.1	— 1.6	55	NNW	.....	.....	1	.....	0	.....	.....	0	0	Foggy	National Observatory.
Parthenay	.....	.....	29.94	760.5	34.7	1.5	89	NE	.....	.....	2	.....	8	.....	NE	0	0	Very cloudy	Normal School.
Privas	.....	.....	29.89	759.2	34.9	1.6	.....	SE	.....	.....	2	.....	10	.....	SE	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	30.39	771.8	30.4	— 0.9	96	.....	.....	.....	.....	.....	10	.....	.....	0	0	Covered	Normal School.
Rochefort, Observatory	.....	.....	29.98	761.5	29.3	— 1.5	96	E	.....	.....	3	.....	10	.....	.....	0	0	Covered	Naval Observatory.
Rouen	.....	.....	29.99	761.8	33.8	1.0	81	N	.....	.....	3	.....	0	.....	.....	0	0	Clear	Normal School.
Saint Lo	.....	.....	30.23	767.8	34.5	1.4	95	N	.....	.....	1	.....	9	.....	NE	0	0	.....	Normal School.
Tarbes	.....	.....	30.00	761.9	42.8	6	67	NW	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Toulouse	.....	.....	29.98	761.4	31.8	— 0.1	100	N	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School
Villefranche	.....	.....	29.96	761.0	32.2	0.1	80	NE	.....	.....	1	.....	5	.....	NW	0	0	Cloudy	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.92	760.0	78.8	26	84	NE	.....	.....	2	.....	2k	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	29.70	754.4	49.2	9.7	81	ESE	.....	.....	2	.....	10	.....	.....	0.071	1.80	.....	Marseilles Observatory
Mont-Louis	24.49	622.0	29.93	760.2	23.9	— 4.5	69	NW	3.7	1.67	.....	.....	4	.....	ESE	0.118	3.0	.....	—. Falguère.
Montsouris, Paris	.....	.....	29.94	760.5	28.8	— 1.8	88	N	.....	.....	4	.....	3	.....	.....	0.004	0.1	.....	Montsouris Observ'tory
Perpignan	.....	.....	29.83	757.7	36.9	2.7	54	N	22.4	10.00	.....	.....	9	.....	NE	0.339	8.6	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	20.90	530.8	.....	.....	3.0	—16.1	.....	NW	.....	.....	6	.....	1	.....	.....	0.20	5.	Clear	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.95	760.6	30.0	— 1.1	66	N	.....	.....	1	..6	2ck	.....	.....	0	0	Clear	E. Renou.
Toulouse	.....	.....	29.94	760.5	33.3	0.7	90	NW	.....	.....	1	.....	8	.....	.....	Blank	Blank	.....	Toulouse Observatory.
Tours	.....	.....	29.95	760.7	31.3	— 0.4	.....	NE	.....	.....	1	.....	7	.....	E	0.118	3.0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.93	760.3	29.8	— 1.2	72	N	.....	.....	1	.....	4	.....	.....	0	0	Light mist ...	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,580.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.87	758 6	21.1	— 4.4	64	E	.....	.....	4	.....	2	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.27	768.8	10.4	—12.0	78	E	.....	.....	3	.....	0	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.31	769.9	5.7	—14.6	91	SE	.....	.....	3	.....	5	.....	.....	0	0	.....	Dr. P. Neugebauer.
Carlsruhe	.....	.....	29.90	759.5	25.7	— 3.5	80	NE	.....	.....	3	.....	0	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.00	761.9	26.6	— 3.0	84	NNE	.....	.....	2	.....	0	.....	.....	0	0	.....	Dr. H. Möll.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe.
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.03	762.8	27.5	— 2.5	72	NE	.....	.....	3	.....	0	.....	.....	0	0	.....	Physical Society.
Friedrichshafen	.....	.....	29.94	760.4	25.2	— 3.8	56	E	.....	.....	1	.....	1	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	30.24	768 2	19.8	— 6.8	70	E	.....	.....	3	.....	0	.....	.....	0	0	.....	Deutsche Seewarte.
Kiel	.....	.....	30.36	771.2	23.4	— 4.8	73	E	.....	.....	2	.....	5	.....	.....	0	0	Smoke-haze	Prof. G. Karsten.
Königsberg	.....	.....	30.58	776.7	10.4	—12.0	73	E	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. E. Luther.
Köslin	.....	.....	30.56	776.2	18.5	— 7.5	.....	E	.....	.....	1	.....	3	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.17	766.3	9.0	—12.8	80	NE	.....	.....	6	.....	0	.....	.....	0	0	.....	Prof. Brühns.
Münster	.....	.....	30.03	762.7	25.9	— 3.4	95	NE	.....	.....	3	.....	0	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.41	772.5	8.4	—13.1	100	E	.....	.....	8	.....	2	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.93	760.2	23.0	— 5.0	80	NE	.....	.....	1	.....	2	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	29.95	760.7	26.6	— 3.0	65	N	.....	.....	.....	.....	0	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.45	773 3	12.2	—11.0	84	E	.....	.....	5	.....	1	.....	.....	Inap.	Inap.	.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	29.85	758.3	29.1	— 1.6	57	E	.....	.....	5	.....	0	.....	.....	0	0	.....	Prof. Fassel.
Wustrow, Naval School	.....	.....	30.37	771.4	18.0	— 7.8	96	ENE	.....	.....	5	.....	3k	.....	.....	0	0	.....	E. F. Schultz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.27	768.9	48.6	9.2	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.05	763.2	35.2	1.8	69	E			2		10			0	0		
Padua			30.02	762.5	32.2	0.1	89	NNE	12.5	5.6			10			0	C	Snowing	
Verona			30.01	762.2	37.4	3.0	,53	E			2		10			0	0		
Bergamo																			
Milan			30.10	764.5	31.8	— 0.1	91	NW			1		10			0	0	Snowing	
Moncalieri			30.07	763.8	31.8	— 0.1	93	WSW	0	0			10			0	0	Snowing	
Mondovi			30.07	763.6	27.1	— 2.7	96	NW			2		10			0	0	Snowing	
Porto Maurizio			29 85	758.1	48.2	9.0		NE			1		10			0	0	Snowing	
Genoa			29.91	759.6	37.2	2.9	59	N	12.5	5.6			10	S		0.331	8.4	Raining	
Piacenza			30.07	763.7	29.1	— 1.6	94	SE	0	0			10			0.059	1.5	Snowing	
Bologna			30.11	764.9	29.7	— 1.3	55	W			6		10			0	0	Snowing	
Florence			29.88	758.9	45.0	7.2	69	NE			1		10			0	0	Snowing	
Leghorn			29.90	757.5	44.2	6.8	67	ENE	18.1	8.1			10			0	0		
Siena			29.87	758.6	43.5	6.4	76	E	4.3	1.9			9	S		0	0		
Urbino																0.295	7.5	Rain & snow	
Pesaro			29.95	760.6	34.3	1.3	94	W			4		10	SW		0.030	1.0		
Ancona																			
Rome			29.84	757.8	51.3	10.7	77	ESE	17.4	7.8			10	S		0	0		
Naples, O. U.			29.93	760.2	57.2	14.0	65	SW			2		9	W		0.386	9.8		
Lecce			30.10	764.4	52.2	11.2	80	SSE	46.5	20.8			8	S		0.028	0.7		
Cosenza			30.05	763.3	48.6	— 9.2	79	SE			2		3			0	0		
Riposto, (Sicily)			30.02	762.4	54.3	12.4	90	NW			2		10			0.717	18.2		
Palermo			29.89	759.3	56.7	13.7	73	W	8.7	3.9			10			0.031	0.8		
Caltanissetta			29.97	761.1	50.5	10.3	77	SW			6		8	ENE		0	0		
Sub-Series.																			
Naples, S. R.			29.93	760.3	54.3	12.4	74	S			6		..ck	NW		0.248	0.3		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,821.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.05	763.2	28.4	— 2.0		NE			3								
Groningen			30.10	764.6	21.6	— 5.8		E			4								
Helder			30.09	764.2	24.6	— 4.1		ENE			4								
Utrecht			30.01	762.2	25.0	— 3.9	53	ENE			2		0					Clear	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.45	773.5	28.4	— 2.0	88	Calm	0	0			0			0	0		
Brönö			30.32	770.0	35.6	2.0	82	S	18	8			10			0	0		
Christiania			30.58	776.8	12.6	—10.8	86	E	0.7	0.3			0			0	0		
Tromsö			29.90	759.5	38.5	3.6	51	SSW	9	4			3			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.29	769.4	58.1	14.5	80	E	12.3	5.50	.....	.....	5	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.93	760.2	42.8	6.0	75	SSW	13.0	5.83	.....	.....	9	WNW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	29.91	759.7	62.4	16.9	80	.....	8.0	3.58	.....	.....	5	.....	.....	1.909	48.5	Raining?.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	29.07	761.1	48.0	8.9	88	NW	17.4	7.8	.....	.....	10	....	.....	0.161	4.1	Raining.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.51	774.9	11.8	—11.2	75	E	16	7	.....	.....	0	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.71	779.9	6.4	—14.2	79	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.75	781.1	3.6	—15.8	92	W	2	1	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.65	778.4	9.9	—12.3	100	WNW	7	3	.....	.....	8	.....	.....	.....	.....	Light snow..	Central Physical Obs.
Kuopio	.....	.....	30.55	775.9	— 2.2	—19.0	100	Calm	.....	.....	.....	.....	0	.....	.....	0	0	.....	Ch. Forsten.
Kief	.....	.....	30.72	780.4	6.1	—14.4	92	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.74	780.8	9.7	—12.4	66	N	11	5	.....	.....	0	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.61	777.5	19.9	— 6.7	76	NE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.55	776.0	9.5	—12.5	88	N	11	5	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.57	776.5	— 1.7	—18.7	59	SW	22	10	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.20	767.1	25.5	— 3.6	95	WNW	22	10	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	.....	.....	29.14	740.1	30.68	779.3	24.1	— 4.4	84	Calm	0	0	.....	.....	10	.....	.....	.....	.....	Physical Obs.
Astrakhan	29.14	740.1	30.68	779.3	24.1	— 4.4	84	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Physical Obs.
Kasan	.....	.....	30.68	779.3	— 0.4	—18.0	78	W	11	5	.....	.....	9	.....	.....	.....	.....	.....	Sebastianof.
Orenburg	.....	.....	30.01	762.3	23.7	— 4.6	90	NW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Ekaterinburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Kasaly	28.67	728.1	29.80	757.0	—13.7	—25.4	79	SW	18	8	.....	.....	10	.....	.....	.....	.....	Snowing.....	Meteorological Obs.
Tashkend	.....	.....	30.49	774.5	—23.3	—30.7	.....	N	9	4	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Barnaul	28.64	727.4	30.45	773.4	28.0	— 2.2	94	N	13	6	.....	.....	10	.....	.....	Blank	Blank	.....	Michelson.
Yeniseisk	.....	.....	30.24	768.0	17.4	— 8.1	65	S	7	3	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Irkutsk	.....	.....	30.24	768.1	— 7.4	—21.9	93	ESE	7	3	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Peking, (China)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Nertchinsk	.....	.....	30.56	776.1	21.6	— 5.8	35	NNW	11	5	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Vladivostock	28.10	713.8	30.37	771.3	4.6	—15.2	43	NW	13	6	.....	.....	5	.....	.....	.....	.....	.....	Meteorological Obs.
Nikolaievsk, on the Amoor	.....	.....	30.42	772.6	3.4	—15.9	76	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	—11.4	—24.1	100	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.96	760.9	35.4	1.9	71	S	11.2	5.0	.....	.....	10	.....	.....	0	0	Covered	Royal Observatory.
San Fernando	.....	.....	30.05	763.2	48.0	8.9	56	WNW	4.0	1.8	.....	0	0	.....	.....	0.122	3.1	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.39	771.8	0.4	—18.0	67	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.49	774.4	6.8	—14.0	91	SW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	30.55	775.9	— 0.0	—22.8	100	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Stockholm	.....	.....	30.55	775.9	18.7	— 7.4	95	Calm	.....	.....	0	.....	10	.....	.....	0.008	0.2	Foggy	
Wisby	.....	.....	30.65	778.5	23.0	— 5.0	100	SE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.63	777.9	13.3	—10.4	100	SSW	3.8	1.7	.....	.....	10	.....	.....	0.043	0.11	Foggy	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er (1—10.	Clouds. Amount. Low'r (1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.39	721.0	29.89	759.1	30.7	— 0.7	94	SW	.....	.....	0	.....	10	.....	.....	0	0	Misty	The Observatory.
Zurich	28.19	716.0	29.91	759.8	30.2	— 1.0	69	W	.....	.....	1	.....	2	.....	.....	0	0	Clear	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —6.7 mm.; Thermometer, —2.0 cent.; Relative Humidity, +14 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.40	772.1	37.8	3.2	67	NE	22	10.0	.....	.....	10	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.25	768.3	57.2	14.0	.....	NW	.....	.....	1	.....	5	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.43	772.9	44.2	6.8	.....	NW	.....	.....	1	.....	8	.....	.....	.....	.....	.....	
Valona	.....	.....	29.96	761.0	54.1	12.3	.....	SE	.....	.....	1	.....	10	.....	.....	.....	.....	.....	
Varna	.....	.....	30.39	772.0	21.2	— 6.0	.....	NW	.....	.....	6	.....	10	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.98	761.6	63.3	17.4	56	NW	.....	.....	1	.....	7c	.....	.....	0	0	.....	Prof. C. V. A. Van Dyck

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.62	752.3	29	— 1.7	.....	SW	6	2.7	.....	.....	10s	.....	SW	0.32	8.1	Cloudy	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.86	758.4	14	—10.0	93	N	2	0.9	.....	.....	10ks	.....	.....	0	0	Cloudy	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	29.85	758.2	17	— 8.3	97	NE	9	4.0	.....	.....	10n	.....	.....	0.15	3.8	Light snow	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.56	750.8	28.3	— 2.1	95	E	.....	.....	1	.....	10n	.....	.....	0.403	10.24	Unsettled	James Smith, M. A.
Dalhousie, N. B.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	30.23	767.8	35.1	1.7	91	N	3	1.3	.....	8cs	.....	W	.....	0	0	Cloudy	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.80	756.9	17.5	— 8.1	95	NE	6	2.7	.....	.....	10s	.....	.....	0.030	0.76	Snowing	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	29.94	760.5	— 6	—21.1	100	NW	23	10.3	.....	.....	10n	.....	.....	0.11	2.8	Light snow	James Stewart.
Goderich, Ontario	.....	.....	29.63	752.6	43.9	6.6	82	SW	.....	.....	2	.....	10n	.....	.....	0	0	Threatening	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.54	750.3	45.9	7.2	.....	SW	.....	.....	1	.....	10n	.....	.....	0	0	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	29.74	755.4	33	0.6	99	SE	3	1.3	.....	.....	10n	.....	.....	0.22	5.6	Heavy snow	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.67	753.6	37	2.8	95	Calm	0	0	.....	.....	10ks	.....	SW	0.32	8.1	Cloudy	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.59	751.6	33.8	1.0	.....	SW	1	0.4	.....	.....	10s	.....	.....	0	0	Foggy	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.58	751.3	24	— 4.4	93	NE	5	2.2	.....	.....	10n	.....	NE	0.53	13.5	Light snow	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.56	750.8	25	— 3.9	81	E	2	0.9	.....	.....	Fog	.....	E	0.45	11.4	Foggy	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.59	751.6	35	1.7	99	W	2	0.9	.....	.....	10n	.....	W	0.10	2.5	Foggy	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.63	752.6	48	8.9	85	SW	6	2.7	.....	.....	10k	.....	SW	0.01	0.3	Cloudy	H. Morgan.
Port Hastings, N. S.	.....	.....	29.85	758.2	28.9	— 1.7	.....	SE	5	2.2	.....	.....	.....	.....	.....	0.31	7.9	Mild	Peter Grant.
*Port Stanley, Ontario	.....	.....	29.61	752.1	40	4.4	89	W	12	5.4	.....	.....	10n	.....	W	0	0	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	29.67	753.6	18	— 7.8	100	NE	29	13.0	.....	.....	10n	.....	NE	0.10	2.5	Light snow	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.74	755.4	24.0	— 4.4	89	Calm	0	0	.....	.....	10n	.....	.....	0.140	35.6	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.60	751.8	38	3.3	91	Calm	0	0	.....	.....	10n	.....	.....	0.23	5.8	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. J. Cole.
Stratford, Ontario	.....	.....	29.62	752.3	42.4	5.8	95	SW	5	2.2	.....	.....	10s	.....	.....	0.089	22.6	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.95	760.7	16	— 8.9	95	SW	2	0.9	.....	.....	10n	.....	.....	0.01	0.3	Light snow	T. C. Hill.
*Toronto, Ontario	.....	.....	29.63	752.6	43	6.1	96	W	3	1.3	.....	.....	10ks	.....	W	0.10	2.5	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	29.59	751.6	46.7	8.2	76	SW	1	0.4	.....	.....	10s	.....	.....	0.23	5.8	Gloomy	J. Montgomery.

Note. The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.61	752.1	42	5.6	75	S	9	4.0	.....	.....	10ks	.....	W	0.16	4.1	Cloudy.....	
Alpena, Mich.	.....	.....	29.55	750.6	36	2.2	90	NE	2	0.9	.....	.....	10s	.....	.....	0.07	1.8	Cloudy.....	
Atlantic City, N. J.	.....	.....	29.82	757.4	49	9.4	71	SW	7	3.1	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Augusta, Ga.	.....	.....	30.20	767.1	49	9.4	93	Calm	0	0	.....	2cs	2s	S	.....	0	0	Fair.....	
Baltimore, Md.	.....	.....	29.85	758.2	50	10.0	64	SW	2	0.9	.....	8ck	Fog	W	.....	0	0	Cloudy.....	
Barnegat, N. J.	.....	.....	29.80	756.9	46	7.8	85	SW	14	6.3	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy.....	
Bismarck, Dakota	27.38	695.4	30.18	766.6	—13	—25.0	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Boston, Mass.	28.35	720.1	30.22	767.6	— 5	—20.6	63	NW	22	9.8	.....	5k	0	NW	.....	0	0	Fair.....	
Breckenridge, Minn.	.....	.....	29.66	753.4	41	5.0	83	SW	9	4.0	.....	.....	10ks	.....	SW	0.22	5.6	Cloudy.....	
Buffalo, N. Y.	.....	.....	30.05	763.3	— 7	—21.7	59	W	16	7.2	.....	0	2s	.....	W	0	0	Clear.....	
Burlington, Vt.	.....	.....	29.61	752.1	44	6.7	75	W	16	7.2	.....	.....	10ks	.....	W	0.07	1.8	Cloudy.....	
Cairo, Ill.	.....	.....	29.61	752.1	39	3.9	91	S	4	1.8	.....	.....	10s	.....	.....	0.12	3.0	Cloudy.....	
Cape Hatteras, N. C.	.....	.....	29.80	756.9	62	16.7	77	S	16	7.2	.....	5k	5ks	S	S	0	0	Cloudy.....	
Cape Henry, Va.	.....	.....	30.04	763.0	50	15.6	76	SW	24	10.7	.....	5c	Haze	SW	.....	0	0	Fair.....	
Cape May, N. J.	.....	.....	29.97	761.2	57	13.9	61	SW	22	9.8	.....	8c	Haze	W	.....	0	0	Fair.....	
Charleston, S. C.	.....	.....	29.84	757.9	48	8.9	85	SW	12	5.4	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Cheyenne, Wyoming	.....	.....	30.24	768.1	54	12.2	86	S	5	2.2	.....	2c	0	.....	.....	0	0	Clear.....	
Chicago, Ill.	23.90	607.0	29.84	757.9	7	—13.9	100	N	8	3.6	.....	0	2s	.....	.....	Inap.	Inap.	Fair.....	
Cincinnati, Ohio	.....	.....	29.53	750.0	47	8.3	92	NE	3	1.3	.....	.....	10n	.....	.....	0.25	6.3	Heavy rain...	
Cleveland, Ohio	.....	.....	29.73	755.1	57	13.9	81	SW	9	4.0	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Colorado Springs, Col.	.....	.....	29.63	752.6	55.6	13.1	72	S	16	7.2	.....	.....	10n	.....	W	0.02	0.5	Light rain...	
Corsicana, Texas	23.94	608.1	29.81	757.2	23	— 5.0	60	N	6	2.7	.....	0	1s	.....	.....	0	0	Clear.....	
Davenport, Iowa	.....	.....	29.91	759.7	67	19.4	90	S	14	6.3	.....	10k	0	S	.....	0	0	Cloudy.....	
Denison, Texas	.....	.....	29.58	751.3	36	2.2	90	NW	8	3.6	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.....	
Denver, Col.	.....	.....	29.98	761.5	53	11.7	68	SW	14	6.3	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Detroit, Mich.	24.73	628.7	29.95	760.7	19	— 7.2	69	NE	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Dodge City, Kan.	.....	.....	29.55	750.6	53	11.7	79	SW	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Dubuque, Iowa	27.45	697.2	29.90	759.4	18	— 7.8	84	W	24	10.7	.....	0	2s	.....	SW	0	0	Cloudy.....	
Duluth, Minn.	.....	.....	29.55	750.6	32	0.0	79	N	4	1.8	.....	.....	10s	.....	W	0	0	Clear.....	
Eastport, Me.	.....	.....	29.78	756.4	71	21.7	79	W	4	1.8	.....	.....	10s	.....	.....	0	0	Threatening	
Erie, Pa.	.....	.....	29.68	753.9	29	— 1.7	100	NE	26	11.6	.....	.....	10n	.....	.....	0	0	Cloudy.....	
Escanaba, Mich.	.....	.....	29.62	752.3	55	12.8	73	SW	18	8.0	.....	.....	10n	.....	.....	0.29	7.4	Light snow..	
Fort Gibson, Indian T.	.....	.....	29.56	750.8	32	0.0	90	NE	8	3.6	.....	.....	10s	.....	W	0	0	Light rain...	
Fort Sill, Indian T.	.....	.....	29.69	754.1	61	16.1	88	S	14	6.3	.....	.....	10n	.....	.....	0	0	Cloudy.....	
Fort Sully, Dakota	28.73	729.7	29.87	758.7	38	3.3	71	NW	12	5.4	.....	0	8ks	.....	SW	0.06	1.5	Light rain...	
Galveston, Texas	28.39	718.6	30.24	768.1	3	—16.1	87	W	28	12.5	.....	0	0	.....	SW	0	0	Cloudy.....	
Grand Haven, Mich.	.....	.....	30.04	763.0	66	18.9	95	S	5	2.2	.....	0	2s	.....	.....	Inap.	Inap.	Clear.....	
Indianapolis, Ind.	.....	.....	30.54	775.7	44	6.7	88	Calm	0	0	.....	.....	10s	.....	S	0	0	Fair.....	
Indianola, Texas	.....	.....	29.67	753.6	55	12.8	87	S	8	3.6	.....	.....	10n	.....	.....	0	0	Cloudy.....	
Jacksonville, Fla.	.....	.....	30.05	763.3	66	18.9	94	S	6	2.7	.....	0	8ks	.....	.....	0.16	4.1	Light rain...	
Keokuk, Iowa	.....	.....	30.30	769.6	50	10.0	86	SW	1	0.4	.....	.....	Fog	.....	.....	0	0	Cloudy.....	
Key West, Fla.	.....	.....	29.55	750.6	35	1.7	89	N	10	4.5	.....	.....	10n	.....	.....	0	0	Foggy.....	
Kittyhawk, N. C.	.....	.....	30.25	768.3	70.5	21.3	61	E	18	5.8	.....	1k	5s	SE	N	0.50	12.7	Light rain...	
Knoxville, Tenn.	.....	.....	30.05	763.3	54	12.2	87	SW	21	9.4	.....	5k	5s	.....	.....	0	0	Fair.....	
La Crosse, Wis.	.....	.....	30.03	762.7	58	14.4	81	SW	18	8.0	.....	.....	10ks	.....	.....	0	0	Cloudy.....	
Leavenworth, Kan.	.....	.....	29.69	754.1	19	— 7.2	84	NW	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Lexington, Ky.	.....	.....	29.76	755.9	25	— 3.9	90	NW	24	10.7	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Long Branch, N. J.	28.77	730.7	29.84	757.9	58	14.4	81	S	20	8.9	.....	.....	10s	.....	NW	0.03	0.8	Cloudy.....	
Louisville, Ky.	.....	.....	29.78	756.4	49	9.4	64	SW	14	6.3	.....	10cs	0	.....	SW	0	0	Cloudy.....	
Lynchburg, Va.	.....	.....	29.77	756.1	60	15.6	71	S	12	5.4	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.....	
Malone, N. Y.	.....	.....	29.96	761.0	55	12.8	62	SW	6	2.7	.....	5ck	5s	W	S	0	0	Cloudy.....	
Marquette, Mich.	.....	.....	29.54	749.5	40	4.4	82	SW	7	3.1	.....	.....	10n	.....	SW	0	0	Cloudy.....	
Memphis, Tenn.	.....	.....	29.58	751.3	32	0.0	90	Calm	0	0	.....	.....	10s	.....	.....	0.55	14.0	Light rain...	
Milwaukee, Wis.	.....	.....	29.93	760.2	63	17.2	83	SW	12	5.4	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.....	
Mobile, Ala.	.....	.....	29.57	751.1	40	4.4	73	N	10	4.5	.....	.....	10ks	.....	SW	0	0	Cloudy.....	
Montgomery, Ala.	.....	.....	30.17	766.3	63	17.2	94	S	7	3.1	.....	2cs	2s	SW	N	0	0	Cloudy.....	
Morgantown, W. Va.	.....	.....	30.18	766.6	58	14.4	94	S	7	3.1	.....	5ck	Haze	W	SW	0	0	Fair.....	
Mt. Washington, N. H.	23.32	592.3	29.79	756.7	58	14.4	64	S	14	6.3	.....	.....	10s	.....	.....	0	0	Fair.....	
Nashville, Tenn.	.....	.....	29.68	753.9	24	—1.4	100	N	30	13.4	.....	.....	10n	.....	SW	0	0	Cloudy.....	
New Haven, Conn.	.....	.....	29.93	760.2	60	15.6	76	S	9	4.0	.....	5k	0	S	N	0.29	7.4	Light snow..	
New London, Conn.	.....	.....	29.74	755.4	42	5.6	83	S	4	1.8	.....	.....	10s	.....	.....	0	0	Fair.....	
New Orleans, La.	.....	.....	29.74	755.4	42	5.6	.....	SW	3	1.3	.....	.....	10s	.....	SW	0.05	1.3	Cloudy.....	
Newport, R. I.	.....	.....	30.12	765.0	62.5	16.9	86	S	6	2.7	.....	8k	0	SW	W	0.15	3.8	Cloudy.....	
New York, N. Y.	.....	.....	29.71	754.6	41	5.0	91	SW	12	5.4	.....	.....	10s	.....	SW	0	0	Fair.....	
Norfolk, Va.	.....	.....	29.75	755.6	44	5.6	76	SW	20	8.9	.....	.....	10s	.....	.....	0.19	4.8	Cloudy.....	
North Platte, Neb.	.....	.....	29.99	761.7	55.5	13.1	74	SW	16	7.2	.....	8c	0	SW	.....	0.03	0.8	Cloudy.....	
Omaha, Neb.	27.11	688.6	29.90	759.4	11	—11.7	80	N	16	7.2	.....	.....	10s	.....	.....	0	0	Fair.....	
Oswego, N. Y.	28.80	731.5	29.95	760.7	11	—11.7	100	NW	23	10.3	.....	.....	10n	.....	.....	0.04	1.0	Cloudy.....	
Peck's Beach, N. J.	.....	.....	29.61	752.1	46.5	8.1	80	W	4	1.8	.....	.....	10s	.....	W	0.03	0.8	Light snow..	
Pembina, Dakota	.....	.....	29.84	757.9	49	9.4	77	W	12	5.4	.....	.....	10s	.....	.....	0.27	6.9	Cloudy.....	
Philadelphia, Penn.	.....	.....	29.96	761.0	—10	—23.3	100	W	12	5.4	.....	Haze	Haze	.....	.....	0	0	Cloudy.....	
Pike's Peak, Colorado	17.36	440.9	29.57	751.1	— 5	—20.6	100	NW	23	10.3	.....	Haze	0	NW	.....	0	0	Hazy.....	
Pittsburgh, Penn.	.....	.....	29.72	754.9	57	13.9	62	SW	12	5.4	.....	8ck	2s	SW	.....	Inap.	Inap.	Cloudy.....	
Port Huron, Mich.	.....	.....	29.56	750.8	51	10.6	78	S	6	2.7	.....	.....	10s	.....	SW	0	0	Fair.....	
Portland, Me.	.....	.....	29.67	753.6	32	0.0	100	Calm	0	0	.....	.....	10s	.....	W	0	0	Cloudy.....	
Portland, Oregon	.....	.....	30.22	767.6	41	5.0	65	W	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Punta Rassa, Fla.	.....	.....	30.31	769.9	60.5	15.8	81	E	8	3.6	.....	.....	10s	.....	.....	0.25	6.3	Cloudy.....	
Rochester, N. Y.	.....	.....	29.57	751.1	52	11.1	.....	W	18	8.0	.....	.....	10s	.....	SE	0	0	Cloudy.....	
Salt Lake City, Utah	25.68	652.3	30.01	762.2	32	0.0	89	Calm	0	0	.....	.....	10s	.....	W	0	0	Cloudy.....	
Sandy Hook, N. J.	.....	.....	29.74	755.4	46	7.8	69	SW	6	2.7	.....	10c	Haze	W	.....	0.24	6.1	Cloudy.....	
San Diego, Cal.	.....	.....	30.19	766.8	44	6.7	92	E	8	3.6	.....	0	0	.....	.....	0.13	3.3	Cloudy.....	
San Francisco, Cal.	.....	.....	30.19	766.8	46	7.8	84	Calm	0	0	.....	0	0	.....	.....	0.03	0.8	Cloudy.....	
Santa Fe, N. M.	.....	.....	30.19	766.8	46	7.8	84	Calm	0	0	.....	0	0	.....	.....	0.01	0.3	Clear.....	
Savannah, Ga.	23.21	589.5	29.75	755.6	24	— 4.4	48	N	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Shreveport, La.	.....	.....	30.27	768.8	53	10.6	79	SW	2	3.6	.....	0	0	.....	.....	0.02	0.5	Clear.....	
Smithville, N. C.	.....	.....	30.02	762.5	63	17.2	97	S	6	2.7	.....	.....	2s	.....	.....	0	0	Clear.....	
Springfield, Mass.	.....	.....	30.18	766.6	57	13.9	87	SW	16	7.2	.....	.....	10s	.....	S	0	0	Cloudy.....	
St. Louis, Mo.	.....	.....	29.68	753.9	42	5.6	82	S	4	1.8	.....	2cs	0	W	.....	0	0	Fair.....	
St. Marks, Fla.	.....	.....	29.60	751.8	58	14.4	75	S	12	5.4	.....	.....	10ks	.....	NW	0.03	0.8	Cloudy.....	
St. Paul, Minn.	.....	.....	29.27	743.8	56	13.3	87	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	
St. Paul's Island, Alaska	.....	.....	29.79	756.7	6.5	14.2	51	NW	16	7.2	.....	10k	0	SW	.....	0	0	Cloudy.....	
Squan Beach, N. J.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8c	0	NW	.....	0	0	Fair.....	
Thatcher's Island, Mass.	.....	.....	29.73	755.1	46	7.8	69	SW	10	4.5	.....	.....	10s	.....	SW	0.06	1.5	Cloudy.....	
Toledo, Ohio	.....	.....	29.69	754.1	39	3.9	91	SW	5	2.2	.....	.....	10ks	.....	NW	0.27	6.9	Cloudy.....	
Tucson, Arizona	.....	.....	29.56	750.8	56	13.3	80	S	11	4.9	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Tybee Island, Ga.	27.67	702.8	30.10	764.5	39	3.9	.....	NW	.....	.....	.....	0	10ks	.....	.....	0.07	1.8	Cloudy.....	
Vicksburg, Miss.	.....	.....	30.27	768.8	53	11.7	79	SW	12	5.4	.....	0	2s	.....	.....	0	0	Fair.....	
	.....	.....	30.10	764.5	64	17.8	83	SW	9	4.0	.....	8cs	2k	W	SW	0	0	Fair.....	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.20	614.7	29.68	753.9	11	—11.7	60	Calm	0	0	.....	10ck	0	NW	.....	Inap.	Inap.	Cloudy	
Washington, D. C.	.....	.....	29.86	758.4	52.5	11.4	62	SW	4	1.8	.....	.....	10s	.....	W	0	0	Cloudy	
Wilmington, N. C	.....	.....	30.16	766.1	58	14.4	69	SW	15	6.7	.....	5c	0	NW	.....	0	0	Fair	
Wood's Holl, Mass.	.....	.....	29.72	754.9	42	5.6	83	SW	6	2.7	.....	.....	10s	.....	.....	0.51	13.0	Cloudy	
Wytheville, Va.	27.66	702.6	29.79	756.7	52	11.1	72	W	6	2.7	.....	10k	0	W	.....	0	0	Cloudy	
Yankton, Dakota	28.70	729.0	30.10	764.5	10	—12.2	68	NW	36	16.1	.....	.....	10n	.....	.....	0.05	1.3	Light snow.	
Yuma, Arizona	.....	.....	30.24	768.1	40	4.4	.....	NE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.01	762.2	78	25.6	90	NE	6	2.7	.....	2k	10ks	W	NE	0.80	20.3	Fair	E Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	29.97	761.2	73	22.8	85	NE	.....	.....	.....	10c	2k	.....	.....	0	0	Cloudy	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	30.23	767.8	67	19.4	68	SSE	1.2	0.5	.....	1k	0	E	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I.	.....	.....	30.24	768.1	75	23.9	81	Calm	0	0	.....	8c	8s	SE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.25	768.3	74	23.3	76	E	10	4.5	.....	5c	8kn	.....	.....	0.72	18.3	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.95	760.7	70	21.1	75	N	6.0	2.7	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
St. Georges, Bermudas	.....	.....	30.34	770.6	59.0	15.0	73	SW	7.0	3.1	.....	0	8fk	.....	.....	0	0	Cloudy	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A.	.....	.....	30.11	764.8	—11.5	—24.2	76	NW	8	3.6	.....	0	Haze	.....	.....	0	0	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.06	763.5	20.0	-- 6.7	100	W	.....	.....	.....	.....	10n	.....	.....	0.12	3.0	Light snow.	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I.	27.28	692.9	30.08	764.0	63	17.2	83	NE	3.0	1.3	.....	.....	10k	.....	.....	2.25	57.1	Raining	C. Patrinque.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A.	25.18	639.5	.....	.....	61.5	16.4	59	.....	0	0	.....	2cs	5s	.....	.....	0.27	6.9	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A.	.....	.....	29.95	760.7	80	26.7	87	NE	.....	.....	2	.....	6cs	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A.	.....	.....	29.99	761.8	78.8	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.728	18.50	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1 ? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.470 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Bric. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 10, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Nemours			29.90	759.5	52.3	11.3	85	Calm			0		10			1.008	25.6	Hidden.	Charnot.
Algiers			29.91	759.8	57.9	14.4	86	WSW			0		10			Inap.	Inap.	Hidden.	Peter.
La Calle																			Kunts.
Tunis																			
Sfax			30.06	763.4	59.7	15.4	68	NE			2		0			0	0	Clear	Jacques.
Saida			30.09	764.2	61.2	16.2	58	S			3		1			0	0		Chauvoy.
Tebessa			29.89	759.2	57.2	14.0	28	SW			3		2			0.394	10.0	Clear	Grosjean.
Geriville			30.04	763.0	50.2	10.1		W			4		2			0	0	Clear	Colin.
Laghouat			29.94	760.4	46.4	8.0	54	SSW			5		2			0	0	Clear	Buard.
Biskra			29.94	760.5	55.4	13.0	45	SW			3		1			0	0	Clear	Simon.
			29.99	761.8	59.7	15.4	33	Calm			0		0			0	0	Clear	Conlon.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			30.26	768.7	19.6	— 6.9	89	SW			2		10			0.106	2.7		Prof. Ivan Stozir.
Buda-Posth																			I. R. Cen. M. I., Hungary
Cracow																			I. R. Observatory.,
Eperies			30.33	770.3	9.0	—12.8	88	NE			1		3			0	0		Julius Mikolik.
Gratz			30.32	770.2	51.4	10.8	72	Calm			0		2			0	0		Andreas Rospini.
Hermannstadt	28.94	735.2	30.25	768.3	20.3	— 6.5	68	SSE			2		10			0	0		Prof. Reissenberger.
Kremsmünster	28.76	730.6	30.28	769.0	30.6	— 1.8	72	SE			5		2			0	0		Dr. T. Stanecki.
Lemberg	28.69	728.6	30.12	765.0	23.9	— 4.5	79	Calm			0		7			0	0		Prof. C. Wagner.
Nyiregyhaza			30.35	770.9	16.3	— 8.7	79	SE			4		3			0.008	0.2		Dr. T. Stanecki.
Pola			30.32	770.1	15.1	— 9.4	94	Calm			0		0			0	0		Habzsuda Daniel.
Szegedin			30.08	764.0	44.2	6.8	85	SE			1		10ks			0.787	20.01		I.R. Hydrographic Of'ce
Trieste			30.31	769.9	17.6	— 8.0	88	SE			1		7			0.148	3.74		Karl Stancel.
Vienna			30.10	764.4	24.6	4.1	79	Calm			0		10			0	0		Prof. V. Farolfi.
			30.21	767.4	19.2	— 7.1	86	SSE			2		1			0	0		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels			30.26	768.5	14.0	— 10.0	100	NE			1		0			0	0		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.47	773.9	35.0	1.7	.....	WNW	12	5.4	.....	.....	6	.....	.....	0	0	*D. clouds	William Boswell.
Ardrossan	.....	.....	30.50	774.7	37	2.8	.....	NNE	.....	.....	1	.....	7	.....	.....	.....	.....	*D. clouds	J. Mayes.
Armagh Observatory	.....	.....	30.53	775.4	33.4	0.8	.....	NE	1	0.4	.....	.....	10	.....	.....	.....	.....	Foggy	S. Cah, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	30.44	773.2	35.0	1.7	.....	NNE	8	3.6	.....	.....	10	.....	.....	.....	.....	Overcast	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.49	774.4	32.5	0.3	.....	NW	.....	.....	1	.....	8	.....	.....	.....	.....	*D. clouds	J. Dreyer.
Bradford	.....	.....	30.37	771.4	36.4	2.4	.....	NE	.....	.....	0	.....	10	.....	.....	0.17	4.3	Drizzling	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	29.97	761.2	79	26.1	.....	NE	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.34	770.6	35.0	1.7	.....	N	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	H. Todd.
Cardington	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John McLaren.
Carlisle	.....	.....	30.45	773.4	35.1	1.7	.....	Calm	.....	.....	0	.....	10	.....	.....	Imp.	Imp.	Overcast	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.31	769.9	34.7	1.5	.....	NE	.....	.....	1	.....	.....	.....	.....	.....	.....	Overcast	Capt. J. Fellowes, R. E.
Dartmoor	28.82	732.0	30.40	772.1	27.6	— 2.4	.....	NE	.....	.....	4	.....	9	.....	.....	.....	.....	Gloomy	R. E. Power.
Donaghadee	.....	.....	30.48	774.2	38	3.3	.....	ESE	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds	J. Mac Gowan.
Dover	.....	.....	30.29	769.4	32	0.0	.....	E	.....	.....	1	.....	7	.....	.....	.....	.....	¾ clouded	J. Costello.
Eccles, (near Manchester)	.....	.....	30.42	772.7	35.3	1.8	.....	E	.....	.....	.....	.....	10	.....	.....	.....	.....	Misty	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.35	770.9	36.2	2.3	.....	NE	20	8.9	.....	.....	10	.....	.....	.....	.....	Overcast	The Staff.
Fort Napier, (Natal)	27.57	700.3	29.84	757.9	77.1	25.1	.....	NE	.....	.....	2	.....	9	.....	.....	.....	.....	Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.94	760.5	85	30.0	.....	N	.....	.....	1	.....	5	.....	.....	.....	.....	Blue sky	(Use
Galway, Queen's College	.....	.....	30.47	773.0	35	1.7	.....	NE	.....	.....	2	.....	2	.....	.....	.....	.....	*D. clouds	B. G. Clare, for Prof. Cur
Gibraltar, (Mediterranean)	.....	.....	29.82	757.4	52.0	11.1	.....	NW	.....	.....	1	.....	7	.....	.....	.....	.....	Raining	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.48	774.2	37.6	3.1	.....	NE	.....	.....	1	.....	9	.....	.....	.....	.....	Threatening	Wm. M. Stewart.
Great Yarmouth	.....	.....	30.31	769.9	35	1.7	.....	NE	.....	.....	4	.....	7	.....	.....	.....	.....	Gloomy	G. T. Watson.
Greenwich Royal Obs.	.....	.....	30.32	770.1	33.8	1.0	.....	N	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	The Staff for G. B. Airy
Guernsey	.....	.....	30.26	768.6	37	2.8	.....	NE	.....	.....	3	.....	8	.....	.....	.....	.....	Overcast	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.45	773.4	35.4	1.9	.....	NNE	.....	.....	1	.....	10	.....	.....	Blank	Blank	Overcast	L. J. Cr sley.
Helston	.....	.....	30.33	770.4	37	2.8	.....	NE	.....	.....	2	.....	8	.....	.....	0	0	Gloomy	M. P. Moyle.
Holyhead	.....	.....	30.43	772.9	38	3.3	.....	ENE	.....	.....	2	.....	10	.....	.....	.....	.....	Misty	John Tilston.
Kew Observatory	.....	.....	30.34	770.6	34.7	1.5	.....	NNE	7	3.1	.....	.....	10	.....	.....	.....	.....	Overcast	The Staff.
Kingstown	.....	.....	30.46	773.7	40	4.4	.....	E	.....	.....	4	.....	10	.....	.....	.....	.....	Gloomy	George Mitchell.
Leicester Museum	.....	.....	30.41	772.1	34.8	1.6	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.12	765.0	63.8	17.7	.....	SW	.....	.....	2	.....	4k	.....	.....	.....	.....	.....	Fred Travis, Pvt A. H. C
Nairn	.....	.....	30.44	773.2	30	1.1	.....	Calm	.....	.....	0	.....	2	.....	.....	.....	.....	¼ clouded	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.26	768.6	70.5	21.4	.....	NE	.....	.....	0	.....	10	.....	.....	.....	.....	Overcast	Surg.-Maj. Henry.
Nottingham	.....	.....	30.41	772.4	34.7	1.5	.....	N	.....	.....	2	.....	10k	.....	N	.....	.....	Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.39	771.9	33.5	0.8	.....	NNE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	30.34	770.6	35	1.7	.....	NE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	J. Lucas.
Plymouth	.....	.....	30.34	770.6	36	2.2	.....	ENE	.....	.....	5	.....	3	.....	.....	.....	.....	*D. clouds	John Merrifield.
Roche's Point	.....	.....	30.42	772.7	38	3.3	.....	NNE	.....	.....	4	.....	8	.....	.....	.....	.....	Cloudy	W. Kennedy.
Saint Ann's Head	.....	.....	30.41	772.4	36	2.2	.....	NE	.....	.....	2	.....	8	.....	.....	.....	.....	Overcast	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.23	767.8	38.6	3.7	.....	E	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast	A. P. Amy.
Sandwick Manse (Orkneys)	.....	.....	30.45	773.4	38.9	3.8	.....	SW	11	4.9	.....	.....	8	.....	.....	.....	.....	.....	Rev. Dr. Clouston
Scarborough	.....	.....	30.39	771.9	37.8	3.2	.....	NE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	F. Shaw.
Scutari Cemetery (Turkey)	.....	.....	30.34	770.6	44.0	6.7	.....	NE	.....	.....	2	.....	9	.....	.....	Blank	Blank	*D. clouds	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.40	772.1	37.0	2.8	.....	NE	.....	.....	1	.....	10	.....	.....	0	0	Overcast	W. F. Cooper.
Silloth Rectory	.....	.....	30.45	773.4	36.7	2.6	.....	N	.....	.....	1	.....	8	.....	.....	0	0	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.43	772.9	35.6	2.0	.....	NE	.....	.....	1	.....	10	.....	.....	Blank	Blank	Gloomy	The Staff.
Stornoway, Lews C. (Hebr)	.....	.....	30.44	773.2	37	2.8	.....	WSW	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky	John Smith.
Stratfield Turgiss	.....	.....	30.36	771.1	33.3	0.7	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	30.44	773.2	29	— 1.7	.....	Calm	.....	.....	0	.....	1	.....	.....	.....	.....	Hazy	John Trotter.
Truro, Royal Institution	.....	.....	30.31	769.9	37	2.7	.....	NE	.....	.....	4	.....	8	.....	.....	.....	.....	Gloomy	W. Newcombe.
Valencia Observatory	.....	.....	30.47	773.9	39.0	3.9	.....	ENE	4	1.8	.....	.....	1	.....	.....	.....	.....	Hazy	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.90	759.4	77.0	25.0	61	S	25	11.2	.....	.....	2	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	33	0.6	.....	NE	.....	.....	3	0	0	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	30.48	774.2	38.5	3.6	.....	NE	.....	.....	1	.....	10k	.....	.....	0.04	1.0	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,391 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.23	767.7	25.2	— 3.8	84	SE	.....	.....	2	.....	10	.....	.....	.....	.....	Snowing	
Faröe	.....	.....	30.25	767.7	24.4	— 4.2	91	E	.....	.....	4	.....	10	.....	.....	.....	.....	Snowing	
Godthaab, (Greenland)	.....	.....	29.34	745.3	22.6	— 5.2	98	NNW	.....	.....	4	.....	10	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.13	747.6	35.8	2.1	84	SW	.....	.....	7	.....	10	.....	.....	.....	.....	Raining	
Thorshavn, (Faröe)	.....	.....	30.23	767.8	42.8	6.0	79	SSW	.....	.....	4	.....	10	.....	.....	.....	.....	Raining	
Vestervig	.....	.....	30.26	768.6	26.2	— 3.2	78	NE	.....	.....	4	.....	10	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.22	767.5	39.2	4	75	NE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	30.28	769.0	23.4	— 4.8	80	NW	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	Normal School.
Avignon	.....	.....	30.07	763.7	35.6	2	64	N	.....	.....	1	.....	0	.....	.....	0.016	0.4	Clear.....	Normal School.
Bar-sur-Seine	.....	.....	30.19	766.9	21.2	— 6.0	.....	SW	.....	.....	2	.....	10	.....	.....	0	0	Foggy	G. Saillard.
Beaumette, (near Angers)	.....	.....	30.17	766.4	31.5	— 0.3	73	NE	14.3	6.4	.....	.....	.....	.....	NE	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	30.29	769.3	29.7	— 6.3	.....	N	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Besançon	.....	.....	30.18	766.5	26.8	— 2.9	.....	WSW	.....	.....	2	.....	10	.....	W	0	0	Covered	Normal School.
Bourg en Bresse	.....	.....	30.18	766.5	28.8	— 1.8	94	W	.....	.....	2	.....	10n	.....	E	0	0	Covered	Normal School.
Bourges	.....	.....	30.23	767.8	28.9	— 7	84	E	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Brest	.....	.....	30.18	766.5	38.3	3.5	93	NE	.....	.....	3	.....	10	.....	NE	0	0	Covered	Naval Observatory.
Caen	.....	.....	30.25	768.3	30.5	2.5	90	NE	.....	.....	2	.....	10	.....	NE	0	0	Covered	Normal School.
Chartres	.....	.....	30.20	767.1	22.3	— 5.4	.....	N	.....	.....	2	.....	3	.....	NE	0	0	.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.13	765.2	29.1	— 1.6	79	E	.....	.....	1	.....	10	.....	.....	0	0	Covered	Puy de Dome, Obs.
Commercy	.....	.....	30.18	766.6	23.2	— 4.7	90	ENE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Commune de Gréasque*	.....	.....	30.02	762.5	45.9	7.7	76	NW	.....	.....	2	.....	10	.....	SW	0.236	6.0	½ covered..	
Grenoble	.....	.....	30.08	763.9	35.2	1.8	80	NW	.....	.....	2	.....	2ck	.....	S	0	0	Clear.....	Normal School.
Le Mans	.....	.....	30.22	767.6	27.7	— 2.4	70	NE	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lons-Le-Saulnier	.....	.....	30.17	766.3	29.5	— 1.4	76	W	.....	.....	2	.....	10	.....	.....	0	0	Snowing.....	Normal School.
Mâcon	.....	.....	30.05	763.2	27.5	— 2.5	.....	W	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.10	764.5	30.7	— 0.7	76	SSW	.....	.....	1	.....	1	.....	NW	0	0	Clear.....	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Nismes	.....	.....	30.05	763.3	36.7	2.6	75	NE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Orleans	.....	.....	30.19	766.9	21.9	— 5.6	100	NE	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	Normal School.
Paris Observatory	.....	.....	30.24	768.2	20.8	— 6.2	50	NE	.....	.....	2	.....	0?	.....	.....	0	0	Misty?..	National Observatory
Parthenay	.....	.....	30.17	766.3	29.3	— 1.5	100	NE	.....	.....	4	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30.16	766.0	30.0	— 1.1	.....	N	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	30.11	764.8	36.7	2.6	97	NE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Rochefort, Observatory	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Rouen	.....	.....	30.10	766.0	31.6	— 0.2	95	E	.....	.....	3	.....	.....	.....	SW	0	0	Misty.....	Naval Observatory.
Saint Lo	.....	.....	30.29	769.4	26.1	— 3.3	53	N	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Tarbes	.....	.....	30.29	769.4	30.6	— 0.8	100	E	.....	.....	1	.....	9	.....	E	0	0	.....	Normal School.
Toulouse	.....	.....	30.08	764.1	48.2	9	72	NE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Villefranche	.....	.....	30.13	765.3	31.3	— 0.4	85	N	.....	.....	2	.....	0	.....	.....	.....	.....	Clear.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	30.22	767.6	30.0	— 1.1	72	SE	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Marseilles	.....	.....	29.91	759.6	74.1	23.4	83	NE	.....	.....	2	.....	8kn?	.....	.....	0.43	11.	.....	L'Abbé Marchési.
Mont-Louis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Montsouris, Paris	24.67	626.5	30.09	762.1	45.3	7.4	80	W	.....	.....	1	.....	2	.....	.....	0.236	6.0	.....	Marseilles Observatory
Perpignan	.....	.....	30.11	764.7	29.5	— 1.4	88	ESE	3.7	1.67	.....	.....	0	.....	.....	0	0	.....	—. Falguère.
Pic du Midi, (Summit) H. P.	.....	.....	30.21	767.3	20.5	— 6.4	89	N	.....	.....	4	.....	0	.....	.....	0	0	.....	Montsouris Observ'tory
Saint Maur, (near Paris)	21.13	536.8	30.05	763.2	40	4.8	46	SE	3.7	1.67	.....	.....	1	.....	.....	0	0	.....	Dr. Fines.
Toulouse	.....	.....	.....	.....	19.4	— 7.0	.....	N	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	M. Baylac.
Tours	.....	.....	30.23	767.7	22.1	— 5.5	72	N	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	E. Renou.
Versailles, (near Paris)	.....	.....	30.08	764.0	28.4	— 2.0	100	ENE	.....	.....	1	.....	10	.....	.....	0	0	.....	Toulouse Observatory.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.17	766.4	27.7	— 2.4	.....	NE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	C. Marquet.
.....	.....	.....	30.21	767.4	23.7	— 4.6	67	NE	.....	.....	1	.....	0	.....	.....	0	0	Very clear...	Dr. A. Bérigny.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,6[illegible]0 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,702.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Stations.																			
Bamberg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Berlin	.....	.....	29.93	760.3	20.1	— 6.6	84	E	.....	.....	3	.....	3	.....	.....	0	0	.....	Prof. T. Hoh.
Breslau	.....	.....	30.23	767.9	16.7	— 8.5	82	N	.....	.....	2	.....	2	.....	.....	0	0	.....	Prof. Arndt.
Carlsruhe	.....	.....	30.22	767.6	29.5	— 1.4	71	S	.....	.....	3	.....	1	.....	.....	0	0	.....	Dr. P. Neugebauer
Cassel	.....	.....	30.17	766.2	19.4	— 7.0	71	NW	.....	.....	2	.....	0	.....	.....	0	0	.....	A. Senz.
Cologne	.....	.....	30.11	764.9	17.1	— 8.3	61	N	.....	.....	2	.....	0	.....	.....	0	0	.....	Dr. H. Möhl.
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Frankfort on the Main	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Friedrichshafen	.....	.....	30.20	769.3	17.1	— 8.3	76	NE	.....	.....	2	.....	1	.....	.....	0	0	.....	Physical Society.
Hamburg	.....	.....	30.15	765.7	24.5	— 4.0	73	N	.....	.....	.....	.....	7	.....	.....	0	0	.....	M. Wilhelm.
Kiel	.....	.....	30.24	768.2	16.2	— 8.8	85	Calm	.....	.....	0	.....	3	.....	.....	0	0	Smoke-haze.	Deutsche Seewarte.
Königsberg	.....	.....	30.28	769.1	23.2	— 4.9	82	E	.....	.....	2	.....	10	.....	.....	0.020	0.5	.....	Prof. G. Karsten.
Kosmin	.....	.....	30.40	772.1	15.6	— 9.1	67	E	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. E. Luther.
Leipsic	.....	.....	30.24	768.1	18.7	— 7.4	.....	SE	.....	.....	1	.....	2	.....	.....	0	0	.....	H. Müller.
Münster	.....	.....	30.26	768.6	7.2	—13.8	83	NW	.....	.....	3	.....	6	.....	.....	0	0	.....	Prof. Brühns.
Posen	.....	.....	30.21	767.2	18.9	— 7.3	99	N	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. E. Heis.
Strassburg, (in Alsace)	.....	.....	30.17	766.2	17.8	— 7.9	82	E	.....	.....	5	.....	0	.....	.....	0	0	.....	Dr. Magener.
Stuttgart	.....	.....	30.19	766.9	19.6	— 6.9	86	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	Dr. Schur.
Thorn	.....	.....	30.16	766.0	20.3	— 6.5	70	N	.....	.....	.....	.....	0	.....	.....	0	0	.....	Mr. Würth.
Treves, (Trier)	.....	.....	30.29	769.3	18.5	— 7.5	76	NE	.....	.....	4	.....	1	.....	.....	Inap.	Inap.	.....	Dr Hasenbalg.
Wustrow, Naval School	.....	.....	30.12	765.0	21.4	— 5.9	78	E	.....	.....	5	.....	0	.....	.....	0	0	.....	Prof. Fesch.
	.....	.....	30.26	768.6	15.1	— 9.4	93	SE	.....	.....	1	.....	0	.....	.....	0	0	.....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.																			
Athens	.....	.....	30.35	770.9	46.0	7.8	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Cloudy.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	30.08	764.1	33.8	1.0	83	NE	.....	.....	2	.....	10	.....	.....	0	0	Light rain....	
Padua	.....	.....	30.08	764.0	32.9	0.5	92	N	7.4	3.3	.....	.....	10	.....	.....	0	0	Light rian...	
Verona	.....	.....	30.06	763.4	36.1	2.3	80	E	.....	.....	1	.....	10	.....	.....	0	0	.....	
Bergamo	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Milan	.....	.....	30.14	765.6	35.4	1.9	86?	E	.....	.....	1	.....	.....	.....	.....	0	0	Thick fog....	
Moncalieri	.....	.....	30.12	765.0	35.4	1.9	93	NNE	1.8	0.8	.....	.....	10	.....	.....	0	0	Snowing.....	
Mondovi	.....	.....	30.10	764.5	32.9	0.5	89	NW	.....	.....	2	.....	10	.....	.....	Blank	Blank	.....	
Porto Maurizio	.....	.....	30.04	763.0	47.8	8.8	.....	E	.....	.....	6	.....	1	.....	.....	0.209	5.3	.....	
Genoa	.....	.....	30.04	762.9	43.2	6.2	63	N	4.9	2.2	.....	.....	10	NE	.....	0.177	4.5	Snowing...	
Piacenza	.....	.....	30.11	764.9	34.0	1.1	91	NW	6.9	3.1	.....	.....	10	.....	.....	Blank	Blank	.....	
Bologna	.....	.....	30.10	764.5	35.4	1.9	40	W	.....	.....	1	.....	10	.....	.....	0	0	.....	
Florence	.....	.....	30.02	762.4	45.1	7.3	74	SE	.....	.....	4	.....	10	SW	.....	0	0	.....	
Leghorn	.....	.....	30.00	762.1	44.6	7.0	75	ENE	8.1	3.6	.....	.....	10	.....	.....	0	0	.....	
Siena	.....	.....	30.05	763.2	37.8	3.2	97	SE	3.8	1.7	.....	.....	10	S	.....	0.260	6.6	Raining.....	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	30.09	764.2	36.0	2.3	81	SW	.....	.....	1	.....	10	.....	.....	0	0	.....	
Ancona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Rome	.....	.....	30.07	763.8	47.5	8.6	83	ESE	11.2	5.0	.....	.....	9	.....	.....	0	0	.....	
Naples, O. U	.....	.....	30.12	765.1	55.0	12.8	61	SW	.....	.....	4	.....	10	SW	.....	0.047	1.2	.....	
Lecce	.....	.....	30.20	767.0	54.3	12.4	81	SE	16.1	7.2	.....	.....	7	S	.....	0	0	.....	
Cosenza	.....	.....	30.19	766.9	49.3	9.6	76	SE	.....	.....	1	.....	0	.....	.....	0	0	.....	
Riposto, (Sicily)	.....	.....	30.13	765.4	55.8	13.2	91	E	.....	.....	2	.....	4	SE	.....	0.126	3.2	.....	
Palermo	.....	.....	30.05	763.3	55.6	13.1	66	NE	4.9	2.2	.....	.....	1	.....	.....	0	0	.....	
Caltanissetta	.....	.....	30.09	764.2	53.6	12.0	83	SSW	.....	.....	2	.....	0	NNE	.....	0	0	.....	
Sub-Series.																			
Naples, S. R	.....	.....	30.14	765.6	52.9	11.6	69	SW	.....	.....	4	.....	..c	W	.....	0.319	8.1	.....	Prof. F. Brioschi.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	30.32	770.0	24.8	— 4.0	.....	NE	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	30.21	767.4	21.4	— 5.9	.....	ESE	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	30.26	768.6	23.4	— 4.8	.....	SSW	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	30.22	767.5	20.3	— 6.5	78	ENE	.....	.....	2	.....	5	.....	.....	.....	.....	Cloudy.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	30.36	771.2	29.5	— 1.4	96	SSE	8.5	3.8	.....	.....	0	.....	.....	0	0	.....	
Brönö	.....	.....	30.37	771.4	34.5	1.4	62	Calm	0	0	.....	.....	4	.....	.....	0	0	.....	
Christiania	.....	.....	30.43	773.0	13.1	—10.5	86	N	0.2	0.1	.....	.....	0	.....	.....	0	0	.....	
Tromsö	.....	.....	30.09	764.2	25.9	— 3.4	95	NNE	7	3	.....	.....	10	.....	.....	0.209	5.3	Snowing.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.37	771.5	54.7	12.6	83	E	7.3	3.28	.....	.....	5	.....	.....	0.016	0.4	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.87	758.6	39.2	4.0	93	N	12.9	5.75	.....	.....	10	SE	.....	0.170	4.33	Raining.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.05	763.3	60.3	15.7	54	NE	2.0	0.90	.....	.....	2	.....	.....	0.453	11.5	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	29.91	759.7	43.9	6.6	67	N	15.0	6.7	.....	.....	3	.....	.....	0.228	5.8	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.31	770.0	10.3	— 8.7	85	E	10	7	.....	.....	5	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.56	776.1	13.1	—10.5	57	SE	4	2	.....	.....	1	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.59	777.0	1.6	—16.9	88	SSE	2	1	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.47	774.0	1.6	—16.9	88	SSW	2	1	.....	.....	2	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	30.24	768.2	4.6	—15.2	100	W	.....	.....	.....	.....	8	.....	ESE	0	0	.....	Ch. Forsten.
Kieff	.....	.....	30.01	777.4	12.2	—11.0	86	Calm	0	0	.....	.....	3	.....	.....	.....	.....	Smoke-haze	Physical Cabinet.
Nikolaiev	.....	.....	30.05	778.4	17.6	— 8.0	65	NNW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Kurdukof.
Kerteh	.....	.....	30.55	776.0	18.9	— 7.3	75	NNE	4	2	.....	.....	5	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.63	777.9	10.9	—11.7	89	NW	11	5	.....	.....	6	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.54	775.8	7.2	—13.8	83	NE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.78	756.3	11.1	—11.0	93	SW	22	10	.....	.....	0	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	29.10	739.2	30.03	778.0	28.0	— 5.0	81	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.76	781.2	4.3	—15.4	90	NW	2	1	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.42	772.6	21.2	— 6.0	93	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischof.
Ekaterinburg	29.09	738.8	30.15	765.9	21.6	— 5.8	93	SW	20	9	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.44	773.2	1.2	—17.1	69	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.82	732.0	30.76	781.2	3.9	—15.6	90	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.67	778.9	—22.5	—30.3	70	Calm	0	0	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.10	764.6	— 2.0	—18.9	95	SE	2	1	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.56	776.1	20.3	— 6.5	30	N	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	28.25	717.6	30.58	776.8	— 8.0	—22.2	75	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.42	772.7	— 2.4	—19.1	87	NW	7	5	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—16.4	—26.9	.....	NW	13	6	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 300.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.97	761.2	34.0	1.1	81	NE	11.2	5.0	.....	.....	10	.....	.....	0.165	4.2	Covered	Royal Observatory.
San Fernando	.....	.....	29.87	758.6	49.3	9.6	81	WNW	2.9	1.3	.....	3	3	E	E	0.150	3.8	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.10	764.5	19.4	— 7.0	94	W	.....	.....	4	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.30	769.6	21.2	— 6.0	95	NW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	30.39	771.8	1.8	—16.8	90	N	.....	.....	2	.....	0	.....	.....	0	0	.....	
Stockholm	.....	.....	30.38	771.6	20.7	— 6.3	95	E	.....	.....	2	.....	10	.....	.....	0.008	0.2	.....	
Wisby	.....	.....	30.44	773.1	24.4	— 4.2	95	SE	.....	.....	4	.....	5	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.44	773.1	18.7	— 7.4	100	NNW	2.5	1.1	.....	.....	10	.....	.....	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.62	726.9	30.12	765.1	29.3	— 1.5	83	SSE			1		10			0	0	Foggy	The Observatory.
Zurich	28.40	721.4	30.15	765 8	23.5	— 4.7	89	NW			1		8			0	0	Cloudy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.8 mm.; Thermometer, —2.8 cent.; Relative Humidity, +3 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Courmbary, Effendi, Director of the Imperial Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Constantinople			30.37	771.4	41.9	5.5	69	NE	11	5.0			10		NE	0	0		
Fao, (Persian Gulf)			30.25	768.3	57.2	14.0		N			1		10						
Salonica			30.71	779.9	46.8	8.2		NW			2		8						
Valona			30.05	763.2	56.8	13.8		SW			1		2						
Varna			30.35	771.0	28.4	— 2.0		NW			2		10						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			30.08	763.9	64.8	18.2	45	NE			1		3ks		SW	0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Bathurst, N. B.			29.55	750.6	16.6	— 8.5	93	Calm	0	0						0.50	12.7		Hon. J. Ferguson.
Brockville, Ontario			29.52	749.8	31	— 0.6		W	20	8.9			10s		W	0.23	5.8	Cloudy	W. R. Bigg.
*Chatham, N. B.			29.59	751.6	18	— 7.8	94	N	3	1.3			10s		N	0.20	5.1	Cloudy	G. A. Blair.
Charlottetown, P. E. Island.			29.66	753.4	20	— 1.7	97	SE	13	5.8			10n			0.15	3.8	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario			29.37	746.0	31.7	— 0.2	84	W			6	10k				0.403	10.24	Stormy	James Smith, M. A.
Dalhousie, N. B.			29.57	751.1	15.0	— 9.4	100	E					10n			0	0	Cloudy	H. A. Johnson.
Esquimault, B. C.			30.47	773.9	34.1	1.2	91	N	3	1.3		2ck		N		0	0	Clear	W. H. Bevis.
Fredericton, N. B.			29.50	749.3	17.3	— 8.2	98	E	4	1.8			10n			0.210	5.33	Snowing	Prof. Harrison.
*Fort Garry, Manitoba			30.49	774.4	—20	—28.9	100	W	3	1.3		0	0			0	0	Clear	James Stewart.
Goderich, Ontario			29.88	758.9	14.9	— 9.5	77	NW			5		10n			0.331*	8.41*	Threatening	H. J. Strang, M. A.
Granton, Ontario			29.86	758.4	11.6	—11.3					5		10n			0	0	Cloudy	James Grant.
*Halifax, N. S.			29.66	753.4	31	— 0.6	94	SE	13	5.8			Fog			0.03	0.8	Foggy	F. Allison, M. A.
*Kingston, Ontario			29.55	750.6	31	— 0.4	89	W	17	7.6			8ks		W	0.33	8.4	Cloudy	S. Woods, M. A.
Little Current, Ontario			29.64	752.8	5.1	—14.9		NW	20	8.9		0	2s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			29.31	744.5	35	1.7	65	SW	32	14.3		5s	8ks	W	W	0.48	12.2	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario			29.35	745.5	32	0.0	81	W	24	10.7			10ks		W	0.03	0.8	Cloudy	J. B. Haney.
*Parry Sound, Ontario			29.62	752.3	15	— 9.4	82	W	40	17.9		2ck	2ks	W	W	0.33	8.4	Fair	Rev. R. Mooley.
*Port Dover, Ontario			29.84	757.9	19	— 7.2	69	W	26	11.6			10n		W	0.56	14.2	Threatening	H. Morgan.
Port Hastings, N. S.			29.59	751.6	26.2	— 5.2		SE	25	11.2						0.60	15.2	Stormy	Peter Grant.
*Port Stanley Ontario			29.94	760.5	14	—10.0	67	W	36	16.1		2k	0	W		0.38	9.7	Clear	M. Payne.
*Quebec, Quebec			29.25	742.9	23	— 5.0	100	NE	20	8.9			10n		NE	0.10	2.5	Heavy snow	Capt. Ash, R. N.
St. John, N. B.			29.46	748.3	30.0	— 1.1	95	E			4		10n			0.700	17.78		G. Murdoch, C. E.
*Saugeen, Ontario			29.77	756.1	15	— 9.4	86	NW	22	9.8			10n		W	0.29	7.4	Cloudy	K. Stewart.
Stayner, Ontario			29.72	754.9	15	— 9.4	91	NW	13	5.8			8n		NW	0.40	10.2	Light snow	R. J. Cole.
Stratford, Ontario			29.82	757.4	15.2	— 9.3	66	W	26	11.6			10n			0.272	6.91	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			29.81	757.2	29	— 1.7	96	E	6	2.7			10n			0.48	12.2	Cloudy	T. C. Hill.
*Toronto, Ontario			29.71	754.6	24	— 4.4	67	W	29	13.0			10n		W	0.09	2.3	Light snow	Magnetic Observatory.
Woodstock, Ontario			29.93	760.2	13.6	—10.2	100	W	2	0.9		0	5s			0.20	5.1	Fine	J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m. * Rain-fall for past 48 hours.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.50	749.3	39	3.9	81	W	30	13.4	.....	2k	10s	NW	NW	0.20	5.1	Cloudy.	
Alpena, Mich.	.....	.....	29.76	755.9	9	—12.8	78	NW	24	10.7	.....	Haze	5s	.....	NW	0.35	8.9	Fair.	
Atlantic City, N. J.	.....	.....	29.62	752.3	55	12.8	68	SW	13	5.8	.....	.....	10s	.....	SW	0	0	Cloudy.	
Augusta, Ga.	.....	.....	30.12	765.0	54	12.2	93	SW	5	2.2	.....	.....	10n	.....	SW	0.02	0.5	Light rain.	
Baltimore, Md.	.....	.....	29.73	755.1	40	0.4	32	NW	20	8.9	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.	
Barnegat, N. J.	.....	.....	29.55	750.6	55	12.8	68	W	22	9.8	.....	.....	10s	.....	W	0	0	Cloudy.	
Benton, Montana	27.38	695.4	30.18	766.6	—13	—25.0	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Bismarck, Dakota	28.55	725.2	30.49	749.0	—15	—26.1	42	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Boston, Mass.	.....	.....	29.32	744.7	51	10.6	86	SW	18	8.0	.....	.....	10s	.....	SW	0.33	8.4	Cloudy.	
Breckenridge, Minn	.....	.....	30.54	775.7	—17	—27.2	69	W	9	4.0	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
Buffalo, N. Y.	.....	.....	29.72	754.9	24	— 4.4	76	W	40	17.9	.....	.....	10ks	.....	SW	0.56	14.2	Cloudy.	
Burlington, Vt.	.....	.....	29.39	746.5	41	5.0	82	W	12	5.4	.....	2k	5s	W	.....	0.15	3.8	Cloudy.	
Cairo, Ill.	.....	.....	30.51	774.9	20	— 6.7	55	NW	16	7.2	.....	0	2s	.....	.....	0.40	10.2	Fair.	
Cape Hatteras, N. C.	.....	.....	29.88	758.9	62	16.7	77	SW	33	14.8	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy.	
Cape Henry, Va.	.....	.....	29.81	757.2	61	16.1	71	SW	20	8.9	.....	.....	10s	.....	W	0.01	0.2	Cloudy.	
Cape May, N. J.	.....	.....	29.64	752.8	51	10.6	86	W	16	7.2	.....	.....	10ks	.....	W	0	0	Cloudy.	
Charleston, S. C.	.....	.....	30.09	764.3	61	16.1	70	SW	12	5.4	.....	.....	10s	.....	SW	0	0	Cloudy.	
Cheyenne, Wyoming	24.10	612.1	30.04	763.0	12	—11.1	79	S	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Chicago, Ill.	.....	.....	30.29	769.4	5	—15.0	75	W	14	6.3	.....	0	0	.....	.....	0.28	7.1	Clear.	
Cincinnati, Ohio	.....	.....	30.25	768.3	20	— 6.7	55	W	10	4.5	.....	0	2s	.....	W	0.72	18.3	Clear.	
Cleveland, Ohio	.....	.....	30.05	763.3	13.5	—10.3	94	SW	26	11.6	.....	.....	10n	.....	NW	0.57	14.5	Light snow.	
Colorado Springs, Col.	24.16	613.6	30.03	762.7	10	—12.2	58	N	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Corsicana, Tex.	.....	.....	30.42	772.7	34	1.1	52	NE	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Davenport, Iowa	.....	.....	30.45	773.4	3	—16.1	86	NW	16	7.2	.....	0	5ks	.....	NW	0.09	2.3	Fair.	
Denison, Tex.	.....	.....	30.54	775.7	28	— 2.2	59	NE	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Denver, Col.	24.94	633.5	30.16	766.1	16	— 8.9	33	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	.....	.....	30.00	762.0	11	—11.7	79	W	20	8.9	.....	.....	10n	.....	W	0.45	11.4	Light snow.	
Dodge City, Kan.	27.77	705.4	30.31	769.9	12	—11.1	71	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	30.41	772.4	2	—16.7	44	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Duluth, Minn.	.....	.....	30.37	771.4	— 6	—21.1	61	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Eastport, Me.	.....	.....	29.40	746.7	33	0.6	100	SE	22	9.8	.....	.....	10n	.....	SE	0.15	3.8	Light rain.	
Erie, Pa.	.....	.....	29.87	758.7	18	— 7.8	100	W	42	18.8	.....	.....	10n	.....	.....	1.22	31.0	Light snow.	
Escanaba, Mich.	.....	.....	30.01	762.0	3	—16.1	73	W	18	8.0	.....	.....	10s	.....	NW	0.07	1.8	Cloudy.	
Fort Gibson, Indian Terr.	.....	.....	30.09	764.5	23	— 5.0	60	N	6	2.7	.....	10cs	0	.....	.....	0	0	Cloudy.	
Fort Sill, Indian T.	.....	.....	30.09	777.2	23	— 5.0	60	N	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.	
Fort Sully, Dakota	29.26	743.2	30.47	773.9	25	— 3.9	63	N	16	7.2	.....	.....	10s	.....	N	0	0	Cloudy.	
Galveston, Tex.	28.67	728.2	30.01	777.5	— 7	—21.7	80	N	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Grand Haven, Mich.	.....	.....	30.27	768.8	53	11.7	60	N	22	9.8	.....	.....	10s	.....	N	0.25	6.3	Cloudy.	
Indianapolis, Ind.	.....	.....	30.13	765.3	11	—11.7	79	NW	32	14.3	.....	.....	10n	.....	NW	0.33	8.4	Light snow.	
Indianola, Tex.	.....	.....	30.28	769.1	15	— 9.4	82	W	14	6.3	.....	0	5s	.....	W	0.74	18.8	Fair.	
Jacksonville, Fla.	.....	.....	30.30	769.6	40	7.8	85	N	36	16.1	.....	.....	10s	.....	.....	0.01	0.3	Cloudy.	
Keeknk, Iowa	.....	.....	30.19	766.8	60	15.6	76	SW	14	6.3	.....	5c	0	S	.....	0	0	Fair.	
Key West, Fla.	.....	.....	30.47	773.9	12	—11.1	80	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Kittyhawk, N. C.	.....	.....	30.23	767.8	70.6	21.4	62	SE	5	2.2	.....	10k	0	SE	.....	0	0	Cloudy.	
Knoxville, Tenn.	.....	.....	29.90	759.4	58	14.4	88	NW	10	4.5	.....	.....	10n	.....	.....	0	0	Light rain.	
La Crosse, Wis.	.....	.....	30.26	768.6	33	0.6	50	NW	14	6.3	.....	.....	10ks	.....	NW	0.46	11.7	Cloudy.	
Leavenworth, Kan.	.....	.....	30.45	773.4	— 4	—20.0	64	NW	3	1.3	.....	0	0	.....	.....	0.41	10.4	Clear.	
Lexington, Ky.	.....	.....	30.60	777.2	14	—10.0	80	NW	6	2.7	.....	0	0	.....	.....	0.01	0.3	Clear.	
Long Branch, N. J.	29.16	740.7	30.35	770.9	22	— 5.6	59	SW	20	8.9	.....	.....	10s	.....	.....	0.40	10.2	Cloudy.	
Louisville, Ky.	.....	.....	29.53	750.0	53	11.7	67	W	40	17.9	.....	10cs	0	W	.....	0	0	Cloudy.	
Lynchburg, Va.	.....	.....	30.36	771.1	19	— 7.2	69	NW	12	5.4	.....	0	2s	.....	NW	0.67	17.0	Clear.	
Malone, N. Y.	.....	.....	29.88	758.9	48	8.9	89	SW	12	5.4	.....	.....	10s	.....	W	0	0	Cloudy.	
Marquette, Mich.	.....	.....	29.30	745.7	34	1.1	69	SW	26	11.6	.....	.....	10ks	.....	SW	0.30	7.6	Cloudy.	
Memphis, Tenn.	.....	.....	29.97	761.2	6	—14.4	88	W	20	8.9	.....	.....	10s	.....	NW	0.09	2.3	Cloudy.	
Milwaukee, Wis.	.....	.....	30.50	774.7	20	— 1.7	67	NW	16	7.2	.....	.....	10s	.....	.....	0.31	7.9	Cloudy.	
Mobile, Ala.	.....	.....	30.19	766.8	— 4	—20.0	64	NW	30	13.4	.....	0	0	.....	.....	0.47	11.9	Clear.	
Montgomery, Ala.	.....	.....	30.24	768.1	56	13.3	93	N	10	4.5	.....	.....	10s	.....	N	0.19	4.8	Cloudy.	
Morgantown, W. Va.	.....	.....	30.28	769.1	50	10.0	82	NW	9	4.0	.....	10cs	0	W	.....	0.17	4.3	Cloudy.	
Mt. Washington, N. H.	23.03	585.0	30.01	762.2	29	— 1.7	59	SW	23	10.3	.....	0	8s	.....	SW	0.21	5.3	Fair.	
Nashville, Tenn.	.....	.....	29.39	746.5	31	— 0.6	100	N	40	17.9	.....	.....	Fog	.....	.....	0.05	1.3	Foggy.	
New Haven, Conn.	.....	.....	30.41	772.4	28	— 2.2	67	NW	8	3.6	.....	.....	10s	.....	NW	0.39	9.9	Cloudy.	
New London, Conn.	.....	.....	29.44	747.8	51	10.6	78	W	18	8.0	.....	.....	10s	.....	W	0.07	1.8	Cloudy.	
New Orleans, La.	.....	.....	29.44	747.8	48	8.9	.....	SW	11	4.9	.....	.....	10s	.....	SW	0.07	1.8	Cloudy.	
Newport, R. I.	.....	.....	30.25	768.3	59	15.0	76	N	12	5.4	.....	.....	10s	.....	N	0.16	4.1	Cloudy.	
New York, N. Y.	.....	.....	29.42	747.3	45	7.2	92	SW	16	7.2	.....	.....	10s	.....	SW	0.06	1.5	Cloudy.	
Norfolk, Va.	.....	.....	29.53	750.0	53	11.7	43	W	44	19.7	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy.	
North Platte, Neb.	.....	.....	29.82	757.4	59	15.0	76	SW	15	6.7	.....	.....	10s	.....	SW	Inap.	Inap.	Cloudy.	
Omaha, Neb.	27.36	694.9	30.26	768.6	1	—17.2	71	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Oswego, N. Y.	29.37	746.0	30.59	777.0	3	—16.1	86	NW	4	1.8	.....	0	0	.....	.....	0.03	0.8	Clear.	
Peck's Bench, N. J.	.....	.....	29.59	751.6	32.3	0.2	84	W	34	15.2	.....	.....	10s	.....	W	0.53	13.5	Threatening.	
Pembina, Dakota	.....	.....	29.63	752.6	53	11.7	73	W	28	12.5	.....	.....	10s	.....	.....	0	0	Cloudy.	
Philadelphia, Penn.	.....	.....	30.53	775.4	—23	—30.6	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Pike's Peak, Colorado	.....	.....	29.65	753.1	50	10.0	39	NW	30	13.4	.....	5ck	5s	W	W	0	0	Cloudy.	
Pittsburgh, Penn.	17.59	446.8	29.80	756.9	2	—16.7	44	W	28	12.5	.....	0	0	.....	.....	0	0	Clear.	
Port Huron, Mich.	.....	.....	29.97	761.2	24	— 4.4	74	W	12	5.4	.....	2k	0	NW	.....	0.73	18.5	Fair.	
Portland, Me.	.....	.....	29.95	760.7	10	—12.2	58	W	28	12.5	.....	.....	10s	.....	W	0.21	5.3	Cloudy.	
Portland, Oregon	.....	.....	29.30	744.2	41	5.0	91	SW	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy.	
Punta Rassa, Fla.	.....	.....	30.46	773.7	36	2.2	62	E	6	2.7	.....	0	0	.....	.....	0.12	3.0	Clear.	
Rochester, N. Y.	.....	.....	30.27	768.8	64.7	18.1	68	NE	8	3.6	.....	.....	10ks	.....	SE	0	0	Cloudy.	
Salt Lake City, Utah	.....	.....	29.62	752.3	27	— 2.8	.....	W	36	16.1	.....	.....	10s	.....	W	0.68	17.3	Threatening.	
Sandy Hook, N. J.	25.90	657.8	30.22	767.6	20	— 6.7	85	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
San Diego, Cal.	.....	.....	29.52	749.8	49	9.4	57	W	36	16.1	.....	8k	0	W	.....	0	0	Cloudy.	
San Francisco, Cal.	.....	.....	30.12	765.0	44	6.7	92	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Santa Fe, N. M.	.....	.....	30.10	764.5	48	8.9	63	NE	12	5.4	.....	5c	0	.....	.....	0	0	Fair.	
Savannah, Ga.	23.32	592.3	29.86	758.4	18	— 7.8	68	NE	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Shreveport, La.	.....	.....	30.13	765.3	60	15.6	70	SW	8	3.6	.....	.....	10s	.....	W	0	0	Cloudy.	
Smithville, N. C.	.....	.....	30.50	774.7	38	3.3	63	N	7	3.1	.....	8cs	0s	W	N	0.67	17.0	Cloudy.	
Springfield, Mass.	.....	.....	30.04	763.0	60	15.6	81	SW	26	11.6	.....	.....	10ks	.....	W	0	0	Cloudy.	
St. Louis, Mo.	.....	.....	29.41	747.8	44.5	6.4	67	NW	20	8.9	.....	.....	1 s	.....	W	0.38	9.7	Threatening.	
St. Marks, Fla.	.....	.....	30.48	774.2	17	— 8.3	67	W	12	5.4	.....	.....	0	.....	.....	0.09	2.3	Clear.	
St. Paul, Minn.	.....	.....	30.18	766.6	64	17.8	94	SW	6	2.7	.....	2k	5s	W	SW	0	0	Cloudy.	
St. Paul's Island, Alaska	.....	.....	30.43	772.9	— 6	—21.1	59	W	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Squan Beach, N. J.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Thatcher's Island, Mass.	.....	.....	29.51	749.5	56	13.3	39	W	38	17.0	.....	.....	10k	.....	W	0	0	Cloudy.	
Toledo, Ohio	.....	.....	29.34	745.2	42	5.6	91	W	13	5.8	.....	.....	10s	.....	NW	0.39	9.9	Cloudy.	
Tucson, Arizona	.....	.....	30.01	763.0	16	— 8.9	66	W	24	10.7	.....	.....	10s	.....	W	0.51	12.7	Cloud.	
Tybee Island, Ga.	27.62	701.5	30.03	762.7	47	4.4	.....	S	.....	.....	.....	.....	1 s	.....	.....	0	0	Cloudy.	
Vicksburg, Miss.	.....	.....	30.11	764.8	59	15.0	81	SW	6	2.7	.....	2k	8ks	SW	W	0	0	Cloudy.	
	.....	.....	30.47	773.9	39.6	4.2	48	N	7	3.1	.....	10k	2s	W	.....	0.23	5.8	Cloudy.	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.43	620.5	29.91	759.7	9	—12.8	78	SE	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Washington, D. C	.....	.....	29.78	756.4	49	9.4	37	NW	20	8.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Wilmington, N. C	.....	.....	30.02	762.5	61	16.1	70	SW	17	7.6	.....	.....	10s	.....	W	0	0	Cloudy	
Wood's Holl, Mass	.....	.....	29.42	747.3	46	7.8	84	W	20	8.9	.....	.....	10s	.....	W	0	0	Cloudy	
Wytheville, Va	27.61	701.3	29.82	757.4	34	1.1	61	W	10	4.5	.....	10k	0	W	.....	0.18	4.6	Cloudy	
Yankton, Dakota	29.19	741.4	30.70	779.8	— 8	—22.2	58	NW	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.12	765.0	47	8.3	.....	NW	.....	.....	.....	2c	0	W	.....	0	0	Fair	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	29.99	761.7	78	25.6	95	E	4	1.8	.....	.....	5ks	.....	NE	0.10	2.5	Light rain	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.02	762.5	75	23.9	85	NE	.....	.....	.....	2c	5k	.....	.....	0.10	4.8	Clear	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	30.17	766.3	64	17.8	78	E	0.6	0.3	.....	0	0	.....	.....	0	0	Clear	Charles Hasselbrink
Kingston, Jamaica, W. I.	.....	.....	30.26	768.6	74	23.3	81	Calm	0	0	.....	0	0	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.31	769.9	74	23.3	39	ESE	2	0.9	.....	4ck	8kn	E	.....	0	0	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.91	759.7	70	21.1	71	N	2.4	1.1	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
St. Georges, Bermudas	.....	.....	30.23	767.8	63.5	17.5	83	W	14.5	6.5	.....	8cs	10k	.....	.....	0	0	Lowering	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A.	.....	.....	30.24	768.1	—23	—30.6	.....	SW	3	1.3	.....	10ck	0	W	.....	0.01	0.3	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.95	760.7	29.0	— 1.7	100	NE	.....	.....	.....	.....	10n	.....	.....	0.23	5.8	Snowing	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I.	27.28	692.9	30.08	764.0	65	18.3	93	N	2.0	0.9	.....	2c	2k	N	.....	0.07	1.8	Fine	C. Partridge.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A.	25.20	640.1	.....	.....	63.7	17.6	83	.....	0	0	.....	.....	10s	.....	.....	0.03	0.8	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.96	761.0	81	27.2	78	E	.....	.....	3	.....	6k	.....	.....	0.600	15.24	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.03	762.8	82.0	27.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.335	8.50	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,078 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 11, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Nemours			29.88	759.0	52.7	11.5	83	Calm			0		9			0.386	9.8	Hidden.	Charnot.
Algiers			29.74	755.4	55.4	13.0	88	WNW			1		10			0.295	7.5	Hidden.	Peter.
La Calle																			Kunts.
Tunis																			Jacques.
Sfax			29.87	758.7	64.2	17.9	33	SE			4		6			0	0	Fair.	Chauvey.
Saïda			29.92	760.0	57.2	14.0	78	Calm			0		6					Fair.	Grosjean.
Tebessa			29.80	757.0	39.2	4.0	93	NW			1		7			0.354	9.0	Cloudy.	Colin.
Geriville			29.83	757.7	45.4	9.1		SE			3		10			0	0	Hidden.	Buard.
Laghouat			29.82	757.3	35.6	2.0	88	NNW			2		8			0	0	Cloudy.	Simon.
Biskra			29.78	756.4	44.6	7.0	71	NE			3		3			0	0	Fair.	Coulon.
			29.73	755.2	55.6	13.1	59	Calm			0		2			Inap.	Inap.	Clear.	

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Agram			30.32	770.1	23.0	— 4.0	93	Calm			0		10			0.063	1.6		Prof. Ivan Stosir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow											1		8			0	0		I. R. Observatory.
Eperies			30.45	773.4	9.0	—12.8	93	W			0		5			0	0		Julius Mikolik.
Gratz			30.37	771.5	42.8	6.0	79	Calm			2		2			0	0		Andreas Rospini.
Hermannstadt	29.02	737.2	30.32	770.2	22.8	— 5.1	70	SSW			1		6			0	0		Prof. Reissenberger.
Kremsmünster	28.83	732.3	30.36	771.2	22.3	— 5.4	87	S			3		10			0	0		Prof. C. Wagner.
Lemberg	28.81	731.7	30.27	768.8	18.3	— 7.6	89	NE			3		6			0.028	0.7		Dr. T. Stanecki.
Syiregyhaza			30.33	772.8	20.1	— 6.6	89	SE			2		5			0	0		Habsauda Daniel.
Pola			30.40	772.2	16.9	— 8.4	88	NE			1		9ks		W	0.238	6.05		I.R. Hydrographic Of'ce
Szegedin			30.12	765.0	45.5	7.5	82	NW			1		10			0	0		Karl Stancel.
Trieste			30.28	769.0	26.4	— 3.1	89	W			1		0?			0.232	5.9	Fog & rain ?.	Prof. V. Farolfi.
Vienna			30.14	765.5	41.7	5.4	68	ENE			1		10			0.031	0.8		I. R. Central Institute.
			30.28	769.1	22.6	— 5.2	86	SSE			2								

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Brussels			30.20	767.0	23.2	— 4.0	87	E			1	0?	1	SE?		0	0		Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—12.	Clouds. Amount. Upper.	Clouds. Amount. Lower.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.29	769.4	34.1	1.2		WSW	7	3.1			9			0.01(	0.25	Gloomy	William Boswell.
Ardrossan			30.32	770.1	36.5	2.5		E			1		7					Foggy	J. Mayes.
Armagh Observatory			30.35	771.1	36.(	2.2		SW	8	3.6			8					Overcast	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs.			30.32	770.1	35.0	1.7		ENE	8	3.6			10					Foggy	John Hartnup.
Birr Castle, (Parsonstown)			30.36	771.1	33.7	0.9		SSW			1		10					Overcast	J. Dreyer.
Bradford			30.26	768.6	34.1	1.2		NE			1		4			0	0		J. McLandsborough.
Bridgetown, (Barbados)			29.97	761.2	78	25.6		NE			4		5					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.22	767.6	30.7	— 0.8		NE			2		10			Blank	Blank	Overcast	H. Todd.
Cardington																			John McLaren.
Carlisle			30.32	770.1	36.2	2.3		Calm			0		10			0	0	Overcast	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.16	766.1	31.(	— 0.(		NE			1							Overcast	Capt. J. Fellowes, R. E.
Dartmoor	28.74	730.0	30.30	769.6	33.0	0.(		NW			3		10					Snowing	R. E. Power.
Donaghadee			30.32	770.1	39	3.9		WNW			3		7					*D. clouds	J. Mac Gowan.
Dover			30.10	764.5	35	1.7		NE			3		7					¾ clouded	J. Costello.
Eccles, (near Manchester)			30.30	769.6	34.2	1.2		E					10					Misty	Thomas Mackereth.
Falmouth Observatory			30.30	769.6	38.4	3.(		N	10	4.5			10					Foggy	The Staff.
Fort Napier, (Natal)	27.40	696.0	29.75	755.6	83.8	28.8		E			2		2					*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone			29.93	760.2	88	31.1		NE			1		4					Blue sky	(Ibe
Galway, Queen's College			30.27	768.8	35	1.7		S			1		10					Gloomy	B. G. Clare, for Prof. Cull
Gibraltar, (Mediterranean)			29.86	758.4	49.5	9.7		NW			1		8					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.30	771.9	33.7	0.9		NNE			1		10					Misty	Wm. M. Stewart.
Great Yarmouth			30.23	767.8	21	— 6.1		E			4		4					*D. clouds	G. T. Watson.
Greenwich Royal Obs.			30.15	765.8	30.(	— 1.1		N			5		10					Snowing	The Staff for G. B. Airy
Guernsey			30.18	766.8	37.5	3.1		NW			4		10					Hailing	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.34	770.6	33.2	0.7		ENE			1		10					*D. clouds	L. J. Cr ley's.
Helston			30.28	769.1	41	5.0		N			4		10			Blank	Blank	Overcast	M. P. Moyle.
Holyhead			30.30	769.6	40	4.4		NE			3		10					Overcast	John Tilston.
Kew Observatory			30.18	766.6	32.0	0.(		NNE	21	9.4			10					Snowing	The Staff.
Kingstown			30.37	771.4	35	1.7		WNW			4		9					Overcast	George Mitchell.
Leicester Museum			30.30	769.6	32.3	0.(		NE			1		10					Overcast	William J. Harrison.
Malta, (Mediterranean)			30.02	762.5	63.2	17.(		NE			4		6k						Fred Travis, Pvt A. H. C.
Nairn			30.22	767.6	37	2.8		Calm			0		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.24	768.1	72.4	22.4		NE			3		7					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.31	769.9	31.6	— 0.2		NE			3		3k		NE	Blank	Blank	Blue sky	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.28	769.1	32.7	0.4		NNE			3		5					Fine	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.20	767.1	32	0.0		N			2		10					Snowing	J. Lucas.
Plymouth			30.26	768.6	37.3	2.9		NW			1		10					Overcast	John Merrifield.
Roche's Point			30.38	771.6	35	1.7		N			2		10					Overcast	W. Kennedy.
Saint Ann's Head			30.33	770.4	37	2.8		N			1		10					Overcast	John C. Walker.
Saint Helier, (Jersey)			30.18	766.6	37.0	3.1		NNW			4							Hailing	A. P. Amy.
Sandwick Manse (Orkneys			29.99	761.7	37	2.8		S	15	6.7			0					Bright	Rev. Dr. Clouston
Scarborough			30.32	770.1	35.2	1.8		ESE			2		8					Overcast	F. Shaw.
Scutari Cemetery (Turkey			30.37	771.6	47.0	8.3		E			1		6			Blank	Blank	*D. clouds	Sergt. W. H. Lyne.
Sheffield			30.31	769.9	35.4	1.9		NE			2		6			0	0	*D. clouds	W. F. Cooper.
Silloth Rectory			30.31	769.9	37.1	2.8		N			1		6			0.06	1.52	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			30.32	770.1	33.9	1.1		NE			1		10					Gloomy	The Staff.
Stornoway, Lews C. (Hebr)			30.11	764.8	44	6.7		SSW			5		10					Overcast	John Smith.
Stratfield Turgiss			30.20	767.1	32.0	0.0		NE			1		10					Snowing	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			30.16	766.1	34	1.1		S			2		7					*D. clouds	John Trotter.
Truro, Royal Institution			30.31	769.9	41	5.(		N			6		10					Gloomy	W Newco nbe.
Valencia Observatory			30.34	770.6	40.9	4.9		E	12	5.4			10					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.97	761.2	77.0	25.(	57	S	33	11.8			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					36	2.2		E			3	10	10			0	0		
Leith, Restalrig Park			30.34	770.6	52.4	11.3		W			1		10k			0	0	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngehause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. * Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.32	770.2	30.2	— 1.0	80	ESE			2		10						
Fanöe			30.35	771.0	28.0	— 2.2	92	Calm			0		10						
Godthaab, (Greenland)			29.81	757.1	18.5	— 7.5	78	WSW			4		10						
Stykkisholm, (Iceland)			29.44	747.8	31.0	— 1.1	96	S			2		10					Snowing	
Thorshavn, (Faröe)			29.87	758.8	42.8	6.0	85	WSW			3		10					Raining	
Vestervig			30.35	771.0	28.0	— 2.2	89	E			4		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.17	766.4	35.6	2	73	SW			1		10			0.102	2.6	Covered	Normal School.
Amiens			30.17	766.4	31.3	— 0.4	89	W			3		10			0	0	Covered	Normal School.
Avignon			30.11	764.9	42.3	5.7	71	N			1		0			0	0	Very clear	Normal School.
Bar-sur-Seine			30.19	766.8	21.2	— 6.0		SW			1		10			0	0	Light fog	C. Saillard.
Beaumette, (near Angers)			30.23	767.7	28.6	— 1.9	92	SW	4.3	1.9					NNE	0.075	1.9		Beaumette Observatory
Beauvais			30.17	766.4	28.8	— 1.8		S-E			2		10			0	0	Covered	Normal School.
Besançon			30.23	767.7	24.4	— 4.2		WSW			2		10		W	0	0	Covered	Normal School.
Bourg en Bresse			30.21	767.3	23.2	— 4.9	96	W			1					0	0	Misty	Normal School.
Bourges			30.24	768.0	21.2	— 6	56	ENE			2		10		ENE	0	0	Covered	Normal School.
Brest			30.21	767.2	36.9	2.7	89	N			2		10		N	0	0	Covered	Naval Observatory.
Caen			30.12	765.1	37.4	3	85	SW			2		10			0	0	Covered	Normal School.
Carrières			30.10	764.5	21.6	— 5.8		NE			2		10			0	0	Covered	Normal School.
Chaumont																			Normal School.
Clermont			30.21	767.3	23.4	— 4.8	54	W			2		10			0	0	Covered	Puy de Dome, Obs.
Commercy			30.26	768.5	16.9	— 8.4	94	N W			2		0			0	0	Clear	Normal School.
Commune de Gréasque*			30.06	763.5	46.6	8.1	59	NE			3		5		NE	0	0	½ covered	
Grenoble			30.08	764.0	33.4	0.8	85	N			1		10		S	0	0	Misty	Normal School.
Le Mans			30.19	766.9	24.8	— 4	86	S			2		8		S	0	0	Very cloudy	Normal School
Loches																			
Lons-Le-Saulnier			30.21	767.2	25.2	— 3.8	46	N			2		10			0	0	Foggy	Normal School.
Mâcon			30.19	766.7	24.3	— 4.3		W			1		10			0	0	Covered	Normal School.
Mirecourt			30.24	768.1	28.0	— 2.2	90	SSW			1				NW	0	0	Misty	Normal School.
Metz																			
Nismes			30.11	764.8	38.1	3.4	66	NE			2		0			0	0	Clear	Normal School.
Orleans			30.21	767.2	16.9	— 8.4	100	SW			3		8		SW	0	0	Very cloudy	Normal School.
Paris Observatory			30.19	766.9	23.4	— 4.8	80	SSE			1		10			0	0	Covered	National Observatory
Parthenay			30.20	767.1	29.3	— 1.5	92	NE			4		10			0	0	Covered	Normal School.
Privas			30.19	766.9	28.8	— 1.8		W			2		10			0	0	Covered	Normal School.
La Roche-sur-Yon			30.24	768.0	33.1	0.6	96	N			1		10		S	0	0	Covered	Normal School.
Rochefort, Observatory			30.25	768.4	28.0	— 2.2	82	NE			3		0			0	0	Clear	Naval Observatory.
Rouen			30.10	764.6	31.1	— 0.5	93	E			2		10			0	0	Covered	Normal School.
Saint Lo			30.23	767.8	33.4	0.8	95	N			1		10		E	0	0		Normal School.
Tarbes			30.21	767.3	46.4	8	96	NE			2		10		E	0	0	Covered	Normal School.
Toulouse			30.23	767.7	30.6	— 0.8	92	NE			2		10					Covered	Normal School
Villefranche			30.23	767.7	24.8	— 4	80	NE			1		10			0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.91	759.7	75.2	24	69	NE			2		0?			0	0		L'Abbé Marchési.
Gorée																			
Marseilles			30.02	762.4	51.4	10.8	76	NE			1		0			0	0		Marseilles Observatory
Mont-Louis	24.74	628.3	30.10	766.9	28.2	— 2.1	81	ESE	5.6	2.50			8		E	0	0		—. Falguère.
Montsouris, Paris			30.17	766.2	22.6	— 5.2	90	SSE			2		10			0	0		Montsouris Observ'tory
Perpignan			30.08	763.9	41.0	5.0	56	N	14.9	6.66			9			0	0		Dr. Fines.
Pic du Midi, (Summit) H. P.	21.21	538.8			15.8	— 9.0		N			1		1			0	0		M. Baylac.
Saint Maur, (near Paris)			30.20	766.7	22.5	— 5.3	73	SSW			1		10			0	0	Snowing	E. Renou.
Toulouse			30.20	767.1	29.1	— 1.6	100	NW			1		10			0	0		Toulouse Observatory.
Tours			30.20	767.0	20.7	— 6.3		NNW			1		9		N	0	0		C. Marquet.
Versailles, (near Paris)			30.15	765.9	25.9	— 3.4	78	NE			1		10			0	0	Light snow	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,5[illegible]40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			30.03	762.7	24.3	— 4.3	93	E			5		10			0.039	1.0	Snowing	Prof. T. Hoh.
Berlin			30.32	770.1	21.2	— 6.0	78	NE			1		7			0	0		Prof. Arndt.
Breslau			30.35	770.8	21.9	— 5.6	79	ESE			3		9			0	0		Dr. P. Neugebauer
Carlsruhe			30.24	768.0	16.3	— 8.7	86	Calm			0		8			0	0		A. Senz.
Cassel			30.17	766.4	21.2	— 6.0	87	NW			3		10					Snowing	Dr. H. Möhl.
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.35	770.9	19.2	— 7.1	86	NE			1		10			0	0		M. Wilhelm.
Hamburg			30.21	767.2	25 7	— 3.5	67	NE					10			0	0		Deutsche Seewarte.
Kiel			30.30	769.7	25.0	— 3.9	91	NNE			2		10			0	0	Light fog	Prof. G. Karsten.
Königsberg			30.35	770.9	28.8	— 1.8	78	SW			2		10			0	0		Prof. E. Luther.
Köslin			30.54	775.8	18.5	— 7.5	69	E			2		2			0	0		H. Müller.
Leipsic			30.36	771.1	13.3	—10.4		SE			1		2			0	0		Prof. Bruhns.
Münster			30.31	769.9	17.6	— 8.0	85	SE			1		10			0	0	Light snow	Prof. E. Heis.
Posen			30.30	769.6	20.7	— 6.3	97	E			1		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.38	771 6	9.7	—12.4	100	SE			2		5			0	0		Dr. Schur.
Stuttgart			30.28	769.0	15.3	— 9.3	91	Calm			0		0			0	0		Mr. Würth.
Thorn			30.24	768.2	19.4	— 7.0	78	N					10			0	0		Dr. Hasenbalg
Treves, (Trier)			30.40	772.1	16.2	— 8.8	82	NE			4		2			Inap.	Inap.		Prof. Fiesch.
Wustrow, Naval School			30.15	765.9	17.8	— 7.9	78	SE			2		0			0	0	Light fog	E. F. Schütz.
			30.30	771.1	23 7	— 4.6	89	ENE			3		10			0	0		

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.38	771.6	47.5	8.6		NE										Cloudy	

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.11	764.8	36.5	2.5	60	NE			4		2			0	0		
Padua			30.13	765.4	37.4	3.0	78	N	3.8	1.7			0			0	0		
Verona			30.13	765.2	38.5	3.6	62	W			2		6			0	0		
Bergamo			30.18	766.5	35.2	1.8	93	N			1		10			0	0		
Milan			30.11	764.8	37.4	3.0		WSW			2		9			0	0		
Moncalieri			30.19	766.9	35.4	1.9	96	NNE	0	0			10			0	0		
Mondovi			30.18	766.5	35.4	1.9	46	W			1		10			0	0		
Porto Maurizio			30.14	765.5	50.0	10.0		N			2		1	S		0	0		
Genoa			30.08	763.9	43.5	6.4	55	N	7.4	3.3			2			0	0		
Piacenza			30.19	766.7	37.2	2.9	80	N			1		10			0	0		
Bologna			30.18	766.5	35.4	1.9	46	W			1		10			0	0		
Florence			30.09	764.2	45.5	7.5	60	NE			4		10			0	0	Raining	
Leghorn			30.05	763.2	46.0	7.8	82	ENE	11.9	5.3			10			0	0		
Siena			30.05	763.2	41.9	5.5	85	E	0	0			10	E		0.173	4.4	Raining	
Urbino																			
Pesaro																			
Ancona			30.15	765.9	38.1	3.4	93	WNW			4		10			0.055	1.4	Raining	
Rome			30.02	762.5	47.7	8.7	59	N	2.5	1.1			10	SSE		0	0		
Naples, O. U			30.06	763.5	60.1	15.6	75	SW			2		6			0	0		
Lecce			30.19	766.7	55.4	13.0	77	ESE	18.6	8.3			6	S		0	0		
Cosenza			30.14	765.6	52.9	11.6	78	SW			2		3			0	0		
Riposto, (Sicily)			30.09	764.3	59.4	15.2	91	SW			2		9	NE		0	0		
Palermo			29.94	760.4	66.0	18.9	47	SSE	0.7	0.3			2			0	0		
Caltanissetta			30.08	763.9	52.7	11.5	85	SE			6		6			0	0		
Sub-Series.																			
Naples, S. R.			30.07	763.8	57.9	14.4	79	NE			4					0	0	Foggy	Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.25	768.3	23.7	— 4.6		ENE			4								
Groningen			30.26	768.5	21.6	— 5.8		E			1								
Helder			30.29	769.4	21.2	— 6.0		ENE			4								
Utrecht			30.23	767.9	19.8	— 6.8	70	ESE			3		0					Clear	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.37	771.3	33.4	0.8	89	S	7.0	3.4			10			0	0		
Brönö			30.08	764.1	40.1	4.5	45	SSW	25	11			6			0	0		
Christiania			30.47	774.0	17.1	— 8.3	97	E	4.9	2.2			0			0	0	Hazy	
Tromsö			29.60	751.7	40.3	4.6	67	SSW	13	6			10			0.307	7.8	Raining	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.42	772.7	54 5	12.5	86	S	0.7	0.31	.....	.....	5	.....	.....	0.016	0.4	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.99	761.8	42.8	6.0	82	NNE	17.0	7.58	.....	.....	8	ENE	.....	0.171	4.34	Raining	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.21	767.2	59.9	15.5	55	NE	6.0	2.68	.....	.....	9	.....	.....	0.012	0.3	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.03	762.8	45.7	7.6	60	NE	31.1	13.9	.....	.....	2	.....	.....	0	0	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.																			
Warsaw	.....	.....	30.44	773.2	17.8	— 7.9	86	SE	20	9	.....	.....	7	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.69	779.5	16.0	— 8.9	80	Calm	0	0	.....	.....	0	.....	.....	.....	.....	Foggy	Astronomical Obs.
Dorpat	.....	.....	30.78	781.9	— 0.2	—17.9	87	ESE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.81	782.6	1.4	—17.0	88	SE	13	6	.....	.....	4	.....	.....	.....	.....	Light fog	Central Physical Obs
Kuopio	.....	.....	30.01	777.4	0.5	—17.5	95	Calm	.....	.....	.....	.....	0	.....	.....	0	0	.....	Ch. Forsten.
Kieff	.....	.....	30.03	778.1	19.0	— 7.2	100	N	4	2	.....	.....	10	.....	.....	.....	.....	Light fog	Physical Cabinet.
Nikolaiev	.....	.....	30.03	778.0	15.8	— 9.0	85	NNW	13	6	.....	.....	9	.....	.....	.....	.....	Snowing	Kurdakof.
Kertch	.....	.....	30.53	775.4	14.0	—10.0	77	N	4	2	.....	.....	2	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.84	783.4	12.6	—10.8	90	NW	9	4	.....	.....	10	.....	.....	.....	.....	Snowing	Meteorological Obs.
Lugan	.....	.....	30.56	776.1	— 1.5	—18.6	83	E	18	8	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.53	775.5	8.6	—13.0	84	WSW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	29.04	737.7	30.56	776.1	26.4	— 3.1	82	Calm	0	0	.....	.....	5	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.70	779.8	25.9	— 3.4	93	ENE	11	5	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.59	777.0	14.4	— 9.8	94	NNW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.04	737.7	30.12	765.1	17.1	— 8.3	79	SW	25	11	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.59	777.0	5.9	—14.5	66	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	29.20	741.6	31.12	790.3	13.8	—10.1	67	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.78	781.9	— 2.0	—18.9	76	S	18	8	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.28	769.1	— 5.3	—20.7	84	S	13	6	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.56	776.1	30.3	— 0.5	30	N	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	28.24	717.2	30.63	777.9	18.6	—28.1	81	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostook	.....	.....	30.43	773.0	— 7.6	—22.1	61	NW	18	8	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—10.5	—23.6	100	W	4	2	.....	.....	0	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.																			
Madrid	.....	.....	30.07	763.8	33.6	0.9	85	NE	26.8	12.0	.....	1	1	NE	.....	0	0	Clouds	Royal Observatory.
San Fernando	.....	.....	29.87	758.6	49.1	9.5	72	NNE	5.8	2.6	.....	1	6	NNE	E	0.028	0.7	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Stations.																			
Haparanda	.....	.....	30.28	769.1	21.2	— 6.0	95	SW	.....	.....	6	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	30.41	772.4	21.7	— 5.7	98	SW	.....	.....	7	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	30.43	772.9	18.7	— 7.4	97	SSW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Stockholm	.....	.....	30.40	774.5	18.7	— 7.4	97	ESE	.....	.....	2	.....	10	.....	.....	0	0	Foggy	
Wisby	.....	.....	30.54	775.8	24.8	— 4.0	91	ESE	.....	.....	4	.....	3	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.54	775.7	10.2	—12.1	100	SSE	0	0	.....	.....	2	.....	.....	0.001	0.03	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.70	728.9	30.21	767.3	27.3	— 2.6	88	SSE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.45	722.6	30.19	766.9	24.6	— 4.1	90	W	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.2 mm.; Thermometer, —3.9 cent.; Relative Humidity, +8 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Constantinople	.....	.....	30.39	772.0	43.2	6.2	51	NE	13	6.0	.....	.....	5	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.28	769.0	59.0	15.0	.....	SE	.....	.....	1	.....	10	.....	.....	.....	.....	Raining	
Salonica	.....	.....	30.71	779.9	46.8	8.2	.....	NW	.....	.....	2	.....	8	.....	.....	.....	.....	.....	
Valona	.....	.....	30.07	763.8	49.5	9.7	.....	SE	.....	.....	1	.....	10	.....	.....	.....	.....	Raining	
Varna	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.12	765.1	55.9	13.3	60	NW	.....	.....	2	.....	4n	.....	SE	0.005	0.12	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Bathurst, N. B.	.....	.....	29.33	745.0	0.5	—18.1	85	NW	8.2	3.7	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.17	766.3	1	—17.2	.....	W	5	2.2	.....	0	0	.....	.....	0	0	Clear	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.39	746.5	— 2	—18.9	89	W	13	5.8	.....	5c	2ks	W	W	0.31	7.9	Fair	G. A. Blair.
Charlottetown P. E. Island.	.....	.....	29.31	744.5	11	—11.7	76	W	13	5.8	.....	0	0	.....	.....	0.22	5.6	Clear	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.04	763.0	— 0.4	—17.6	100	SW	.....	.....	3	.....	.....	.....	.....	0	0	Bright	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.32	744.7	— 4.7	—20.4	82	W	.....	.....	4	2k	.....	.....	.....	0.55	14.0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	30.51	774.9	30.0	— 1.1	89	NW	2	0.9	.....	.....	.....	.....	.....	0	0	Clear	W. H. Bovis.
Fredericton, N. B.	.....	.....	29.55	750.6	— 2.2	—19.0	74	NW	14	6.3	.....	5cs	.....	.....	.....	0	0	Fair	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.12	765.0	— 2	—18.9	97	NW	3	1.3	.....	5k	5n	NW	NW	0.05	1.3	Cloudy	James Stewart.
Goderich, Ontario	.....	.....	30.24	768.1	15.0	— 9.4	84	NW	.....	.....	3	.....	10n	.....	.....	0.05	1.3	Threatening	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.22	767.6	11.6	—11.3	.....	W	.....	.....	3	.....	10n	.....	.....	0	0	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	29.40	746.7	16	— 8.9	81	W	24	10.7	.....	0	2ks	.....	W	0.49	12.4	Fair	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.20	767.1	2	—16.7	83	W	2	0.9	.....	0	0	.....	.....	Inap.	Inap.	Clear	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.17	766.3	1.9	—16.7	.....	Calm	0	0	.....	.....	8s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.93	760.2	— 5	—20.6	75	W	29	13.0	.....	0	2ks	.....	.....	0.02	0.5	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario.	.....	.....	30.04	763.0	— 5	—20.6	78	W	14	6.3	.....	0	0	.....	.....	0	0	Clear	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.18	766.6	— 0	—17.8	88	N	4	1.8	.....	2k	5ks	W	W	0	0	Fair	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.25	768.3	14	—10.0	77	W	10	4.5	.....	10k	0	W	.....	0	0	Cloudy	H. Morgan.
Port Hastings, N. S.	.....	.....	29.31	744.5	20.9	— 6.2	.....	NW	10	4.5	.....	.....	.....	.....	.....	0	0	Fine	Peter Grant.
*Port Stanley Ontario	.....	.....	30.27	768.8	13	—10.6	84	W	20	8.9	.....	.....	10n	.....	W	0	0	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	29.71	754.6	— 4	—20.0	65	SW	6	2.7	.....	5k	8s	SW	SW	0.50	7.6	Fair	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.60	751.8	3.0	—16.1	73	NW	24	10.7	.....	0	0	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.15	765.8	16	— 8.9	83	NW	10	4.5	.....	.....	10n	.....	W	0.08	2.0	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	30.16	766.1	11	—11.7	83	W	10	4.5	.....	8ck	0	NW	.....	Inap.	Inap.	Fair	R. J. Cole.
Stratford, Ontario	.....	.....	30.22	767.6	10.9	—11.7	88	SW	9	4.0	.....	.....	10s	.....	.....	0.360	7.62	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.24	742.7	24	— 4.4	91	W	13	5.8	.....	.....	10n	.....	.....	0.22	5.6	Light snow	T. C. Hill.
*Toronto, Ontario	.....	.....	30.20	767.1	12	—11.1	88	W	2	0.9	.....	0	0	.....	.....	0.01	0.3	Clear	Magnetic Observatory.
Woodstock, Ontario	.....	.....	30.24	768.1	11.3	—11.5	95	W	1	0.4	.....	.....	10s	.....	.....	0.25	6.3	Gloomy	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.10	764.5	9	—12.8	78	NW	6	2.7	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Alpena, Mich.	.....	.....	30.16	766.1	10	—12.2	79	W	14	6.3	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy.....	
Atlantic City, N. J.	.....	.....	30.24	768.1	18	— 7.8	68	W	14	6.3	.....	0	0	.....	.....	0	0	Clear.....	
Augusta, Ga.	.....	.....	30.39	771.9	38	3.3	45	NW	3	1.3	.....	.....	10ks	.....	N	0.01	0.3	Cloudy.....	
Baltimore, Md.	.....	.....	30.33	770.4	20	— 6.7	53	W	7	3.1	.....	0	Sm'e	.....	.....	0	0	Clear.....	
Barnegat, N. J.	.....	.....	30.19	766.8	19	— 7.2	69	W	20	8.9	.....	0	0	.....	.....	0	0	Clear.....	
Benton, Montana	27.53	699.2	30.33	770.4	18	— 7.8	100	SW	1	0.4	.....	0	0	.....	.....	0	0	Clear.....	
Bismarck, Dakota	28.32	719.3	30.09	764.3	15	— 9.4	82	NW	11	4.9	.....	.....	10n	.....	.....	0.07	1.8	Light snow..	
Boston, Mass.	.....	.....	29.93	760.2	13	—10.6	62	W	26	11.6	.....	0	0	.....	.....	0	0	Clear.....	
Breckenridge, Minn	.....	.....	30.12	765.0	13	—10.6	66	NW	8	3.6	.....	10k	0	N	.....	0	0	Cloudy.....	
Buffalo, N. Y.	.....	.....	30.19	766.8	15	— 9.4	65	.....	20	8.9	.....	.....	10ks	.....	W	0	0	Cloudy.....	
Burlington, Vt.	.....	.....	30.00	762.0	3	—16.1	59	W	16	7.2	.....	0	5k	.....	W	0.02	0.5	Fair.....	
Cairo, Ill.	.....	.....	30.54	775.7	24	— 4.4	74	Calm	0	0	.....	5cs	0	.....	.....	0	0	Fair.....	
Cape Hatterns, N. C.	.....	.....	30.24	768.1	31	1.1	61	NE	16	7.2	.....	2c	5s	.....	N	Inap.	Inap.	Fair.....	
Cape Henry, Va.	.....	.....	30.33	770.4	30	— 1.1	68	NW	16	7.2	.....	2c	5s	W	NW	0	0	Fair.....	
Cape May, N. J.	.....	.....	30.26	768.6	20	— 6.7	55	NW	20	11.6	.....	0	0	.....	.....	0	0	Clear.....	
Charleston, S. C.	.....	.....	30.33	771.1	43	6.1	29	NW	10	4.5	.....	2k	5s	W	W	Inap.	Inap.	Fair.....	
Cheyenne, Wyoming	24.18	614.2	30.12	765.0	15	— 9.4	67	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Chicago, Ill.	.....	.....	30.32	770.1	14	—10.0	63	S	6	2.7	.....	2c	5s	.....	.....	0	0	Fair.....	
Cincinnati, Ohio	.....	.....	30.41	772.4	16	— 8.9	66	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Cleveland, Ohio	.....	.....	30.32	770.1	12	—11.1	86	S	16	7.2	.....	.....	10ks	.....	S	0.06	1.3	Clearing.....	
Colorado Springs, Col.	24.27	616.4	30.14	765.5	11	—11.7	20	N	7	3.1	.....	0	0	.....	.....	0	0	Clear.....	
Corsicana, Tex.	.....	.....	30.51	774.9	35	1.7	80	N	6	2.7	.....	.....	10s	.....	.....	0.53	13.5	Cloudy.....	
Davenport, Iowa	.....	.....	30.24	768.1	18	— 7.8	76	SW	16	7.2	.....	10k	0	SW	.....	0	0	Cloudy.....	
Denison, Tex.	.....	.....	30.58	776.0	32	0.0	79	N	3	0.4	.....	.....	Fog	.....	.....	0.06	1.5	Foggy	
Denver, Col.	.....	.....	30.24	768 1	17	— 8.3	50	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Detroit, Mich.	25.02	635.5	30.27	768.8	14	—10.0	81	W	12	5.4	.....	.....	10n	.....	.....	0.01	0.3	Light snow..	
Dodge City, Kan.	.....	.....	30.29	769.4	10	—12.2	74	SE	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	
Dubuque, Iowa	27.74	704.6	30.20	767.1	15	— 9.4	65	S	4	1.8	.....	.....	10cs	.....	SW	0	0	Cloudy.....	
Duluth, Minn.	.....	.....	30.17	766.3	1	—17.2	72	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Eastport, Me.	.....	.....	29.93	752.6	2	—16.7	72	NW	29	13.0	.....	5c	2s	.....	NW	0.46	11.7	Fair.....	
Erie, Pa.	.....	.....	30.22	767.6	18	— 7.8	84	W	20	8.9	.....	.....	10n	.....	W	Inap.	Inap.	Light snow..	
Escanaba, Mich.	.....	.....	30.23	767.8	— 2	—18.9	67	SW	4	1.8	.....	0	1s	.....	SW	0	0	Fair.....	
Fort Gibson, Indian Terr.	.....	.....	30.40	772.4	32	0.0	60	NW	2	0.9	.....	10cs	0	W	.....	0	0	Cloudy.....	
Fort Sill, Indian T.	29.26	743.2	30.43	772.9	31	0.0	69	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Fort Sully, Dakota	28.47	723.1	30.24	768.1	23	— 5.0	86	W	6	2.7	.....	2cs	0	.....	.....	0	0	Fair.....	
Galveston, Tex.	.....	.....	30.38	771.6	46	7.8	48	NE	16	7.2	.....	.....	10s	.....	NE	0	0	Cloudy.....	
Grand Haven, Mich.	.....	.....	30.26	768.6	16	— 8.9	83	NW	17	7.6	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.....	
Indianapolis, Ind.	.....	.....	30.43	772.9	15	— 9.4	82	W	2	0.9	.....	Haze	0	.....	.....	0	0	Clear.....	
Indianola, Tex.	.....	.....	30.40	772.1	45	7.2	68	NE	24	10.7	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Jacksonville, Fla.	.....	.....	30.32	770.1	41	5.0	48	W	6	2.7	.....	8k	0	W	.....	0	0	Fair.....	
Keokuk, Iowa	.....	.....	30.28	769.1	23	— 5.4	73	SW	16	7.2	.....	0	0	.....	.....	0	0	Clear.....	
Key West, Fla.	.....	.....	30.22	767.6	69.2	20.7	79	NE	8	3.6	.....	0	1s	.....	.....	0	0	Clear.....	
Kittyhawk, N. C.	.....	.....	30.33	770.4	29	— 1.7	56	N	20	8.9	.....	5cs	5s	.....	.....	0	0	Cloudy.....	
Knoxville, Tenn	.....	.....	30.50	774.7	21	— 6.1	72	N	4	1.8	.....	10ck,ks	0	.....	W	0	0	Cloudy.....	
La Crosse, Wis.	.....	.....	30.18	766.6	7	—13.9	77	S	3	1.3	.....	.....	Fog	.....	.....	0	0	Foggy	
Leavenworth, Kan	.....	.....	30.37	771.4	24	— 4.4	80	W	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Lexington, Ky.	29 29	718.6	30.52	775.2	14	—10.0	81	W	4	1.8	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Long Branch, N. J.	.....	.....	30.18	766.6	21	— 6.1	57	W	18	8.0	.....	1k	0	W	.....	0	0	Clear.....	
Louisville, Ky.	.....	.....	30.48	774.2	19	— 7.2	69	W	3	1.3	.....	0	Fog	.....	.....	0	0	Clear.....	
Lynchburg, Va.	.....	.....	30.37	771.4	23	— 5.0	54	S	2	0.9	.....	2ck	0	W	.....	0	0	Clear	
Malone, N. Y.	.....	.....	30.01	762.2	1	—17.2	72	W	11	4.9	.....	0	0	.....	.....	0.05	1.3	Clear.....	
Marquette, Mich.	.....	.....	30.19	766.8	2	—16.7	86	NW	12	5.4	.....	0	2s	.....	NW	0	0	Fair.....	
Memphis, Tenn.	.....	.....	30.55	776.0	29	— 1.7	67	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Milwaukee, Wis.	.....	.....	30.23	767.8	3	—16.1	74	SW	8	1.8	.....	5c	0	.....	.....	0	0	Fair.....	
Mobile, Ala.	.....	.....	30.43	772.9	39	3.9	47	N	8	1.8	.....	5cs	0	W	.....	0	0	Fair.....	
Montgomery, Ala.	.....	.....	30.48	774.2	30.5	2.6	46	N	8	1.8	.....	10cs	0	W	.....	0	0	Cloudy.....	
Morgantown, W. Va.	.....	.....	30.42	772.7	13.5	—10.3	63	W	16	7.	.....	0	8s	.....	W	0	0	Fair.....	
Mt. Washington, N. H.	22.50	573.0	28.92	734.6	—28	—33.3	100	NW	114	51.1	.....	.....	Fog	.....	.....	0	0	Foggy	
Nashville, Tenn.	.....	.....	30.52	775.2	25	— 3.9	75	NW	3	1.3	.....	10cs	0	W	.....	0	0	Cloudy.....	
New Haven, Conn	.....	.....	30.09	764.3	21	— 6.1	60	NW	12	5.4	.....	Haze	0	.....	.....	0	0	Clear.....	
New London, Conn.	.....	.....	30.06	763.5	10	— 7.2	54	NW	18	8.0	.....	0	0	.....	.....	0	0	Clear.....	
New Orleans, La	.....	.....	30.40	772.1	45	7.2	35	NE	12	5.4	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.....	
Newport, R. I.	.....	.....	30.02	762.5	18	— 7.8	68	W	28	12.5	.....	0	0	.....	.....	0	0	Clear.....	
New York, N. Y.	.....	.....	30.17	766.3	21	— 6.1	56	NW	22	9.8	.....	0	0	.....	.....	0	0	Clear.....	
Norfolk, Va.	.....	.....	30.44	770.6	27.5	— 2.7	48	N	8	3.6	.....	8c	0	W	.....	0	0	Fair.....	
North Platte, Neb.	27.35	694.7	30.23	767.8	5	—15.0	75	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Omaha, Neb.	29.17	740.9	30.34	770 6	18	— 7.8	84	W	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Oswego, N. Y.	.....	.....	30.15	765.8	15.2	— 9.3	83	NW	20	8.9	.....	.....	10ks	.....	NW	0.03	0.8	Cloudy.....	
Peck's Beach, N. J.	.....	.....	30.28	769.1	20	— 6.7	85	W	24	10.7	.....	0	0	.....	.....	0	0	Clear.....	
Pembina, Dakota	.....	.....	30.10	764.5	5	—15.0	100	NW	12	5.4	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Philadelphia, Penn.	.....	.....	30.26	768.6	19	— 7.2	54	W	11	4.9	.....	0	0	.....	.....	0	0	Clear.....	
Pike's Peak, Colorado	17.69	449.3	29.90	759.4	3	—16.1	60	NW	20	8.9	.....	0	0	.....	.....	0	0	Clear.....	
Pittsburgh, Penn.	.....	.....	30.36	771.1	12	—11.1	61	W	12	5.4	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Port Huron, Mich.	.....	.....	30.25	768.3	13	—10.0	62	W	16	7.2	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy.....	
Portland, Me.	.....	.....	29.84	757.9	9	—12.8	78	NW	8	3.6	.....	1k	0	NW	.....	0	0	Clear.....	
Portland, Oregon	.....	.....	30.53	775.4	34	1.1	61	NW	5	2.2	.....	0	0	.....	.....	0	0	Clear.....	
Punta Rassa, Fla.	.....	.....	30.25	768.3	62.3	16.8	78	N	5	2.2	.....	5cs	2s	NE	NE	0	0	Cloudy.....	
Rochester, N. Y.	.....	.....	30.16	766.1	13	—10.9	.....	W	10	4.5	.....	.....	10s	.....	W	0.04	1.0	Cloudy.....	
Salt Lake City, Utah	25.94	658.9	30.27	768.8	18	— 7.8	84	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Sandy Hook, N. J.	.....	.....	30.13	765.3	22	— 5.6	58	W	33	14.8	.....	5k	0	W	.....	0	0	Fair.....	
San Diego, Cal.	.....	.....	30.16	766.1	46	7.8	92	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
San Francisco, Cal.	.....	.....	30.23	767.8	46	7.8	84	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Santa Fe, N. M.	.....	.....	30.23	767.8	46	7.8	44	Calm	0	0	.....	5c	1s	SW	SW	0	0	Fair.....	
Savannah, Ga.	23.38	593.8	29.92	760.0	13	—10.6	44	Calm	0	0	.....	10cs	0	W	.....	0.01	0.3	Cloudy.....	
Shreveport, La.	.....	.....	30.37	771.4	41	5.0	56	N	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Smithville, N. C.	.....	.....	30.54	775.7	37	2.8	57	N	6	2.7	.....	.....	10s	.....	NE	0	0	Cloudy.....	
Springfield, Mass.	.....	.....	30.36	771.1	34	1.1	45	N	6	2.7	.....	10ck	0	W	.....	0	0	Cloudy.....	
St. Louis, Mo.	.....	.....	30.04	763.0	11	—10.0	44	W	12	5.4	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
St. Marks, Fla.	.....	.....	30.46	773.7	20	— 6.7	70	S	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
St. Paul, Minn.	.....	.....	30.38	771.6	39	3.9	63	N	8	3.6	.....	5ck	5s	NW	.....	0.07	1.8	Cloudy.....	
St. Paul's Island, Alaska	.....	.....	30.14	764.8	8	—13.3	78	SE	4	1.8	.....	.....	10s	.....	SE	0.12	0.5	Cloudy.....	
Sconan Beach, N. J.	.....	.....	30.14	765.5	18	— 7.8	68	W	12	5.4	.....	.....	Haze	.....	.....	0	0	Clear.....	
Thatcher's Island, Mass.	.....	.....	29.91	759.7	14	—10.0	28	NW	35	15.6	.....	0	2k	.....	NW	0	0	Clear.....	
Toledo, Ohio	.....	.....	30.30	769.5	17	— 8.3	67	W	12	5.4	.....	.....	10ks	.....	W	0	0	Cloudy.....	
Tucson, Arizona	.....	.....	30.07	763 8	38	3.3	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
Tybee Island, Ga.	27.65	702.3	30.34	77 .6	42	5.6	56	N	10	4.5	...	.....	10ks	.....	NW	0	0	Cloudy.....	
Vicksburg, Miss.	.....	.....	30.59	777.0	36	2.2	45	NE	5	2.2	...	.....	10s	.....	W	0	0	Cloudy.....	

UNITED STATES SERIES.—CONTINUED.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.53	623.0	30.01	762.2	10	—12.2	58	SE	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Washington, D. C	.....	.....	30.37	771.4	17.5	— 8.1	60	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Wilmington, N. C	.....	.....	30.36	771.1	33	0.6	33	N	10	4.5	.....	.....	10s	.....	NW	0	0	Cloudy	
Wood's Holl, Mass	.....	.....	29.96	761.0	20	— 6.7	27	NW	32	14.3	.....	0	2s	.....	NW	0	0	Fair	
Wytheville, Va	27.86	707.6	30.22	767.6	15	— 9.4	73	W	5	2.2	.....	1cs	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.94	735.1	30.35	770.9	18	— 7.8	68	SW	9	4.0	.....	5c	0	NW	.....	0	0	Fair	
Yuma, Arizona	.....	.....	30.25	768.3	46	7.8	.....	NW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.00	762.0	80	26.7	78	NE	5	2.2	.....	2ck	8s	W	.....	1.85	47.0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.00	762.0	71	21.7	81	NE	.....	.....	.....	5c	0	.....	.....	0	0	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.18	766.6	67	19.4	79	E	0.6	0.3	.....	3k, fk	0	NNE	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.24	768.1	71	21.7	75	Calm	0	0	.....	2c	0	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.30	769.6	75	23.9	63	E	6	2.7	.....	2ck	2ks	E	.....	0	0	Clear	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.88	758.9	70	21.1	75	NE	6.0	2.7	.....	4ck	2s	E	NE	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.01	762.2	66.0	18.9	75	SW	4.0	1.8	.....	.....	10k	.....	.....	0	0	Cloudy	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.25	769.4	—25	—13.0	.....	W	2	0.9	.....	0	Haze	.....	.....	0	0	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.44	747.8	33.5	0.8	.....	S	.....	.....	.....	.....	10n	.....	.....	0.02	0.5	Sleet	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.23	691.6	30.03	762.7	64	17.8	83	E	1.0	0.4	.....	0	2k	.....	.....	0	0	Fine	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.15	638.8	.....	.....	65.0	18.3	84	.....	0	0	.....	.....	4s	.....	.....	0.03	0.8	Fair	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.99	761.7	80	26.7	87	E	.....	.....	2	.....	5ks	.....	.....	0.080	2.03	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.04	762.9	82.9	28.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.335	8.50	.....	Dr. H. Groot.
MARINE SERIES.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 12, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Nemours	.....	.....	29.89	759.3	49.1	9.5	81	Calm	.....	.....	0	.....	10	.....	.....	1.488	37.8	Hidden.	Charnot.
Algiers	.....	.....	29.69	754.0	50.7	10.4	100	N	.....	.....	5	.....	10	.....	.....	2.134	54.2	Heavy rain.	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	29.74	755.3	56.1	13.4	94	S	.....	.....	3	.....	10	.....	.....	0.870	22.1	Hidden.	Jacques.
Sfax	.....	.....	29.80	756.8	56.8	13.8	89	SE	.....	.....	4	.....	6	.....	.....	0.409	10.4	Fair.	Chauvey.
Saïda	.....	.....	29.81	757.2	54.7	1.5	93	NW	.....	.....	2	.....	8	.....	.....	0.630	16.0	Cloudy.	Grosjean.
Tebessa	.....	.....	29.72	754.8	48.7	9.3	.....	S	.....	.....	5	.....	10	.....	.....	0.433	11.0	Hidden.	Colin.
Gerfville	.....	.....	29.83	757.6	33.8	1.0	92	NNW	.....	.....	5	.....	8	.....	.....	0.472	12.0	Cloudy.	Buard.
Laghouat	.....	.....	29.78	756.3	44.6	7.0	57	NW	.....	.....	3	.....	1	.....	.....	0.276	7.0	Clear.	Simon.
Biskra	.....	.....	29.65	753.0	55.0	12.8	52	SE	.....	.....	3	.....	8	.....	.....	0.197	5.0	Cloudy.	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Agram	.....	.....	30.25	768.3	25.3	— 3.7	95	SW	.....	.....	3	.....	10	.....	.....	0.106	2.7	.....	Prof. Ivan Stoair.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Observatory.*
Eperies	.....	.....	30.39	771.9	10.4	— 12.0	89	NE	.....	.....	1	.....	8	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.34	770.5	39.9	4.4	81	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.97	735.8	30.25	768.3	27.5	— 2.5	71	S	.....	.....	2	.....	7	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.83	732.3	30.34	770.7	28.9	— 1.7	84	SSW	.....	.....	1	.....	5	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	28.76	730.4	30.20	767.1	21.2	— 6.0	95	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.40	772.2	16.0	— 8.9	91	SE	.....	.....	2	.....	5	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.35	771.0	27.3	— 2.6	96	NE	.....	.....	1	.....	8	.....	.....	0	0	.....	I.R. Hydrographic Of'ce
Szegedin	.....	.....	30.02	762.5	48.4	9.1	93	E	.....	.....	2	.....	10ks	.....	.....	0.258	6.55	.....	Karl Stancel.
Trieste	.....	.....	30.28	769.2	32.5	0.3	90	Calm	.....	.....	0	.....	4	.....	.....	0.019	0.48	.....	Prof. V. Farolfi.
Vienna	.....	.....	30.05	763.3	44.1	6.7	77	ENE	.....	.....	1	.....	10	.....	.....	0.059	1.5	Rain and fog	I. R. Central Institute.
.....	.....	.....	30.21	767.3	26.8	— 2.9	90	S	.....	.....	2	.....	10	.....	.....	0	0	Snowing.	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Brussels	.....	.....	30.22	767.6	22.3	— 5.4	100	SW	.....	.....	0	.....	10	.....	.....	0.004	0.10	Light snow.	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'or 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	....	.....	29.96	761.0	39.0	3.9	.....	W	21	9.4	.....	.....	2	.....	.....	0.050	1.27	Blue sky.....	William Boswell.
Ardrossan	.....	.....	30.06	763.5	44	6.7	.....	NW	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds....	J. Mayes.
Armagh Observatory	.....	.....	30.20	767.1	39.3	4.1	.....	WNW	6	2.7	.....	.....	2	.....	.....	.....	.....	*D. clouds....	S. Cal., for Dr. Robinson
Bidston, Liverpool Obs	.....	.....	30.06	763.5	38.8	3.8	.....	W 3W	12	5.4	.....	.....	9	.....	.....	.....	.....	Overcast.....	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.24	768.1	42.7	5.9	.....	NW	.....	.....	1-2	.....	0	.....	.....	.....	.....	Blue sky.....	J. Dreyer.
Bradford	.....	.....	30.03	762.7	32.3	0.2	.....	SW	.....	.....	0	.....	10	.....	.....	0	0	Heavy snow	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	29.98	761.5	81	27.2	.....	NE	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds....	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.19	766.8	30.2	— 1.0	.....	SSW	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	H. Todd.
Cardington	.....	.....	30.18	766.6	31.0	— 0.6	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	John McLaren.
Carlisle	.....	.....	30.03	762.7	41.4	5.2	.....	W	.....	.....	1	.....	6	.....	.....	0.08	2.0	*D. clouds....	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.24	768.1	30.2	— 1.0	.....	NE	.....	.....	1	.....	3	.....	.....	.....	.....	*D. clouds....	Capt. J. Fellowes, R. E.
Dartmoor	28.67	728.3	30.23	767.8	34.2	0.7	.....	SW	.....	.....	1	.....	10	.....	.....	Blank	Blank	Foggy	R. E. Power.
Donaghadee	.....	.....	30.13	765.3	42	5.6	.....	NW	.....	.....	3	.....	3	.....	.....	.....	.....	*D. clouds....	J. Mac Gowan.
Dover	.....	.....	30.21	767.3	31	— 0.6	.....	WNW	.....	.....	2	.....	7	.....	.....	.....	.....	Gloomy.....	J. Costello.
Eccles, (near Manchester)	.....	.....	30.07	763.8	31.7	— 0.2	.....	SE	.....	.....	.....	.....	10	.....	.....	.....	.....	Snowing.....	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.22	767.6	42.0	5.6	.....	WSW	10	4.5	.....	.....	10	.....	.....	.....	.....	Overcast.....	The Staff.
Fort Napier, (Natal)	27.57	700.3	29.82	757.4	75.8	24.3	.....	SE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast.....	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone	.....	.....	29.94	760.5	85	30.0	.....	N	.....	.....	3	.....	5	.....	.....	.....	.....	Blue sky.....	(Lis.
Galway, Queen's College	.....	.....	30.21	768.1	45	7.2	.....	NW	.....	.....	1	.....	2	.....	.....	.....	.....	*D. clouds....	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)	.....	.....	30.04	763.0	51.0	10.6	.....	W	.....	.....	2	.....	0	.....	.....	.....	.....	Blue sky.....	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.03	762.7	41.0	5.0	.....	W	.....	.....	1	.....	4	.....	.....	.....	.....	Fine	Wm. M. Stewart.
Great Yarmouth	.....	.....	30.20	767.1	29	— 1.7	.....	W	.....	.....	2	.....	8	.....	.....	.....	.....	Misty.....	G. T. Watson.
Greenwich Royal Obs	.....	.....	30.20	767.1	32.7	0.4	.....	SW	.....	.....	1	.....	3	.....	.....	Blank	Blank	*D. clouds....	The Staff for G. B. Airy
Guernsey	.....	.....	30.24	768.1	39.5	4.2	.....	NW	.....	.....	1	.....	6	.....	.....	Blank	Blank	*D. clouds....	Dr. S. E. Hoskins.
Halifax, Moorside Obs	.....	.....	30.11	765.0	31.5	— 0.3	.....	WSW	.....	.....	1	.....	10	.....	.....	.....	.....	Snowing.....	L. J. Crossley.
Helston	.....	.....	30.21	767.3	44	6.7	.....	SW	.....	.....	2	.....	10	.....	.....	0	0	Overcast.....	M. P. Moyle.
Holyhead	.....	.....	30.11	764.8	44	6.7	.....	NNW	.....	.....	5	.....	3	.....	.....	.....	.....	.....	John Tilston.
Kew Observatory	.....	.....	30.22	767.6	31.9	— 0.1	.....	WSW	7	3.1	.....	.....	10	.....	.....	.....	.....	.....	The Staff.
Kingstown	.....	.....	30.18	766.6	43	6.1	.....	NW	.....	.....	5	.....	1	.....	.....	.....	.....	Blue sky.....	George Mitchell.
Leicester Museum	.....	.....	30.16	766.1	28.5	— 1.9	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	William J. Harrison.
Malta, (Mediterranean)	.....	.....	29.80	756.9	63	17.2	.....	SW	.....	.....	4	.....	8k	.....	.....	.....	.....	.....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	29.99	761.7	40	4.4	.....	WSW	.....	.....	1	.....	8	.....	.....	.....	.....	¾ cl uded....	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30 22	767.6	70 4	21.3	.....	NE	.....	.....	3	.....	4	.....	.....	.....	.....	D. clouds....	Surg.-Maj. Henry.
Nottingham	.....	.....	30.15	765.8	29.5	— 1.4	.....	S	.....	.....	3	.....	10n	.....	S	.....	.....	Snowing.....	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.14	765.3	29.0	— 1.7	.....	S	.....	.....	3	.....	10	.....	.....	.....	.....	Snow ng.....	Rev. Stephen Whitty.
Oxford, Radcliffe Obs	.....	.....	30.17	766.1	30	— 1.1	.....	SSW	.....	.....	1	.....	10	.....	.....	.....	.....	Gloomy.....	J. Lucas.
Plymouth	.....	.....	30.22	767.6	34	1.1	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	John Merrifield.
Roche's Point	.....	.....	30.30	769.6	45	7.2	.....	N	.....	.....	4	.....	5	.....	.....	.....	.....	Misty.....	W. Kennedy.
Saint Ann's Head	.....	.....	30.12	765.0	46	7.8	.....	W	.....	.....	2	.....	10	.....	.....	.....	.....	Foggy	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.24	768.1	35.8	2.1	.....	SW	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast.....	A. P. Amy.
Sandwick Manse (Orkneys	.....	.....	30.40	762.0	40	4.4	.....	NNW	16	7.2	.....	.....	10	.....	.....	.....	.....	Ra ning.....	Rev. Dr. Clouston
Scarborough	.....	.....	30.07	763.8	29.6	— 1.7	.....	SW	.....	.....	3	.....	10	.....	.....	.....	.....	Snowing.....	F. Shaw.
Scutari Cemetery (Turkey	.....	.....	30.43	772.9	40.0	4.8	.....	NE	.....	.....	2	.....	9	.....	.....	.....	.....	Showery.....	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.08	764.0	33.3	0.7	.....	SSE	.....	.....	3	.....	10	.....	.....	0	0	Showery.....	W. F. Cooper.
Silloth Rectory	.....	.....	30.04	763.0	49.0	9.4	.....	WSW	.....	.....	1	.....	2	.....	.....	0	0	*D. clouds....	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.07	763.8	30.1	— 1.1	.....	S	.....	.....	0	.....	10	.....	.....	.....	.....	Snowing.....	The Staff.
Stornoway, Lews C. (Hebr)	.....	.....	30.07	763.8	42	5.6	.....	NW	.....	.....	5	.....	10	.....	.....	.....	.....	Snow & hail.	John Smith.
Stratfield Turgiss	.....	.....	30.21	768.1	30.2	— 1.0	.....	W	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.94	760.5	41	5.0	.....	NNW	.....	.....	5	.....	10	.....	.....	.....	.....	Raining.....	John Trotter.
Truro, Royal Institution	.....	.....	30.16	766.1	45	7.	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Raining.....	W. Newcombe.
Valencia Observatory	.....	.....	30.37	771.4	46.8	8.2	.....	ENE	17	7.6	.....	.....	4	.....	.....	.....	.....	*D. clouds....	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.97	761.2	79.2	26.3	48	S	32	14.3	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	38	3.3	.....	W	.....	.....	6	10	10	.....	.....	0.20	5.1	.....	
Leith, Restalrig Park	.....	.....	30.04	763.0	41.9	5.5	.....	W	.....	.....	2	.....	6k	.....	.....	0	0	Fine, cloudy	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.26	768.6	27.9	— 2.3	89	SSE	.....	.....	2	.....	10	.....	.....	.....	.....	.....	.....
Fanöe	.....	.....	30.23	767.9	26.1	— 3.3	89	S	.....	.....	4	.....	10	.....	.....	.....	.....	.....	.....
Godthaab, (Greenland)	.....	.....	28.94	735.0	23.2	— 4.9	100	ENE	.....	.....	6	.....	10	.....	.....	.....	.....	Snowing.....	
Stykkisholm, (Iceland)	.....	.....	30.11	764.8	29.3	— 1.5	92	S	.....	.....	2	.....	8	.....	.....	.....	.....	.....	.....
Thorshavn, (Faröe)	.....	.....	30.04	763.1	39.4	4.1	65	WNW	.....	.....	2	.....	4	.....	.....	.....	.....	.....	.....
Vestervig	.....	.....	30.21	767.2	24.1	— 4.4	91	SE	.....	.....	2	.....	10	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.26	768.7	33.8	1	59	N	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	30.24	768.2	23.0	— 5.0	85	W	.....	.....	6	.....	8	.....	NW	0.205	5.2	Very cloudy	Normal School.
Avignon	.....	.....	29.98	761.6	30.2	— 1	48	N	.....	.....	4	.....	10	.....	.....	0	0	Covered	Normal School.
Bar-sur-Seine	.....	.....	30.24	768.1	21.2	— 6.0	.....	W	.....	.....	1	.....	10	.....	.....	0	0	Covered	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.28	768.7	39.6	4.2	87	W	2.0	0.9	.....	.....	.....	.....	NNE	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	30.28	769.0	23.9	— 4.5	.....	WNW	.....	.....	1	.....	10	.....	.....	0.098	2.50	Covered	Normal School.
Besançon	.....	.....	30.20	767.1	24.8	— 4	.....	ENE	.....	.....	2	.....	10	.....	NE	0	0	Covered	Normal School.
Bourg en Bresse	.....	.....	30.18	766.6	22.8	— 5.1	90	W	.....	.....	1	.....	10n	.....	E	0	0	Covered	Normal School.
Bourges	.....	.....	30.29	769.3	19.4	— 7	57	NNE	.....	.....	2	.....	10	.....	NNE	0	0	Covered	Normal School.
Brest	.....	.....	30.22	767.5	37.6	3.1	95	Calm	.....	.....	0	.....	10	.....	NNW	0	0	Foggy	Naval Observatory.
Caen	.....	.....	30.23	767.9	34.7	1.5	100	S	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Chartres	.....	.....	30.19	766.7	18.0	— 7.8	.....	N	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.19	766.9	23.0	— 5.0	51	NE	.....	.....	2	.....	10	.....	.....	0.106	2.7	Covered	Puy de Dome, Obs.
Commercy	.....	.....	30.27	768.9	16.9	— 8.4	94	N	.....	.....	2	.....	10	.....	N	0	0	Covered	Normal School.
Commune de Gréasque*	.....	.....	29.89	759.1	34.2	1.2	93	NW	.....	.....	2	.....	8	.....	NW	0	0	¾ covered	
Grenoble	.....	.....	30.08	764.0	23.0	— 5	76	NW	.....	.....	1	.....	10	.....	.....	0	0	Snowing.....	Normal School.
Le Mans	.....	.....	30.28	769.2	22.6	— 5.2	90	N	.....	.....	3	.....	8	.....	N	0.20	5.	Very cloudy	Normal School
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.21	767.3	24.3	— 4.3	66	NNE	.....	.....	2	.....	10	.....	.....	0	0	Foggy	Normal School.
Mâcon	.....	.....	30.14	765.6	22.6	— 5.2	.....	W	.....	.....	1	.....	5	.....	W	0	0	Cloudy.....	Normal School.
Mirecourt	.....	.....	30.24	768.0	29.5	— 1.4	89	NNE	.....	.....	2	.....	.....	.....	NW	0	0	Misty.....	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.01	762.2	31.3	— 0.4	83	NE	.....	.....	2	.....	10	.....	SE	0	0	Covered	Normal School.
Orleans	.....	.....	30.19	767.8	20.1	— 6.6	100	NE	.....	.....	3	.....	10	.....	NE	0	0	Covered	Normal School.
Paris Observatory	.....	.....	30.25	768.4	21.2	— 6.0	81	NW	.....	.....	1	.....	.....	.....	N	0.094	2.41	Foggy	National Observatory.
Parthenay	.....	.....	30.28	769.0	22.1	— 5.5	78	N	.....	.....	6	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30.15	765.7	26.6	— 3	.....	NE	.....	.....	4	.....	10	.....	NE	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	30.24	768.2	25.9	— 3.4	92	N	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Rochefort, Observatory	.....	.....	30.28	769.1	29.7	— 1.3	78	NE	.....	.....	4	.....	0	.....	.....	0	0	.....	Naval Observatory.
Rouen	.....	.....	30.26	769.5	24.3	— 4.2	92	NNE	.....	.....	2	.....	10	.....	.....	0.236	6.0	Covered	Normal School.
Saint Lo	.....	.....	30.29	769.4	29.8	— 1.2	78	NE	.....	.....	1	.....	10	.....	NE	0	0	.....	Normal School.
Tarbes	.....	.....	30.24	768.1	48.2	9	100	W	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Toulouse	.....	.....	30.20	767.1	25.2	— 3.8	95	N	.....	.....	4	.....	10	.....	.....	.....	.....	Snowing.....	Normal School
Villefranche	.....	.....	30.21	767.4	25.7	— 3.5	78	NW	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.92	759.9	75.2	24.2	80	NE	.....	.....	2	.....	2k	.....	.....	0.04	1.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	29.87	758.7	37.4	3.0	87	NW	.....	.....	2	.....	10	.....	.....	0	0	.....	Marseilles Observatory
Mont-Louis	24.61	625.0	30.10	764.6	19.4	— 7.0	70	NNW	14.9	6.66	.....	.....	2	.....	WNW	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	30.23	767.7	20.7	— 6.3	100	Calm	.....	.....	0	.....	10	.....	.....	0.079	2.0	Foggy	Montsouris Observ'tory
Perpignan	.....	.....	30.00	762.0	33.4	1.9	52	NW	39.1	17.50	.....	.....	7	.....	SW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	20.89	530.6	.....	.....	— 4.4	—20.2	.....	N	.....	.....	3	.....	10	.....	.....	0	0	Snowy	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.24	768.2	18.5	— 7.5	98	NE?	.....	.....	1	.....	5?	.....	.....	0.047	1.2	Cove ed?	E. Renou.
Toulouse	.....	.....	30.17	766.4	25.7	— 3.5	100	NNW	.....	.....	3	.....	10	.....	.....	.....	.....	Snowing.....	Toulouse Observatory.
Tours	.....	.....	30.24	768.2	22.6	— 5.2	.....	NNW	.....	.....	1	.....	7	.....	NW	0.181	4.6	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.22	767.6	22.3	— 5.4	85	NE	.....	.....	1	.....	10	.....	.....	0	0	Light mist...	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,5[illegible]40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Bamberg	.....	.....	30.03	762.7	23.7	— 4.6	95	E	.....	.....	3	.....	10	.....	.....	0	0	Snowing.....	Prof. T. Hoh.
Berlin	.....	.....	30.26	768.5	25.2	— 3.8	81	E	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.28	769.2	21.6	— 5.8	91	ESE	.....	.....	3	.....	10	.....	.....	0	0	Graupelnd...	Dr. P. Naugebauer
Carlsruhe	.....	.....	30.20	767.1	22.3	— 5.4	90	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.16	766.1	25.0	— 3.9	81	SE	.....	.....	3	.....	10	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.32	770.0	24.8	— 4.0	79	NE	.....	.....	1	.....	10	.....	.....	0	0	.....	Physical Society.
Friedrichshafen	.....	.....	30.22	767.6	21.0	— 6.1	69	NE	.....	.....	.....	.....	10	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	30.23	767.9	24.8	— 4.0	93	ESE	.....	.....	1	.....	10	.....	.....	0	0	.....	Deutsche Seewarte.
Kiel	.....	.....	30.30	769.7	27.1	— 2.7	78	S	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.41	772.5	23.9	— 4.5	83	SE	.....	.....	5	.....	9	.....	.....	0	0	.....	Prof. E. Luther.
Köslin	.....	.....	30.30	769.7	21.4	— 5.9	.....	SE	.....	.....	1	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.25	768.3	24.6	— 4.1	64	N	.....	.....	2	.....	10	.....	.....	0	0	Light snow..	Prof. Bruhns.
Münster	.....	.....	30.22	767.5	25.2	— 3.8	91	SW	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.33	770.3	18.7	— 7.4	84	E	.....	.....	5	.....	10	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.22	767.6	23.4	— 4.8	90	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.23	767.8	21.7	— 5.7	78	NE	.....	.....	.....	.....	10	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.32	770 2	19.4	— 7.0	80	NE	.....	.....	4	.....	9	.....	.....	Inap.	Inap.	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.17	766.2	20.3	— 6.5	100	NE	.....	.....	1	.....	0	.....	.....	0	0	Dense fog....	Prof. Flesch.
Wustrow, Naval School	.....	.....	30.30	769.6	24.1	— 4.4	94	SSE	.....	.....	2	.....	7	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Athens	.....	.....	30.37	771.3	47.8	8.8	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Half clear...	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	30.07	763.7	37.4	3.0	86	NNE	.....	.....	4	.....	10	.....	.....	0.110	2.8	Raining	
Padua	.....	.....	30.03	762.7	38.1	3.4	97	NE	11.2	5.0	.....	.....	10	.....	.....	0.146	3.7	Raining	
Verona	.....	.....	30.03	762.7	38.8	3.8	83	E	.....	.....	1	.....	10	.....	.....	0.197	5.0	Light rain	
Bergamo	.....	.....	30.00	762.0	34.7	1.5	.....	W	.....	.....	1	.....	10	.....	.....	0	0	Light snow	
Milan	.....	.....	30.04	763.0	35.6	2.0	98	NNW	.....	.....	1	.....	10	.....	.....	0	0	Snowing	
Moncalieri	.....	.....	30.11	764.7	36.1	2.3	93	ENE	0	0	.....	.....	10	.....	.....	0.335	8.5	Raining	
Mondovi	.....	.....	30.08	764.1	34.5	1.4	51	W	.....	.....	1	.....	10	.....	.....	0	0	Snowing	
Porto Maurizio	.....	.....	29.90	759.4	50.0	10.0	.....	NNE	.....	.....	2	.....	10	.....	.....	0.059	1.4	Raining	
Genoa	.....	.....	29.93	760.1	40.3	4.6	68	NW	13.0	5.8	.....	.....	10	SE	.....	0.343	8.7	Raining	
Piacenza	.....	.....	30.06	763.5	34.5	1.4	93	E	0	0	.....	.....	10	.....	.....	0	0	Snowing	
Bologna	.....	.....	30.08	764.1	34.5	1.4	51	W	.....	.....	1	.....	10	.....	.....	Blank	Blank	.....	
Florence	.....	.....	29.94	760.5	46.4	8.0	79	E	.....	.....	2	.....	10	.....	.....	Blank	Blank	.....	
Leghorn	.....	.....	29.87	758.8	46.8	8.2	79	NE	13.0	5.8	.....	.....	10	.....	.....	0	0	.....	
Siena	.....	.....	29.91	759.7	48.2	9.0	79	E	3.8	1.7	.....	.....	10	S	.....	0.244	6.2	Raining	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ancona	.....	.....	30.04	763.1	38.8	3.8	93	WNW	.....	.....	4	.....	10	.....	.....	0.012	0.3	.....	
Rome	.....	.....	29.93	760.2	57.7	14.3	58	E	13.7	6.1	.....	.....	9	S	.....	0	0	.....	
Naples, O. U.	.....	.....	29.96	761.0	59.7	15.4	66	SE	.....	.....	6	.....	10	SE	.....	0	0	.....	
Lecce	.....	.....	30.19	766.7	56.1	13.4	73	SE	37.4	16.7	.....	.....	6	S	.....	0	0	.....	
Cosenza	.....	.....	30.11	764.9	53.2	11.8	83	NW	.....	.....	4	.....	10	.....	.....	0.268	6.8	Raining	
Riposto, (Sicily)	.....	.....	29.97	761.1	59.0	15.0	79	SSW	.....	.....	2	.....	10	NW	.....	0.307	7.8	Raining	
Palermo	.....	.....	29.74	755.3	59.4	15.2	61	S	19.9	8.9	.....	.....	10	S	.....	0.004	0.1	Raining	
Caltanissetta	.....	.....	29.90	759.4	49.1	9.5	95	E	.....	.....	7	.....	10	.....	.....	0.051	1.3	Raining	
Sub-Series.																			
Naples, S. R.	.....	.....	30.04	760.4	56.1	13.4	77	ESE	.....	.....	6	.....	..k'	SW	.....	0	0	.....	Prof. F. Brioschi.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	30.26	768.6	24.8	— 4.0	.....	WSW	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	30.17	766.3	25.3	— 3.7	.....	SE	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	30.18	766.6	28.8	— 1.8	.....	S	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	30.19	766.7	26.4	— 3.1	70	E	.....	.....	2	.....	10	.....	.....	.....	.....	Dull	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	30.11	764.8	32.0	0.0	92	S	17.4	7.8	.....	.....	10	.....	.....	0	0	.....	
Brönö	.....	.....	29.94	760.4	38.1	3.4	73	S	7	3	.....	.....	3	.....	.....	0	0	.....	
Christiania	.....	.....	30.28	769.2	15.8	— 9.0	100	.....	0.9	0.4	.....	.....	10	.....	.....	0	0	Snowing	
Tromsö	.....	.....	29.88	758.9	32.4	0.2	81	NE	2	1	.....	.....	9	.....	.....	0.047	1.2	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.50	774.8	58.1	14.5	82	ESE	9.0	4.03	.....	.....	3	.....	.....	0.024	0.6	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.18	766.6	45.0	7.2	47	NNE	8.8	3.92	.....	.....	4	NNE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.42	772.6	63.0	17.2	51	NE	8.2	3.65	.....	.....	5	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.26	768.6	45.7	7.6	45	N	19.9	8.9	.....	.....	2	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.37	771.4	21.0	-- 6.1	90	SE	18.0	8	.....	.....	1	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.60	777.1	14.9	— 9.5	92	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.67	779.1	3.0	—16.1	89	ESE	7	3	.....	.....	6	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.70	779.7	2.3	—16.5	88	SE	4	2	.....	.....	3	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	30.49	774.5	4.5	—15.3	95	SSE	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kief	.....	.....	30.65	778.4	7.0	—13.9	100	SE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.65	778.4	12.2	—11.0	82	NNW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kerteh	.....	.....	30.52	775.1	23.5	— 4.7	79	NE	4	2	.....	.....	6	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.95	786.2	9.9	—12.3	81	SSE	9	4	.....	.....	10	.....	.....	.....	.....	Light snow.	Meteorological Obs.
Lugan	.....	.....	30.67	778.9	19.9	— 6.7	89	E	34	15	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.30	769.6	10.2	— 8.8	94	SW	29	13	.....	.....	8	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	29.04	737.7	30.54	775.8	31.1	— 0.5	86	SSE	4	2	.....	.....	3	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.85	783.7	20.8	— 6.2	69	ENE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	31.08	789.4	0.1	-17.8	83	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	29.77	756.2	30.91	785.1	2.5	—16.4	70	SW	11	5	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	.....	.....	30.59	777.0	15.1	— 9.4	78	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	28.95	735.5	30.83	783.1	17.1	— 8.3	91	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.51	775.0	6.8	—14.0	88	SW	22	10	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	29.85	758.3	6.8	—14.0	92	SW	22	10	.....	.....	10	.....	.....	.....	.....	Snowing.....	Usolsef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.61	777.4	20.8	— 6.2	41	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	28.15	715.0	30.57	776.5	—23.8	—31.0	85	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.47	773.8	— 3.6	—19.6	81	NW	18	8	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—11.0	—23.9	82	NW	9	4	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 300.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.17	766.2	36.5	2.5	62	NE	4.5	2.0	.....	1	1	NW	.....	0	0	Clouds.....	Royal Observatory.
San Fernando	.....	.....	30.18	765.3	48.0	8.9	56	NNE	8.7	3.9	.....	1	0	E	.....	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.16	766.0	18.7	— 7.4	92	SW	.....	.....	6	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.26	768.6	21.9	— 5.6	100	SW	.....	.....	7	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	30.26	768.7	19.4	— 7.0	97	S	.....	.....	4	.....	10	.....	.....	0	0	.....	
Stockholm	.....	.....	30.28	769.2	27.9	— 2.3	85	S	.....	.....	2	.....	10	.....	.....	0.016	0.4	.....	
Wisby	.....	.....	30.41	772.4	26.6	— 3.0	87	SSW	.....	.....	4	.....	10	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.32	770.2	27.5	— 2.5	94	S	8.9	4.0	.....	.....	10	.....	.....	0.018	0.45	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.61	726.6	30.12	765.1	25.9	— 3.4	98	W	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.44	722.3	30.19	766.7	23.0	— 5.0	91	NE	.....	.....	2	.....	10	.....	.....	0	0	Foggy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.0 mm.; Thermometer, —4.7 cent.; Relative Humidity, +19 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.46	773.6	39.0	3.9	83	ENE	9	4.0	.....	.....	10	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.18	766.5	52.7	11.5	.....	NW	.....	.....	3	.....	10	.....	.....	.....	.....	Raining	
Salonica	.....	.....	30.70	779.8	43.3	6.3	.....	SE	.....	.....	1	.....	10	.....	.....	.....	.....	.....	
Valona	.....	.....	30.06	763.4	53.8	12.1	.....	W	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Varna	.....	.....	30.35	771.0	28.4	— 2.0	.....	NW	.....	.....	2	.....	10	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.17	766.4	57.9	14.4	57	NW	.....	.....	1	.....	1ks	.....	NW	0	0	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.60	749.3	— 3.5	—19.7	83	NW	5.5	2.5	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.99	761.7	7	—13.9	.....	NW	1	0.4	.....	0	0	.....	.....	0	0	Clear	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.56	750.8	— 3	—19.4	87	W	16	7.2	.....	8c	2ks	W	W	0	0	Fair	G. A. Blair.
Charlottetown P. E. Island.	.....	.....	29.61	752.1	2	—16.7	78	NW	11	4.9	.....	0	0	.....	.....	0	0	Clear	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.91	759.7	— 1.2	—18.4	100	NW	.....	.....	1	.....	1s	.....	.....	0	0	Bright	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.51	749.5	— 6.0	—21.1	61	W	.....	.....	4	1k	.....	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	30.51	774.9	30.0	— 1.1	89	NW	2	0.9	.....	.....	10	.....	.....	0	0	Partly clear.	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.71	754.6	— 2.9	—19.4	97	W	2	0.9	.....	.....	.....	.....	.....	0	0	Fair	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.61	777.5	—24	—31.1	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	James Stewart.
Goderich, Ontario	.....	.....	30.04	763.0	15.5	— 9.2	85	NW	.....	.....	2	4k	4n	NW	.....	0.15	3.8	Snow	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.98	761.5	11.6	—11.3	.....	W	.....	.....	1	.....	10n	.....	.....	0	0	Fair	James Grant.
*Halifax, N. S.	.....	.....	29.71	754.6	15	— 9.4	73	NW	16	7.2	.....	0	5ks	.....	NW	0	0	Fair	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.97	761.2	10	—12.2	66	NW	2	0.9	.....	2c	0	.....	.....	0	0	Clear	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.12	765.0	3.4	—15.9	.....	NE	3	1.3	.....	0	2s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.90	759.4	— 2	—18.9	67	W	20	8.9	.....	0	0	.....	.....	0	0	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.94	760.5	— 9	—22.8	79	W	7	3.1	.....	0	2s	.....	W	0	0	Clear	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.05	763.3	— 2	—18.9	87	N	4	1.8	.....	0	0	.....	.....	0	0	Clear	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.97	761.2	17	— 8.3	83	NW	5	2.2	.....	5k	0	NW	.....	0.05	1.3	Fair	H. Morgan.
Port Hastings, N. S.	.....	.....	29.66	753.4	18.9	— 7.3	.....	NW	5	2.2	.....	.....	.....	.....	.....	0	0	Fine	Peter Grant.
*Port Stanley Ontario	.....	.....	30.01	762.2	15	— 9.4	96	W	20	8.9	.....	2ck	0	W	.....	0.05	1.3	Clear	M. Payne.
*Quebec, Quebec	.....	.....	29.79	756.7	— 4	—20.0	65	SW	19	8.5	.....	0	0	.....	.....	0	0	Clear	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.76	755.9	3.0	—16.1	73	SW	8	3.6	.....	0	0	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.00	762.0	13	—10.6	81	N	14	6.3	.....	.....	10n	.....	N	0.07	1.8	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	30.01	762.2	10	—12.2	89	Calm	0	0	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow	R. J. Cole.
Stratford, Ontario	.....	.....	29.99	761.7	9.1	—12.7	94	NW	5	2.2	.....	2cs	0	NW	.....	0	0	Fine	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.66	753.4	4	—15.6	84	SW	8	3.6	.....	8k	2ks	W	W	0.01	0.3	Fair	T. C. Hill.
*Toronto, Ontario	.....	.....	29.97	761.2	15	— 9.4	87	N	5	2.2	.....	.....	10n	.....	.....	0	0	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	29.99	761.7	8.4	—13.1	97	Calm	0	0	.....	0	0	.....	.....	Inap.	Inap.	Fine	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the air. Fahrenheit.	Temperature of the air. Centigrade.	Relative humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.91	759.7	20	-6.7	84	Calm	0	0		5k	5s	W		0.02	0.5	Cloudy	
Alpena, Mich.			30.06	763.5	10	-12.2	79	NW	12	5.4			10s		NW	Inap.	Inap.	Cloudy	
Atlantic City, N. J.			30.04	763.0	24	-4.4	62	SW	2	0.9		10cs	0	SW		0	0	Cloudy	
Augusta, Ga.			30.20	769.4	31	-0.6	79	Calm	0	0		0	0			0	0	Clear	
Baltimore, Md.			30.05	763.3	24	-4.4	60	SW	3	1.3		5k	Sm'e	W		0	0	Fair	
Barnegat, N. J.			30.03	762.7	22	-5.6	72	SW	5	2.2			10s		W	0	0	Cloudy	
Benton, Montana	27.52	699.0	30.32	770.1	20	-6.7	100	S	1	0.4		0	0			0	0	Clear	
Bismarck, Dakota	28.59	726.2	30.49	774.4	-6	-21.1	26	Calm	0	0		0	0			0.01	0.3	Clear	
Boston, Mass.			29.94	760.5	16	-8.9	66	SW	15	6.7		5c	2s	W		0	0	Fair	
Breckenridge, Minn			30.60	777.2	-14	-25.6	73	NW	12	5.4		0	0			Inap.	Inap.	Clear	
Buffalo, N. Y.			29.92	760.0	18	-7.8	84		4	1.8			10n		NW	0.03	0.8	Light snow.	
Burlington, Vt.			29.91	759.7	10	-12.2	68	N	6	2.7		2k	2s	W		0	0	Fair	
Cairo, Ill.			30.29	769.4	33	0.6	69	W	10	4.5		0	0			0	0	Clear	
Cape Hatteras, N. C.			30.11	764.8	37	2.8	54	NW	8	3.6		2c	2s	W	W	0	0	Fair	
Cape Henry, Va.			30.12	765.0	33	0.6	65	SW	1	0.4		0	0			0	0	Clear	
Cape May, N. J.			30.04	763.0	31	-0.6	68	W	8	3.6		0	5s		W	0	0	Fair	
Charleston, S. C.			30.27	768.8	34	1.1	69	W	8	3.6		2c	0	W		0	0	Clear	
Cheyenne, Wyoming	24.28	616.7	30.22	767.6	10	-12.2	79	W	8	3.6		0	0			0	0	Clear	
Chicago, Ill.			30.23	767.8	12	-11.1	80	NW	10	4.5		2k	Sm'e	W		0	0	Fair	
Cincinnati, Ohio			30.12	765.0	26	-3.3	76	NW	6	2.7		0	2s		NW	0.04	1.0	Clear	
Cleveland, Ohio			30.01	762.2	19.8	-6.8	85	NW	22	9.8			10n		NW	0.02	0.5	Light snow.	
Colorado Springs, Col.	24.35	618.5	30.22	767.6	13	-10.6	62	N	8	3.6		2cs	1k		SW	0	0	Fair	
Corsicana, Tex.			30.52	775.2	39	3.9	82	N	6	2.7			10s			0	0	Cloudy	
Davenport, Iowa			30.28	769.1	20	-6.7	84	N	12	5.4			10s		NW	0.02	0.5	Cloudy	
Denison, Tex.			30.52	775.2	37	2.8	71	NW	5	2.2		0	5ks		W	0	0	Fair	
Denver, Col.	25.12	638.0	30.34	770.6	15	-9.4	48	SW	2	0.9		0	0			0	0	Clear	
Detroit, Mich.			30.06	763.5	13	-10.6	81	NW	7	3.1		1k	0	NW		0.02	0.5	Clear	
Dodge City, Kan.	27.83	706.9	30.33	770.4	20	-6.7	70	Calm	0	0		0	0			0	0	Clear	
Dubuque, Iowa			30.31	769.9	17	-8.3	51	N	8	3.6			10s		N	Inap.	Inap.	Cloudy	
Duluth, Minn.			30.41	772.4	0	-17.8	54	SW	4	1.8		2ck	0	W		0.03	0.8	Clear	
Eastport, Me.			29.72	754.9	10	-12.2	79	NW	14	6.3		0	0			0	0	Clear	
Erie, Pa.			29.94	760.5	20	-6.7	100	N	14	6.3			10n		N	0.04	1.0	Light snow.	
Escanaba, Mich.			30.20	767.1	7	-13.9	77	NW	16	7.2		Haze	5s		NW	0	0	Fair	
Fort Gibson, Indian Terr.			30.47	773.9	24	-4.4	61	Calm	0	0		1●	0			0	0	Clear	
Fort Sill, Indian T.	29.26	743.2	30.45	773.4	30	-1.1	69	N	7	3.1		6ck	2s	N	N	0	0	Fair	
Fort Sully, Dakota	28.65	727.7	30.40	774.4	12	-11.1	80	E	5	2.2		10c	0			0	0	Cloudy	
Galveston, Tex.			30.42	772.7	46	7.8	53	NE	20	8.9			10s		NE	0	0	Cloudy	
Grand Haven, Mich.			30.15	765.8	15	-9.4	91	Calm	0	0		0	8s		NW	0.05	1.3	Cloudy	
Indianapolis, Ind.			30.16	766.1	24	-4.4	87	W	4	1.8			10s		NW	0.02	0.5	Threatening	
Indianola, Tex.			30.43	772.9	47	8.3	77	N	26	11.6			10s		SW	0.01	0.3	Cloudy	
Jacksonville, Fla.			30.32	770.1	38	3.3	45	NW	6	2.7		0	0			0	0	Clear	
Keokuk, Iowa			30.20	769.4	23	-5.0	86	NW	5	2.2			10s		NW	0.03	0.8	Cloudy	
Key West, Fla.			30.21	767.3	65.0	18.8	81	NE	14	6.3		5c	1s	SW	NE	0	0	Fair	
Kittyhawk, N. C.			30.14	765.5	31	-0.6	71	N	7	3.1		0	0			0	0	Clear	
Knoxville, Tenn			30.23	767.8	26	-3.3	64	SW	8	3.6		0	0			0	0	Clear	
La Crosse, Wis.			30.39	771.9	8	-13.3	78	N	4	1.8			10s		N	0.09	2.3	Cloudy	
Leavenworth, Kan			30.44	773.	24	-4.4	74	NW	10	4.5		0	0			0	0	Clear	
Lexington, Ky.	28.99	736.3	30.16	766.1	29	-1.7	78	W	12	5.4			10s		SW	0	0	Cloudy	
Long Branch, N. J.			30.03	762.7	24	-4.4	74	SW	10	4.5			10s			0	0	Cloudy	
Louisville, Ky.			30.18	766.6	30	-1.1	78	NW	18	8.0		10k	0	NW		0	0	Cloudy	
Lynchburg, Va.			30.09	764.3	27	-2.8	53	S	1	0.4		0	0			0	0	Clear	
Malone, N. Y.			29.90	759.4	5	-15.0	87	W	6	2.7			10s		W	0	0	Cloudy	
Marquette, Mich.			30.22	767.6	10	-12.2	79	W	16	7.2			10s		NW	0	0	Cloudy	
Memphis, Tenn.			30.39	771.9	33	0.6	60	NW	6	2.7		0	0			0	0	Clear	
Milwaukee, Wis.			30.28	769.1	5	-15.0	7[illegible]	NW	14	6.3		0	0			0.08	2.0	Clear	
Mobile, Ala.			30.42	772.7	37	2.8	62	N	8	3.6		0	2s		NW	0	0	Fair	
Montgomery, Ala.			30.42	772.7	33	0.6	80	NW	2	0.9		0	Sm'e			0	0	Clear	
Morgantown, W. Va.			30.00	762.0	27.5	-2.5	94	SW	11	4.9			10n		SW	0.04	1.0	Light snow.	
Mt. Washington, N. H.	22.95	582.9	29.31	744.5	-14	-25.6	100	NW	70	31.3			Fog			0	0	Foggy	
Nashville, Tenn.			30.24	768.1	33	0.6	61	W	6	2.7		0	0			0	0	Clear	
New Haven, Conn			29.98	761.5	24	-4.4	60	W	8	3.6		Haze	8s		SW	0	0	Cloudy	
New London, Conn.			30.00	762.0	21.5	-5.8	65	W	4	1.8		2c	1s	W		0	0	Fair	
New Orleans, La.			30.41	772.4	45	7.2	46	[illegible]	7	2.7		10k	0	NW		0	0	Cloudy	
Newport, R. I.			29.97	761.2	21	-6.1	71	W	16	7.2		8cs	0	SW		0	0	Cloudy	
New York, N. Y.			30.02	762.5	21	-6.1	70	W	10	4.5			10s		W	0	0	Cloudy	
Norfolk, Va.			30.13	765.3	29.7	-1.4	72	SW	7	3.1		0	Haze			0	0	Clear	
North Platte, Neb.	27.40	696.0	30.26	768.6	9	-12.8	78	[illegible]	2	0.9		0	0			0	0	Clear	
Omaha, Neb.	29.30	744.2	30.50	774.7	11	-11.7	90	NW	11	4.9		0	0			0	0	Clear	
Oswego, N. Y.			29.92	760.0	20.6	-6.3	72	NW	7	3.1			10n			0.09	2.3	Light snow.	
Peck's Beach, N. J.			30.05	763.3	27	-2.8	78	SW	8	3.6			10s			0	0	Cloudy	
Pembina, Dakota			30.62	777.7	-25	-31.7	100	NW	4	1.8		0	0			0	0	Clear	
Philadelphia, Penn.			30.04	763.0	24	-4.4	87	SW	7	3.1		10ck	Sm'e	W		0	0	Cloudy	
Pike's Peak, Colorado	17.78	451.6	29.99	761.7	3	-16.1	59	SW	6	2.7		5c	0	SW		0	0	Fair	
Pittsburgh, Penn.			29.94	760.5	25	-3.9	75	SW	12	5.4			10n		SW	0.01	0.3	Light snow.	
Port Huron, Mich.			30.01	763.0	11	-11.7	79	W	14	6.3		0	1s			0.14	3.6	Clear	
Portland, Me.			29.86	758.4	14	-10.0	64	SW	8	3.6		1c	0			0	0	Clear	
Portland, Oregon			29.57	751.1	33	0.6	61	SE	2	0.9		0	0			0	0	Clear	
Punta Rassa, Fla.			30.26	768.6	54.1	12.3	79	N	12	5.4		8cs	1s	NW		0	0	Cloudy	
Rochester, N. Y.			29.92	760.0	17	-8.3		W	8	3.6			10n			0.02	0.5	Light snow.	
Salt Lake City, Utah	25.92	658.4	30.26	768.6	17	-8.3	83	SE	4	1.8		0	0			0	0	Clear	
Sandy Hook, N. J.			30.00	762.0	24	-4.4	62	SW	10	4.5		10k	0	W		Inap.	Inap.	Cloudy	
San Diego, Cal.			30.18	766.6	45	7.2	67	E	4	1.8		0	0			0	0	Clear	
San Francisco, Cal.			30.26	768.6	44	6.7	88	Calm	0	0		0	0			0	0	Clear	
Santa Fe, N. M.	23.32	592.3	29.86	758.4	21	-6.1	57	NE	8	3.6		8k	2s	SW		0	0	Cloudy	
Savannah, Ga.			30.31	769.9	33	0.6	52	NW	7	3.1		2cs	0	W		0	0	Clear	
Shreveport, La.			30.51	774.9	38	3.3	81	Calm	0	0		10cs	2s	W		0	0	Cloudy	
Smithville, N. C.			30.23	767.8	32	0.0	69	NW	5	2.2		5c	0	W		0	0	Fair	
Springfield, Mass.			29.95	760.7	20	-6.7	54	S	4	1.8		0	8ks		W	0	0	Cloudy	
St. Louis, Mo.			30.29	769.4	29	-1.7	77	N	4	1.8		0	0			0	0	Clear	
St. Marks, Fla.			30.35	770.9	35	1.7	61	[illegible]	7	3.1		0	2s		N	0	0	Fair	
St. Paul, Minn.			30.41	772.4	4	-15.6	72	NW	8	3.6		10cs	0	NW		0.03	0.8	Cloudy	
St. Paul's Island, Alaska																			
Squan Beach, N. J.			29.98	761.5	21	-6.1	71	SW	9	4.0		5c	5ks		SW	0	0	Cloudy	
Thatcher's Island, Mass.			29.94	760.5	19	-7.2	53	W	21	9.4		0	0			0	0	Clear	
Toledo, Ohio			30.06	763.5	19	-7.2	69	N	9	4.0			10s		NW	0.06	1.5	Cloudy	
Tucson, Arizona	27.71	703.8	30.14	765.5	40	4.4		SW				2ck	0	W		0	0	Fair	
Tybee Island, Ga.			30.27	768.8	36	2.2	52	W	12	5.4		0	0			0	0	Clear	
Vicksburg, Miss.			30.53	775.4	38	3.3	62	NW	1	0.4		5cs	0	W		Inap.	Inap.	Fair	

UNITED STATES SERIES.—CONTINUED.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.56	623.8	30.04	763.0	14	—10.0	63	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Washington, D. C	.....	.....	30.05	763.3	22	-- 5.6	72	S	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Wilmington, N. C	.....	.....	30.22	767.6	29	— 1.7	59	W	4	1.8	.....	2cs	0	W	.....	0	0	Fair	
Wood's Holl, Mass	.....	.....	29.97	761.2	24	-- 4.4	48	NW	14	6.3	.....	0	8s	.....	NW	0	0	Cloudy	
Wytheville, Va	27.63	701.8	29.91	759.7	22	— 5.6	72	W	14	6.3	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	29.15	740.4	30.62	777.7	3	—16.1	60	NW	7	3.1	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.25	768.3	44	6.7	.....	NW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.06	763.5	79	26.1	82	NE	5	2.2	.....	0	10s	.....	.....	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.02	762.5	73	22.8	81	E	.....	.....	.....	8pc	2ks	.....	.....	0.04	1.0	Cloudy	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.16	766.1	70	21.1	79	Calm	0	0	.....	5k, fk	3n, ks	NE	NE	0	0	Fair	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.21	767.3	69	20.6	79	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.29	769.4	73	22.8	79	E	6	2.7	.....	2c	8kn	E	.....	0.03	0.8	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.88	758.9	70	21.1	75	N	12.0	5.4	.....	4ck	8ks	N	NE	.....	.....	Cloudy	Robert Mason.
St. Georges, Bermudas	.....	.....	30.08	764.0	60.5	15.8	66	W	14.0	6.3	.....	10ck	2fk	W	.....	0.04	1.0	Cloudy	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.30	769.6	—19	—28.3	66	N	10	4.5	.....	0	Haze	.....	.....	0.01	0.3	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.69	754.1	16.0	-- 8.9	66	SW	.....	.....	.....	0	5s	.....	.....	0.03	0.8	Fair	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.24	691.9	30.06	763.5	56	13.3	81	E	1.0	0.4	.....	8c	2k	E	.....	0	0	Fine	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Medellin, Colombia, S. A	25.14	638.5	.....	.....	64.9	18.3	80	.....	0	0	.....	2cs	1s	.....	.....	0.61	15.5	Fair	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.00	762.0	80	26.7	87	NE	.....	.....	3	.....	6ks	.....	.....	0.080	2.03	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.03	762.7	82.4	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.217	5.50	.....	Dr. H. Groot.

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,078.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft.. or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 13, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Nemours	.....	.....	29.85	758.3	55.8	13.2	55	NW	.....	.....	4	.....	8	.....	.....	0	0	Cloudy	Charnot.
Algiers	.....	.....	29.73	755.1	41.7	5.4	94	W	.....	.....	2	.....	10	.....	.....	1.201	30.5	Hidden.	Peter.
La Calle																			Kunts.
Tunis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sfax	.....	.....	29.80	756.9	54.7	12.6	52	WSW	.....	.....	4	.....	4	.....	.....	0	0	Fair	Jacques.
Saïda	.....	.....	29.85	758.3	54.3	12.4	61	S	.....	.....	2	.....	5	.....	.....	0	0	Fair	Chauvey.
Tebessa	.....	.....	29.84	757.8	37.4	3.0	83	W	.....	.....	4	.....	2	.....	.....	0.512	13.0	Clear	Grosjean.
Geriville	.....	.....	29.81	757.1	49.6	9.8	.....	W	.....	.....	5	.....	3	.....	.....	0.079	2.0	Fair	Colin.
Laghouat	.....	.....	29.89	759.2	30.2	— 1.0	88	NW	.....	.....	4	.....	6	.....	.....	0.646	16.4	Fair	Buard.
Biskra	.....	.....	29.90	759.4	44.6	7.0	57	NW	.....	.....	4	.....	2	.....	.....	0	0	Clear	Simon.
	.....	.....	29.80	756.6	51.4	10.8	44	N	.....	.....	1	.....	10	.....	.....	0.118	3.0	Hidden.	Coulon.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.17	766.3	28.8	— 1.8	90	NE	.....	.....	4	.....	10	.....	.....	0.197	5.0	Rain & hail.	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.29	769.3	22.6	— 5.2	96	NE	.....	.....	1	.....	6	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.24	768.2	34.3	1.3	86	Calm	.....	.....	0	.....	5	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hermannstadt	28.89	733.8	30.16	766.1	29.7	— 1.3	83	S	.....	.....	2	.....	10	.....	.....	0.150	3.8	.....	Andreas Rospini.
Kremsmünster	28.74	729.9	30.23	767.8	34.3	1.3	73	SE	.....	.....	3	.....	0	.....	.....	0	0	.....	Prof. Reissenberger.
Lemberg	28.56	725.5	29.97	761.3	29.7	— 1.3	90	ENE	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. C. Wagner.
Nyiregyhaza	.....	.....	30.30	769.7	22.6	— 5.2	93	SE	.....	.....	1	.....	5	.....	.....	0	0	.....	Dr. T. Stanecki.
Pola	.....	.....	30.23	767.8	29.8	— 1.2	96	NE	.....	.....	1	.....	1	.....	.....	0	0	.....	Habzsuda Daniel.
Szegedin	.....	.....	29.85	758.1	51.4	10.8	81	SE	.....	.....	6	.....	10s	.....	.....	0.091	2 31	.....	I.R. Hydrographic Of'ce
Trieste	.....	.....	30.21	767.4	25.3	— 3.7	89	E	.....	.....	2	.....	0	.....	.....	0	0	.....	Karl Stancel.
Vienna	.....	.....	29.92	760.0	40.8	4.9	67	ENE	.....	.....	2	.....	10	.....	.....	0	0	Misty?	Prof. V. Farolfi.
	.....	.....	30.18	766.5	27.3	— 2.6	83	SSE	.....	.....	2	.....	10	.....	.....	0	0	.....	I. R. Central Institute.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	30.17	766.4	22.3	— 5.4	100	ENE	.....	.....	5	.....	10	.....	.....	0	0	Light snow.	Royal Observatory.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.45	773.4	38.9	3.8	.....	WNW	9	4.0	.....	.....	2	.....	.....	0.230	5.84	.....	William Boswell.
Ardrossan	.....	.....	30.48	774.2	40	4.4	.....	NW	.....	.....	1	.....	0	.....	.....	.....	.....	Foggy	J. Mayes.
Armagh Observatory	.....	.....	30.50	774.7	36.0	2.2	.....	NNW	1	0.4	.....	.....	0	.....	.....	.....	.....	Blue sky	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs	.....	.....	30.40	772.1	36.2	2.3	.....	ENE	10	4.5	.....	.....	10	.....	.....	.....	.....	Overcast	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.48	774.2	35.8	2.1	.....	Calm	.....	.....	0	.....	1	.....	.....	.....	.....	Blue sky	J. Dreyer.
Bradford	.....	.....	30.35	770.9	36.6	2.6	.....	NW	.....	.....	1	.....	9	.....	.....	0.19	4.8	Drizzling	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.02	762.5	79.4	26.3	.....	NE	.....	.....	3	.....	7	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.33	770.4	32.0	0.0	.....	N	.....	.....	1	.....	10	.....	.....	Blank	Blank	Overcast	H. Todd.
Cardington	.....	.....	30.34	770.6	32.0	0.0	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	John McLaren.
Carlisle	.....	.....	30.45	773.4	39.1	3.9	.....	NW	.....	.....	1	.....	8	.....	.....	0	0	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.32	770.1	33.2	0.7	.....	NE	.....	.....	2	.....	.....	.....	.....	.....	.....	Gloomy	Capt. J. Fellowes, R. E.
Dartmoor	28.75	730.2	30.32	770.1	30.0	— 1.1	.....	NW	.....	.....	4	.....	10	.....	.....	.....	.....	Threatening	R. E. Power.
Donaghadee	.....	.....	30.48	774.2	43	6.1	.....	NNE	.....	.....	5	.....	3	.....	.....	.....	.....	*D. clouds	J. Mac Gowan.
Dover	.....	.....	30.31	769.9	32	0.0	.....	NE	.....	.....	4	.....	8	.....	.....	.....	.....	Gloomy	J. Costello.
Eccles, (near Manchester)	.....	.....	30.38	771.6	35.0	1.7	.....	E	1.6	0.7	.....	.....	10	.....	.....	.....	.....	Misty	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.27	768.8	39.8	4.3	.....	NE	25	11.2	.....	.....	10	.....	.....	.....	.....	Foggy	The Staff.
Fort Napier, (Natal)	27.67	702.8	29.93	760.2	63.5	17.5	.....	SE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone	.....	.....	29.93	760.2	86	30.0	.....	N	.....	.....	2	.....	3	.....	.....	.....	.....	Blue sky	[tis.
Galway, Queen's College	.....	.....	30.26	768.6	46	7.8	.....	NE	.....	.....	1	.....	1	.....	.....	.....	.....	*D. clouds	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)	.....	.....	30.01	762.2	53.0	11.7	.....	SW	.....	.....	0	.....	1	.....	.....	.....	.....	*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.45	773.4	38.0	3.3	.....	W	.....	.....	1	.....	4	.....	.....	.....	.....	Fine	Wm. M. Stewart.
Great Yarmouth	.....	.....	30.33	770.4	34	1.1	.....	ENE	.....	.....	5	.....	8	.....	.....	.....	.....	Overcast	G. T. Watson.
Greenwich Royal Obs	.....	.....	30.28	769.1	33.7	0.9	.....	NNE	.....	.....	4	.....	9	.....	.....	Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey	.....	.....	30.15	765.8	36	2.2	.....	NE	.....	.....	5	.....	8	.....	.....	.....	.....	*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs	.....	.....	30.43	772.9	34.7	1.5	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Rain & snow	L. J. Cr sley.
Helston	.....	.....	30.23	767.8	43	6.1	.....	NE	.....	.....	4	.....	10	.....	.....	0.26	6.6	Gloomy	M. P. Moyle.
Holyhead	.....	.....	30.43	772.9	40	4.4	.....	ENE	.....	.....	2	.....	4	.....	.....	.....	.....	*D. clouds	John Tilston.
Kew Observatory	.....	.....	30.29	769.4	33.0	0.6	.....	NNW	16	7.2	.....	.....	10	.....	.....	.....	.....	Overcast	The Staff.
Kingstown	.....	.....	30.45	773.4	43	6.1	.....	NE	.....	.....	5	.....	8	.....	.....	.....	.....	Overcast	George Mitchell.
Leicester Museum	.....	.....	30.40	772.1	31.9	— 0.1	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	William J. Harrison.
Malta, (Mediterranean)	.....	.....	29.75	755.6	60	15.6	.....	SW	.....	.....	3	.....	8k	.....	.....	.....	.....	.....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	30.46	765.3	36	2.2	.....	WSW	.....	.....	1	.....	5	.....	.....	.....	.....	½ clouded	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.25	768.3	70.6	21.4	.....	N	.....	.....	5	.....	9	.....	.....	.....	.....	Overcast	Surg.-Maj. Henry.
Nottingham	.....	.....	30.40	772.1	32.1	0.1	.....	N	.....	.....	1	.....	Ind	.....	N	.....	.....	Snowing	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.38	771.6	30.8	— 0.7	.....	NE	.....	.....	2	.....	10	.....	.....	.....	.....	Snow & mist	Rev. Stephen Whitty.
Oxford, Radcliffe Obs	.....	.....	30.31	769.6	32	0.0	.....	N	.....	.....	1	.....	10	.....	.....	.....	.....	Gloomy	J. Lucas.
Plymouth	.....	.....	30.27	768.8	36.5	2.5	.....	NE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	John Merrifield.
Roche's Point	.....	.....	30.40	772.1	42	5.6	.....	N	.....	.....	4	.....	2	.....	.....	.....	.....	Fine	W. Kennedy.
Saint Ann's Head	.....	.....	30.33	770.4	41	5.0	.....	NE	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.13	765.3	34.0	1.1	.....	ENE	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast	A. P. Amy.
Sandwick Manse(Orkneys	.....	.....	30.40	772.1	40.2	4.6	.....	NW	16	7.2	.....	.....	9	.....	.....	.....	.....	Bri ht	Rev. Dr. Clouston
Scarborough	.....	.....	30.41	772.4	37.5	3.1	.....	ENE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	F. Shaw.
Scutari Cemetery(Turkey	.....	.....	30.36	771.1	41.0	5.0	.....	NE	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.40	772.1	35.6	2.0	.....	NE	.....	.....	1	.....	10	.....	.....	0.046	1.17	Misty	W. F. Cooper.
Silloth Rectory	.....	.....	30.43	772.9	38.8	3.8	.....	N	.....	.....	2	.....	6	.....	.....	0	0	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.40	772.1	35.3	1.8	.....	NE	.....	.....	0	.....	10	.....	.....	.....	.....	Gloomy	The Staff.
Stornoway, Lewis C. (Hebr)	.....	.....	30.44	773.2	36	2.2	.....	W	.....	.....	1	.....	2	.....	.....	.....	.....	Blue sky	John Smith.
Stratfield Turgiss	.....	.....	30.29	769.4	31.8	— 0.1	.....	N	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	30.40	772.1	43	6.1	.....	N	.....	.....	1	.....	4	.....	.....	.....	.....	*D. clouds	John Trotter.
Truro, Royal Institution	.....	.....	30.29	767.1	41	5.0	.....	NE	.....	.....	6	.....	4	.....	.....	.....	.....	*D. clouds	W. Newcombe.
Valencia Observatory	.....	.....	30.46	773.7	44.3	6.8	.....	ENE	16	7.2	.....	.....	5	.....	.....	.....	.....	*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.86	758.4	69.9	32.2	33	SSE	14	6.3	.....	.....	2	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	38	3.3	.....	E	.....	.....	3	5	5	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	30.50	774.7	40.0	4.4	.....	NE	.....	.....	1	.....	.....	.....	.....	0	0	Fine	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.40	772.1	28.6	— 1.9	84	NE	.....	.....	2	.....	8	.....	.....	.....	.....	.....	
Fanöe	.....	.....	30.47	773.9	28.6	— 1.9	90	NE	.....	.....	2	.....	10	.....	.....	.....	.....	.....	
Godthaab, (Greenland)	.....	.....	29.28	743.6	18.9	— 7.3	95	Calm	.....	.....	0	.....	8	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.48	748.9	41.2	5.1	90	S	.....	.....	4	.....	10	.....	.....	.....	.....	Raining	
Thorshavn, (Faröe)	.....	.....	30.37	771.4	37.4	3.0	74	WNW	.....	.....	2	.....	2	.....	.....	.....	.....	.....	
Vestervig	.....	.....	30.45	773.3	28.4	— 2.0	88	NE	.....	.....	2	.....	8	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.08	764.0	32.0	0	74	NE			1		10			0	0	Covered	Normal School.
Amiens			30.15	765.9	26.2	— 3.2	96	NW			6		10			0	0	Covered	Normal School.
Avignon			29.63	752.5	30.2	— 1	72	N			3					0.32	8	Lightly cov'd	Normal School.
Bar-sur-Seine			29.97	761.3	25.3	— 3.7		NE			3		10			0	0	Light snow	C. Saillard.
Beaumette, (near Angers)			30.02	762.6	26.1	— 3.3	92	NE	30.6	13.7						0.031	0.8	Foggy	Beaumette Obse ratory
Beauvais			30.12	765.0	25.0	— 3.9		NNE			3		10		NE	0	0	Covered	Normal School.
Besançon			29.92	759.9	25.7	— 3.5		NE			3		10		NE	0	0	Covered	Normal School.
Bourg en Bresse			29.91	759.6	25.3	— 3.7	98	NW			4		10n		SW	0	0	Covered	Normal School.
Bourges			29.99	761.8	21.2	— 6	95	N			2		10		NNW	0.04	1	Covered	Normal School.
Brest			30.08	764.1	39.7	4.3	95	NNE			3		8		N	0.069	1.75	Almost cov'd	Naval Observatory.
Caen			30.07	763.7	32.5	0.3		NE			6		10			0	0	Covered	Normal School.
Chartres			29.98	761.5	20.1	— 6.6		N			2		10			0	0	Covered	Normal School.
Chaumont																			Normal School.
Clermont			29.99	761.8	18.0	— 7.3	84	N			2		10			0.043	1.1	Covered	Puy de Dome, Obs.
Commercy			30.06	762.4	23.0	— 5	95	E			4		10		E	0	0	Covered	Normal School.
Commune de Gréasque*			29.52	749.7	49.6	9.8	72	NE			3		8		NE	0.929	23.6	¾ covered	
Grenoble			30.28	769.1	26.6	— 3	78	NW			1		10			0	0	Misty	Normal School.
Le Mans			30.05	763.2	22.6	— 5.2	80	N			4		8		N	0	0	Very cloudy	Normal School
Loches																			
Lons-Le-Saulnier			29.89	759.1	28.8	— 1.8	78	E			2		10			0	0	Foggy	Normal School.
Mâcon			29.88	758.9	24.3	— 4.3		N.W			1		10			0	0	Covered	Normal School.
Mirecourt			29.92	760.0	29.8	— 1.2	95	NE			4		10		SSW	0	0	Covered	Normal School.
Metz																			
Nismes			29.67	753.6	25.5	— 3.6	92	NE			8		8		E	0	0	Very clear	Normal School.
Orleans			30.01	762.2	21.9	— 5.6	100	E			4		10		NE	0	0	Covered	Normal School.
Paris Observatory			30.03	762.8	24.1	— 4.4	81	NE			3		8			0	0	Very cloudy	National Observatory.
Parthenay			29.98	761.6	23.0	— 5	91	N			6		10			0	0	Covered	Normal School.
Privas			29.85	758.1	26.2	— 3.2		NW			4		8		NW	0	0	Very cloudy	Normal School.
La Roche-sur-Yon			30.06	763.5	28.6	— 1.9	92	N			1		10			0	0	Covered	Normal School.
Rochefort, Observatory			29.96	761.0	28.2	— 2.1	90	NE			4		10			0	0	Covered	Naval Observatory.
Rouen			30.12	765.0	27.5	— 2.5	93	NE			3		5		N	0	0	Cloudy	Normal School.
Saint Lo			30.17	766.4	28.8	— 1.8	67	NW			8		10		E	0	0		Normal School.
Tarbes			29.95	760.6	46.4	8	90	NW			2		10		SE	0	0	Covered	Normal School.
Toulouse			29.87	758.7	31.6	— 0.2	91	N			2		10					Snowing	Normal School
Villefranche			30.24	768.2	23.2	— 4.9	90	NW			3		10			0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.93	760.2	75.2	24	86	NE			1		5kn			0.08	2		L'Abbé Marchési.
Gorée																			
Marseilles			29.48	748.9	55.0	12.8	77	E			2		10			0.492	12.50		Marseilles Observatory
Mont-Louis	24.36	618.8	29.79	756.7	22.3	— 5.4	69	NNE	22.4	10.00			10			0.240	6.1		—. Falguère.
Montsouris, Paris			30.02	762.4	21.9	— 5.6	95	NE			5		10			0	0		Montsouris Observ'tory
Perpignan			29.65	753.2	30.7	— 0.7		N	18.6	8.33			10			0	0		Dr. Fines.
Pic du Midi, (Summit) H. P.	20.71	526.1			12.6	10.8		N			3		10			0	0	Snowy	M. Baylac.
Saint Maur, (near Paris)			30.02	762.4	25.3	— 3.7	81	NNE			3		5?			0	0	Covered?	E. Renou.
Toulouse			29.83	757.7	19.8	— 6.8	100	NNW			1		10					Snowing	Toulouse Observatory.
Tours			29.99	761.8	24.6	— 4.1		N			2		10			0	0	Covered	C. Marquet.
Versailles, (near Paris)			30.01	762.2	24.8	— 4.0	77	NE			3		10			0	0	Light mist	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,580.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,360 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			29.91	759.8	32.0	0.0	81	E			0		9			0	0		Prof. T. Hoh.
Berlin			30.32	770.2	27.0	— 2.8	74	NE			2		10			0	0		Prof. Arndt.
Breslau			30.28	769.0	28.1	— 2.1	95	NE			2		10			0	0		Dr. P. Neugebauer
Carlsruhe			29.98	761.5	27.1	— 2.7	85	NE			3		10			0	0		A. Sens.
Cassel			30.11	764.7	30.2	— 1.0	82	NNE			5		10			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main			30.07	763.7	30.2	— 1.0	82	NE			4		8			Inap.	Inap.		Physical Society
Friedrichshafen			29.95	760.7	24.1	— 4.4	76	NE					9			0	0		M. Wilhelm.
Hamburg			30.35	771.0	29.1	— 1.6	92	ENE			4		10			0	0	Dense fog	Deutsche Seewarte.
Kiel			30.39	772.0	30.7	— 0.7	90	NE			2		10			0	0		Prof. G. Karsten.
Königsberg			30.37	771.4	28.0	— 5.0	82	E			5		9			0	0		Prof. K. Luther.
Koslin			30.33	770.4	25.0	— 3.9		Calm			0		10			0	0		H. Möller.
Leipsic			30.26	768.7	25.9	— 3.4	91	NE			6		10			0	0	Foggy	Prof. Bruhns.
Münster			30.28	769.2	27.0	— 2.8	87	NW			4		10			0	0		Prof. E. Heis.
Posen			30.32	770.2	23.0	— 5.0	88	NNE			1		10			0.035	0.9		Dr. Magener.
Strassburg, (in Alsace)			29.99	761.7	25.9	— 3.4	87	NE			3		10			0	0		Dr. Schur.
Stuttgart			29.99	761.8	28.4	— 2.0	78	N					10			0	0		Mr. Würth.
Thorn			30.30	769.5	23.5	— 4.7	95	NE			3		10			0	0	Snowing	Dr. Hasenbalg
Treves, (Trier)			29.95	760.7	24.8	— 4.0	89	NE			7		10			0	0	Light fog	Prof. Flesch.
Wustrow, Naval School			30.39	771.0	29.7	— 1.3	87	NE			3		10			0	0		E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.26	768.7	49.6	9.8		NE										Covered	

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.97	761.2	43.3	6.3	75	NNE			2		10			0.276	7.0	Raining	
Padua			29.85	758.2	43.3	6.3	94	NE	28.6	12.8			10	NE		0.335	8.5	Raining	
Verona			29.75	755.2	50.0	10.0	72	E			1		10			0.098	2.5	Raining	
Bergamo			29.77	756.1	45.5	7.5	79	N			6		10			0	0	Raining	
Milan			29.83	757.7	39.7	4.3	92	NW			1		10			0	0	Raining	
Moncalieri			29.85	758.1	36.9	2.7	95	NW	4.9	2.2			10			2.536	64.4	Raining	
Mondovi			29.85	758.0	32.7	0.4	94	W			2		10			0	0	Snowing	
Porto Maurizio			29.70	754.3	50.0	10.0		NE			6		10			0.394	10.0	Raining	
Genoa			29.72	755.0	46.8	8.2	76	N	8.7	3.9			10	SE		0.213	5.4	Light rian	
Piacenza			29.81	757.2	37.0	2.8	97	SE	34.9	15.6			10			0.157	4.0	Light rain	
Bologna			29.83	757.7	37.2	2.9	48	NW			1		10			0	0	Light rain	
Florence			29.76	756.0	52.3	11.3	74	E			2		10			0.008	0.2		
Leghorn			29.68	753.8	50.0	10.0	74	ENE	11.6	5.0			10			0	0		
Siena			29.75	755.6	45.5	7.5	91	SE	3.8	1.7			10	S		0.091	2.3	Raining	
Urbino																			
Pesaro																			
Ancona			29.79	756.6	52.2	11.2	87	E			4		10	E		0.657	16.7	Raining	
Rome			29.79	756.7	50.5	10.3	81	SE	11.2	5.0			10			0.213	5.4	Raining	
Naples, O. U.			29.79	756.7	54.7	12.6	83	S			2		10	S		0	0		
Lecce			30.01	762.3	53.1	11.7	76	S	29.8	13.3			10	S		0.012	0.3		
Cosenza			29.84	758.0	54.7	12.6	81	SW			4		10			0.047	1.2	Raining	
Riposto, (Sicily)			29.78	756.4	52.3	11.2	86	NNE			4		10	NE		0.787	20.0	Raining	
Palermo			29.67	753.5	54.5	12.5	71	NE	3.8	1.7			8			0.004	0.1		
Caltanissetta			29.79	756.6	47.8	8.8	89	E			2		8			0.213	5.4		
Sub-Series.																			
Naples, S. R.			29.79	756.7	50.9	10.5	94	SE			6		10	S		0.638	16.2	Raining	Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of staticns are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.28	769.2	26.4	— 3.1		NE			5								
Groningen			30.29	769.3	27.3	— 2.6		E			4								
Helder			30.33	770.3	28.8	— 1.8		ENE			4								
Utrecht			30.25	768.3	25.0	— 3.9	87	ENE			5		10					Dull	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.41	772.4	34.2	1.2	78	S	0.4	0.2			10			0	0		
Brönö			30.42	772.7	33.8	1.0	65	NNE	7	3			2			0	0		
Christiania			30.50	774.8	19.2	— 7.1	93		1.1	0.5			9			0.039	1.0		
Tromsö			30.22	767.6	26.2	— 3.2	96	SW	7	3			5			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luis at Lisbon.

Stations.	Barometer corrected for instrumental errors.		Barometer reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount.		Clouds. Direction.		Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Up'er 0—10.	Low'r 0—10.	Upper. From—	Lower. From—	Inches.	Millimeters.		
Angra, (Azores,)	.....	.....	30.59	776.9	57.0	13.9	82	ESE	3.2	1.45	.....	.....	5	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.98	761.6	47.8	8.8	71	WNW	17.2	7.67	.....	.....	4	NW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.36	771.1	61.0	16.1	57	NE	4.8	2.14	.....	.....	8	....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.11	764.7	53.2	11.6	72	NNW	29.8	13.3	.....	.....	7	N	.....	0.008	0.2	Rainy	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.31	769.8	24.4	— 4.2	84	ESE	9	4	.....	.....	10	.....	.....	.....	.....	Snowing	Astronomical Obs.
Wilna	.....	.....	30.54	775.6	12.7	—10.7	85	SE	4	2	.....	.....	10	.....	.....	.....	.....	Snowing	Astronomical Obs.
Dorpat	.....	.....	30.60	777.3	11.3	—11.5	92	SE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.57	776.5	7.2	—13.4	89	SW	2	1	.....	.....	10	.....	.....	.....	.....	Light snow	Central Physical Obs.
Kuopio	.....	.....	30.42	772.6	5.7	—14.6	100	S	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kieff	.....	.....	30.57	776.5	14.9	— 9.5	97	SSE	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.61	777.6	19.2	— 7.1	93	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.47	774.0	24.3	— 4.3	84	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.75	781.1	19.0	— 7.2	90	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.67	779.0	10.4	—12.0	78	E	34	15	.....	.....	6	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	30.28	769.1	0.7	—17.4	90	SW	22	10	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	29.03	737.4	30.52	775.2	34.2	1.2	68	Calm	0	0	.....	.....	9	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.93	785.5	19.8	— 6.8	84	ENE	11	5	.....	.....	6	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.94	785.9	—13.0	—25.0	81	S	2	1	.....	.....	1	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....																	Tschernischef.
Ekaterinburg	.....	.....																	Meteorological Obs.
Kasaly	29.65	753.2	30.78	781.7	8.2	—13.2	60	W	20	9	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	.....	.....	30.71	780.1	— 7.6	—22.0	25	N	9	4	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	28.79	731.2	30.68	779.2	13.5	—10.3	90	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.68	779.2	— 6.3	—21.3	69	SW	2	1	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	29.91	759.8	— 4.7	—20.4	94	SSW	4	2	.....	.....	10	.....	.....	.....	.....	Snowing	Usolsef.
Gorga	.....	.....																	Mossin.
Peking, (China)	.....	.....																	Physical Observatory.
Nertchinsk	.....	.....	30.53	775.5	24.8	— 4.0	38	Calm	0	0	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	27.95	710.0	30.34	770.7	—18.6	—28.1	85	Calm	0	0	.....	.....	4	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	30.53	775.5	10.6	—11.9	67	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	—14.1	—25.6	.....	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Gorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.85	758.1	24.1	4.4	62	NW	7.4	3.3	.....	0	7	.....	.....	0	0	Cloudy	Royal Observatory.
San Fernando	.....	.....	30.07	763.8	48.4	9.1	71	NW	15	7.1	.....	0	4	.....	NW	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.35	770.9	5.0	—15.0	82	SW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.36	771.1	2.1	—16.6	90	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	30.41	772.4	1.2	—17.1	89	NNE	.....	.....	.....	.....	0	.....	.....	0	0	.....	
Stockholm	.....	.....	30.38	771.6	25.7	— 3.5	91	WNW	.....	.....	2	.....	10	.....	.....	0.008	0.2	.....	
Wisby	.....	.....	30.50	774.7	27.7	— 2.4	87	ESE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.44	773.2	22.8	— 5.1	97	WNW	0	0	.....	.....	10	.....	.....	0	0	....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.39	721.0	29.90	759.4	25.9	— 3.4	81	NE			2		10			0	0	Foggy	The Observatory.
Zurich	28.20	716.4	29.95	760.8	23.0	— 5.0	79	NE			2		10			0	0	Foggy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —6.7 mm.; Thermometer, —4.8 cent.; Relative Humidity, +2 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Constantinople			30.38	771.7	39.0	3.9	74	ENE	18	8.0			10		NE	0	0		
Fao, (Persian Gulf)			30.16	766.0	51.8	11.0		NW			1		10						
Salonica			30.33	770.3	45.9	7.7		SE			1		5						
Valona			29.91	759.7	56.3	13.5		SE			1		10						
Varna			30.32	770.0	42.3	5.7		NW			2		10						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			30.15	765.8	60.1	15.6	54	NW			1		3k		NW	0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Bathurst, N. B.			29.82	757.4	2.5	—16.4	78	NW	9.5	4.2						0	0		Hon. J. Ferguson.
Brockville, Ontario			30.40	772.1	— 4	—20.0		Calm	0	0		0	2s		N	0	0	Fair	W. R. Bigg.
*Chatham, N. B.			29.87	758.7	— 8	—22.2	87	W	1	0.4		5c	0	SW		0	0	Fair	G. A. Blair.
Charlottetown, P. E. Island.			29.87	758.7	— 2	—18.9	51	W	5	2.2		0	0			0	0	Clear	H. J. Cundall, C. E.
Cornwall, Ontario			30.31	769.9	— 8.2	—22.3	100	SW			1		1s			0	0	Bright	James Smith, M. A.
Dalhousie, N. B.			29.95	760.7	0.0	—17.8	69	W			2	2cs				0	0		H. A. Johnson.
Esquimaalt, B. C.			30.36	771.1	33.1	0.6	100	N	1	0.4			10			0.07	1.8	Cloudy	W. H. Bevis.
Fredericton, N. B.			29.97	761.2	— 2.6	—16.3	87	NW	10	4.5		2cs				0	0	Fair	Prof. Harrison.
*Fort Garry, Manitoba			30.17	766.3	— 4	—20.0	96	S	8	3.6		Haze	2ks	S	S	0	0	Fair	James Stewart.
Goderich, Ontario			30.41	772.4	14.9	— 9.5	86	NW			2	4k	4n	NW		0.10	2.5	Light snow.	H. J. Strang, M. A.
Granton, Ontario			30.36	771.1	10.6	—11.9		Calm			0	6cs	0	E		0	0	Fair	James Grant.
*Halifax, N. S.			29.91	759.7	7	—13.9	72	NW	9	4.0			10n		W	0	0	Cloudy	F. Allison, M. A.
*Kingston, Ontario			30.40	772.1	— 4	—20.0	90	N	3	1.3		0	0			0	0	Clear	S. Woods, M. A.
Little Current, Ontario			30.43	772.9	— 3.4	—19.7		Calm	0	0		0	1s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			29.26	768.3	— 6	—21.1	69	W	16	7.2		2cs	2s			0	0	Fair	C. H. McLeod, C. E.
*Ottawa, Ontario			30.34	770.6	—10	—23.3	78	W	6	2.7		8k	0	W		0	0	Cloudy	J. B. Haney.
*Parry Sound, Ontario			30.43	772.9	— 4	—20.0	87	N	8	3.6		2ck	2ks	N	N	0	0	Fair	Rev. R. Mooley.
*Port Dover, Ontario			30.37	771.4	14	—10.0	77	NW	10	4.5		10k	0	NW		0	0	Fair	H. Morgan.
Port Hastings, N. S.			30.00	762.0	12.3	—10.9		Calm	0	0						0	0	Fine	Peter Grant.
*Port Stanley, Ontario			30.39	771.9	13	—10.6	81	W	5	2.2			8n		W	0.20	5.1	Cloudy	M. Payne.
*Quebec, Quebec			30.12	765.0	— 3	—14.4	66	W	19	8.5			10n		W	0	0	Cloudy	Capt. Ash, R. N.
St. John, N. B.			30.00	762.0	3.0	—16.1	100	W	11	4.9		4ck	0			0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.37	771.4	7	—13.9	97	E	4	1.8			10s			0.35	8.9	Cloudy	K. Stewart.
Stayner, Ontario			30.42	772.7	2	—16.7	97	Calm	0	0			10n			0.16	4.1	Cloudy	R. J. Cole.
Stratford, Ontario			30.38	771.6	11.1	—11.6	84	N	2	0.9			10s			0.050	12.7	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			29.88	758.9	— 9	—22.8	100	Calm	0	0		0	2s			0	0	Clear	T. C. Hill.
*Toronto, Ontario			30.40	772.1	7	—13.9	77	N	5	2.2		2cs	0			0	0	Clear	Magnetic Observatory.
Woodstock, Ontario			30.38	771.6	9.7	—12.4	98	Calm	0	0			10s			0.10	2.5	Gloomy	J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.20	767.1	8	—13.3	78	NW	12	5.4	.....	2k	Haze	W	.....	0	0	Fair	
Alpena, Mich	.....	.....	30.38	771.6	8	—13.3	89	NW	2	0.9	.....	.....	10n	.....	.....	0.03	0.8	Light snow	
Atlantic City, N. J	.....	.....	30.28	769.1	15	— 9.4	65	W	8	3.6	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Augusta, Ga.	.....	.....	30.46	773.7	30	— 1.1	67	NE	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Baltimore, Md	.....	.....	30.35	770.9	21.5	— 5.8	59	W	9	4.0	.....	0	Sm'e	.....	.....	0	0	Clear	
Barnegat, N. J	.....	.....	30.25	768.3	18	— 7.8	67	NW	20	8.9	.....	0	0	.....	.....	0	0	Clear	
Benton, Montana	27.47	697.7	30.27	768.8	8	—13.3	100	SW	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Bismarck, Dakota	28.42	721.9	30.26	768.6	4	—15.6	48	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Boston, Mass.	.....	.....	30.10	764.5	10	—12.2	68	W	10	4.5	.....	0	Haze	.....	.....	0	0	Clear	
Breckenridge, Minn	.....	.....	30.35	770.9	1	—17.2	71	SE	16	7.2	.....	0	0	.....	.....	0	0	Clear	
Buffalo, N. Y.	.....	.....	30.34	770.6	12	—11.1	80	NE	8	3.6	.....	.....	10n	.....	NW	0.03	0.8	Light snow	
Burlington, Vt.	.....	.....	30.30	769.6	6	—14.4	93	N	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Cairo, Ill.	.....	.....	30.63	778.0	21	— 6.1	71	N	4	1.8	.....	5k	0	N	.....	0	0	Fair	
Cape Hatteras, N. C.	.....	.....	30.28	769.1	29	— 1.7	46	NE	24	10.7	.....	0	5s	.....	NE	0	0	Fair	
Cape Henry, Va.	.....	.....	30.38	771.6	26	— 3.3	75	NW	30	13.4	.....	8k	0	NW	.....	0	0	Fair	
Cape May, N. J.	.....	.....	30.30	769.6	22	— 5.6	72	NW	20	8.9	.....	2k	0	NW	.....	0	0	Fair	
Charleston, S. C.	.....	.....	30.43	772.9	33	0.6	41	N	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Cheyenne, Wyoming	24.24	615.7	30.18	766.6	16	— 8.9	67	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Chicago, Ill.	.....	.....	30.55	776.0	12	—11.1	61	NW	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Cincinnati, Ohio	.....	.....	30.53	775.4	17	— 8.3	67	NW	5	2.2	.....	0	Haze	.....	.....	0	0	Clear	
Cleveland, Ohio	.....	.....	30.43	772 9	18.2	— 7.7	67	NW	19	8.5	.....	.....	10ks	.....	NW	Inap.	Inap.	Clear	
Colorado Springs, Col.	24.30	617.2	30.16	766.1	14	—10.0	63	N	4	1.8	.....	2c	0	.....	.....	Inap.	Inap.	Cloudy	
Corsicana, Tex.	.....	.....	30.50	774.7	46	7.8	54	N	4	1.8	.....	.....	10s	.....	.....	0	0	Clear	
Davenport, Iowa	.....	.....	30.64	778.2	6	—14.4	76	NW	4	1.8	.....	1cs	0	.....	.....	0	0	Cloudy	
Denison, Tex.	.....	.....	30.53	775.4	49	4.4	56	N	1	0.4	.....	.....	10s	.....	.....	0	0	Clear	
Denver, Col.	25.06	636.5	30.28	769.1	16	— 8.9	49	SW	3	1.3	.....	0	0	.....	W	0	0	Cloudy	
Detroit, Mich.	.....	.....	30.43	772.9	18	— 7.8	84	NW	7	3.1	.....	.....	10s	.....	.....	0	0	Clear	
Dodge City, Kan.	27.77	705.4	30.24	768.1	24	— 4.4	74	Calm	0	0	.....	5c	0	.....	NW	0	0	Cloudy	
Dubuque, Iowa	.....	.....	30.64	778.2	5	—15.0	25	Calm	0	0	.....	0	0	.....	.....	0	0	Fair	
Duluth, Minn.	.....	.....	30.42	772.7	— 1	—18.3	68	SW	8	3.6	.....	.....	.....	.....	.....	0	0	Clear	
Eastport, Me.	.....	.....	29.98	761.5	— 1	—18.3	68	NW	12	5.4	.....	5ck	2s	SW	SW	0	0	Fair	
Erie, Pa.	.....	.....	30.33	770.4	19	— 7.2	92	NW	20	8.9	.....	5c	Haze	NW	.....	0	0	Fair	
Escanaba, Mich.	.....	.....	30.43	772.9	19	— 7.2	92	NW	20	8.9	.....	.....	10n	.....	NW	Inap.	Inap.	Light snow	
Fort Gibson, Indian Terr.	.....	.....	30.43	772.9	12	—11.1	86	W	4	1.8	.....	.....	10s	.....	W	0	0	Cloudy	
Fort Sill, Indian T.	.....	.....	30.57	776.5	31	— 0.6	68	E	2	0.9	.....	10ck	0	NW	.....	0	0	Cloudy	
Fort Sully, Dakota	26.23	742.4	30.41	772.4	38	3.3	71	N	4	1.8	.....	.....	10s	.....	N	0	0	Cloudy	
Galveston, Tex.	28.58	725.9	30.42	772.7	0	—12.8	89	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Grand Haven, Mich.	.....	.....	30.47	773.9	49	9.4	70	NE	17	7.6	.....	.....	10s	.....	NE	0	0	Cloudy	
Indianapolis, Ind.	.....	.....	30.46	773.7	22	— 5.6	72	NW	12	5.4	.....	0	8s	.....	NW	0.03	0.8	Cloudy	
Indianola, Tex.	.....	.....	30.57	776.5	13	—10.6	71	Calm	0	0	.....	0	Haze	.....	.....	Inap.	Inap.	Clear	
Jacksonville, Fla.	.....	.....	30.46	773.7	49	9.4	64	NE	22	9.8	.....	.....	8s,2n	.....	SW,NE	0	0	Cloudy	
Keokuk, Iowa	.....	.....	30.38	771.6	38	3.3	45	N	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Key West, Fla.	.....	.....	30.61	777.5	10	—12.2	79	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Kittyhawk, N. C.	.....	.....	30.26	768.6	63.3	17.4	62	NE	23	10.3	.....	0	Haze	.....	NE	0.01	0.3	Clear	
Knoxville, Tenn.	.....	.....	30.35	770.9	25	— 3.9	62	N	28	12.5	.....	5k	0	.....	.....	0	0	Clear	
La Crosse, Wis.	.....	.....	30.53	775.4	20	— 6.7	85	NE	12	5.4	.....	0	0	.....	.....	0	0	Fair	
Leavenworth, Kan.	.....	.....	30.59	777.0	— 2	—18.9	50	S	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Lexington, Ky.	.....	.....	30.60	777.2	18	— 7.8	83	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Clear	
Long Branch, N. J.	29.37	746.0	30.61	777 5	12	—11.1	80	NW	8	3.6	.....	0	Haze	.....	.....	0	0	Cloudy	
Louisville, Ky.	.....	.....	30.25	768.3	18	— 7.8	70	W	19	8.5	.....	0	1s	.....	W	0	0	Clear	
Lynchburg, Va.	.....	.....	30.59	777.0	15	— 9.4	65	N	5	2.2	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Malone, N. Y.	.....	.....	30.46	773.7	20	— 6.7	41	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Marquette, Mich.	.....	.....	30.31	769.9	— 5	—20.6	73	W	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Memphis, Tenn.	.....	.....	30.39	771.9	14	—10.0	82	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Milwaukee, Wis.	.....	.....	30.61	777.5	26	— 3.3	76	NE	2	0.9	.....	0	8ks	.....	NW	0	0	Cloudy	
Mobile, Ala.	.....	.....	30.57	776.5	3	—16.1	73	NW	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Montgomery, Ala.	.....	.....	30.48	774.2	38	3.3	71	N	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Morgantown, W. Va.	.....	.....	30.52	775.2	32	0.0	59	NW	4	1.8	.....	0	Sm'e	.....	.....	0	0	Clear	
Mt. Washington, N. H.	23.25	590.5	29.61	777.5	—10	—23.3	54	NW	48	21.5	.....	0	Sm'e	.....	.....	0	0	Clear	
Nashville, Tenn.	.....	.....	30.46	773.7	22	— 5.6	72	NW	6	2.7	.....	.....	10s	.....	NW	0.01	0.3	Cloudy	
New Haven, Conn	.....	.....	30.60	777.2	21	— 6.1	57	N	6	2.7	.....	5s	5s	NW	NW	0	0	Fair	
New London, Conn.	.....	.....	30.19	766.8	18	— 7.8	67	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
New Orleans, La	.....	.....	30.18	766.6	16	— 8.9	40	NW	3	1.3	.....	Haze	Sm'e	.....	.....	0	0	Clear	
Newport, R. I.	.....	.....	30.47	773.9	45	7.2	46	NE	10	7.2	.....	0	0	.....	.....	0	0	Clear	
New York, N. Y.	.....	.....	30.14	765.5	16	— 8.9	83	W	14	6.3	.....	10k	0	N	.....	0	0	Cloudy	
Norfolk, Va.	.....	.....	30.24	768.1	17	— 8.3	67	W	22	9.8	.....	0	0	.....	.....	0	0	Clear	
North Platte, Neb.	.....	.....	30.40	772.1	22	— 5.6	58	N	18	8.0	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Omaha, Neb.	27.38	695.1	30.29	769.6	11	—11.7	80	W	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Oswego, N. Y.	29.39	746.5	30.59	777.0	12	—11.1	90	S	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Peck's Beach, N. J.	.....	.....	30.33	770.4	7	—13.9	88	N	12	5.4	.....	.....	10s	.....	.....	Inap.	Inap.	Threatening	
Pembina, Dakota	.....	.....	30.32	770.1	18	— 7.8	84	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Philadelphia, Penn.	.....	.....	30.19	766.8	0	—17.8	100	S	6	2.7	.....	2c	2s	.....	.....	0	0	Fair	
Pike's Peak, Colorado	17.76	450.1	29.97	761.2	2	—16.7	44	SW	9	4.0	.....	5ck	0	NW	.....	Inap.	Inap.	Fair	
Pittsburgh, Penn.	.....	.....	30.41	772.4	18	— 7.8	68	W	9	4.0	.....	2c	0	.....	.....	0	0	Fair	
Port Huron, Mich.	.....	.....	30.42	772.7	14	—10.0	82	W	12	5.4	.....	.....	10s	.....	W	0.02	0.5	Cloudy	
Portland, Me.	.....	.....	30.09	764.3	8	—13.3	55	N	6	2.7	.....	.....	8s	.....	W	0	0	Cloudy	
Portland, Oregon	.....	.....	30.48	774.2	31	— 0.6	80	E	4	1.8	.....	1k	0	.....	.....	0	0	Clear	
Punta Rassa, Fla.	.....	.....	30.33	770.4	48.5	9.2	48	N	16	7.2	.....	0	0	.....	.....	0	0	Clear	
Rochester, N. Y.	.....	.....	30.35	770.9	9	—12.8	89	NW	16	7.2	.....	Haze	0	.....	.....	0	0	Clear	
Salt Lake City, Utah	25.94	658.9	30.27	768.8	19	— 7.2	69	SE	2	0.9	.....	.....	10n	.....	.....	0.03	0.8	Light snow	
Sandy Hook, N. J.	.....	.....	30.21	767.3	20	— 6.7	70	W	38	17.0	.....	0	0	.....	.....	0	0	Clear	
San Diego, Cal.	.....	.....	30.17	766.3	46	7.8	67	NE	4	1.8	.....	0	2s	.....	.....	0.01	0.3	Clear	
San Francisco, Cal.	.....	.....	30.25	768 3	44	6.7	76	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Santa Fe, N. M.	23.40	594.4	29.94	760.5	23	— 5.0	60	NE	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Savannah, Ga.	.....	.....	30.43	772.9	32	0.0	61	NE	8	3.6	.....	0	1s	.....	.....	0.02	0.5	Clear	
Shreveport, La.	.....	.....	30.57	776.5	39	3.9	69	NE	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Smithville, N. C.	.....	.....	30.40	772.1	27	— 2.8	77	N	8	3.6	.....	10ck	0	NW	.....	0	0	Cloudy	
Springfield, Mass.	.....	.....	30.17	766.3	14	—10.0	44	W	12	5.4	.....	0	0	.....	.....	0	0	Clear	
St. Louis, Mo.	.....	.....	30.67	779.0	16	— 7.8	65	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear	
St. Marks, Fla.	.....	.....	30.42	772.7	34	1.1	69	N	6	2.7	.....	0	0	.....	.....	Inap.	Inap.	Clear	
St. Paul, Minn.	.....	.....	30.46	773.7	7.5	—13.6	74	Calm	0	0	.....	10cs	0	NW	.....	0	0	Clear	
St. Paul's Island, Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squan Beach, N. J.	.....	.....	30.18	766.6	14	—10.0	82	W	8	3.6	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Thatcher's Island, Mass.	.....	.....	30.12	765.0	11	—11.7	60	NW	25	11.2	.....	0	0	.....	.....	0	0	Clear	
Toledo, Ohio	.....	.....	30.44	773.2	22	— 5.6	85	SW	7	3.1	.....	.....	10s	.....	SW	0	0	Threatening	
Tucson, Arizona	27.55	699.8	29.93	760.2	43	6.1	.....	SW	.....	.....	.....	8c	0	.....	.....	0	0	Fair	
Tybee Island, Ga.	.....	.....	30.42	772.7	35	1.7	61	NE	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Vicksburg, Miss.	.....	.....	30.62	777.7	36	2.2	52	NE	5	2.2	.....	2cs	5ck	.....	NW	0	0	Fair	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.50	622.3	29.98	761.5	15	— 9.4	65	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Washington, D. C	.....	.....	30.40	772.1	19	— 7.2	60	W	8	3.6	.....	Haze	Sm'e	.....	.....	0	0	Clear	
Wilmington, N. C	.....	.....	30.41	772.4	27	— 2.8	40	N	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	30.13	765.3	16	— 8.9	49	NW	13	5.8	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va	27.94	709.7	30.31	769.9	13	—10.6	81	NW	12	5.4	.....	5k	0	W	.....	0.01	0.3	Fair	
Yankton, Dakota	29.11	739.4	30.57	776.5	6	—14.4	63	E	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.20	767.1	44	6.7	.....	N	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.04	763.0	80	26.7	74	E	6	2.7	.....	2ck	8s	E	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, d	.....	.....	30.03	762.7	73	22.8	81	NE	.....	.....	.....	2c	0	.....	.....	0	0	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.20	767.1	72	22.2	71	NE	6.0	2.7	.....	8fk	0	NNE	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.21	767.3	72	22.2	71	Calm	0	0	.....	2c	2s	N	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.31	769.9	75	23.9	59	Calm	.....	.....	.....	8ck	2s	.....	.....	0.01	0.3	Fair	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.90	759.4	71	21.7	81	N	1.2	0.5	.....	4c	0	N	.....	Blank	Blank	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	29.98	761.5	62.5	16.9	75	W	18.0	8.0	.....	.....	10k	.....	.....	0	0	Cloudy	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	29.80	756.9	— 5.5	—20.8	100	N	24	10.7	.....	.....	10n	.....	.....	0	0	Snowing	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.00	762.0	17.5	— 8.1	92	S	.....	.....	.....	.....	.....	.....	.....	0.07	1.8	Fair	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.28	692.9	30.08	764.0	64	17.8	88	N	1.0	0.4	.....	0	2k	.....	.....	0	0	Fine	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.18	639.6	.....	.....	62.0	16.7	80	.....	0	0	.....	1c	2s	S	.....	0.13	3.3	Fair	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.99	761.7	81	27.2	83	E	.....	.....	2	.....	5k	.....	.....	0	0	Fair	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.03	762.8	82.0	27.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.059	1.50	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 807.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 14, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Nemours	.....	.....	29.91	759.6	49.6	9.8	61	S	.....	.....	2	.....	9	.....	.....	0.193	4.9	Hidden.	Charnot.
Algiers	.....	.....	29.83	757.6	53.6	12.0	73	SSE	.....	.....	1	.....	7	.....	.....	0.457	11.6	Rain	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kunts.
Tunis	.....	.....	29.98	761.6	57.9	14.4	73	WSW	.....	.....	2	.....	0	.....	.....	0	0	Clear	Jacques.
Sfax	.....	.....	30.04	763.1	53.2	11.8	56	SW	.....	.....	5	.....	1	.....	.....	0	0	Clear	Chauvey.
Saida	.....	.....	29.85	758.1	35.6	2.0	82	SW	.....	.....	1	.....	8	.....	.....	0.079	2.0	Cloudy	Grosjean.
Tebessa	.....	.....	29.95	760.6	45.0	7.2	.....	W	.....	.....	5	.....	0	.....	.....	0.079	2.0	Clear	Colin.
Gerlville	.....	.....	29.93	760.1	28.8	— 1.8	71	SW	.....	.....	3	.....	6	.....	.....	0.008	0.2	Fair	Buard.
Laghouat	.....	.....	29.95	760.8	46.2	9.0	36	NW	.....	.....	3	.....	1	.....	.....	0	0	Clear	Simon.
Biskra	.....	.....	29.90	759.4	53.2	11.8	61	SE	.....	.....	2	.....	4	.....	.....	0	0	Fair	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Agram	.....	.....	30.17	766.3	31.3	— 0.4	94	Calm	.....	.....	0	.....	10	.....	.....	Inap.	Inap.	.....	Prof. Ivan Stozir.
Budu-l'esth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.20	766.3	24.8	— 4.0	95	NE	.....	.....	1	.....	10	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.23	767.8	33.8	1.0	92	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	28.91	734.3	30.18	766.5	32.2	0.1	80	S	.....	.....	2	.....	10	.....	.....	0.016	0.4	.....	Andreas Rospini.
Hermannstadt	28.62	726.9	30.03	762.8	28.0	— 2.2	92	E	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.69	728.8	30.17	766.3	30.9	4.4	45	ESE	.....	.....	3	.....	8	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	.....	.....	30.24	768.0	22.3	— 5.4	90	SE	.....	.....	2	.....	6	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.24	768.2	19.4	— 7.0	94	NE	.....	.....	1	.....	10	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	29.95	760.6	48.2	9.0	91	ESE	.....	.....	4	.....	6ks	.....	.....	0.331	8.39	.....	I.R. Hydrographic Office
Szegedin	.....	.....	30.19	766.7	33.6	0.9	82	E	.....	.....	2	.....	10	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.02	762.6	43.7	6.5	77	ENE	.....	.....	1	.....	10	.....	.....	0.091	2 3	Rain and fog	Prof. V. Farolfi.
Vienna	.....	.....	30.17	766.3	28.2	— 2.1	86	SE	.....	.....	1	.....	10	.....	.....	0	0	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Brussels	.....	.....	30.31	769.9	29.8	— 1.2	90	NE	.....	.....	4	.....	10	.....	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.55	776.0	34.9	1.6	.....	W3W	2	0.9	.....	.....	4	.....	.....	0	0	Misty	William Boswell.
Ardrossan	.....	.....	30.62	777.7	36	2.2	.....	E	.....	.....	2	.....	5	.....	.....	.....	.....	Foggy	J. Mayes.
Armagh Observatory	.....	.....	30.05	778.5	29.9	— 1.2	.....	NNW	1	0.4	.....	.....	0	.....	.....	.....	.....	Foggy	S. Cal., for Dr. Robinson
Bidston, Liverpool Obs	.....	.....	30.60	777.2	36.4	2.4	.....	NE	10	4.5	.....	.....	10	.....	.....	.....	.....	Overcast	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.64	778.2	24.8	— 4.0	.....	NW	.....	.....	1	.....	10	.....	.....	.....	.....	Foggy	J. Dreyer.
Bradford	.....	.....	30.55	776.0	36.6	2.6	.....	NW	.....	.....	1	.....	10	.....	.....	0	0	Drizzling	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.02	762.5	77.0	25.0	.....	NE	.....	.....	2	.....	8	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.51	774.9	35.0	1.7	.....	N	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	H. Todd.
Cardington	.....	.....	30.52	775.2	35.0	1.7	.....	NE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	John McLaren.
Carlisle	.....	.....	30.61	777.5	32.6	0.3	.....	Calm	.....	.....	0	.....	0	.....	.....	0	0	Blue sky	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.45	773.4	33.7	0.9	.....	NE	.....	.....	2	.....	.....	.....	.....	.....	.....	Light snow	Capt. J. Fellowes, R. E.
Dartmoor	28.90	734.0	30.47	773.9	29.8	— 1.2	.....	NW	.....	.....	6	.....	9	.....	.....	.....	.....	Overcast	R. E. Power.
Donaghadee	.....	.....	30.62	777.7	38	3.3	.....	SW	.....	.....	2	.....	0	.....	.....	.....	.....	Blue sky	J. Mac Gowan.
Dover	.....	.....	30.40	772.1	34	1.1	.....	NE	.....	.....	6	.....	7	.....	.....	.....	.....	Gloomy	J. Costello.
Eccles, (near Manchester)	.....	.....	30.59	777.0	37.0	2.8	.....	NE	1.6	0.7	.....	.....	7	.....	.....	.....	.....	Misty	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.47	773.9	36.5	2.5	.....	NE	22	9.8	.....	.....	9	.....	.....	.....	.....	Overcast	The Staff.
Fort Napier, (Natal)	27.61	701.6	29.87	758.7	73.8	23.2	.....	E	.....	.....	2	.....	8	.....	.....	.....	.....	*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.93	760.5	85	29.4	.....	N	.....	.....	1	.....	4	.....	.....	.....	.....	Blue sky	(tin.
Galway, Queen's College	.....	.....	30.48	774.2	36	2.2	.....	Calm	.....	.....	0	.....	0	.....	.....	.....	.....	Blu sky	B.G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)	.....	.....	29.83	757.7	50.8	10.4	.....	W	.....	.....	3	.....	4	.....	.....	.....	.....	*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.00	777.2	27.0	— 2.8	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Foggy	Wm. M. Stewart.
Great Yarmouth	.....	.....	30.49	774.4	35	1.7	.....	ENE	.....	.....	6	.....	8	.....	.....	.....	.....	Gloomy	G. T. Watson.
Greenwich Royal Obs	.....	.....	30.46	773.7	34.4	1.3	.....	NE	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast	The Staff for G. B. Airy
Guernsey	.....	.....	30.32	770.1	39	3.9	.....	NE	.....	.....	6	.....	8	.....	.....	.....	.....	Gloomy	Dr. S. E. Hoskins.
Halifax, Moorside Obs	.....	.....	30.63	778.0	35.6	2.0	.....	ENE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	L. J. Crossley.
Helston	.....	.....	30.46	773.7	38	3.3	.....	NE	.....	.....	4	.....	6	.....	.....	0	0	Fair	M. P. Moyle.
Holyhead	.....	.....	30.58	776.7	39	3.9	.....	ENE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	John Tilston.
Kew Observatory	.....	.....	30.47	773.7	34.9	1.6	.....	NE	28	12.5	.....	.....	10	.....	.....	.....	.....	Overcast	The Staff.
Kingstown	.....	.....	30.63	778.0	41	5.0	.....	E	.....	.....	3	.....	5	.....	.....	.....	.....	*D. clouds	George Mitchell.
Leicester Museum	.....	.....	30.58	776.7	34.5	1.4	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.07	763.8	56.4	13.6	.....	NW	.....	.....	2	.....	6k	.....	.....	.....	.....	.....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	30.72	775.2	39	3.9	.....	WSW	.....	.....	1	.....	8	.....	.....	.....	.....	¾ cl uded	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.31	769.9	66.1	18.9	.....	N	.....	.....	5	.....	4	.....	.....	Blank	Blank	D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	30.39	777.0	35.5	1.9	.....	NNE	.....	.....	3	.....	7k	.....	NNE	.....	.....	*D. clouds	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.56	776.2	33.9	1.1	.....	NNE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs	.....	.....	30.47	773.9	35	1.7	.....	NE	.....	.....	2	.....	10	.....	.....	.....	.....	Gloomy	J. Lucas.
Plymouth	.....	.....	30.44	773.2	37.5	3.1	.....	ENE	.....	.....	5	.....	3	.....	.....	.....	.....	*D. clouds	John Merrifield.
Roche's Point	.....	.....	30.57	776.5	38	3.3	.....	ENE	.....	.....	3	.....	5	.....	.....	.....	.....	Cloudy	W. Kennedy.
Saint Ann's Head	.....	.....	30.55	776.0	37	2.8	.....	NE	.....	.....	3	.....	3	.....	.....	.....	.....	*D. clouds	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.28	769.1	39.4	4.1	.....	ENE	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast	A. P. Amy.
Sandwick Manse (Orkneys)	.....	.....	30.16	773.7	40	4.4	.....	SW	8	3.6	.....	.....	10	.....	.....	.....	.....	Cloudy	Rev. Dr. Clouston
Scarborough	.....	.....	30.60	777.2	37.7	3.2	.....	E	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	F. Shaw.
Scutari Cemetery (Turkey)	.....	.....	30.30	769.6	44.0	6.7	.....	NE	.....	.....	2	.....	8	.....	.....	.....	.....	*D. clouds	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.59	777.0	37.8	3.2	.....	NE	.....	.....	1	.....	10	.....	.....	0	0	Overcast	W. F. Cooper.
Stiloth Rectory	.....	.....	30.60	777.2	32.0	0.0	.....	N	.....	.....	1	.....	0	.....	.....	0	0	Blue sky	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.60	777.2	36.4	2.4	.....	N	.....	.....	1	.....	10	.....	.....	.....	.....	Hazy	The Staff.
Stornoway, Lews C. (Hebr)	.....	.....	30.44	773.2	43	6.1	.....	SW	.....	.....	3	.....	10	.....	.....	.....	.....	Raining	John Smith.
Stratfield Turgiss	.....	.....	30.47	773.9	34.0	1.1	.....	NE	.....	.....	1-2	.....	10	.....	.....	.....	.....	.....	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	30.46	773.7	37	2.8	.....	S	.....	.....	1	.....	10	.....	.....	.....	.....	Raining	John Trotter.
Truro, Royal Institution	.....	.....	30.48	774.2	39	3.9	.....	NE	.....	.....	4	.....	6	.....	.....	.....	.....	*D. clouds	W Newcombe.
Valencia Observatory	.....	.....	30.60	777.2	40.3	4.6	.....	NW	2	0.9	.....	.....	0	.....	.....	.....	.....	Hazy	The Staff.
Sub-Series.																			
Cape Good Hope Obs	.....	.....	29.88	758.9	70.2	21.6	54	S	33	14.8	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	40	4.4	.....	E	.....	.....	3	10	10	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	30.62	777.7	34.9	1.6	.....	W	.....	.....	1	.....	.....	.....	.....	0	0	Fine, hazy	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Youngolause.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12; the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,300 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. * Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.34	775.4	26.1	— 3.3	85	NE	.....	.....	2	.....	10	.....	.....	.....	.....	.....	.....
Fanöe	.....	.....	30.60	777.3	27.1	— 2.7	92	NE	.....	.....	2	.....	10	.....	.....	.....	.....	.....	.....
Godthaab, (Greenland)	.....	.....	29.62	752.4	17.2	— 8.2	73	NE	.....	.....	4	.....	2	.....	.....	.....	.....	.....	.....
Stykkisholm, (Iceland)	.....	.....	29.76	755.9	36.3	2.4	82	SW	.....	.....	6	.....	5	.....	.....	.....	.....	.....	.....
Thorshavn, (Faröe)	.....	.....	30.20	768.6	45.0	7.2	76	W	.....	.....	4	.....	4	.....	.....	.....	.....	.....	.....
Vestervig	.....	.....	30.58	776.6	28.0	— 2.2	87	Calm	.....	.....	0	.....	6	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally; weather by Vienna symbols: no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alengon			30.23	767.9	32.0	0	89	NE			1		10			0	0	Covered	Normal School.
Amiens			30.28	769.0	32.0	0.0	93	N			8		10			0	0	Covered	Normal School.
Avignon			30.05	760.7	36.9	2.7	83	N			2		1kd		E	0	0	Clear	Normal School.
Bar-sur-Seine			30.11	764.9	32.5	0.3		NE			3		10			0	0	Covered	C. Saillard.
Beaumette, (near Angers)			30.15	765.7	31.6	— 0.2	89	NE	30.9	13.8					NE	0	0		Beaumette Observatory
Beauvais			30.0	767.1	30.6	— 0.8		NNE			4		10			0	0	Covered	Normal School.
Besançon			30. 9	764.2	30.6	— 0.8		SW			2		8		NE	0	0	Very cloudy	Normal School.
Bourg en Brosse			30. 9	764.3	29.3	— 1.6	98	NW			1		10.1			0	0	Covered	Normal School.
Bourges			30.13	765.3	32.4	0.2	88	NNE			4		10		NNE	0	0	Covered	Normal School.
Brest			30.23	767.8	40 5	4.7	90	NE			4		10		NE	0.069	1.75	Covered	Naval Observatory
Caen			30.28	769.0	34.3	1.3		NE			4		10			0	0	Covered	Normal School.
Chartres			30.13	765.4	27.9	— 2.3		NE			4		10			0	0	Covered	Normal School.
Chaumont																			Normal School.
Clermont			30.36	771.1	33.1	0.6	85	N			2		10			0	0	Covered	Puy de Dome, Obs.
Commercy			30.14	765.6	30.7	— 0.7	96	NNE			4		10		NE	0	0	Covered	Normal School.
Commune de Gréasque*			29.91	759.6	49.6	9.8	64	NE			3		2		NE	0.650	16.5	¼ covered	
Grenoble			30.13	765.1	32.0	0	82	NW			1					0	0	Misty	Normal School.
Le Mans			30.22	767.5	29.8	— 1.2	88	N			4		10			0	0	Covered	Normal School
Loches																			
Lons-Le-Saulnier			30.10	764.5	31.3	— 0.4	85	NW			2		10			0	0	Foggy	Normal School.
Mâcon			30.04	762.6	28.6	— 1.5		Calm			0		10			0	0	Covered	Normal School.
Mirecourt			30.09	764.3	31.6	— 0.2	96	N			4		10		SW	0	0	Covered	Normal School.
Metz																			
Nismes			29.99	76 .7	37.0	2.8	68	N			4		0			0	0	Clear	Normal School.
Orleans			30.11	764.8	30.2	— 1	100	NNE			4		10		NE	0	0	Covered	Normal School.
Paris Observatory			30.25	767.3	31.3	— 0.4	82	N			4		10			0	0	Foggy	National Observatory
Parthenay			29.94	76 .	29.1	— 1.6	92	SW			6		5		SW	0	0	Cloudy	Normal School.
Privas			30.10	764.5	31.8	— 0.1		SW			2		8		SW	0	0	Very cloudy	Normal School.
La Roche-sur-Yon			30.16	766.1	30.9	— 0.6	100	NE			4		10			0	0	Covered	Normal School.
Rochefort, Observatory			30.13	765.4	31.3	— 0.4	94	NE			4		10			0	0	Covered	Naval Observatory.
Rouen			30.28	769.1	33.1	0.6	93	NE			3		10		N	0	0	Covered	Normal School.
Saint Lo			30.17	766.2	36.7	2.6	84	E			8		10		E	0.248	6.3		Normal School.
Tarbes			30.11	764.9	47.4	8	92	W			2		10		E	0	0	Covered	Normal School.
Toulouse			30.0	761.4	31.8	0.1	89	NW			2		10					Snowing	Normal Scho
Villefranche			30.17	766.4	30.9	— 0.6	88	SW			2		10			0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.91	760.5	79.0	26.1	63	NE			1		5k			0.04	1.		L'Abbé Marchési.
Gorée																			
Marseilles			29.80	758.2	54.1	12.0	74	E			1		6			0.322	8.20		Marseilles Observatory
Mont-Louis	24.58	624.2	30.01	762.2	27.1	— 2.7	94	ENE	13.0	5.83			10		E?	0.366	9.3		—. Faiguère.
Montsouris, Paris			30.09	764.3	36.9	— 0.6	100	NE			6		10			0	0	Foggy	Montsouris Observatory
Perpignan			29.93	760.2	35.4	2.1		N	13.0	5.83			10		N	0.043	1.1		[illegible] Fines.
Pic du Midi, (Summit) H. P.	20.87	530.1			12.2	—11.0		NE			6		10			0	0	Snowy	M. Baylac.
Saint Maur, (near Paris)			30.19	766.9	31.3	— 0.4	79	NNE			3		10			0	0	Covered	[illegible] Penon.
Toulouse			30.01	762.6	25.5	— 3.6	100	NNW			1		10			†0.005	†0.12		Toulouse Observatory.
Tours			30.11	765.5	32.0	0.0		NE			3		10			0	0	Covered	C. Marquet.
Versailles, (near Paris)			30.19	766.8	30.9	— 0.6	85	NE			3		10			0	0	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,581.40 meters, or 5,204.8 feet; Chaumont, 342 m., or 1,060.9 ft.; Perpignan 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.
†Amount of precipitation on the 12th and 13th.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			29.98	761.4	29.5	— 1.4	84	NE			6		10			0	0		Prof. T. Hoh.
Berlin			30.38	771.7	27.9	— 2.8	81	N			3		10			0	0		Prof. Arndt.
Breslau			30.32	770.1	25.2	— 3.8	89	NE			4		10			0	0		Dr. P. Naugebauer
Carlsruhe			30.10	764.5	33.4	0.8	78	NE			3		10			0	0		A. Senz.
Cassel			30.23	767.7	30.6	— 0.8	82	NNE			3		10			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main			30.27	768.8	32.9	0.5	86	NE			4		10			0	0		Physical Society.
Friedrichshafen			30.07	763.6	34.2	— 1.0	73	NE					10			0	0	Light fog	M. Wilhelm.
Hamburg			30.48	774.3	31.6	— 0.2	83	ENE			5		10			0.004	0.1	Fog&graupel	Deutsche Seewar e.
Kiel			30.52	775.2	29.7	— 1.3	80	NE			3		10			0	0		Prof. G. Karsten.
Königsberg			30.46	773.6	15.3	— 9.3	85	NE			2		9			0	0		Prof. E. Luther.
Köslin			30.44	773.1	22.3	— 5.4		NE			2		10			0	0		H. Müller.
Leipsic			30.35	770.8	25.2	— 3.8	91	NE			3		10			0	0	Foggy	Prof. Bruhns.
Münster			30.37	771.5	32.0	0.0	84	NE			4		10			0	0		Prof. E. Heis.
Posen			30.39	771.8	23.0	— 5.0	100	N			4		10			0.028	0.7		Dr. Mayener.
Strasburg, (in Alsace)			30.10	764.5	31.6	— 0.2	92	NE			3		10			0.201	5.1		Dr. Schur.
Stuttgart			30.10	764.6	31.3	— 0.4	84	N					10			0.075	1.9		Mr. Wurth.
Thorn			30.35	77 .0	18.0	— 7.8	96	E			3		10			0.354	9.0	Snowing	Dr. Hasenbalg
Treves, (Trier)			30.10	764 6	32.5	0.3	80	NE			8		10			0	0	Light fog	Prof. Fresen.
Wustrow, Naval School			30.54	775.7	29.1	— 1.6	95	ENE			3		10			0	0		E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.23	767.7	52.2	11.2		NE										Covered	

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	30.00	761.9	42.1	5.6	78	NNE	.....	.....	4	.....	10	.....	.....	0.118	3.0	Raining.....	
Padua	.....	.....	29.96	761 1	45.1	7.3	76	NE	14.3	6.4	.....	.....	10	.....	.....	0	0	.....	
Verona	.....	.....	29.93	760.7	48.2	9.0	63	E	.....	.....	2	.....	10	.....	.....	0.039	1.0	Raining.....	
Bergamo	.....	.....	29.97	761.1	39.6	4.2	97	SW	.....	.....	2	.....	10	.....	.....	0	0	Light rain....	
Milan	.....	.....	30.01	762.3	39.2	4.0	100	N	.....	.....	1	.....	10	.....	.....	0	0	.....	
Moncalieri	.....	.....	29.97	761.1	38.8	3.8	97	SSE	3.1	1.4	.....	.....	10	.....	....	0.055	1.4	Raining.....	
Mondovi	.....	.....	30.03	762.8	36.0	2.2	91	W	.....	.....	2	.....	10	.....	.....	0	0	.....	
Porto Maurizio	.....	.....	29.97	761.1	50.4	10.2	.....	E	.....	.....	2	.....	2	S	.....	0.394	10.0	....	
Genoa	.....	.....	29.95	760.8	50.7	10.4	57	N	2.5	1.1	.....	.....	2	.....	.....	0	0	.....	
Piacenza	.....	.....	30.02	762.4	35.8	2.1	96	NW	6.9	3.1	.....	.....	10	.....	.....	0.575	14.6	Light rain...	
Bologna	.....	.....	30.00	762.1	43.2	6.2	40	NW	.....	.....	1	.....	7	E	.....	0	0	.....	
Florence	.....	.....	29.98	761.5	46.4	8.0	89	N	.....	.....	2	.....	4	.....	.....	0	0	.....	
Leghorn	.....	.....	29.97	761.1	51.3	10.7	77	ENE	7.4	3.3	.....	.....	9	.....	.....	0	0	.....	
Siena	.....	.....	29.93	760.2	47.7	8.7	87	SE	1.2	0.6	.....	.....	6	S	.....	0	0	.....	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ancona	.....	.....	29.97	761.3	46.8	8.2	92	NW	.....	.....	4	.....	10	.....	.....	0.354	9.0	Raining.....	
Rome	.....	.....	29.99	761.7	53.4	11.9	63	E	2.5	1.1	.....	.....	3	.....	.....	0	0	.....	
Naples, O. U.	.....	.....	30.00	761.9	52.6	11.1	74	NW	.....	.....	2	.....	6	SW	.....	0	0	....	
Lecce	.....	.....	30.04	763.0	55.8	13.2	77	S	18.6	8.3	.....	.....	9	S	.....	0	0	.....	
Cosenza	.....	.....	30.02	762.5	55.8	13.2	82	NW	.....	.....	1	.....	4	....	.....	Blank	Blank	.....	
Riposto, (Sicily)	.....	.....	29.98	761.6	55.8	13.2	73	SW	.....	.....	2	.....	4	NW	.....	0.157	4.0	.....	
Palermo	.....	.....	29.87	758.6	57.4	14.1	44	WSW	7.4	3.3	.....	.....	9	WSW	.....	0	0	....	
Caltanissetta	.....	.....	30.00	762.1	47.5	8.6	73	S	.....	.....	4	.....	6	NW	.....	0	0	.....	
Sub-Series.																			
Naples, S. R.	.....	.....	29.98	761.5	50.5	10.3	90	E	.....	.....	4	.....	..e	SE	.....	0.567	14.4	.....	Prof. F. Brioschi.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 fee ; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,14 .3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	30.43	772.8	32.4	0.2	.....	NE	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....
Groningen	.....	.....	30.44	773.2	30.0	— 1.1	.....	NE	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....
Helder	.....	.....	30.47	773.9	30.4	— 0.9	.....	NE	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....
Utrecht	.....	.....	30.38	771.7	30.7	— 0.7	90	NE	.....	.....	5	.....	10	.....	.....	.....	.....	Dull.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	30.52	775.1	35.6	2.0	82	S	12.3	5.5	.....	.....	10	.....	.....	0	0	....	
Brönö	.....	.....	30.04	763.0	38.8	3.8	97	SW	29	13	.....	.....	10	.....	.....	0	0	Raining.....	
Christiania	.....	.....	30.51	775.0	22.6	— 5.2	96	WSW	0.2	0.1	.....	.. ..	10	.....	....	0	0	... .	
Tromsö	.....	.....	29.32	744.8	39.2	4.0	75	S	13	6	.....	.....	10	....	.....	0.196	4.9	Raining...	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.57	776.4	57.7	14.3	79	NNE	4.1	1.84	.....	.....	1	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.80	759.1	46.4	8.0	46	NNE	21.4	9.58	.....	.....	3	.....	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.21	767.3	59.0	15.0	66	N	.....	.....	.....	.....	8	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.11	764.8	48.0	8.9	54	N	22.4	10.0	.....	.....	4	.....	.....	0.055	1.4	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.30	769.5	20.1	— 3.3	94	ENE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.49	774.4	17.4	— 8.1	80	ENE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.67	779.1	6.8	—14.0	91	ESE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.04	778.2	9.0	—12.8	89	SE	7	3	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	30.43	773.0	17.4	— 8.1	100	SW	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kiefi	.....	.....	30.48	774.2	16.7	— 8.5	100	SE	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.53	775.4	23.7	— 4.6	95	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.47	773.9	27.3	— 2.6	92	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.66	778.8	17.8	— 7.9	92	SSW	9	4	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.63	777.0	16.9	— 8.4	85	E	22	10	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	30.41	772.4	10.8	—11.8	93	WSW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	29.00	736.7	30.50	774.8	30.9	— 0.6	83	Calm	0	0	.....	.....	4	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.84	783.2	4.3	—15.4	90	NE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.72	780.4	— 0.2	—17.9	83	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tachernischef.
Ekaterinburg	29.50	749.2	30.03	778.0	1.8	—16.8	70	SW	13	6	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.56	776.3	— 2.2	—19.0	58	N	9	4	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.58	726.0	30.43	773 0	17.8	— 7.9	83	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.41	773.2	1.8	—16.8	70	SW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	29.87	758.7	1.2	—17.1	94	SW	7	3	.....	.....	10	.....	.....	.....	.....	Snowing.	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Gorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.29	769.4	25.9	— 3.4	39	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.80	706.2	30.18	766.5	—22.2	—30.1	82	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.17	766.3	19.9	— 6.7	100	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—19.5	—28.6	.....	Calm	0	0	.....	.....	4	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 300.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.90	759.5	38.5	3.6	76	E	7.1	3.3	.....	0	9	.....	.....	0.43	1.1	Almost cov'd	Royal Observatory.
San Fernando	.....	.....	29.91	759.6	45.5	7.5	64	N	4.0	1.8	.....	2	3	N	W	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.17	766.2	12.6	—10.8	100	SW	.....	.....	4	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	30.31	769.9	17.2	— 8.2	100	SW	.....	.....	4	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	30.36	771.1	20.1	— 6.6	97	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Stockholm	.....	.....	30.47	773.9	23.0	— 5.0	93	SW	.....	.....	2	.....	10	.....	.....	0.012	0.3	.....	
Wisby	.....	.....	30.39	770.9	20.1	— 6.6	95	NE	.....	.....	4	.....	10	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.51	775.0	20.8	— 6.2	97	SW	7.2	3.2	.....	.....	10	.....	.....	0	0	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.56	725.5	30.07	763.6	31.3	— 0.4	81	SW			1		10			0	0	Foggy	The Observatory.
Zurich	28.34	719.9	30.07	763 8	29.8	— 1.2	94	E			1		10			0	0	Foggy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.2 mm.; Thermometer, —1.8 cent.; Relative Humidity, +2 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Courdbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.33	770.3	41.9	5.5	71	NE	11	5.0			8		W	0	0		
Fao, (Persian Gulf)			30.30	769.7	51.8	11.0		NW			3		10						
Salonica			30.28	769.0	47.3	8.5		SW			1		10						
Valona			29.93	760.2	54.9	12.7		SE			1		10						
Varna			30.20	767.0	24.8	— 4.0		NW			2		5						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			30.21	767.3	58.6	14.8	58	N			2		7cs			0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B			30.10	764.5	—13.5	—25.3	73	Calm	0	0						0	0		Hon. J. Ferguson.
Brockville, Ontario			30.21	767.3	15	— 9.4		S	1	0.4			1 8		SW	Inap.	Inap.	Light snow	W. R. Bigg.
*Chatham, N. B			30.18	766.6	—20	—28.9	86	SW	1	0.4		5c	0			0	0	Fair	G. A. Blair.
Charlottetown P. E. Island			30.18	766.6	0	—17.8	64	SW	5	2.2		0	2cs			0	0	Fair	H. J. Cundall, C. E.
Cornwall, Ontario			30.16	766.1	14.7	— 9.6	69	E			1		10s			0.008	0.20	Threatening	James Smith, M. A.
Dalhousie, N. B			30 17	766.3	— 5.7	—20.9	26	W			2		10n			0	0	Cloudy	H. A. Johnson.
Esquimault, B. C			30.24	768.1	39.1	3.9	91	N	1	0.4			10			0.11	2.8	Raining	W. H. Bevis.
Fredericton, N. B			30.26	768.6	—19.7	—28.7	100	Calm	0	0						0	0	Fair	Prof. Harrison.
*Fort Garry, Manitoba			30.20	767.1	— 5	—20.6	96	S	1	0.4		2c	Haze	N		0	0	Fair	James Stewart.
Goderich, Ontario			30.14	765.5	21.9	— 5.6	99	SW			3		10n			0.05	1.3	Snowing	H. J. Strang, M. A.
Granton, Ontario			30.17	766.3	15.4	— 9.		SW			2		10n			0	0	Cloudy	James Grant.
*Halifax, N. S			30.20	767.1	7	—13 9	75	W	2	0.9		2k	2n	N	W	0	0	Fair	F. Allison, M. A.
*Kingston, Ontario			30.19	767.8	22	— 5.6	93	SW	23	10.3			10n		S W	0.02	0.5	Light snow	S. Woods, M. A.
Little Current, Ontario			29.90	759.0	22.4	— 5.3		W	3	1.3			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.21	767.1	7	—13.9	88	S	15	6.7		Haze	5cs	SE	NW	0	0	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario			30.21	768.1	— 3	—19.4	77	N	2	0.9			10cs		N	0	0	Cloudy	J. B. Tiney.
*Parry Sound, Ontario			29.99	761.7	21	— 6.1	97	SW	18	8.1			10n		SW	0.11	2.8	Light snow	Rev. R. Mooley.
*Port Dover Ontario			30.18	766.6	24	— 4.4	87	SW	23	10.3			10n		SW	0	0	Threatening	H. Morgan.
Port Hastings, N. S			30.13	765.3	10.9	—11.7		Calm	0	0						0	0	Fine	P. ter Grant.
*Port Stanley Ontario			30.20	767.1	22	— 5.6	92	SW	35	15.6			10n		W	0.06	1.3	Light snow	M. Payne.
*Quebec, Quebec			30.23	767.8	— 4	—20.0	65	NW	12	5.4			10n		NW	0	0	Cloudy	Capt. Ash, R. N.
St. John, N. B			30.27	768.8	— 3.9	—39.4	85	Calm	0	0		0	0			0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.02	762.5	24	— 4 4	93	SW	24	10.7			10n		W	0.45	11.4	Cloudy	K. Stewart.
Stayner, Ontario			30.07	763.8	17	— 8.3	92	S	5	2.2			10n		S	0	0	Cloudy	R. J. Cole.
Stratford, Ontario			30.17	766.3	15.3	— 9.3	92	SW	13	5.8			10n			0.100	2.54	Snowing	C. J. MacGregor, M. A.
*Sydney, C. B			30.17	766.3	7	—13.9	91	NW	4	1.8		0	0			0	0	Clear	T. C. Hill.
*Toronto, Ontario			30.14	765.5	21	— 6.1	83	SW	17	7.6			10n			0	0	Cloudy	Magnetic Observatory.
Woodstock, Ontario			30.16	766.1	17.1	— 8.3	98	NW	1	0.4			10s			Inap.	Inap.	Gloomy	J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.30	769.6	16	— 8.9	83	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Alpena, Mich.	.....	.....	29.90	761.0	24	— 4.4	87	W	10	4.5	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy	
Atlantic City, N. J.	.....	.....	30.43	772.9	15	— 9.4	82	W	2	0.9	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Augusta, Ga.	.....	.....	30.58	776.7	25	— 3.9	62	E	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Baltimore, Md.	.....	.....	30.47	773.9	23	— 5.0	72	W	5	2.2	.....	8ck	Sm'e	W	.....	0	0	Smoky	
Barnegat, N. J.	.....	.....	30.42	772.7	12	—11.1	61	W	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Benton, Montana	.27.18	690.4	29.99	761.7	42	5.6	27	SW	14	6.3	.....	.....	10s	.....	.....	0	0	Cloudy	
Bismarck, Dakota	28.10	715.3	29.97	761.2	3	—16.1	50	NW	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Boston, Mass.	.....	.....	30.33	770.4	8	—13.3	78	SW	6	2.7	.....	0	Haze	.....	.....	0	0	Clear	
Breckenridge, Minn.	.....	.....	30.18	766.6	4	—15.6	74	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Buffalo, N. Y.	.....	.....	30.14	765.5	21	— 6.1	71	SW	20	8.9	.....	.....	10s	.....	SW	0.02	0.5	Cloudy	
Burlington, Vt.	.....	.....	30.29	769.3	12	—11.1	70	S	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Cairo, Ill.	.....	.....	30.54	775.7	25	— 3.9	63	S	4	1.8	.....	1cs	0	.....	.....	0	0	Clear	
Cape Hatteras, N. C.	.....	.....	30.44	773.2	80	— 1.1	78	N	8	3.6	.....	0	2s	.....	.....	0	0	Fair	
Cape Henry, Va.	.....	.....	30.49	774.4	28	— 2.2	66	NW	8	3.6	.....	0	5s	.....	NW	0	0	Fair	
Cape May, N. J.	.....	.....	30.44	773.2	18	— 7.8	68	Calm	0	0	.....	2k	0	W	.....	Inap.	Inap.	Fair	
Charleston, S. C.	.....	.....	30.55	776.0	29	— 1.7	67	N	12	5.4	.....	0	Sm'e	.....	.....	0	0	Clear	
Cheyenne, Wyoming	24.07	611.4	30.01	762.2	19	— 7.2	60	NW	12	5.4	.....	0	1s	.....	.....	0	0	Clear	
Chicago, Ill.	.....	.....	30.18	766.6	25	— 3.9	75	SW	12	5.4	.....	2ck	5s	SW	.....	0	0	Fair	
Cincinnati, Ohio	.....	.....	30.46	773.4	21	— 6.	71	S	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Cleveland, Ohio	.....	.....	30.28	769.7	17.8	— 7.9	74	S	13	5.8	.....	2ck	8s	W	SE	Inap.	Inap.	Cloudy	
Colorado Springs, Col.	24.15	613.4	30.92	782.5	12	—11.1	61	N	4	1.8	.....	5cs	0	N	.....	0	0	Fair	
Corsicana, Texas	.....	.....	30.53	775.4	43	6.1	91	SE	2	0.9	.....	.....	10n	.....	.....	0.04	1.0	Light rain	
Davenport, Iowa	.....	.....	30.24	768.1	25	— 3.9	75	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Denison, Texas	.....	.....	30.51	774.9	43	6.1	67	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Denver, Col.	24.90	632.4	30.12	765.0	32	0.0	58	SW	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Detroit, Mich.	.....	.....	30.16	766.1	19	— 7.2	54	SW	10	8.5	.....	1ck	5ks	SW	SW	Inap.	Inap.	Fair	
Dodge City, Kan.	27.07	702.8	30.10	764.8	29	— 1.7	78	SE	4	1.8	.....	10c	0	.....	.....	0	0	Cloudy	
Dubuque, Iowa	.....	.....	30.20	767.1	23	— 5.0	69	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Duluth, Minn.	.....	.....	30.16	766.1	18	— 7.8	68	NW	4	1.8	.....	2ck	0	NW	.....	0	0	Fair	
Eastport, Me.	.....	.....	30.23	767.8	2	—16.7	72	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Erie, Pa.	.....	.....	30.22	767.6	19	— 7.2	84	SW	22	9.8	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy	
Escanaba, Mich.	.....	.....	30.05	763.5	15	— 9.4	82	W	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Fort Gibson, Indian Terr.	.....	.....	30.49	774.4	34	1.1	69	SE	5	2.2	.....	5c	0	.....	.....	0	0	Fair	
Fort Sill, Indian T.	29.18	741.1	30.36	771.1	39	3.9	80	S	4	1.8	.....	.....	10s	.....	S	0	0	Cloudy	
Fort Sully, Dakota	28.36	720.3	30.15	765.8	14	—10.0	82	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Galveston, Texas	.....	.....	30.48	771.2	49	9.4	59	E	13	5.8	.....	0	5s	.....	E	0	0	Fair	
Grand Haven, Mich.	.....	.....	30.12	765.0	32	0.0	84	W	24	10.7	.....	0	8s	.....	W	0	0	Cloudy	
Indianapolis, Ind.	.....	.....	30.21	767.3	36	2.2	70	S	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Indianola, Texas	.....	.....	30.45	773.4	47	8.3	85	NE	26	11.6	.....	.....	10s	.....	SW	0.10	2.5	Light rain	
Jacksonville, Fla.	.....	.....	30.48	774.2	34	1.1	45	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Keokuk, Iowa	.....	.....	30.29	769.4	26	— 3.3	75	W	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Key West, Fla.	.....	.....	30.31	769.9	58.8	14.9	64	NE	20	8.9	.....	1c	1s	W	.....	0	0	Clear	
Kittyhawk, N. C.	.....	.....	30.40	772.4	22	— 5.6	72	N	10	4.5	.....	2k	0	.....	.....	0	0	Clear	
Knoxville, Tenn.	.....	.....	30.03	778.0	16	— 8.9	83	NE	2	0.9	.....	0	Fog	.....	.....	0	0	Fair	
La Crosse, Wis.	.....	.....	30.14	765.5	22	— 5.6	59	S	7	3.1	.....	Haze	Haze	.....	.....	0	0	Hazy	
Leavenworth, Kan.	.....	.....	30.35	770.9	31	— 0.6	79	S	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Lexington, Ky.	29.36	745.7	30.59	777.0	15	— 9.4	65	S	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Long Branch, N. J.	.....	.....	30.12	772.7	16	— 8.9	49	W	1	0.4	.....	0	1s	.....	W	0	0	Clear	
Louisville, Ky.	.....	.....	30.52	775.2	20	— 6.7	70	S	5	2.2	.....	0	Fog	.....	.....	0	0	Clear	
Lynchburg, Va.	.....	.....	30.55	776.0	16	— 8.9	65	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Malone, N. Y.	.....	.....	30.16	766.1	17	— 8.3	67	S	10	4.5	.....	.....	10s	.....	SW	0	0	Cloudy	
Marquette, Mich.	.....	.....	30.04	763.0	23	— 5.0	86	NW	12	5.4	.....	.....	10s	.....	NW	0	0	Cloudy	
Memphis, Tenn.	.....	.....	30.60	777.2	27	— 2.8	77	S	1	0.4	.....	0	Haze	.....	.....	0	0	Clear	
Milwaukee, Wis.	.....	.....	30.14	765.5	23	— 5.0	73	W	5	2.2	.....	10k	0	W	.....	0	0	Cloudy	
Mobile, Ala.	.....	.....	30.58	776.7	33	0.6	69	N	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Montgomery, Ala.	.....	.....	30.62	777.7	28	— 2.2	65	N	3	1.3	.....	0	Sm'e	.....	.....	0	0	Clear	
Morgantown, W. Va.	.....	.....	30.47	773.9	25	— 3.9	61	S	11	4.9	.....	8c	0	W	.....	0	0	Fair	
Mt. Washington, N. H.	23.50	696.9	29.80	756.9	— 7	—21.7	59	N	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Nashville, Tenn.	.....	.....	30.58	776.7	21	— 6.1	85	Calm	0	0	.....	0	Fog	.....	.....	0	0	Clear	
New Haven, Conn.	.....	.....	30.38	771.1	14	—10.0	44	W	2	0.9	.....	Haze	0	.....	.....	0	0	Clear	
New London, Conn.	.....	.....	30.37	771.4	11	—11.7	49	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
New Orleans, La.	.....	.....	30.54	775.7	39	3.9	46	NE	12	5.4	.....	8k	0	W	.....	0	0	Fair	
Newport, R. I.	.....	.....	30.34	770.6	15	— 9.4	65	NW	3	1.3	.....	0	0	.....	.....	0	0	Clear	
New York, N. Y.	.....	.....	30.39	771.9	16	— 8.9	59	W	8	3.6	.....	20k	0	W	.....	0	0	Clear	
Norfolk, Va.	.....	.....	30.50	774.7	22	— 5.6	72	N	6	2.7	.....	0	Haze	.....	.....	0	0	Clear	
North Platte, Neb.	27.22	691.4	30.03	762.7	11	—11.7	80	Calm	0	0	.....	0	5s	.....	.....	0	0	Fair	
Omaha, Neb.	29.12	739.6	30.20	768.6	27	— 2.8	88	S	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Oswego, N. Y.	.....	.....	30.21	767.3	24	— 4.4	78	S	5	2.2	.....	.....	10n	.....	W	0.04	1.0	Light snow	
Peck's Beach, N. J.	.....	.....	30.46	773.7	19	— 7.2	69	NW	4	1.8	.....	0	2s	.....	.....	0	0	Fair	
Pembina, Dakota	.....	.....	30.14	765.5	11	—11.7	89	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Philadelphia, Penn.	.....	.....	30.45	773.4	17	— 8.3	83	SW	8	3.6	.....	1ck	Sm'e	W	.....	0	0	Clear	
Pike's Peak, Colorado	17.09	440.3	29.99	759.4	6	—14.4	64	SW	12	5.4	.....	0	5s	.....	.....	0	0	Fair	
Pittsburgh, Penn.	.....	.....	30.41	772.4	17	— 8.3	67	S	8	3.6	.....	2c	0	.....	.....	0	0	Fair	
Port Huron, Mich.	.....	.....	30.15	765.8	18	— 7.8	68	SW	14	6.3	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy	
Portland, Me.	.....	.....	30.28	769.1	7	—13.9	77	W	9	4.0	.....	0	Haze	.....	.....	0	0	Clear	
Portland, Oregon	.....	.....	30.40	772.1	34	1.1	61	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Punta Rassa, Fla.	.....	.....	30.38	771.6	43.9	6.6	75	N	12	5.4	.....	8cs	2s	NE	.....	0	0	Cloudy	
Rochester, N. Y.	.....	.....	30.17	766.3	21	— 6.1	85	SW	16	7.2	.....	Haze	5s	.....	W	Inap.	Inap.	Fair	
Salt Lake City, Utah	25.84	656.3	30.17	766.3	19	— 7.2	84	Calm	0	0	.....	8ck	0	SW	.....	0	0	Fair	
Sandy Hook, N. J.	.....	.....	30.38	771.6	19	— 7.2	69	W	10	4.5	.....	5k	0	W	.....	0	0	Fair	
San Diego, Cal.	.....	.....	30.11	764.8	43	6.1	83	NE	8	3.6	.....	0	0	.....	.....	0	0	Clear	
San Francisco, Cal.	.....	.....	30.18	766.6	43	6.1	83	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Santa Fe, N. M.	23.34	592.8	29.88	758.9	29	— 1.7	66	NW	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy	
Savannah, Ga.	.....	.....	30.54	775.7	28	— 2.2	67	N	6	2.7	.....	0	Sm'e	.....	.....	0	0	Clear	
Shreveport, La.	.....	.....	30.60	777.2	39	3.9	59	E	2	0.9	.....	1ock	0	SW	.....	0	0	Fair	
Smithville, N. C.	.....	.....	30.51	775.7	29	— 1.7	78	N	7	3.1	.....	0	0	.....	.....	0	0	Clear	
Springfield, Mass.	.....	.....	30.35	770.9	10	—12.2	57	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
St. Louis, Mo.	.....	.....	30.43	772.9	25	— 3.9	75	SW	16	7.2	.....	0	0	.....	.....	0	0	Clear	
St. Marks, Fla.	.....	.....	30.53	775.4	29	— 1.7	67	N	5	2.2	.....	0	0	.....	.....	0	0	Clear	
St. Paul, Minn.	.....	.....	30.34	770.3	20	— 6.7	78	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
St. Paul's Island, Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squan Beach, N. J.	.....	.....	30.35	770.9	10	—12.2	79	W	5	2.2	.....	0	Haze	.....	.....	0	0	Clear	
Thatcher's Island, Mass.	.....	.....	30.28	769.1	10	—12.2	58	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Toledo, Ohio	.....	.....	30.30	769.6	23	— 5.0	86	SW	18	8.0	.....	.....	10s	.....	SW	0	0	Threatening	
Tucson, Arizona	27.50	698.5	29.85	758.2	48	8.9	....	SE	.....	.....	.....	.....	10ks	.....	SW	0	0	Cloudy	
Tybee Island, Ga.	.....	.....	30.54	775.7	29	— 1.7	59	N	8	3.6	....	0	0	.....	.....	0	0	Clear	
Vicksburg, Miss.	.....	.....	30.67	779.9	30	— 1.1	48	SE	4	1.8	....	2cs	2ck	W	W	0	0	Fair	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.36	618.7	29.84	757.9	14	—10.0	63	SE	2	0.9	.....	1c	0	W	.....	0	0	Clear	
Washington, D. C	.....	.....	30.50	774.7	18.5	— 7.5	85	W	4	1.8	.....	Haze	5s	.....	NW	0	0	Fair	
Wilmington, N. C	.....	.....	30.54	775.7	22	— 5.6	59	N	7	3.1	.....	0	0	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	30.36	771.1	16	— 8.9	65	N	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va	28.00	711.2	30.40	772.1	11	—11.7	80	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.87	733.3	30.27	768.8	16	— 8.9	66	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.11	764.8	38	3.3	.....	SW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.08	764.0	80	26.7	78	E	6	2.7	.....	2ck	5s	W	N	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.02	762.5	73	22.8	76	NE	.....	.....	.....	5cs	0	.....	.....	0	0	Clear	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	30.27	768.8	68	20.0	68	NE	6.8	3.0	.....	10fk	0	NNE	.....	0	0	Cloudy	Charles Hasselbrink
Kingston, Jamaica, W. I.	.....	.....	30.20	767.1	74	23.3	76	Calm	0	0	.....	8c	8s	N	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.31	769.9	74	23.3	67	S	4	1.8	.....	2ck	8kn	S	.....	Inap.	Inap.	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.96	761.0	70	21.1	71	NE	3.6	1.6	.....	0	2k	.....	NE	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.19	766.8	56.5	13.6	63	N	15.6	7.0	.....	10k	10k	.....	.....	0.05	1.3	Cloudy	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A.	.....	.....	30.10	764.5	—23.5	—30.8	.....	Calm	.....	.....	.....	3ck	0	S	.....	0.07	1.8	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.00	762.0	14.0	—10.0	.....	W	.....	.....	.....	.....	10n	.....	.....	Inap.	Inap.	.....	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I.	27.29	693.2	30.11	764.8	61	16.1	88	N	0.5	0.2	.....	.....	10k	.....	.....	0.04	1.0	Raining	C. Partridge.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A.	25.20	640.0	.....	.....	63.1	17.3	85	.....	0	0	.....	.....	10s	.....	.....	0.11	2.8	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.00	762.0	82	27.8	75	E	.....	.....	3	.....	5k	.....	.....	0	0	Fair	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.00	762.0	80.6	27.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 15, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Nemours			30.11	764.7	58.8	14.9	44	Calm			0		5			0	0	Fair	Charnot.
Algiers			30.01	762.3	54.3	12.4	52	W			2		3			0.079	2.0	Fair	Peter.
La Calle																			Kuntz.
Tunis			30.09	764.2	61.9	16.6	64	E			3		4			0	0	Fair	Jacques.
Sfax			30.08	761.0	60.4	15.8	55	Calm			0		2			0	0	Clear	Chauvey.
Saïda			30.00	762.1	34.7	1.5	93	SW			1		1			0	0	Clear	Grosjean.
Tebessa			30.05	763.3	48.7	9.3		S			4		2			0	0	Clear	Colin.
Gerfville			30.02	762.4	35.2	1.8	93	WNW			1		2			0.047	1.2	Clear	Buard.
Laghouat			30.03	762.7	42.8	6.0	70	NE			1		2			0	0	Clear	Simon.
Biskra			30.02	762.4	58.1	14.5	20	Calm			0		3			0	0	Fair	Coulon.

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Agram			30.34	770.6	32.4	0.2	90	Calm			0		10			0.197	5.0	Snowing	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.52	775.1	18.7	— 7.4	100	W			1		10			0	0		I. R. Observatory.
Eperies			30.34	770.5	34.9	1.6	76	Calm			0		10			0	0		Julius Mikolik.
Gratz	29.08	738.7	30.35	771.0	32.5	0.3	86	SSW			2		10			0.004	0.1		Andreas Rospini.
Hermannstadt	28.76	730.4	30.25	768.3	31.4	0.8	73	SE			1		10			0	0		Prof. Reissenberger.
Kremsmünster	29.02	737.1	30.45	773.4	30.2	— 1.0	92	Calm			0		10			0	0		Prof. C. Wagner.
Lemberg			30.26	768.5	23.2	— 4.9	95	NW			2		10			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.32	770.1	28 4	— 2.0	100	N			3		10			Blank	Blank		Habzsuda Daniel.
Pola			30.18	766.5	48.0	8.9	81	E			3		10 kn			0.085	2.14		I.R. Hydrographic Office
Szegedin			30.30	769.6	32.0	0.0	96	S			2		10			0	0		Karl Stancel.
Trieste			30.20	767.1	44.6	7.0	69	ENE			1		8			0	0	Foggy	Prof. V. Farolfi.
Vienna			30.41	772.5	26.2	— 3.0	81	N			2		10			0.028	0.7	Snowing	I. R. Central Institute.

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Brussels			30.59	776.9	27.0	— 2.8	98	E			3		10			0	0		Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.38	771.6	40.2	4.6		SSW	12	5.4			7			0.010	0.25	Misty	William Boswell.
Ardrossan			30.56	776.2	43	6.1		SW			3		6					*D. clouds	J. Mayes.
Armagh Observatory			30.60	777.2	36.6	2.6		SSW	10	4.5			0					Blue sky	S. Call, for Dr. Robinson
Bidston, Liverpool Obs			30.64	778.2	33.2	0.7		SE	17	7.6			0					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			30.61	775.2	33.9	1.1		SW			1		1					Blue sky	J. Dreyer.
Bradford			30.58	776.7	32.9	0.5		SW			1		2			0	0	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)			30.02	762.5	79.6	26.4		NE			3		7					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.66	778.7	34.0	1.1		E			1		10					Overcast	H. Todd.
Cardington			30.67	779.0	33.4	0.8		E			1		10					Overcast	John McLaren.
Carlisle			30.56	776.2	31.1	— 0.6		SE			1		3			0	0	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.64	778.2	34.2	1.2		NE			1							Overcast	Capt. J. Fellowes, R. E.
Dartmoor	29.07	738.4	30.56	776.2	28.8	— 1.8		E			4		6					*D. clouds	R. . . Power.
Donaghadee			30.60	777.2	37	2.8		SW			2		3					*D. clouds	J. Mac Gowan.
Dover			30.61	777.5	33	0.6		NE			3		7					Gloomy	J. Costello.
Eccles, (near Manchester)			30.64	778.2	32.5	0.3		SSW	0.1	0.01			10					Misty	Thomas Mackereth.
Falmouth Observatory			30.64	778.2	36.3	2.4		ENE	11	4.9			10					Overcast	The Staff.
Fort Napier, (Natal)	27.59	700.8	29.85	758.2	66.7	19.3		E			2		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.93	760.2	86.0	30.0		N			1		5					Blue sky	(tis.
Galway, Queen's College			30.52	775.2	43	6.1		S			1		2					*D. clouds	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			29.99	761.7	54.0	12.2		W			2		1					Blue sky	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.52	775.2	39.0	3.9		SW			1		7					Fine	Wm. M. Stewart.
Great Yarmouth			30.65	778.5	34.	1.1		E			3		6					*D. clouds	G. T. Watson.
Greenwich Royal Obs			30.64	778.2	33.7	0.9		NE			1		10			Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey			30.54	775.7	39.5	4.2		NE			4		7					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.66	778.7	31.6	— 0.2		WSW			1		7					Hazy	L. J. Crossley.
Helston			30.61	777.5	38	3.3		NE			2		10			0	0	Overcast	M. P. Moyle.
Holyhead			30.61	777.5	41	5.0		SSW			2		4						John Tilston.
Kew Observatory			30.66	778.7	34.2	1.2		NE	9	4.0			10					Overcast	The Staff.
Kingstown			30.64	778.2	38	3.3		NW			1		8					Foggy	George Mitchell
Leicester Museum			30.68	779.3	32.2	0.1		SE			1		10					Overcast	William J. Harrison.
Malta, (Mediterranean)			30.15	765.3	60	15.6		SE			2		6k						Fred Travis, Pvt A.H.C
Nairn			30.34	770.6	44	6.7		SW			3		10					Overcast	W. D. Penny.
Nassau, (Bahamas)			30.36	771.1	67.4	19.7		N			6		8					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.68	779.3	32.7	0.4		SSW			2		10cs		S			Overcast	E. J. Lowe, F. R. S
Oscott, St. Mary's College			30.63	779.3	30.9	— 0.6		SSE			1		10					Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			30.63	778.0	33	0.6		ENE			1		10					Overcast	J. Lucas.
Plymouth			30.63	778.0	34.1	1.2		E			3		7					*D. clouds	John Merrifield.
Roche's Point			30.62	777.0	39	3.9		N			1		5					Fine	W. Kennedy.
Saint Ann's Head			30.66	778.7	37	2.8		SE			1		8					*D. clouds	John C. Walker.
Saint Helier, (Jersey)			30.54	775.7	38.2	3.4		E			4		10					Overcast	A. P. Amy.
Sandwick Manse (Orkneys)			30.23	767.8	45.2	7.3		WSW	27	12.1			10					Cloudy	Rev. Dr. Clouston
Scarborough			30.60	777.2	33.0	0.6		WSW			2		8					Overcast	F. Shaw.
Scutari Cemetery (Turkey)			30.25	768.5	44.6	7.0		SW			1		4					*D. clouds	Sergt. W. H. Lyne.
Sheffield			30.67	779.0	33.6	0.9		SW			1		6			0	0	*D. clouds	W. F. Cooper.
Silloth Rectory			30.59	777.0	36.2	2.3		WSW			2		0			0	0	Hazy	Rev Francis Redford.
Stonyhurst Observatory			30.65	778.5	32.2	0.1		S			1							Hazy	The Staff.
Stornoway, Lews C. (Hebr.)			30.26	768.6	47	8.3		SW			7		10					Overcast	John Smith.
Strathfield Turgiss			30.66	778.7	33.3	0.7		NE			1		10					Overcast	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			30.24	768.1	45	7.2		SSW			2		8					Gloomy	John Trotter.
Truro, Royal Institution			30.65	778.5	37	2.8		E			2		6					*D. clouds	W. Newcombe.
Valencia Observatory			30.02	777.7	41.1	5.1		ESE	15	6.7			3					Hazy	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.95	760.7	77.0	25.0	63	S	24	10.7			2						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					40	4.4		SE			3	10	10			0	0		
Leith, Restalrig Park			30.52	775.2	40.2	4.6		W			2		10k			0	0	Cloudy	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,390 feet, or 423.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.51	774.9	34.0	— 1.1	90	WNW			2		10						
Fanöe			30.60	777.3	32.7	0.4	89	W			4		1						
Godthaab, (Greenland)			29.53	752.6	18.5	— 7.5	89	Calm			0		10						
Stykkisholm, (Iceland)			29.00	736.6	42.3	5.7	90	S			6		10						
Thorshavn, (Faröe)			29.77	756.1	50.4	10.2	87	SW			7		10					Raining	
Vestervig			30.51	774.9	35.6	2.0	93	WSW			4		0						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.50	774.7	32.0	0	85	NE	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	30.57	776.4	30.9	— 0.6	92	N	.....	.....	8	.....	5	.....	N	0	0	Cloudy.....	Normal School.
Avignon	.....	.....	30.02	762.6	40.1	4.5	67	N	.....	.....	3	.....	0	.....	.....	0	0	Very clear..	Normal School.
Bar-sur-Seine	.....	.....	30.45	773.3	30.7	— 0.7	.....	E	.....	.....	3	.....	10	.....	.....	0.031	0.8	Covered	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.43	772.9	32.5	0.3	97	NE	22.8	10.2	.....	.....	.....	.....	E	0.016	0.4	.....	Beaumette Obse ratory
Beauvais	.....	.....	30.56	776.1	29.7	— 1.3	.....	ENE	.....	.....	3	.....	10	.....	.....	0	0	Covered	Normal School.
Besançon	.....	.....	30.39	771.9	32.9	0.5	.....	ENE	.....	.....	3	.....	2	.....	NE	0	0	Slightly cl'dy	Normal School.
Bourg en Bresse	.....	.....	30.40	772.1	31.5	— 0.3	96	NW	.....	.....	3	.....	10n	.....	SE	0	0	Covered	Normal School.
Bourges	.....	.....	30.42	772.6	32.4	0.2	96	NE	.....	.....	2	.....	8	.....	NE	0.08	2.	Cloudy.....	Normal School.
Brest	.....	.....	30.45	773.4	41.2	5.1	62	NE	.....	.....	3	.....	5	.....	NE	0	0	½ covered....	Naval Observatory
Caen	.....	.....	30.51	774.9	35.6	2	92	NE	.....	.....	2	.....	10	.....	.....	0	0	Covered.....	Normal School.
Chartres	.....	.....	30.43	772.9	28.0	— 1.9	.....	NE	.....	.....	4	.....	10	.....	.....	0.055	1.4	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.36	771.1	33.1	0.6	85	N	.....	.....	2	.....	10	.....	.....	0	0	Covered	Puy de Dome, Obs
Commercy	.....	.....	30.49	774.5	29.7	— 1.3	96	ENE	.....	.....	4	.....	5	.....	ENE	0	0	Cloudy..	Normal School.
Commune de Gréasque*	.....	.....	30.18	766.5	49.3	9.6	61	NE	.....	.....	2	.....	8	.....	NE	0	0	¾ Covered..	
Grenoble	.....	.....	30.34	770.6	32.0	0	100	E	.....	.....	1	.....	10	.....	.....	0	0	Misty.....	Normal School.
Le Mans	.....	.....	30.48	774.2	31.3	— 0.4	92	N	.....	.....	4	.....	10	.....	.....	0	0	Covered.....	Normal School
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lons-Le-Saulnier	.....	.....	30.37	771.5	34.5	1.4	93	NW	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Normal School.
Mâcon	.....	.....	30.33	770.4	32.0	0	.....	NW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.45	773.3	32.7	— 0.4	84	NE	.....	.....	2	.....	8	.....	SW	0	0	Almost cov'd	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Nismes	.....	.....	30.23	767.7	39.9	4.4	62	N	.....	.....	4	.....	0	.....	.....	0	0	Clear.....	Normal School.
Orleans	.....	.....	30.42	772.6	33.1	0.6	92	NE	.....	.....	4	.....	8	.....	E	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	30.30	774.8	31.1	— 0.5	80	NE	.....	.....	3	.....	10	.....	.....	0	0	Foggy	National Observatory.
Parthenay	.....	.....	30.40	772.1	31.1	— 0.5	93	SW	.....	.....	4	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30.35	770.9	35.6	2	.....	N	.....	.....	4	.....	8	.....	N	0	0	Very cloudy	Normal School.
La Roche-sur-Yon	.....	.....	30.43	773.0	34.9	1.6	93	NE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Rochefort, Observatory	.....	.....	30.37	771.4	34.3	1.3	78	E	.....	.....	1	.....	10	.....	SW	0	0	Covered	Naval Observatory.
Rouen	.....	.....	30.54	775.7	29.5	— 1.4	79	NE	.....	.....	3	.....	10	.....	N	0	0	Covered	Normal School.
Saint Lo	.....	.....	30.18	766.6	32.0	0	100	E	.....	.....	6	.....	9	.....	E	0	0	.....	Normal School.
Tarbes	.....	.....	30.21	767.2	48.2	9	100	W	.....	.....	1	.....	10	.....	NE	0	0	Covered	Normal School.
Toulouse	.....	.....	30.30	769.6	28.6	— 1.9	100	NW	.....	.....	2	.....	10	.....	.....	.....	.....	Snowing.....	Normal School.
Villefranche	.....	.....	30.44	773.1	30.6	— 0.8	75	NW	.....	.....	2	.....	10	.....	.....	0	0	Covered.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.0	73.8	23.2	83	NE	.....	.....	2	.....	8kn?	.....	.....	0.04	1.	....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Marseilles	.....	.....	30.14	765.2	53.1	11.7	79	ENE	.....	.....	1	.....	4	.....	.....	0.016	0.40	.....	Marseilles Observatory
Mont-Louis	24.82	630.4	30.29	769.3	29.3	— 1.5	90	ENE	13.0	5.83	.....	.....	10	.....	.....	0.374	9.5	.....	—. Falguère.
Montsouris, Paris	.....	.....	30.48	774.1	30.6	— 0.8	96	NNE	.....	.....	4	.....	10	.....	.....	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.21	767.4	37.4	3.0	.....	NW	9.3	4.17	.....	.....	10	.....	NE	0.150	3.8	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.07	535.2	.....	.....	14.0	—10.1	.....	E.	.....	.....	4	.....	2	.....	.....	0	0	.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.48	774.3	31.5	— 0.3	77	NE	.....	.....	2	.....	10	.....	.....	0	0	Very cloudy	E. Renou.
Toulouse	.....	.....	30.32	770.0	27.9	— 2.3	100	NNW	.....	.....	1	.....	10	.....	.....	0	0	.....	Toulouse Observatory.
Tours	.....	.....	30.41	772.4	33.8	1.0	80	NE	.....	.....	3	.....	10	.....	.....	0	0	Covered.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.48	774.1	30.6	— 0.8	80	NE	.....	.....	3	.....	10	.....	.....	0.	0	Covered.....	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.44	773.2	30.2	— 1.0	96	Calm	0	0	.....	0	0	.....	.....	0	0	Light fog.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft; Clermont 348 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.38	771.7	24.1	— 4.4	86	NE	.....	.....	5	.....	2	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.61	777.5	26.6	— 3.0	79	N	.....	.....	3	.....	10	.....	.....	0.024	0.6	.....	Prof. Arndt.
Breslau	.....	.....	30.57	776.5	17.4	— 8.1	95	NE	.....	.....	3	.....	10	.....	.....	0.055	1.4	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.50	774.7	28.4	— 2.0	78	NE	.....	.....	2	.....	10	.....	.....	0.165	4.2	.....	A. Senz.
Cassel	.....	.....	30.50	774.7	30.0	— 1.1	85	NNE	.....	.....	3	.....	10	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.62	777.8	28.8	— 1.8	78	NNE	.....	.....	2	.....	8	.....	.....	0	0	.....	Physical Society.
Friedrichshafen	.....	.....	30.41	773.2	30.2	— 1.0	76	NE	.....	.....	.....	.....	10	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	30.65	778.6	28.8	— 1.8	89	WNW	.....	.....	3	.....	9	.....	.....	0	0	Snow & Fog.	Deutsche Seewarte.
Kiel	.....	.....	30.62	777.8	31.1	— 0.5	87	W	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.14	773.1	17.6	— 8.0	65	SE	.....	.....	2	.....	9	.....	.....	0.406	10.3	Snowing.....	Prof. E. Luther.
Köslin	.....	.....	30.52	775.3	21.3	— 4.3	.....	NW	.....	.....	1	.....	10	.....	.....	0	0	....	H. Müller.
Leipsic	.....	.....	30.63	778.0	23.4	— 4.8	90	NNE	.....	.....	4	.....	10	.....	.....	0	0	Foggy	Prof. Bruhns.
Münster	.....	.....	30.60	777.3	30.6	— 0.8	90	NE	.....	.....	4	.....	10	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.56	776.3	23.0	— 5.0	97	NW	.....	.....	5	.....	10	.....	.....	0	0	.....	Dr. Magener.
Strasburg, (in Alsace)	.....	.....	30.49	774.5	28.8	— 1.8	83	NE	.....	.....	2	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.50	774.8	27.5	— 2.5	86	N	.....	.....	.....	.....	10	.....	.....	0.252	6.4	....	Mr. Würth.
Thorn	.....	.....	30.46	773.7	23.7	— 4.6	91	NW	.....	.....	4	.....	10	.....	.....	Inap	Inap.	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.47	773.9	30.4	— 0.9	74	E	.....	.....	3	.....	5	.....	.....	0	0	.....	Prof. Fiesch.
Wustrow, Naval School	.....	.....	30.58	776.6	29.3	— 1.5	92	NW	.....	.....	2	.....	10	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.24	768.0	54.7	12.6	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Covered	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.14	765.5	43.9	6.6	64	NNE			7		6			0	0		
Padua			30.19	766.7	47.7	8.7	86	NE	4.9	2.2			1	E		0	0		
Verona			30.15	765.8	50.0	10.0	83	E			1		10			0	0		
Bergamo			30.17	766.3	44.2	6.8	71	SW			4		1			0	0		
Milan			30.25	768.3	42.3	5.7	97	WNW			1		10			0	0		
Moncalieri			30.28	769.0	39.2	4.0	88	ENE	3.1	1.4			1			0	0		
Mondovi			30.26	768.6	40.5	4.7	74	NNE			2		3	NW		0	0		
Porto Maurizio			30.16	766.1	51.8	11.0		E			2		0			0	0		
Genoa			30.19	766.9	52.2	11.2	49	NE	4.2	1.9			0			0	0		
Piacenza			30.24	768.2	42.3	5.7	91	NW	9.4	4.2			10	NW		0	0		
Bologna			30.22	767.6	42.3	5.7	42	W			1		10			0	0		
Florence			30.22	767.5	50.7	10.4	61	NE			2		10	NE		0	0		
Leghorn			30.15	765.9	49.6	9.8	75	NE	7.4	3.3			4			0	0		
Siena			30.18	766.5	47.5	8.6	83	ESE	0	0			6	NE		0	0		
Urbino																			
Pesaro																			
Ancona			29.22	767.6	44.1	6.7	85	NW			6		10			0	0		
Rome			30.22	767.5	52.9	11.6	69	E	6.3	2.8			7			0	0		
Naples, O. U			30.20	767.1	57.4	14.1	67	SE			1		7	SW		0	0		
Lecce			30.21	767.2	55.0	12.8	72	SW	4.9	2.2			6	SW		0	0		
Cosenza			30.21	767.4	53.4	11.9	77	NW			2		2			0	0		
Riposto, (Sicily)			30.14	765.5	55.8	13.2	82	SE			2		3			0	0		
Palermo			30.07	763.8	60.1	15.6	46	WSW	6.3	2.8			4			0	0		
Caltanissetta			30.19	766.7	50.0	10.0	54	S			1		4	NW		0	0		
Sub-Series.																			
Naples, S. R			29.41	747.1	54.1	12.3	71	SE			4		..k	E		0.449	11.4		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.65	778.6	28.0	— 2.2		ENE			3								
Groningen			30.61	777.4	28.2	— 2.1		SE			2								
Helder			30.64	778.2	28.8	— 1.8		NE			2								
Utrecht			30.59	777.0	26.8	— 2.9	94	E			3		10					Dull	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.35	771.0	37.4	3.0	87	S	21.0	9.4			10			0.322	8.2	Raining	
Brönö			29.87	758.6	39.2	4.0	84	SW	27	12			10			0	0	Raining	
Christiania			30.41	772.4	20.5	— 6.4	100	SSE	5.7	2.3			10			0	0	Foggy	
Tromsö			28.96	735.6	25.2	— 3.8	95	NE	2	1			5			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.51	775.5	58.1	14.5	86	NE	9.0	4.03	.....	.....	4	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.08	764.1	49.6	9.8	47	NNE	6.9	3.09	.....	.....	0	.....	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.24	768.0	60.8	16.0	46	N	5.8	2.59	.....	.....	8	.....	.....	0.063	1.6	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.13	765.3	46.2	7.9	55	NE	19.9	8.9	.....	.....	1	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.41	772.5	18.0	— 7.8	77	NW	9	4	.....	.....	10	.....	.....	.....	.....	Light rain...	Astronomical Obs.
Wilna	.....	.....	30.34	770.6	18.0	— 7.8	84	N	4	2	.....	.....	7	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.46	773.6	2.5	—16.4	91	SW	2	1	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.37	771.4	3.6	—15.8	88	WSW	2	1	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	30.13	765.3	15.4	— 9.2	100	W	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kief	.....	.....	30.29	769.4	19.9	— 6.7	100	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.43	773.0	24.1	— 4.4	91	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.40	772.1	25.0	— 3.9	89	NE	2	1	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.46	773.7	12.2	—11.0	79	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.48	774.3	9.4	—12.7	81	Calm	0	0	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.95	760.7	14.7	— 9.6	94	WSW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.93	734.8	30.43	773.0	31.5	— 1.3	74	SSW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.71	780.1	0.0	—17.8	89	N	9	4	.....	.....	6	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.54	775.6	— 1.3	—18.5	85	S	2	1	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.46	748.3	30.59	776.9	2.5	—16.4	90	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.35	771.0	0.3	—17.6	52	E	4	2	.....	.....	2	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.69	738.8	30.54	775.6	19.4	— 7.0	78	N	13	7	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.42	772.7	— 3.5	—19.7	77	W	2	1	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.08	763.9	—13.9	—25.5	86	WNW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.34	770.6	29.2	— 3.2	40	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.68	703.1	30.04	762.9	—18.6	—28.1	84	Calm	0	0	.....	.....	7	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.23	767.9	13.1	—10.2	80	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	.....
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—10.1	—23.4	83	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.13	765.3	41.0	5.0	61	NE	17.9	8.0	.....	0	0	.....	.....	0	0	Almost clear	Royal Observatory.
San Fernando	.....	.....	30.06	763.5	48.0	8.9	62	NE	10.7	4.8	.....	0	1	.....	.....	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.82	757.3	29.3	— 1.5	98	SW	.....	.....	4	.....	7	.....	.....	0	0	.....	
Umea	.....	.....	30.06	763.4	30.5	— 0.8	96	W	.....	.....	2	.....	5	.....	.....	0	0	.....	
Hernosand	.....	.....	30.16	766.0	32.9	0.5	83	W	.....	.....	2	.....	3	.....	.....	0	0	.....	
Stockholm	.....	.....	30.32	770.1	21.2	— 6.0	93	SSW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	30.47	773.8	24.4	— 4.2	95	NNW	.....	.....	4	.....	10	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.35	770.8	19.2	— 7.1	98	SSW	8.5	3.8	.....	.....	0	.....	.....	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.86	733.0	30.35	770.8	33.8	1.0	78	NE			1		10			0	0	Covered	The Observatory.
Zurich	28.68	728.5	30.41	772.3	29.5	— 1.4	89	NE			1		10			0	0	Foggy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.3 mm.; Thermometer, —0.4 cent.; Relative Humidity, —1 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.28	769.1	45.3	7.4	74	ESE	3	1.5			3		SW	0	0		
Fao, (Persian Gulf)			30.32	770.0	52.2	11.2		NW			1		10						
Salonica			30.28	769.1	52.2	11.2		SW			1		8						
Valona			30.08	764.0	58.8	14.9		SW			1		2						
Varna			30.39	772.0	42.8	6.0		N			2		10						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.			30.13	765.2	59.9	15.5	52	NW			1		0			0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.			30.09	764.3	— 3.5	—19.7	83	SW	1.0	0.4						0	0		Hon. J. Ferguson.
Brockville, Ontario			30.31	769.9	13	—10.6		Calm	0	0		0	5s		NW	0.30	7.6	Clearing	W. R. Bigg.
*Chatham, N. B.			30.13	765.3	5	—15.0	87	SW	1	0.4		8k	2ks			0	0	Cloudy	G. A. Blair.
Charlottetown P. E. Island			30.17	766.3	15	— 9.4	89	Calm	0	0			8s			0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario			30.27	768.8	14.7	— 9.6	52	NE			1		10s			0.020	5.1	Clearing	James Smith, M. A.
Dalhousie, N. B.			30.13	765.3	3.5	—15.8	73	W			2	10cs				0	0	Cloudy	H. A. Johnson.
Esquimault, B. C.			30.18	766.6	42.1	5.6	100	NW	1	0.4			10			0.24	6.1	Raining	W. H. Bevis.
Fredericton, N. B.			30.19	766.8	6.2	—14.3	95	Calm	0	0			10s			0	0	Fair	Prof. Harrison.
*Fort Garry, Manitoba			29.78	756.4	9	—12.8	93	W	8	3.6		0	2s			0	0	Fair	James Stewart.
Goderich, Ontario			30.13	765.3	25.0	— 3.9	86	SW			2	9ck	0	W		0.05	1.3	Cloudy	H. J. Strang, M. A.
Granton, Ontario			30.18	766.6	20.3	— 6.6		S			1	5cs	0	NE		0	0	Cloudy	James Grant.
*Halifax, N. S.			30.20	767.1	21	— 6.1	86	S	1	0.4			10n			0.03	0.8	Light snow	F. Allison, M. A.
*Kingston, Ontario			30.29	769.4	16	— 8.9	91	NE	1	0.4		8ck		W		0.08	2.0	Cloudy	S. Woods, M. A.
Little Current, Ontario			29.95	760.7	13.6	—10.2		Calm	0	0			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.25	768.3	10	—12.2	79	W	10	4.5		0	2ks			0.17	4.3	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario			30.28	769.1	4	—15.6	72	Calm	0	0		0	5ks			0.10	2.5	Fair	J. B. Haney.
*Parry Sound, Ontario			30.16	766.1	12	—11.1	90	NE	4	1.8		2k	5ks	S V	SW	0.10	2.5	Fair	Rev. R. Mooley.
*Port Dover, Ontario			30.21	767.3	30	— 1.1	89	S	12	5.4		5k	0	SW		0.03	0.8	Fair	H. Morgan.
Port Hastings, N. S.			30.21	767.3	13.1	—10.5		S	7	3.1						0	0	Fine	Peter Grant.
*Port Stanley Ontario			30.19	766.8	30	— 1.1	91	SE	10	4.5			5ks			0.05	1.3	Fair	M. Payne.
*Quebec, Quebec			30.20	767.1	7	—13.9	89	W	11	4.9		2k	2ks	W	W	0	0	Fair	Capt. Ash, R. N.
St. John, N. B.			30.19	766.8	17.0	— 8.3	75	NW	1	0.4		10k	0			0	0		G. Murdoch, C. E.
*Sangeen, Ontario			30.09	764.3	24	— 4.4	93	S	2	0.9			10n			0.01	0.3	Cloudy	K. Stewart.
Stayner, Ontario			30.13	765.3	22	— 5.6	86	SE	3	1.3		5k	0	S		0.05	1.3	Fair	R. J. Cole.
Stratford, Ontario			30.16	766.1	23.6	— 4.7	88	SW	9	4.0			10s			Inap.	Inap.	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			30.26	768.6	— 5	—20.6	100	SW	2	0.9		5c	2ks	SW	SW	0	0	Fair	T. C. Hill.
*Toronto, Ontario			30.19	766.8	27	— 2.8	85	SW	10	4.5			10ks		W	0.01	0.3	Cloudy	Magnetic Observatory.
Woodstock, Ontario			30.17	766.3	24.8	— 4.0	90	Calm	0	0			10s			0.01	0.3	Gloomy	J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.26	768.6	27	— 2.8	88	S	1	0.4	.....	.....	10n	.....	.....	0.01	0.3	Light snow..	
Alpena, Mich.	.....	.....	29.94	760.5	24	— 4.4	74	S	12	5.4	.....	10ck	0	S	.....	Inap.	Inap.	Cloudy.....	
Atlantic City, N. J.	.....	.....	30.41	772.4	20	— 6.7	85	W	5	2.2	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Augusta, Ga.	.....	.....	30.50	774.7	24	— 4.4	61	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Baltimore, Md.	.....	.....	30.41	772.4	29	— 1.7	67	Calm	0	0	.....	0	Fog	.....	.....	0	0	Foggy	
Barnegat, N. J.	.....	.....	30.38	771.6	22	— 5.6	72	W	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Benton, Montana	27.10	690.6	29.90	761.7	40	4.4	56	SW	16	7.2	.....	2c	0	SW	.....	0	0	Fair.....	
Bismarck, Dakota	28.17	715.5	29.92	760.0	17	— 8.3	35	W	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	
Boston, Mass.	.....	.....	30.28	769.1	23	— 5.0	73	SW	8	3.6	.....	0	Sm'e	.....	.....	0	0	Smoky.....	
Breckenridge, Minn	.....	.....	29.91	759.7	15	— 9.4	82	W	10	4.5	.....	0	0	.....	.....	0	0	Clear.....	
Buffalo, N. Y.	.....	.....	30.20	767.1	29	— 1.7	88	Calm	0	0	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Burlington, Vt.	.....	.....	30.25	768.3	23	— 5.0	100	NE	2	0.9	.....	.....	10n	.....	.....	0.12	3.0	Light snow..	
Cairo, Ill.	.....	.....	30.37	771.4	39	3.9	55	S	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Cape Hatteras, N. C.	.....	.....	30.40	772.1	35	1.7	70	N	5	2.2	.....	0	0	.....	.....	0	0	Clear.....	
Cape Henry, Va.	.....	.....	30.44	773.2	30	— 1.1	68	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Cape May, N. J.	.....	.....	30.40	772.1	29	— 1.7	67	NW	5	2.2	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Charleston, S. C.	.....	.....	30.51	774.9	34	1.1	43	W	3	1.3	.....	0	Sm'e	.....	.....	0	0	Clear.....	
Cheyenne, Wyoming	24.04	610.6	29.98	761.5	15	— 9.4	75	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
Chicago, Ill.	.....	.....	29.99	761.7	43	6.1	67	SW	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Cincinnati, Ohio.	.....	.....	30.29	769.4	34	1.1	69	SE	2	0.9	.....	Haze	5s	.....	.....	0	0	Fair.....	
Cleveland, Ohio.	.....	.....	30.21	767.3	23.3	— 4.8	89	SE	9	4.0	.....	5c	Sm'e	SW	SE	0	0	Fair.....	
Colorado Springs, Col.	24.10	612.1	29.97	761.2	24	— 4.4	48	N	8	3.6	.....	1cs	0	.....	.....	0	0	Clear.....	
Corsicana, Texas	.....	.....	30.25	768.3	43	6.1	75	SE	6	2.7	.....	.....	10s	.....	.....	0.28	7.1	Cloudy.....	
Davenport, Iowa	.....	.....	30.04	763.0	38	3.3	81	SW	16	7.2	.....	.....	10ss	.....	SW	0	0	Cloudy.....	
Denison, Texas	.....	.....	30.27	768.8	42	5.6	83	E	3	1.3	.....	.....	10n	....	E	0.82	20.8	Light rain...	
Denver, Col.	24.88	631.9	30.10	764.5	23	— 5.0	47	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Detroit, Mich.	.....	.....	30.10	764.5	27	— 2.8	94	S	7	3.1	.....	1ck	5ks	SW	SW	0	0	Fair.....	
Dodge City, Kan.	27.41	697.5	29.82	757.4	35	1.7	80	S	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Dubuque, Iowa	.....	.....	29.95	760.7	37	2.8	81	SW	8	3.6	.....	5c	0	SW	.....	0	0	Fair.....	
Duluth, Minn.	.....	.....	29.75	755.6	24	— 4.4	74	SW	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy..	
Eastport, Me.	.....	.....	30.18	766.6	18	— 7.8	84	N	6	2.7	.....	5c	2s	W	NW	0	0	Fair.....	
Erie, Pa.	.....	.....	30.20	767.1	27	— 2.8	88	S	10	4.5	.....	1cs	Haze	.....	.....	0	0	Fair.....	
Escanaba, Mich.	.....	.....	29.79	756.7	18	— 7.2	84	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Fort Gibson, Indian Terr.	.....	.....	30.26	768 6	38	3.3	90	SE	10	4.5	.....	.....	10n	.....	S	0.20	5.1	Light rain...	
Fort Sill, Indian T.	28.98	736.1	30.13	765.3	40	4.4	91	S	8	3.6	.....	.....	10n	.....	S	0.27	6.9	Heavy rain..	
Fort Sully, Dakota	28.29	718.6	30.04	763.0	22	— 5.6	72	SW	3	1.3	.....	0	0	.....	.....	0	0	Clear.....	
Galveston, Texas	.....	.....	30.24	768.1	60	15.6	95	E	12	5.4	.....	.....	10n	.....	E	0.03	0.8	Light rain...	
Grand Haven, Mich.	.....	.....	29.95	761.0	39	3.9	72	SW	20	8.9	.....	.....	10s	.....	W	0	0	Cloudy.....	
Indianapolis, Ind.	.....	.....	30.21	767.3	36	2.2	70	S	8	3.6	.....	.....	10s	.....	W	0	0	Cloudy.....	
Indianola, Texas	.....	.....	30.18	766.6	61	16.1	97	SE	12	5.4	.....	.....	10s	....	SE	0.25	6.3	Cloudy.....	
Jacksonville, Fla.	.....	.....	30.18	774.2	36	2.2	71	N	1	0.4	.....	0	0	.....	.....	0	0	Clear.....	
Keokuk, Iowa	.....	.....	30.03	763.5	40	4.4	82	SW	15	6.7	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Key West, Fla.	.....	.....	30.31	769.9	64.0	17.8	78	NE	19	8.5	.....	.....	10s	.....	NE	0	0	Cloudy..... ..	
Kittyhawk, N. C.	.....	.....	30.46	773.7	30 .	— 1.1	57	NW	8	3.6	.....	0	0	....	.....	0	0	Clear..... ...	
Knoxville, Tenn.	.....	.....	30.53	775.4	23	— 5.0	85	SE	3	1.3	.....	2ck	Fog	W	.....	0	0	Fair.....	
La Crosse, Wis.	.....	.....	29.86	758.4	37	2.8	71	SW	6	2.7	.....	Haze	Haze	.....	.....	0	0	Hazy.....	
Leavenworth, Kan.	.....	.....	30.11	764.8	41	5.0	83	S	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Lexington, Ky.	29.24	742.7	30.43	772.9	29	— 1.7	67	S	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Long Branch, N. J.	.....	.....	30.36	771.1	24	— 4.4	61	SW	8	3.6	.....	0	Haze	.....	.....	0	0	Clear.....	
Louisville, Ky.	.....	.....	30.34	770.6	35	1.7	63	S	5	2.2	.....	5ck	2s	S	.....	0	0	Cloudy.....	
Lynchburg, Va.	.....	.....	30.44	773.2	26	— 3.3	75	NW	1	0.4	.....	2cs	Sm'e	W	.....	0	0	Fair.....	
Malone, N. Y.	.....	.....	30.25	768.3	18	— 7.8	84	W	1	0.4	.....	.....	10n	.....	SW	0.10	2.5	Light snow..	
Marquette, Mich.	.....	.....	30.72	780.3	25	— 3.9	87	SW	12	5.4	.....	.....	8s	.....	SW	0	0	Cloudy	
Memphis, Tenn.	.....	.....	30.41	772.4	38	3.3	54	S	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Milwaukee, Wis.	.....	.....	29.94	760.5	35	1.7	80	SW	11	4.9	.....	.....	10ks	.....	SW	0	0	Cloudy.....	
Mobile, Ala.	.....	.....	30.46	773.7	38	3.3	58	NE	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Montgomery, Ala.	.....	.....	30.51	774.9	29	— 1.7	77	NE	2	0.9	.....	2c	Sm'e	.....	.....	0	0	Clear.....	
Morgantown, W. Va.	.....	.....	30.33	770.4	34	1.1	61	S	6	2.7	.....	0	Haze	....	.....	0	0	Clear.....	
Mt. Washington, N. H.	24.52	597.4	29.98	7.8 9	2	—16.7	100	N	50	22.4	.....	.....	Fog	....	.....	0	0	Foggy	
Nashville, Tenn.	.....	.....	30.43	772 9	29	— 1.7	67	S	2	0.9	.....	5ck	0	S	.....	0	0	Fair.....	
New Haven, Conn.	.....	.....	30.32	770.1	25	— 3.9	77	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair.....	
New London, Conn.	.....	.....	30.32	770.1	26	— 3.3	75	W	1	0.4	.....	0	Haze	.....	.....	0	0	Clear.....	
New Orleans, La.	.....	.....	30.39	771.9	44	6.7	68	NE	6	2.7	.....	5k	0	W	.....	0	0	Fair.....	
Newport, R. I.	.....	.....	30.30	769.9	27	— 2.8	76	SW	6	2.7	.....	0	0	.....	.....	0.02	0.5	Clear.....	
New York, N. Y.	.....	.....	30.3	771.1	25	— 3.9	50	SW	8	3.6	.....	0	Fog	.....	.....	0	0	Clear..... ...	
Norfolk, Va.	.....	.....	30.4	773.4	30	— 1.7	66	SW	2	0.9	.....	0	Fog	....	.....	0	0	Clear.....	
North Platte, Neb.	.....	.....	30.45	773.4	20	— 1.7	66	SW	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	
Omaha, Neb.	27.11	688.6	29.86	7 8.4	15	— 9.4	82	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Oswego, N. Y.	28.88	733.5	29.98	761.5	37	2.8	90	SW	7	3.1	.....	2c	0	.....	.....	0	0	Fair.....	
Peck's Beach, N. J.	.....	.....	30.26	768.6	29.5	— 1.4	77	NW	1	0.4	.....	.....	10s	.....	.....	0.02	0.5	Threatening	
Pembina, Dakota	.....	.....	30.43	772.9	12	—11.1	71	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Philadelphia, Penn.	.....	.....	29.68	770.3	15	— 9.4	81	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Pike's Peak, Colorado	.....	.....	30.41	772.4	29	— 1.7	89	SW	5	2.2	.....	10k	Sm'e	SW	.....	0	0	Cloudy.....	
Pittsburgh, Penn.	17.64	448.5	29.85	758.2	4	—15.6	48	SW	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
Port Huron, Mich.	.....	.....	30.25	768.3	26	— 3.3	61	S	9	4.0	.....	0	0	.....	.....	0	0	Clear.....	
Portland, Me.	.....	.....	30.11	764.8	21	— 4.4	87	S	12	5.4	.....	5c	5s	....	S	0	0	Cloudy.....	
Portland, Oregon.	.....	.....	30.24	768.1	19	— 7.2	81	NW	4	1.8	.....	1k	Haze	NW	....	0	0	Fair.....	
Punta Rassa, Fla.	.....	.....	30.42	772.7	37	2.8	80	Calm	0	0	.....	.....	10s	.....	.....	0.05	1.3	Cloudy.....	
Rochester, N. Y.	.....	.....	30.37	771.4	52.3	11.3	79	NE	14	6.3	.....	8cs	Sm'e	SW	NE	0	0	Cloudy.....	
Salt Lake City, Utah	25.77	652.0	30.10	764.5	28	— 2.2	88	SW	4	1.8	.....	.....	10s	.....	W	0.02	0.5	Cloudy.....	
Sandy Hook, N. J.	.....	.....	30.34	770.6	17	— 8.3	83	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
San Diego, Cal.	.....	.....	30.14	765 5	26	— 3.3	76	W	15	6.7	.....	0	2s	....	W	Inap.	Inap.	Clear.....	
San Francisco, Cal.	.....	.....	30.17	766.3	43	6.1	83	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Santa Fe, N. M.	.....	.....	30.17	766.3	44	6.7	76	NW	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	
Savannah, Ga.	23.15	588.0	29.69	754.1	34	— 0.6	.....	NE	5	2.2	.....	.....	10n	.....	.....	0.20	5.1	Light snow	
Shreveport, La.	.....	.....	30.52	775.2	30	— 1.1	67	N	2	0.9	.....	0	Sm'e	.....	.....	0	0	Clear.....	
Smithville, N. C.	.....	.....	30.39	771.9	43	6.1	59	E	3	1.3	.....	10ck	2s	SW	SE	Inap.	Inap.	Cloudy.....	
Springfield, Mass.	.....	.....	30.50	774.7	32	0.0	84	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
St. Louis, Mo.	.....	.....	30.35	770.6	25	— 3.9	61	S	4	1.8	.....	2k	5s	.....	W	0	0	Fair.....	
St. Marks, Fla.	.....	.....	30.22	767.6	43	6.1	45	SW	4	1.8	.....	.....	10s	....	.....	0.03	0.8	Cloudy.....	
St. Paul, Minn.	.....	.....	30.48	774.2	29	— 1.7	78	N	3	1.3	.....	2ck	2s	S	.....	0	0	Fair.....	
St. Paul's Island, Alaska	.....	.....	29.84	757.9	25	— 3.9	87	SW	7	3.1	.....	0	0	.....	.....	0	0	Clear.....	
Squan Beach, N. J.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Thatcher's Island, Mass.	.....	.....	30.31	769.9	17	— 8.3	83	W	5	2.2	.....	0	Haze	....	.....	0	0	Clear.....	
Toledo, Ohio.	.....	.....	30.27	768.8	24	— 4.4	61	NW	15	6.7	.....	0	0	.....	.....	0	0	Clear.....	
Tucson, Arizona.	.....	.....	30.12	765.0	31	— 0.6	79	S	9	4.0	.....	.....	10ks	.....	W	0	0	Cloudy.....	
Tybee Island, Ga.	27.59	700.8	30.03	762.7	52	11.1	.....	S	.....	.....	.....	5k	0	....	.....	0	0	Fair.....	
Vicksburg, Miss.	.....	.....	30.52	775.2	31	— 0.6	59	N	4	1.8	.....	5c	Sm'e	NE	.....	0	0	Fair.....	
	.....	.....	30.50	774.7	39	3.9	56	Calm	0	0	.....	8k	2s	SE	SE	0	0	Cloudy.....	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.36	618.7	29.84	757.9	22	-- 5.6	72	SE	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Washington, D. C	.....	.....	30.42	772.7	18.5	— 7.5	85	Calm	0	0	.....	1c	Sm'e	.....	.....	0	0	Fair	
Wilmington, N. C	.....	.....	30.50	774.7	30	— 1.1	67	W	4	1.8	.....	1c	0	NW	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	30.30	769.6	30	— 1.1	68	NW	7	3.1	.....	0	8s	.....	NW	0	0	Cloudy	
Wytheville, Va	27.95	709.9	30.25	768.3	28	-- 2.8	88	W	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.73	729.7	30.09	764.3	22	— 5.6	72	W	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.15	765.8	44	6.7	.....	SW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.07	763.8	77	25.0	90	NE	6	2.7	.....	2ck	5s	E	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	29.96	761.0	69	20.6	81	NE	.....	.....	.....	8k	5ks	.....	.....	0.03	0.8	Cloudy	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	30.24	767.8	64	17.8	78	SSE	3.6	1.6	.....	..c	9f k	SW	NE	0.008	0.20	Cloudy	Charles Hasselbrink
Kingston, Jamaica, W. I.	.....	.....	30.26	768.6	72	22.2	81	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.33	770.4	74	23.3	75	NNE	15	6.7	.....	2ck	8n	NE	.....	0.08	2.0	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.97	761.2	72	22.2	75	NW	7.2	3.2	.....	.....	8n	.....	.....	.....	.....	Cloudy	Robert Mason.
St. Georges, Bermudas	.....	.....	30.34	770.6	56.5	13.6	63	NW	28.8	12.9	.....	0	8k	.....	.....	0	0	Stormy	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A.	.....	.....	29.57	751.1	1	—17.2	100	Calm	0	0	.....	1k	0	SE	.....	0.02	0.5	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.45	773.4	8.0	--13.3	77	S	.....	.....	.....	.....	.....	.....	.....	0.03	0.8	Light snow	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I.	27.29	693.2	30.09	764.3	62	16.7	83	N	5.0	2.2	.....	2c	2k	.....	.....	0.16	4.1	Fine	C. Partridge.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A.	25.21	640.2	.....	.....	64.0	17.8	87	.....	0	0	.....	.....	10n	.....	.....	0.42	10.7	Light rain	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.00	762.0	81	27.2	78	E	.....	.....	2	.....	6ks	.....	.....	0	0	Fair	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.08	763.9	77.0	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud and smoke, are indicated, respectively, by the letters c, k, s, n, d and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 16, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.28	769.1	49.6	9.8	71	WNW	.....	.....	2	.....	7	.....	.....	1.339	34.0	Cloudy	Charnot.
Algiers	.....	.....	30.15	765.8	51.8	11.0	90	W	.....	.....	1	.....	2	.....	.....	Inap.	Inap.	Clear	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sfax	.....	.....	30.10	764.4	57.4	14.1	66	W	.....	.....	3	.....	4	.....	.....	0.322	8.2	Fair	Jacques.
Safda	.....	.....	30.04	763.0	53.6	12.0	76	N	.....	.....	3	.....	7	.....	.....	0.315	8.0	Cloudy	Chauvey.
Tebessa	.....	.....	30.19	766.0	38.3	3.5	76	W	.....	.....	2	.....	7	.....	.....	0.236	6.0	Cloudy	Grosjean.
Geriville	.....	.....	30.09	764.2	50.4	10.2	.....	N	.....	.....	2	.....	0	.....	.....	0	0	Clear	Colin.
Laghouat	.....	.....	30.13	765.2	34.2	1.2	78	NW	.....	.....	2	.....	3	.....	.....	0	0	Fair	Buard.
Biskra	.....	.....	30.11	764.8	46.4	8.0	72	NW	.....	.....	2	.....	1	.....	.....	0	0	Clear	Simon.
	.....	.....	30.11	764.8	58.6	14.8	42	NW	.....	.....	1	.....	1	.....	.....	0	0	Clear	Coulon.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.48	774.2	25.2	— 3.8	87	NE	.....	.....	1	.....	10	.....	.....	0.024	0.6	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Observatory.
Speries	.....	.....	30.53	775.5	20.8	— 6.2	100	W	.....	.....	1	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.43	772.9	39.2	4.0	80	N	.....	.....	2	.....	10	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	29.10	741.3	30.40	774.5	23.5	— 4.7	77	SSW	.....	.....	2	.....	10	.....	.....	0.043	1.1	.....	Prof. Reissenberger.
Kremsmünster	28.78	730.9	30.28	769.0	31.3	— 0.4	87	SSE	.....	.....	1	.....	10	.....	.....	0.075	1.90	.....	Prof. C. Wagner.
Lemberg	29.07	738.4	30.53	775.4	22.5	— 5.3	93	ENE	.....	.....	1	.....	10	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.42	772.7	15.1	— 9.4	91	NW	.....	.....	2	.....	10	.....	.....	0.035	0.9	.....	Habzsuda Daniel.
Pola	.....	.....	30.40	772.2	25.9	— 3.4	95	N	.....	.....	4	.....	0	.....	.....	0	0	.....	I.R. Hydrographic Office
Szegedin	.....	.....	30.23	767.7	41.4	5.2	57	E	.....	.....	3	.....	68	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.42	772.6	25.5	— 3.6	93	S	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. V. Farolfi.
Vienna	.....	.....	30.24	768.1	37.9	3.3	55	ENE	.....	.....	3	.....	0	.....	.....	0	0	.....	I. R. Central Institute.
	.....	.....	30.52	775.1	19.0	— 7.2	73	NNW	.....	.....	2	.....	10	.....	.....	0	0	Snowing	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	30.51	775.0	22.6	— 5.2	100	NE	.....	.....	0	.....	10	.....	.....	0	0	.....	Royal Observatory.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.17	766.3	43.7	6.5		S	10	4.5			2			0	0	Blue sky	William Boswell.
Ardrossan																			J. Mayes.
Armagh Observatory			30.41	772.4	40.3	4.6		SW	10	4.5									S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.			30.40	772.1	41.9	5.5		SW	13	5.8			10					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			30.44	773.2	43.0	6.1		WSW			1		10					Misty	J. Dreyer.
Bradford																			J. McLandsborough.
Bridgetown, (Barbados)			30.04	763.0	77.0	25.0		NE			2		7					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.49	774.4	29.5	— 1.4		SSW			1		10					Overcast	H. Todd.
Cardington			30.50	774.7	28.6	— 1.9		W			1		7					Overcast	John McLaren.
Carlisle			30.34	770.6	41	5.0		W			3		2			0	0	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.50	774.7	28.7	— 1.8		NE			1							Gloomy	apt. J. Fellowes, R. E.
Dartmoor	29.02	737.1	30.53	775.4	31.8	— 0.1		E			1		0					Blue sky	... Power.
Donaghadee			30.35	770.9	42	5.6		SW			4		8					*D. clouds	J. Mac Gowan.
Dover			30.50	774.7	29	— 1.7		W			2		8					Gloomy	I. Costello.
Eccles, (near Manchester)			30.42	772.7	33.0	0.6		SSE					10					Misty	Thomas Mackereth.
Falmouth Observatory			30.09	777.2	37.2	2.9		SSW	6	2.7			10					Foggy	The Staff.
Fort Napier, (Natal)	27.45	697.2	29.71	754.6	79.8	26.6		SE			2		6					*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	82	27.8		N			1		9					*D. clouds	(ds.
Galway, Queen's College			30.28	769.1	47	8.3		SSW			1		3					*D. clouds	B. G. Clare, for Prof. Carr
Gibraltar, (Mediterranean)			30.16	766.1	58.6	14.8		W			4		0					Blue sky	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.24	768.1	45.1	7.3		SW			2		7					Fine	Wm. M. Stewart.
Great Yarmouth			30.46	773.7	29	— 1.7		W			3		4					Hazy	G. T. Watson.
Greenwich Royal Obs.			30.52	775.2	27.0	— 2.8		WSW			1		10					Overcast	The Staff for G. B. Airy
Guernsey			30.56	776.2	40	4.4		NNE			1		7					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.																			L. J. Crossley.
Helston			30.57	776.5	47	8.3		SW			0		10			0	0	Gloomy	M. P. Moyle.
Holyhead			30.42	772.7	44	6.7		SW			3		10					Drizzling	John Tilston.
Kew Observatory			30.53	775.4	27.3	— 2.6		W	8	3.6			7					*D. clouds	The Staff.
Kingstown			30.42	772.7	47	8.3		W			4		6					*D. clouds	George Mitchell.
Leicester Museum			30.49	774.4	32.7	0.4		SW			1		10					Misty	William J. Harrison.
Malta, (Mediterranean)			30.04	763.0	57.4	14.1		NE			2		8k						Fred Travis, Pvt A.H.C
Nairn			30.16	766.1	43	6.1		SW			1		2					¼ clouded	W. D. Penny.
Nassau, (Bahamas)			30.39	771.9	70.4	21.3		NE			5		9					Overcast	Surg.-Maj. Henry.
Nottingham			30.46	773.7	32.2	0.1		SW			1		10k,cs		SW			Overcast	E. J. Lowe, F. R. S
Oscott, St. Mary's College			30.47	773.9	33.9	1.1		SW			2		10					Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.49	774.4	29	— 1.7		WSW			1		10					Overcast	I. Lucas.
Plymouth			30.59	777.0	34	1.1		Calm			0		10					Overcast	John Merrifield.
Roche's Point			30.52	775.2	46	6.7		WSW			4		8					Cloudy	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.57	776.5	37.8	3.2		NNE			1		10					Overcast	A. P. Amy.
Sandwick Manse(Orkneys			29.51	749.5	43.3	6.3		W	47	21.0			6					Showery	Rev Dr. Clouston
Scarborough																			F. Shaw.
Scutari Cemetery(Turkey			30.29	767.1	40.6	4.8		Calm			0		10			Blank	Blank	*D. clouds	Sergt. W. H. Lyne.
Sheffield			30.40	772.1	39.0	3.9		W			1		9			0	0	Overcast	W. F. Cooper.
Silloth Rectory			30.34	770.6	42.4	5.8		W			3		10			0,080	2.03	Ov rcast	Rev Francis Redford.
Stonyhurst Observatory			30.39	771.9	35.9	2.2		SW			2					Blank	Blank		The Staff.
Stornoway, Lewis C. (Hebr)			30.09	764.3	43	6.1		W			4		5					Showery	John Smith.
Stratfield Turgiss			30.53	775.4	27.4	— 2.6		W			1		3					Blue sky	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			30.02	762.5	45	7.2		W			6		2					Blue sky	John Trotter.
Truro, Royal Institution			30 61	777.5	45	7.2		E			2		10					Gloomy	W Newcombe.
Valencia Observatory			30.58	776.7	49.5	9.7		SW	24	10.7			10					Drizzling	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.86	758.4	88.4	31.3	40	S	14	6.3			0						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)																			
Leith, Restalrig Park			30.25	768.3	44.8	7.7		SW			3		108			0.002	0.5	Fine	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,4 0 feet, or 426 7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.26	768.6	34.3	0.7	85	WSW			2		10						
Fanöe			30.30	769.7	31.8	— 0.1	90	WSW			6		10						
Godthaab, (Greenland)			29.81	757.1	13.5	—10.3	76	ENE			4		2						
Stykkisholm, (Iceland)			29.59	751.6	25.3	— 3.7	95	SE			4		8						
Thorshavn, (Faröe)			29.59	751.5	40.6	4.8	68	W			7		6					Rain & hail	
Vestervig			30.14	765.5	35.6	2.0	96	WSW			6		10					Raining	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols: no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.55	776.0	33.8	1	69	NE			1		0			0	0	Clear	Normal School.
Amiens			30.55	776.0	23.0	— 5.0	90	N			3		10			0	0	Covered	Normal School.
Avignon			30.28	769.2	39.2	4	76	N			3		0			0	0	Very clear	Normal School.
Bar-sur-Seine			30.54	775.7	25.7	— 3.5		NE			2		10			0	0	Covered	C. Saillard.
Beaumette, (near Angers)			30.54	775.6	27.3	— 2.6	92	N	5.4	2.4					NE	0	0		Beaumette Observatory
Beauvais			30.59	777.0	22.3	— 5.4		N			1		10			0	0	Covered	Normal School.
Besançon			30.48	774.3	30.4	— 0.9		E			4		0			0	0	Clear	Normal School.
Bourg en Bresse			30.48	774.1	25 5	— 3.6	92	N			1		10n			0	0	Covered	Normal School.
Bourges			30.55	775.9	24.1	— 4.4	36	N			2		0			0	0	Clear	Normal School.
Brest			30.50	774.6	37.9	3.3	75	NE			3		5		NE	Inap.	Inap.	½ covered	Naval Observatory.
Caen			30.55	775.9	34.7	1.5		SW			2		10			0	0	Covered	Normal School.
Chartres			30.52	775.3	20.7	— 6.3		NNE			2		10			0	0	Covered	Normal School.
Chaumont																			Normal School.
Clermont			30.47	774.0	20.5	— 1.4	86	N			2		10			0	0	Covered	Puy de Dome, Obs
Commercy			30.54	775.8	22.3	— 5.4	95	NE			2		10		NE	0	0	Covered	Normal School.
Commune de Gréasque*			30.23	767.8	51.1	10.6	60	NE			2		2		NE	0	0		
Grenoble			30.36	771.1	35.2	1.8	80	E			2		10n			0	0	Misty	Normal School.
Le Mans			30.58	776.7	26.2	— 3.2	91	NNE			3		8		NNE	0	0	Very cloudy	Normal School.
Loches																			
Lons-Le-Saulnier			30.47	773.9	29.1	— 1.6	67	W			2					0	0	Foggy	Normal School.
Mâcon			30.39	772.0	26.8	— 2.9		NW			2		10			0	0	Covered	Normal School.
Mirecourt			30.61	777.4	28.0	— 2.2	89	NE			4		8		SW	0	0	Almost ov'd.	Normal School.
Metz																			
Nismes			30.25	768.4	40.3	4.6	77	N			4		0			0	0	Clear	Normal School.
Orleans			30.52	775.3	23.4	— 4.8	100	NE			3		10		E	0	0	Covered	Normal School.
Paris Observatory			30.56	776.3	21.9	— 5.6	100	NW			1		10			0	0	Snowy	National Observatory
Parthenay			30.50	774.6	25.7	— 3.5	87	NE			2		10			0	0	Covered	Normal School.
Privas			30.41	772.4	35.1	1.7		NW			4		8		NW	0	0	Very cloudy	Normal School.
La Roche-sur-Yon			30.47	774.0	28.8	— 1.8	96	NE			1		10			0	0	Covered	Normal School.
Rochefort, Observatory			30.49	774.4	33.8	1.0	79	NE			4		1		SW	0	0	Clear	Naval Observatory.
Rouen			30.65	778.6	21.6	— 5.8	63	NNW			3		10			0	0	Covered	Normal School.
Saint Lo			30.61	777.6	32.0	0	100	E			1		10		E	0	0		Normal School.
Tarbes			30.03	762.7	41.0	5	90	WSW			2		10		E	0	0	Covered	Normal School.
Toulouse			30.42	772.6	33.1	0.6	98	N			2		10					Covered	Normal School
Villefranche			30.32	770.0	30.2	— 1	77	NNE			1		10			0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.93	760.2	75.6	24.2	75	NE			2		2k			0	0		L'Abbé Marchési.
Gorée																			
Marseilles			30.18	766.6	54.9	—12.7	77	WSW			1		1			0	0		Marseilles Observatory —. Faïguère.
Mont-Louis	24.91	632.6	30.40	772.2	28.4	— 2.0	87	NNW	18.6	8.33			8		NE	0.173	4.4		
Montsouris, Paris			30.53	775.4	21.6	— 5.8	98	N			1		10			0	0	Snow and fog	Montsouris Observ'tory
Perpignan			30.31	769.8	41.0	5.1		W	14.9	6.66			5		NW	0	0		Dr. Fines.
Pic du Midi, (Summit) H. P.	21.17	537.8			13.1	—10.5		N			3		10			0	0	Cloudy	M. Baylac.
Saint Maur, (near Paris)			30.54	775.8	22.5	— 5.3	100	N			1		10			0	0	Covered	E. Renou.
Toulouse			30.42	772.7	26.1	— 3.3	100	NW			1		10			0	0	Misty	Toulouse Observatory.
Tours			30.52	775.3	28.0	— 2.2		NE			1		10			0	0	Covered	C. Marquet.
Versailles, (near Paris)			30.53	775.4	23.0	— 5.6	100	NE			1		10			0	0	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.40	772.1	33.6	0.9	80		1.6	0.7		0	k			{ c / 0	{ 0 / 0		H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,201.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			30.39	771.8	19.4	— 7.0	92	NE			3		10			0	0	Snowing	Prof. T. Hoh.
Berlin			30.48	774.3	30.4	— 0.8	57	SW			2		10			0	0		Prof. Arndt.
Breslau			30.54	775 7	19.4	— 7.0	90	W			2		10			0	0		Dr. P. Naugebauer
Carlsruhe			30.54	775.7	21.9	— 5.6	91	N			2		10			0	0		A. Senz.
Cassel			30.43	773.0	23.7	— 4.6	76	SSE			2		10			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main			30.64	778.3	22.3	— 5.4	78	E			1		10			0	0		Physical Society
Friedrichshafen			30.49	774.4	28.2	— 2.1	68	NE					8			0	0		M. Wilhelm.
Hamburg			30.44	773.1	32.4	0.2	81	SW			3		9			0	0		Deutsche Seewarte.
Kiel			30.44	773.1	32.2	0.1	77	SW			3		10			0	0		Prof. G. Karsten.
Königsberg			30.31	770.7	27.5	— 2.5	92	SW			2		10			0	0		Prof. E. Luther.
Köslin			30.40	772.2	31.1	— 0.5		W			4		10			0	0		H. Müller.
Leipsic			30.56	776.2	24.8	— 4.0	89	S			3		10			0	0		Prof. Bruhns.
Münster			30.55	775.9	28.4	— 2.0	87	E			2		10			0	0		Prof. E. Reis.
Posen			30.53	775.4	25.2	— 3.8	91	SW			5		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.57	776.5	19.8	— 6.8	92	NE			1		10			0	0		Dr. Schur.
Stuttgart			30.56	776.1	22.3	— 5.4	90	NE					10			0	0		Mr. Wörth.
Thorn			30.44	773.1	25.5	— 3.6	92	SW			5		9			Inap.	Inap.		Dr. Hasenbalg
Treves, (Trier)			30.45	773.4	23.9	4.5	77	N			2		2			0	0		Prof. Flesch.
Wustrow, Naval School			30.45	773 5	32.0	0.0	90	SW			4		10			0	0		E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.15	765.8	50.7	10.4		NE										Covered	

Note.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.26	768.6	41.2	5.1	69	ENE			7		1			0	0		
Padua			30.26	768.7	43.0	6.1	57	ENE	8.1	3.6			1			0	0		
Verona			30.13	765.3	46.8	8.2	94	E			1		10			0	0		
Bergamo			30.25	768.3	39.2	4.0	98	W			2		9			0	0		
Milan			30.32	770.0	41.0	5.6	95	NNW			1		9			0	0		
Moncalieri			30.37	771.4	37.2	2.9	91	NE	6.3	2.8			10			0	0		
Mondovi			30.34	770.6	34.3	1.3	98	W			2		10			0	0		
Porto Maurizio			30.21	767.2	50.5	10.3		NNW			2		0			0	0		
Genoa			30.22	767.6	48.6	9.2	53	N	11.2	5.0			2	NE		0	0		
Piacenza			30.32	770.0	40.8	4.9	82	N	1.3	0.6			6	N		Blank	Blank		
Bologna			30.32	770.0	39.7	4.3	48	NW			6		10			0.315	8.0		
Florence			30.24	768.0	49.1	9.5	55	NE			4		10			0	0		
Leghorn			30.19	766.7	50.2	10.1	54	ENE	9.8	4.4			5			0	0		
Siena			30.17	766.3	46.4	8.0	67	ENE	8.1	3.6			9	E		0	0		
Urbino																			
Pesaro																			
Ancona			30.24	768.1	45.3	7.4	75	NE			4		10			0.094	2.4	Raining	
Rome			30.17	766.3	52.0	11.1	63	NNE	2.5	1.1			1			0	0		
Naples, O. U			30.12	765.1	56.8	13.8	50	NE			4		1	NE		0	0		
Lecce			30.13	765.3	52.9	11.6	78	NE	7.4	3.3			6	NNE		0	0		
Cosenza			30.16	766.1	49.1	9.5	78	NW			2		10			0	0		
Riposto, (Sicily)			30.10	764.5	53.2	11.8	75	E			2		1	SE		0	0		
Palermo			30.01	762.3	55.6	13.1	58	ENE	2.5	1.1			5			0	C		
Caltanissetta			30.09	764.3	49.6	9.8	72	E			2		4	W		0	0		
Sub-Series.																			
Naples, S. R			30.04	762.9	54.0	12.2	60	NE			4					0	0		Prof. F. Brioschi.
																		Foggy	

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.54	775.6	25.9	— 3.4		SW			2								
Groningen			30.40	772.2	25.3	— 3.7		SW			2								
Helder			30.41	772.4	34.2	1.2		SSW			4								
Utrecht			30.45	773.5	24.3	— 4.3	96	SSW			2		10					Dull	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.89	759.1	44.2	6.8	68	SW	17.9	8.0			10			0.787	20.0	Hailing	
Brönö			29.22	742.3	41.0	5.0	92	SSW	25	11			10			0	0	Raining	
Christiania			29.80	756.8	32.9	0.5	96	WSW	4.7	2.1			10			0	0	Foggy	
Tromsö			28.78	730.9	40.1	4.5	74	S	9	4			10			0.236	6.0	Raining	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.56	776.3	56.1	13.4	81	ESE	4.9	2.19	.....	.....	5	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.28	769.1	48.9	9.4	51	NNE	8.8	3.92	.....	.....	2	NNE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.24	768.0	56.8	14.8	62	N	1.4	0.63	.....	.....	10	.....	.....	0.020	0.5	Raining	Capt D. A. da Cunha.
Lisbon	.....	.....	30.33	770.4	44.2	6.8	64	NE	16.1	7.2	.....	.....	1	.....	.....	0	0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.47	773.9	21.0	— 6.1	93	NW	9	3	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.42	772.6	13.1	—10.5	88	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.15	765.9	18.0	— 7.8	95	SW	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.02	762.6	14.0	—10.0	97	SSW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	29.67	753.5	25.5	— 3.6	100	SW	.....	.....	.....	.....	10	.....	.....	0.063	1.60	Snowing	Ch. Forsten.
Kief	.....	.....	30.35	770.9	19.2	— 7.1	100	NNW	4	2	.....	.....	10	.....	.....	.....	.....	Light snow.	Physical Cabinet.
Nikolaiev	.....	.....	30.39	771.9	25.5	— 3.6	85	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.30	769.6	16.9	— 8.4	88	NNW	9	4	.....	.....	7	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.33	770.4	14.7	— 9.6	84	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.29	769.3	3.7	—15.7	85	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.84	757.8	— 3.3	—19.6	90	SSE	9	4	.....	.....	7	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.88	733.6	30.39	771.9	28.0	— 2.2	73	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.52	775.1	5.4	—14.8	82	NE	11	5	.....	.....	3	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.21	767.3	7.9	—13.4	88	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.15	740.4	30.26	768.6	4.6	—15.2	91	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.26	768.6	10.4	—12.0	74	E	4	2	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.74	730.0	30.60	777.3	21.0	— 6.1	95	Calm	0	0	.....	.....	5	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.60	777.3	—19.3	—28.5	77	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.19	766.8	—10.5	—23.6	90	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	30.19	766.9	24.5	— 4.5	49	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	27.78	705.7	30.16	766.0	—21.1	—29.5	86	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	30.17	766.1	17.6	— 8.0	85	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	—12.1	—24.5	.....	N	4	2	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.31	769.9	42.1	5.6	65	NE	2.9	1.3	.....	1	0	NE	.....	0	0	Light clouds	Royal Observatory.
San Fernando	.....	.....	30.23	767.7	53.1	11.7	61	NE	4.0	1.8	.....	0	2	.....	W	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.26	743.3	33.8	1.0	100	SW	.....	.....	4	.....	10	.....	.....	0	0	Raining	
Umea	.....	.....	29.47	748.2	33.4	0.8	92	SW	.....	.....	6	.....	10	.....	.....	0.980	24.9	.....	
Hernosand	.....	.....	29.44	747.8	34.5	1.4	86	SSW	.....	.....	4	.....	10	.....	.....	0.039	1.0	.....	
Stockholm	.....	.....	29.83	757.6	35.1	1.7	91	SW	.....	.....	4	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	30.09	764.3	33.4	0.8	92	WSW	.....	.....	6	.....	5	.....	.....	0	0	.....	
Upsala. Sub-Series.	.....	.....	29.80	756.9	34.9	1.6	94	SW	21.3	9.5	.....	.....	10	.....	.....	0.095	2.39	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.93	734.9	30.43	772.9	31.3	— 0.4	78	NE			3		10			0	0	Covered	The Observatory.
Zurich	28.73	729.8	30.47	773.9	26.2	— 3.2	81	N			1		10			0	0	Overcast	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +7.2 mm.; Thermometer, —1.8 cent.; Relative Humidity, —1 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.22	767.6	40.3	4.6	80	S	2	1.0			10		NE	0	0		
Fao, (Persian Gulf)			30.32	770.0	50.2	10.1		NW			1		0						
Salonica			30.22	767.5	47.3	8.5		NW			2		8						
Valona			29.97	761.2	52.2	11.2		W			1		10						
Varna			30.20	767.0	35.6	2.0		NE			2		2						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.			30.03	762.8	64.4	18.0	55	W			1		0			0	0	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.																			Hon. J. Ferguson.
Brockville, Ontario			30.06	763.5	30	— 1.1		NW	4	1.8			8s		NW	0.18	4.6	Cloudy	W. R. Bigg.
*Chatham, N. B.			29.93	760.2	14	—10.0	93	NE	8	3.6			10n		NE	0.17	4.3	Heavy snow	G. A. Blair.
Charlottetown, P. E. Island.			30.01	762.2	23	— 5.0	92	S	13	5.8			10n			0.250	6.35	Light snow	H. J. Cundall, C. E.
Cornwall, Ontario			30.00	762.0	27.0	— 2.8	88	S			1		2s			0.03	0.8	Clearing	James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Esquimault, B. C.			29.90	759.4	46.3	7.9	96	SW	4	1.8			1o			0.57	14.5	Cloudy	W. H. Bevis.
Fredericton, N. B.			29.83	757.7	15.9	— 8.9	95	Calm	0	0			10n			0.21	5.33	Snowing	Prof. Harrison.
*Fort Garry, Manitoba			29.57	751.1	10	—12.2	96	S	2	0.9		2c	2ks	SW	SW	0	0	Fair	James Stewart.
Goderich, Ontario			30.14	765.5	33.2	0.7	93	W			1	4c	2s	W		0	0	Fine	H. J. Strang, M. A.
Granton, Ontario			30.11	764.8	30.1	— 1.1		SW			1	0	0			0	0	Clear	Jam s Gran .
*Halifax, N. S.			30.03	762.7	32	0.0	95	S	16	7.2			10n			Inap.	Inap.	Light snow	F. Allison, M. A.
*Kingston, Ontario			30.10	764.5	33	0.6	93	W	6	2.7			10ks		W	0.17	4.3	Cloudy	S. Woods, M. A.
Little Current, Ontario			30.06	763.5	34.3	0.7		Calm	0	0			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			29.91	759.7	25	— 3.9	85	W	20	8.9		0	2ks			0.23	5.8	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario			29.95	760.7	27	— 2.8	64	W	8	3.6			10ks		W	0.15	3.8	Cloudy	J. B. Haney.
*Parry Sound, Ontario			30.06	763.5	30	— 1.1	89	W	3	1.3			10n		W	0.02	0.5	Cloudy	Rev. R. Mooley.
*Port Dover, Ontario			30.12	765.0	34	1.1	89	SW	10	4.5		5c	0	SW		0.03	0.8	Fair	H. Morgan.
Port Hastings, N. S.																			P ter Grant.
*Port Stanley, Ontario			30.13	765.3	32	0.0	89	SW	12	5.4		0	0			0	0	Clear	M. Payne.
*Quebec, Quebec			29.83	757.7	15	— 9.4	82	NE	20	8.9			10n		NE	0.10	2.5	Cloudy	Capt. Ash, R. N.
St. John, N. B.			29.89	759.2	32.0	0.0	90	S	20	8.9			10n			0.280	7.11		G. Murdoch, C. E.
*Saugeen, Ontario			30.06	763.5	34	1.1	89	W	1	0.4			10n		W	0	0	Cloudy	K. Stewart.
Stayner, Ontario																			R. J. Cole.
Stratford, Ontario			30.14	765.5	31.0	— 0.6	96	W	8	3.6			10s			0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			30.20	767.1	15	— 9.4	97	Calm	0	0			10n			0.02	0.5	Light snow	T. C. Hill.
*Toronto, Ontario			30.10	764.5	30	— 1.1	89	W	3	1.3		5cs	5ks	W	W	Inap.	Inap.	Cloudy	Magnetic Observatory.
Woodstock, Ontario			30.13	765.3	31.9	— 0.1	100	W	1	0.4		1cs	1s			0.01	0.3	Fine	J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.97	761.2	36	2.2	80	W	30	13.4	.....	5k	5ks	W	W	0.04	1.0	Cloudy.	
Alpena, Mich.	.....	.....	30.03	762.7	23	— 5.0	73	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Atlantic City, N. J.	.....	.....	30.18	766.6	39	3.9	55	SW	8	3.6	.....	2cs	8s	W	SW	0	0	Cloudy.	
Augusta, Ga.	.....	.....	30.43	772.9	34	1.1	79	Calm	0	0	.....	Haze	Haze	.....	.....	0	0	Fair.	
Baltimore, Md.	.....	.....	30.22	767.6	41	5.0	56	SW	2	0.9	.....	8k	Fog	W	.....	0.38	9.7	Threatening	
Barnegat, N. J.	.....	.....	30.16	766.1	38	3.3	63	W	9	4.0	.....	8ck	0	W	.....	0	0	Fair.	
Benton, Montana	26.98	685.3	29.78	756.4	47	8.3	48	SW	24	10.7	.....	.....	10s	.....	SW	0	0	Cloudy.	
Bismarck, Dakota	27.85	707.4	29.48	748.8	37	2.8	53	NW	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Boston, Mass.	.....	.....	29.95	760.7	35	1.7	100	SW	16	7.2	.....	10cs	0	SW	.....	0.06	1.5	Clearing.	
Breckenridge, Minn	.....	.....	29.72	754.9	20	— 6.7	72	S	10	4.5	.....	0	2s	.....	.....	0	0	Clear.	
Buffalo, N. Y.	.....	.....	30.09	764.3	34	1.1	90	W	12	5.4	.....	.....	10ks	.....	SW	0.15	3.8	Cloudy.	
Burlington, Vt.	.....	.....	29.94	760.5	34	1.1	71	N	5	2.2	.....	2k	5s	W	.....	0.06	1.5	Cloudy.	
Cairo, Ill.	.....	.....	30.19	766.8	39	3.9	100	SE	5	2.2	.....	.....	10n	.....	SE	0.73	18.5	Light rain.	
Cape Hatteras, N. C.	.....	.....	30.31	769.9	50	10.0	59	W	14	6.3	.....	8cs	0	W	.....	0	0	Cloudy.	
Cape Henry, Va.	.....	.....	30.28	769.1	45	7.2	42	W	16	7.2	.....	8c	Haze	NW	.....	0	0	Fair.	
Cape May, N. J.	.....	.....	30.21	767.3	38	3.3	71	NW	8	3.6	.....	0	2ks	.....	W	0	0	Fair.	
Charleston, S. C.	.....	.....	30.42	772.7	43	6.1	83	NW	3	1.3	.....	0	Fog	.....	.....	0	0	Fair.	
Cheyenne, Wyoming	23.90	607.0	29.84	757.9	17	— 8.3	52	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Chicago, Ill.	.....	.....	30.07	763.8	37	2.8	81	SW	8	3.6	.....	.....	Fog	.....	.....	Inap	Inap.	Foggy	
Cincinnati, Ohio	.....	.....	30.23	767.8	39	3.9	72	SW	3	1.3	.....	.....	10s	.....	.....	0.11	0.3	Cloudy.	
Cleveland, Ohio	.....	.....	30.18	766.6	36	2.7	81	SW	11	4.9	.....	.....	10ks	.....	W	0.11	3.3	Cloudy.	
Colorado Springs, Col.	23.98	609.1	29.85	758.2	21	— 6.1	43	N	8	3.6	.....	8ck	0	NW	.....	0	0	Fair.	
Corsicana, Texas	.....	.....	30.11	764.8	45	7.2	100	N	8	3.6	.....	.....	Fog	.....	.....	0.20	5.1	Light rain.	
Davenport, Iowa	.....	.....	30.04	763.0	37	2.8	90	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Denison, Texas	.....	.....	30.12	765.0	43	6.1	91	NW	1	0.4	.....	.....	10n	.....	.....	0.32	8.1	Light rain.	
Denver, Col.	24.71	627.6	29.93	760.2	25.5	— 3.6	45	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	.....	.....	30.12	765.0	34	1.1	79	SW	5	2.2	.....	2c	0	SW	.....	Inap.	Inap.	Fair.	
Dodge City, Kan.	27.38	619.2	29.74	755.4	32	0.0	84	W	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	30.04	763.0	33	0.6	89	S	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Duluth, Minn.	.....	.....	29.86	758.4	21	— 6.1	71	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Eastport, Me.	.....	.....	29.77	756.1	33	0.6	100	S	12	5.4	.....	.....	10n	.....	.....	0.06	1.5	Light snow.	
Erie, Pa.	.....	.....	30.13	765.3	37	2.8	86	SW	20	8.9	.....	.....	10s	.....	W	0.17	4.3	Cloudy.	
Escanaba, Mich.	.....	.....	30.02	762.5	16	— 8.9	74	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Fort Gibson, Indian Terr.	.....	.....	30.10	764.5	42	5.6	91	Calm	0	0	.....	.....	10s	.....	.....	0.12	3.0	Cloudy.	
Fort Sill, Indian T.	28.86	733.0	30.00	762.0	40	4.4	100	Calm	0	0	.....	.....	10n	.....	S	0.83	21.1	Threatening	
Fort Sully, Dakota	28.09	713.5	29.79	756.7	31	— 0.6	58	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Galveston, Texas	.....	.....	30.12	765.0	63	17.2	94	SE	5	2.2	.....	0	2s	.....	SE	0.09	2.3	Fair.	
Grand Haven, Mich.	.....	.....	30.07	763.8	36	2.2	85	SW	7	3.1	.....	5cs	0	.....	.....	0	0	Fair.	
Indianapolis, Ind.	.....	.....	30.19	766.8	37	2.8	90	S	5	2.2	.....	.....	10s	.....	.....	0.01	0.3	Cloudy.	
Indianola, Texas	.....	.....	30.11	764.8	64	17.8	94	S	8	3.6	.....	0	Fog	.....	S	0.20	5.1	Fair.	
Jacksonville, Fla.	.....	.....	30.40	772.1	42	5.6	83	Calm	0	0	.....	0	Fog	.....	.....	0	0	Foggy	
Keokuk, Iowa	.....	.....	30.03	762.7	40	4.4	100	SW	3	1.3	.....	.....	10n	.....	SW	0.01	0.3	Light rain.	
Key West, Fla.	.....	.....	30.11	764.8	65.5	18.7	84	NE	8	3.6	.....	5k	0	SE	.....	0.01	0.3	Cloudy.	
Kittyhawk, N. C.	.....	.....	30.33	770.4	45	7.2	46	W	14	6.3	.....	5ck	5s	W	.....	0	0	Cloudy.	
Knoxville, Tenn.	.....	.....	30.30	771.0	36	2.2	90	SE	2	0.9	.....	.....	10n	.....	.....	0.11	3.3	Misty.	
La Crosse, Wis.	.....	.....	29.97	761.2	28	— 2.2	67	S	11	4.9	.....	5c	5s	S	S	0	0	Cloudy.	
Leavenworth, Kan.	.....	.....	30.01	762.2	40	4.4	91	S	6	2.7	.....	.....	1on	.....	.....	0.10	2.5	Light rain.	
Lexington, Ky.	29.18	715.8	30.34	770.6	35	1.7	100	S	8	3.6	.....	.....	10n	.....	.....	0.03	0.8	Light rain.	
Long Branch, N. J.	.....	.....	30.13	765.3	39	3.9	55	SW	14	6.3	.....	0	5ks	.....	NW	0	0	Fair.	
Louisville, Ky.	.....	.....	30.27	768.8	38	3.3	81	S	4	1.8	.....	.....	10n	.....	.....	0.06	0.5	Light rain.	
Lynchburg, Va.	.....	.....	30.26	768.6	45	7.2	53	S	5	2.2	.....	.....	10s	.....	SW	0	0	Cloudy.	
Malone, N. Y.	.....	.....	29.96	761.0	30	— 1.1	68	W	14	6.3	.....	5k	0	NW	.....	0.15	3.8	Fair.	
Marquette, Mich.	.....	.....	29.98	761.5	23	— 5.0	86	W	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Memphis, Tenn.	.....	.....	30.18	766.6	42	5.6	100	SE	1	0.4	.....	.....	10n	.....	.....	0.63	16.0	Light rain.	
Milwaukee, Wis.	.....	.....	30.08	764.0	30	— 1.1	89	S	1	0.4	.....	.....	Fog	.....	.....	0	0	Cloudy.	
Mobile, Ala.	.....	.....	30.30	769.6	52	11.1	93	SE	5	2.2	.....	10cs	Haze	W	.....	0	0	Cloudy.	
Montgomery, Ala.	.....	.....	30.38	771.6	39.5	4.2	77	E	1	0.4	.....	10cs	Sm'e	.....	.....	0	0	Cloudy.	
Morgantown, W. Va.	.....	.....	30.27	768.8	39	3.9	72	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Mt. Washington, N. H.	23.30	591.8	29.06	753.4	14	—10.0	100	NW	36	16.1	.....	.....	10n	.....	SW	0	0	Cloudy.	
Nashville, Tenn.	.....	.....	30.28	769.1	49	4.4	82	SE	3	1.3	.....	.....	10n	.....	NW	0.15	3.8	Light snow.	
New Haven, Conn.	.....	.....	30.04	763.0	38	3.3	71	W	10	4.5	.....	.....	10n	.....	.....	0.19	4.8	Light rain.	
New London, Conn.	.....	.....	30.05	763.3	36	2.2	80	W	9	4.0	.....	haze	5s	.....	W	0.01	0.3	Fair.	
New Orleans, La.	.....	.....	30.23	767.8	55	12.8	93	E	6	2.7	.....	0	8s	.....	W	0.02	0.5	Fair, foggy.	
Newport, R. I.	.....	.....	30.00	762.0	36	2.2	90	SW	12	5.4	.....	5c	Fog	W	.....	0	0	Fair.	
New York, N. Y.	.....	.....	30.00	762.0	36	2.2	90	SW	12	5.4	.....	.....	10s	.....	SW	0.06	1.5	Cloudy.	
Norfolk, Va.	.....	.....	30.10	764.5	38	3.3	62	SW	20	8.9	.....	2k	0	W	.....	0	0	Clear.	
North Platte, Neb.	27.00	685.8	29.69	754.1	21	— 6.1	85	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair.	
Omaha, Nebr.	28.85	732.8	29.95	760.7	34	1.1	89	S	3	1.3	.....	5cs	0	W	.....	0.08	2.0	Fair.	
Oswego, N. Y.	.....	.....	30.07	763.8	36.5	2.5	71	NW	10	4.5	.....	.....	10s	.....	NW	0.05	1.3	Cloudy.	
Peck's Beach, N. J.	.....	.....	30.21	767.3	38	3.3	71	NW	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Pembina, Dakota	.....	.....	29.54	750.3	22	— 5.6	86	S	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.	
Philadelphia, Penn.	.....	.....	30.20	767.1	43	6.1	50	W	10	4.5	.....	10k	0	W	.....	0	0	Cloudy.	
Pike's Peak, Colorado	17.04	44 .0	29.85	758.2	6	—14.4	64	NE	20	8.9	.....	2ck	2s	.....	.....	0.29	7.4	Fair.	
Pittsburgh, Penn.	.....	.....	30.26	768.6	40	4.4	64	SW	2	0.9	.....	.....	10s	.....	SW	Inap.	Inap.	Cloudy.	
Port Huron, Mich.	.....	.....	30.10	764.5	32	0.0	89	SW	10	4.5	.....	8c	0	.....	.....	0.05	1.3	Cloudy.	
Portland, Me.	.....	.....	29.83	757.7	34	1.1	79	SW	12	5.4	.....	.....	10s	.....	.....	0.18	4.6	Cloudy.	
Portland, Oregon	.....	.....	30.27	768.8	43	6.1	83	S	1	0.4	.....	.....	10s	.....	.....	0.09	2.3	Cloudy.	
Punta Rassa, Fla.	.....	.....	30.36	771.1	58.1	14.5	81	NE	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Rochester, N. Y.	.....	.....	30.07	763.8	36	2.2	80	W	17	7.6	.....	.....	10s	.....	W	0.05	1.3	Cloudy.	
Salt Lake City, Utah	25.82	655.8	30.15	765.8	20	— 6.7	70	E	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Sandy Hook, N. J.	.....	.....	30.19	766.5	39	3.9	63	SW	15	6.7	.....	0	5ks	.....	.....	0	0	Fair.	
San Diego, Cal.	.....	.....	30.20	767.1	43	6.1	91	E	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
San Francisco, Cal.	.....	.....	30.21	767.3	45	7.2	84	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Santa Fe, N. M.	23.21	589.5	29.75	755.6	23	— 5.0	.....	Calm	0	0	.....	.....	10s	.....	.....	0.28	7.1	Cloudy.	
Savannah, Ga.	.....	.....	30.42	772.7	40	4.4	71	S	5	2.2	.....	0	2s	.....	.....	0	0	Fair.	
Shreveport, La.	.....	.....	30.16	766.1	57	13.9	100	SSE	3	1.3	.....	.....	10n	.....	.....	0.65	16.5	Heavy rain.	
Smithville, N. C.	.....	.....	30.42	772.7	48	8.9	74	W	5	2.2	.....	1ck	0	W	.....	0	0	Cloudy.	
Springfield, Mass.	.....	.....	29.99	761.7	35.5	1.9	80	SE	1	0.4	.....	0	5s	.....	NW	0.01	0.3	Fair.	
St. Louis, Mo.	.....	.....	30.14	765.5	40	4.4	63	S	8	3.6	.....	.....	10n	.....	.....	0.34	8.6	Light rain.	
St. Marks, Fla.	.....	.....	30.38	771.6	39	3.9	81	N	1	0.4	.....	2ck	2s	W	.....	0	0	Fair.	
St. Paul, Minn.	.....	.....	29.86	758.7	24	— 4.4	74	E	6	2.7	.....	Haze	0	.....	.....	0	0	Fair.	
St. Paul's Island, Alaska.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squan Beach, N. J.	.....	.....	30.09	764.3	40	4.4	63	W	4	1.8	.....	2cs	8ks	W	W	0	0	Cloudy.	
Thatcher's Island, Mass.	.....	.....	29.96	761.0	35	1.7	90	SW	24	10.7	.....	.....	10s	.....	W	0.06	1.5	Cloudy.	
Toledo, Ohio	.....	.....	30.14	765.5	40	4.4	73	W	8	3.6	.....	.....	10s	.....	W	0	0	Cloudy.	
Tucson, Arizona	27.70	703.6	30.15	765.8	37	2.8	.....	SE	.....	.....	.....	0	0	.....	.....	0	0	Clear.	
Tybee Island, Ga.	.....	.....	30.40	772.1	45	7.2	92	Calm	0	0	.....	2c	Fog	SW	.....	0	0	Foggy	
Vicksburg, Miss.	.....	.....	30.24	768.1	55	12.8	87	SE	12	5.4	.....	5c	Haze	S	.....	0.02	0.5	Fair.	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.23	615.4	29.71	754.6	25	— 3.9	63	Calm	0	0	.....	2c	0	NW	.....	0	0	Fair	
Washington, D. C	.....	.....	30.25	768.3	41	5.0	56	W	2	0.9	.....	.....	10s	.....	W	0	0	Cloudy	
Wilmington, N. C	.....	.....	30.40	772.1	44	6.7	75	SW	6	2.7	.....	10cs	Haze	W	.....	0	0	Cloudy	
Wood's Holl, Mass	.....	.....	30.02	762.5	37	2.8	80	SW	18	8.0	.....	.....	10s	.....	SW	0.03	0.8	Cloudy	
Wytheville, Va	27.89	708.4	30.14	765.5	36	2.2	70	W	5	2.2	.....	.....	10s	.....	W	0	0	Cloudy	
Yankton, Dakota	28.60	726.4	29.92	760.0	33	0.6	61	SW	7	3.1	.....	5c	0	.....	.....	0	0	Fair	
Yuma, Arizona	.....	.....	30.23	767.8	40	4.4	.....	N	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.10	764.5	79	26.1	78	NE	5	2.2	.....	5k	5ks	NE	SE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30 02	762.5	71	21.7	85	NE	.....	.....	.....	0	5k	.....	.....	0	0	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.26	768.6	65	18.3	78	E	2.4	1.1	.....	1ck	3fk, k	W	E	0.04	1.0	Fair	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.29	769.4	75	23.9	76	Calm	0	0	.....	5c	5s	N	E	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.33	770.4	73	22.8	71	E	10	4.5	.....	4ck	8kn	E	.....	0.01	0.3	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	30.00	762.0	70	21.1	75	NE	7.2	3.2	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
St. Georges, Bermudas	.....	.....	30.52	775.2	58.0	14.4	64	N	6.0	2.7	.....	0	10k	.....	.....	0	0	Cloudy	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	29.68	753.9	—10.5	—23.6	78	Calm	0	0	.....	5cs	0	.....	.....	0	0	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.31	769.9	21.5	— 5.8	.....	S	.....	.....	.....	.....	.....	.....	.....	0.50	12.7	Fair, cloudy	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.32	693.9	30.14	765.5	64	17.8	88	N	0.5	0.2	.....	.....	10k	.....	.....	0.14	3.6	Raining	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.22	640.5	.....	.....	64.5	18.1	85	.....	0	0	.....	1cs	8s	.....	.....	0.23	5.8	Clearing	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.01	763.0	80	26.7	78	SE	.....	.....	1	.....	5k	.....	.....	0.150	3.8	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.07	763.7	82.4	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.079	2.00	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Steamer Nürnberg, N. 49° 40', W. 7° 47'	W¼S	..	30.48	774.2	46.6	8.1	.....	S?	.....	.....	3	.....	8k	.....	W	Smooth	.....	Overcast	

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft.. or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.7 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Bric. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 17, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.40	772.2	51.8	11.0	86	Calm			0		7			0.748	19.0	Cloudy	Charnot.
Algiers			30.32	770.0	51.4	10.8	90	NW			1		10			0.453	11.5	Rain	Peter.
La Calle																			Kuntz.
Tunis			30.18	766.6	52.9	11.6	83	NNW			5		8			0.791	20.1	Cloudy	Jacques.
Sfax			30.16	766.0	55.0	12.8	61	NE			4		4			0.012	0.3	Fair	Chauvey.
Saida			30.34	770.6	42.8	6.0	70	NNW			1		6			0	0	Fair	Grosjean.
Tebessa			30.21	767.2	46.6	8.1		N			4		10			0	0	Hidden	Colin.
Gerfville			30.30	769.5	30.9	— 0.6	79	NNW			1		6			0.059	1.5	Fair	Buard.
Laghouat			30.27	768.8	46.4	8.0	72	NE			2		1			0	0	Clear	Simon.
Biskra			30.24	768.0	60.4	15.8	66	Calm			0		0			0	0	Clear	Coulon.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.30	769.5	26.6	— 3.0	70	Calm			0		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow																			I. R. Observatory.
Eperies			30.30	769.5	14.7	— 9.6	91	NE			1		0			0.012	0.3		Julius Mikolik.
Gratz			30.24	768.2	42.1	5.6	85	S			2		8		N	0.063	1.60		Andreas Rospini.
Hermannstadt	29.00	736.5	30.39	769.6	22.1	— 5.5	81	SSW			2		10			0	0		Prof. Reissonberger.
Kremsmünster	28.72	729.4	30.24	768.0	24.4	— 4.2	86	SE			1		10			0	0		Prof. C. Wagner.
Lemberg	28.94	735.1	30.39	771.8	24.1	— 4.4	91	WNW			2		10			0.063	1.6		Dr. T. Stanecki.
Nyiregyhaza			30.26	768.7	12.6	—10.8	93	S			1		0			0	0		Habzsuda Daniel.
Pola			30.30	769.6	25.2	— 3.8	95	Calm			0		5			0	0		I.R. Hydrographic Office
Szegedin			30.15	765.7	42.3	5.7	60	NW			1		28			0	0		Karl Stanecl.
Trieste			30.27	768.8	22.8	— 5.1	96	Calm			0		10			0.065	1.65		Prof. V. Farolfi.
Vienna			30.15	765.9	42.1	5.6	55	ESE			1		2			0	0	Foggy	I. R. Central Institute.
			30.27	768.8	27.7	— 2.4	72	W			2		9			0	0		

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.32	770.2	32.2	0.1	100	SW			2		10			0	0		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.03	762.7	41.0	5.0	.....	SW	11	4.9	.....	.....	9	.....	.....	0	0	*D. clouds	William Boswell.
Ardrossan	.....	.....	30.09	764.3	45	7.2	.....	SSE	.....	.....	3	.....	8	.....	.....	.....	.....	Drizzling	J. Mayes.
Armagh Observatory	.....	.....	30.10	764.5	43.0	6.1	.....	SSW	17	7.6	.....	.....	10	.....	.....	.....	.....	Gloomy	S. Call, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	30.21	767.3	42.7	5.9	.....	SSE	10	4.5	.....	.....	10	.....	.....	.....	.....	Overcast	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.16	766.1	49.3	9.6	.....	WSW	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	J. Dreyer.
Bradford	.....	.....	30.16	766.1	42.3	5.7	.....	SE	.....	.....	0	.....	10	.....	.....	0	0	Overcast	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.01	762.2	80.0	26.7	.....	NE	.....	.....	1	.....	4	.....	.....	.....	.....	Showery	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.29	769.4	37.0	2.8	.....	SSW	.....	.....	1	.....	10	.....	.....	Blank	Blank	Foggy	H. Todd.
Cardington	.....	.....	30.31	769.9	40.0	4.4	.....	W	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	John McLaren.
Carlisle	.....	.....	30.10	764.5	41.8	5.4	.....	S	.....	.....	1	.....	10	.....	.....	0.04	1.0	Threatening	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.37	771.4	40.2	4.6	.....	NE	.....	.....	1	.....	.....	.....	.....	.....	.....	Threatening	Capt. J. Fellowes, R. E.
Dartmoor	28.88	733.5	30.43	772.9	41.4	5.2	.....	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Foggy	R. E. Power.
Donaghadee	.....	.....	30.08	764.0	43	6.1	.....	S	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	J. Mac Gowan.
Dover	.....	.....	30.32	770.1	39	3.9	.....	W	.....	.....	1	.....	10	.....	.....	.....	.....	Foggy	J. Costello.
Eccles, (near Manchester)	.....	.....	30.22	767.6	40.3	4.6	.....	SE	.....	.....	.....	.....	10	.....	.....	.....	.....	Misty	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.40	772.1	48.2	9.0	.....	W	17	7.6	.....	.....	10	.....	.....	.....	.....	Rain and fog	The Staff.
Fort Napier, (Natal)	27.59	700.8	29.84	757.9	76.0	24.4	.....	E	.....	.....	2	.....	8	.....	.....	.....	.....	D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.85	758.2	87	30.6	.....	N	.....	.....	3	.....	7	.....	.....	.....	.....	D. clouds	[tls.
Galway, Queen's College	.....	.....	30.04	763.0	49	9.4	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Misty	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)	.....	.....	30.33	770.4	59.6	15.3	.....	E	.....	.....	5	.....	4	.....	.....	.....	.....	D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.05	763.3	41.1	5.1	.....	SE	.....	.....	1	.....	9	.....	.....	.....	.....	Gloomy	Lewis Stuart.
Great Yarmouth	.....	.....	30.30	769.6	35	1.7	.....	W	.....	.....	2	.....	8	.....	.....	.....	.....	Foggy	G. T. Watson.
Greenwich Royal Obs.	.....	.....	30.32	770.1	41.0	5.0	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	The Staff for G. B. Airy
Guernsey	.....	.....	30.40	772.1	47.5	8.6	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Gloomy	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.23	767.8	41.6	5.3	.....	W	.....	.....	1	.....	10	.....	.....	.....	.....	Foggy	[ley.
Helston	.....	.....	30.41	772.4	49	9.4	.....	SW	.....	.....	0	.....	10	.....	.....	0.4	10.2	Raining	M. P. Moyle.
Holyhead	.....	.....	30.15	765.8	46	7.8	.....	SSW	.....	.....	3	.....	10	.....	.....	.....	.....	Dense Fog	John Tilston.
Kew Observatory	.....	.....	30.32	770.1	45.0	4.4	.....	SW	5	2.2	.....	.....	10	.....	.....	.....	.....	Rain & fog	The Staff.
Kingstown	.....	.....	30.17	766.3	49	9.4	.....	West	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	George Mitchell.
Leicester Museum	.....	.....	30.49	774.4	32.8	0.4	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Misty	William J. Harrison.
Malta, (Mediterranean)	.....	.....	29.91	759.7	56.0	13.3	.....	NE	.....	.....	2	.....	10(cirr	.....	.....	.....	.....	Overcast	Fred Travis, Pvt A.H.C.
Nairn	.....	.....	29.92	760.0	46	7.8	.....	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.39	771.9	69.6	20.9	.....	NE	.....	.....	5	.....	6	.....	.....	.....	.....	D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	30.28	769.1	36.3	2.4	.....	Calm	.....	.....	0	.....	108	.....	.....	.....	.....	Foggy	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.26	768.6	39.7	4.3	.....	S	.....	.....	0–1	.....	10	.....	.....	.....	.....	Dense Fog	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	30.27	768.8	42	4.6	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Misty	J. Lucas.
Plymouth	.....	.....	30.38	771.6	45.2	7.3	.....	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Foggy	John Merrifield.
Roche's Point	.....	.....	30.26	768.6	50	10.0	.....	WSW	.....	.....	3	.....	10	.....	.....	.....	.....	Misty	W. Kennedy.
Saint Ann's Head	.....	.....	30.27	768.8	48	8.9	.....	WSW	.....	.....	4	.....	10	.....	.....	.....	.....	Misty	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.44	773.2	45.0	7.2	.....	W	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	A. P. Amy.
Sandwick Manse (Orkneys)	.....	.....	29.91	759..	40.8	4..	.....	SW	10	4.5	.....	.....	4	.....	.....	.....	.....	Drizzling	Rev. Dr. Clouston
Scarborough	.....	.....	30.21	767.3	37.7	3.2	.....	WSW	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	F. Shaw.
Scutari Cemetery (Turkey	.....	.....	30.09	764.3	42.0	5.6	.....	NE	.....	.....	2	.....	8	.....	.....	.....	.....	Showery	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.23	767.8	44.0	6.7	.....	SW	.....	.....	1	.....	8	.....	.....	0	0	*D. clouds	W. F. Cooper.
Silloth Rectory	.....	.....	30.13	765.3	44.0	6.7	.....	SW	.....	.....	2	.....	10	.....	.....	0.20	5.1(	Overcast	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.20	767.1	40.9	4.9	.....	S	.....	.....	1	.....	.....	.....	.....	Blank	Blank	Misty	The Staff.
Stornoway, Lewis C. (Hebr)	.....	.....	29.76	755.9	42	5.6	.....	S	.....	.....	7	.....	10	.....	.....	.....	.....	Raining	John Smith.
Strathfield Turgiss	.....	.....	30.33	770.4	42.2	5.7	.....	W	.....	.....	0–1	.....	10	.....	.....	.....	.....	Overcast	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.87	758.7	40	4.4	.....	S	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	John Trotter.
Truro, Royal Institution	.....	.....	30.38	771.6	50	10.0	.....	W	.....	.....	4	.....	10	.....	.....	.....	.....	Gloomy	W. Newcombe.
Valencia Observatory	.....	.....	30.21	767.3	50.4	10.2	.....	SW	35	15.6	.....	.....	10	.....	.....	.....	.....	Drizzling	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.90	759.4	78.6	25.9	48	S	26	11.6	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Leith, Restalrig Park	.....	.....	30.07	763.8	41.8	5.4	.....	SW	.....	.....	3	.....	.....	.....	.....	0	0	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.07	763.8	34.3	1.3	96	W	.....	.....	2	.....	10	.....	.....	.....	.....	Foggy	
Fanöe	.....	.....	30.19	766.7	31.6	— 0.2	100	W	.....	.....	4	.....	10	.....	.....	.....	.....	Foggy	
Godthaab, (Greenland)	.....	.....	29.89	759.1	14.6	— 9.7	84	NW	.....	.....	4	.....	10	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.66	753.3	31.8	— 0.1	96	SE	.....	.....	6	.....	8	.....	.....	.....	.....	.....	
Thorshavn, (Faröe)	.....	.....	29.78	756.4	40.6	4.8	82	SE	.....	.....	4	.....	10	.....	.....	.....	.....	.....	
Vestervig	.....	.....	30.06	763.5	37.4	3.0	96	WSW	.....	.....	4	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.48	774.2	33.8	1	86	SW	.....	.....	1	.....	10	.....	.....	0.024	0.6	Covered	Normal School.
Amiens	.....	.....	30.33	770.4	37.4	3.0	89	NW	.....	.....	3	.....	10	.....	.....	0	0	Covered	Normal School.
Avignon	.....	.....	30.31	769.8	33.4	0.8	72	N	.....	.....	4	.....	10	.....	N	0	0	Covered	Normal School.
Bar-sur-Seine	.....	.....	30.50	774.7	26.1	— 3.3	.....	S	.....	.....	1	.....	10	.....	.....	0	0	Covered	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.51	774.9	34.7	1.5	88	SW	4.0	1.8	.....	.....	.....	.....	W	0.012	0.3	Raining.....	Beaumette Observatory
Beauvais	.....	.....	30.02	777.8	37.0	3 1	91	WNW	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Besançon	.....	.....	30.55	775.9	22.1	— 5.5	.....	SSW	.....	.....	3	.....	10	.....	SW	0	0	Covered	Normal School.
Bourg en Bresse	.....	.....	30.52	775.1	41.9	5.5	90	N	.....	.....	1	.....	10n	.....	.....	0	0	Covered	Normal School.
Bourges	.....	.....	30.57	776.5	27.3	— 2.6	58	N	.....	.....	2	.....	10	.....	NE	0	0	Covered	Normal School.
Brest	.....	.....	30.41	772.4	47.7	8.7	78	WSW	.....	.....	2	.....	10	.....	WSW	0	0	Covered	Naval Observatory.
Caen	.....	.....	30.45	773.5	38.3	3.5	87	SW	.....	.....	1	.....	10	.....	.....	0.28	7.	Covered	Normal School.
Chartres	.....	.....	30.40	772.1	30.4	— 0.9	.....	W	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.53	775.4	27.5	— 2.5	84	W	.....	.....	2	.....	10	.....	.....	0	0	Covered	Puy de Dome, Obs
Commercy	.....	.....	30.46	773.7	23.7	— 4.6	95	W	.....	.....	2	.....	10	.....	W	0	0	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.25	768.4	42.1	5.6	61	NW	.....	.....	2	.....	8	.....	NW	0	0	.....	.....
Grenoble	.....	.....	30.43	773.0	32.2	0.1	93	NW	.....	.....	2	.....	8	.....	.....	0	0	Misty.....	Normal School.
Le Mans	.....	.....	30.51	775.0	29.8	— 1.2	96	S	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.54	775.6	22.6	— 5.2	78	W	.....	.....	2	.....	10	.....	.....	0	0	Foggy	Normal School.
Mâcon	.....	.....	30.48	774.1	24.3	— 4.3	.....	Calm	.....	.....	0	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.48	774.1	28.0	— 2.2	95	SE	.....	.....	2	.....	8	.....	NW	0	0	Almost cov'd	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.31	770.6	36.3	2.4	73	NW	.....	.....	2	.....	5	.....	E	0	0	Cloudy.....	Normal School.
Orleans	.....	.....	30.48	77..3	25.2	— 3.8	100	SW	.....	.....	3	.....	10	.....	WSW	0	0	Covered	Normal School.
Paris Observatory	.....	.....	30.44	773.1	33.5	0.7	94	S	.....	.....	1	.....	10	.....	.....	0	0	Foggy	National Observatory
Parthenny	.....	.....	30.54	775.6	27.5	— 2.5	74	W	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30.42	772.7	31.8	— 0.1	.....	N	.....	.....	1	.....	8	.....	N	0	0	Very cloudy	Normal School.
La Roche-sur-Yon	.....	.....	30.56	776.3	33.4	0.8	93	NE	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Rochefort, Observatory	.....	.....	30.58	776.6	35.1	1.7	94	Calm	.....	.....	0	.....	10	.....	.....	0	0	Covered	Naval Observatory.
Rouen	.....	.....	30.44	773.1	30.5	2.5	93	NNW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Saint Lo	.....	.....	30.48	774.1	38.7	3.7	80	E	.....	.....	1	.....	10	.....	W	0	0	.....	Normal School.
Tarbes	.....	.....	30.47	773.8	48.2	9	83	SW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	.....	.....	30.54	775.8	34.3	1.3	98	N	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School
Villefranche	.....	.....	30.51	774.9	24.1	— 4	84	NE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.2	77.4	25.2	83	NE	.....	.....	.....	.....	5k	.....	.....	0.04	1.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.21	767.1	46.4	8.0	71	NW	.....	.....	2	.....	9	.....	.....	0	0	.....	Marseilles Observatory
Mont-Louis	25.02	635.5	30.51	774.9	32.4	0.2	92	NNE	13.4	5.83	.....	.....	2	.....	NNE	0	0	.....	—. Faiguère.
Montsouris, Paris	.....	.....	30.42	772.6	38.8	1.0	100	SSW	.....	.....	2	.....	10	.....	.....	0.012	0.3	Foggy	Montsouris Observ'tory
Perpignan	.....	.....	30.34	770.6	45.0	7.2	45	NW	26.1	11.67	.....	.....	2	.....	.....	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.35	542.2	.....	.....	17.6	— 8.0	.....	N	.....	.....	3	.....	0	.....	.....	0	0	Fair.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.43	772.9	32.7	0.4	100	S	.....	.....	1	.....	10	.....	.....	0	0	Drizzling.....	E. Renou.
Toulouse	.....	.....	30.54	775.8	30.2	— 1.0	100	NW	.....	.....	1	.....	10	.....	.....	0	0	.....	Toulouse Observatory.
Tours	.....	.....	30.43	773.0	27.3	— 2.6	.....	SW	.....	.....	1	.....	10	.....	.....	0	0	Covered	C. Marquet.
Versailles, (near Paris)	.....	.....	30.41	772.4	35.2	1.8	100	W	.....	.....	1	.....	10	.....	.....	0.014	0.35	Cove ed	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.28	769.0	41.0	5.0	86	E	4.5	2.0	.....	.....	10	.....	.....	0	0	Misty.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges. *Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.26	768.7	23.7	— 4.6	90	NW	.....	.....	4	.....	10	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.23	767.9	30.9	— 0.6	80	W	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.25	768.3	23.2	— 4.9	100	WNW	.....	.....	5	.....	10	.....	.....	0.161	4.1	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.43	772.8	25.2	— 3.8	87	SW	.....	.....	5	.....	10	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.37	771.5	26.4	— 3.1	78	S	.....	.....	4	.....	10	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.50	774.6	27.5	— 2.5	89	SW	.....	.....	1	.....	10	.....	.....	0	0	Snowing.....	Physical Society.
Friedrichshafen	.....	.....	30.42	772.6	30.0	— 1.1	66	W	.....	.....	.....	.....	10	.....	.....	0.131	3.4	.....	M. Wilhelm.
Hamburg	.....	.....	30.23	767.7	32.0	0.0	100	WSW	.....	.....	2	.....	10	.....	.....	0.051	1.3	Foggy	Deutsche Seewarte.
Kiel	.....	.....	30.29	769.3	33.6	0.9	93	W	.....	.....	2	.....	10	.....	.....	0.031	0.8	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.07	763.7	27.5	— 2.5	100	W	.....	.....	2	.....	10	.....	.....	0.094	2.4	Snowing.....	Prof. E. Luther.
Köslin	.....	.....	30.11	764.7	30.4	— 0.9	.....	SW.	.....	.....	2	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.32	770.0	26.1	— 3.3	94	SW	.....	.....	3	.....	10	.....	.....	0	0	Light snow..	Prof. Bruhns.
Münster	.....	.....	30.47	773.8	29.1	— 1.6	95	S	.....	.....	2	.....	10	.....	.....	0.197	5.0	Dense fog....	Prof. E. Heis.
Posen	.....	.....	30.24	768.0	25.2	— 3.8	95	W	.....	.....	2	.....	10	.....	.....	0.283	7.2	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.48	774.1	25.3	— 3.7	89	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.45	773.4	24.5	— 4.3	90	N	.....	.....	.....	.....	5	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.15	765.9	22.1	— 5.5	96	WSW	.....	.....	5	.....	10	.....	.....	0.146	3.7	Snowing.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.35	771.0	25.5	— 3.6	92	W	.....	.....	1	.....	10	.....	.....	0.091	2.3	Snow & fog.	Prof. Flesch.
Wustrow, Naval School	.....	.....	30.18	766.6	31.5	— 0.3	100	WSW	.....	.....	6	.....	10	.....	.....	0	0	Dense fog....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.97	761.1	47.7	8.7	.....	NE	.....	.....	Strong	.....	.....	.....	.....	.....	.....	Covered	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.15	765.7	37.0	2.8	54	ENE			2		9			0	0		
Padua			30.15	765.9	36.5	2.5	64	NW	1.8	0.8			5	N		0	0		
Verona			30.13	765.2	40.6	4.8	88	E			1		10			0	0		
Bergamo			30.13	765.4	38.1	3.4	83	SSW			2		8			0	0		
Milan			30.23	767.9	37.2	2.9	98	NW			1		9			0	0		
Moncalieri			30.24	768.0	33.1	0.6	83	ENE	2.5	1.1			9	NE		0	0		
Mondovi			30.21	767.4	41.0	5.0	53	ENE			2		8	NNE		0	0		
Porto Maurizio			30.21	767.4	50.9	10.5		W			2		8			0	0		
Genoa			30.16	766.1	52.7	11.5	26	N	1.8	0.8			2	N		0	0		
Piacenza			30.20	767.0	34.7	1.5	96	NE	0.7	0.3			0			0	0	Light fog.	
Bologna			30.26	768.5	42.3	5.7	38	W			1		3	E		0	0		
Florence			30.17	766.4	48.7	9.3	31	NE			2		0			0	0		
Leghorn			30.16	766.1	47.5	8.6	35	NE	6.3	2.8			1			0	0		
Siena			30.13	765.3	42.8	6.0	54	N			2		0			0	0		
Urbino																			
Pesaro																			
Ancona			30.17	766.3	41.4	5.2	78	NW			6		7	NW		0	0		
Rome			30.07	763.6	49.6	9.8	52	N	15.0	6.7			1			0	0		
Naples, O. U			30.06	763.5	52.7	11.5	47	NE			4		1	NE		0	0		
Lecce			30.00	761.9	50.7	10.4	54	N	23.7	10.6			4	N		0	0		
Cosenza			29.63	762.8	48.2	9.0	85	N			6		4			0	0		
Riposto, (Sicily)			29.94	760.5	57.2	14.0	53	N			2		3	E		0	0		
Palermo			29.96	761.0	55.0	12.8	62	WSW	1.3	0.6			8	WSW		0.012	0.3		
Caltanissetta			29.99	761.8	49.5	9.7	64	N			4		2	S		0	0		
Sub-Series.																			
Naples, S. R			30.05	763.3	50.5	10.3	57	WNW			6					0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known. The changes in the order of stations are as given in the originals.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.39	771.8	34.9	1.6		WSW			2								
Groningen			30.23	767.7	33.3	0.7		SW			1								
Helder			30.25	768.4	38.1	3.4		WSW			1								
Utrecht			30.26	768.6	33.6	0.9	89	SSE			2							Hazy	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.97	761.3	37.0	2.8	69	SSE	2.7	1.2			8			0.217	5.5		
Bröno			29.13	740.0	38.1	3.4	80	N	36	16			8			1.819	46.2	Raining	
Christiania			29.78	756.4	39.2	4.0	47	NW	0.2	0.1			1			0	0		
Tromsö			29.13	739.8	29.5	— 1.4	80	NE	13	6			10			0.118	3.0	Snowing	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.61	777.5	55.4	13.0	79	W	2.4	1.08	.....	.....	0	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.41	772.5	49.1	9.5	44	NNE	8.4	3.75	.....	.....	1	NNE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.31	769.9	59.2	15.1	58	NE	6.6	2.96	.....	.....	4	.....	.....	0.583	14.8	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.47	773.9	46.9	8.3	60	NNE	18.0	8.3	.....	.....	1	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.20	767.0	20.1	— 6.6	95	SW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.07	763.8	23.5	— 4.7	95	S	4	2	.....	.....	10	.....	.....	.....	.....	Snowing	Astronomical Obs.
Dorpat	.....	.....	29.78	756.5	31.3	— 0.4	94	WSW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.62	752.4	33.6	0.9	89	WSW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	29.29	744.0	28.6	— 1.9	96	WSW	.....	.....	.....	.....	0	.....	.....	0	0	.....	Ch. Forsten.
Kief	.....	.....	30.23	767.6	19.2	— 7.1	100	NNE	2	1	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.28	769.2	25.2	— 3.8	73	NE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.19	766.9	20.1	— 6.7	73	N	4	2	.....	.....	2	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.05	763.2	13.1	—10.5	83	SSW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.19	766.7	6.3	—14.3	74	NW	9	4	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.18	741.1	28.0	— 2.2	96	SW	29	13	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.69	728.7	30.19	766.8	25.2	— 3.8	82	Calm	0	0	.....	.....	5	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.31	769.9	18.3	— 7.6	89	NE	9	4	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.03	762.8	12.6	—10.8	97	SW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischof.
Ekaterinburg	29.07	738.4	30.17	766.4	5.4	—14.8	90	SW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.30	769.7	5.9	—14.5	69	E	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.78	731.1	30.63	778.0	24.3	— 4.3	93	Calm	0	0	.....	.....	5	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.53	775.5	—17.5	—27.5	80	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.16	766.1	— 5.0	—21.1	92	SW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usoltsef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.42	772.7	23.2	— 4.9	31	NNW	22	10	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.96	710.3	30.37	771.3	—20.6	—29.2	84	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.12	765.1	19.6	— 6.9	94	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—14.1	—25.6	.....	N	7	3	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.47 m., or 1,005.27 ft.; Tashkend, m. 494.27, or 1,621.37 ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.07 m., or 1,942.27 ft.; Oorga, 1,281.06 m., or 4,202.67 ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.43	772.0	39.6	4.2	56	N	3.8	1.7	.....	1	0	NE	.....	0	0	Light clouds.	Royal Observatory.
San Fernando	.....	.....	30.37	771.4	57.9	14.4	58	ESE	12.3	5.5	.....	0	4	.....	ESE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	28.97	735.8	30.9	— 0.6	81	SW	.....	.....	4	.....	5	.....	.....	0.501	15.0	.....	
Umea	.....	.....	29.17	740.9	33.4	0.8	85	NW	.....	.....	6	.....	8	.....	.....	0	0	.....	
Hernosaad	.....	.....	29.36	745.7	34.9	1.6	96	W	.....	.....	4	.....	8	.....	.....	0	0	.....	
Stockholm	.....	.....	29.69	754.2	36.9	2.7	75	WSW	.....	.....	4	.....	0	.....	.....	0	0	.....	
Wisby	.....	.....	29.89	759.1	35.2	1.8	90	W	.....	.....	4	.....	0	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	29.67	753.7	35.8	2.1	65	WSW	12.5	5.6	.....	.....	0	.....	.....	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.93	734.8	30.42	772.7	33.1	0.6	65	NW	.....	.....	0	.....	8	.....	.....	0	0	Covered	The Observatory.
Zurich	28.69	728.7	30.41	772.4	30.6	— 0.8	72	SE	.....	.....	1	.....	8	.....	.....	0	0	Cloudy.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +7.1 mm.; Thermometer, —0.8 cent.; Relative Humidity, —14 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.10	764.5	40.3	4.6	59	NE	22	10.0	.....	.....	10	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.31	769.9	53.6	12.0	.....	NW	.....	.....	3	.....	5	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.10	764.6	46.9	8.3	.....	NE	.....	.....	1	.....	2	.....	.....	.....	.....	.....	
Valona	.....	.....	29.80	757.0	53.2	11.8	.....	NW	.....	.....	2	.....	2	.....	.....	.....	.....	.....	
Varna	.....	.....	30.08	764.0	17.8	0	.....	NW	.....	.....	2	.....	10	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.90	759.4	60.8	16.0	58	NW	.....	.....	2	.....	2k	.....	NW	0	0	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	30.27	769.4	—12.7	—24.8	91	Calm	0	0	.....	.....	.....	.....	.....	0.40	10.2	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.97	761.2	30	— 1.1	.....	E	2	0.9	.....	.....	10s	.....	E	0.10	2.5	Light snow..	W. R. Bigg.
*Chatham, N. B.	.....	.....	30.32	770.1	— 5	—20.6	97	Calm	0	0	.....	10c	Haze	SW	.....	0.18	4.6	Fair.....	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	30.28	769.1	11	—11.7	88	N	13	5.8	.....	.....	10n	.....	.....	0.175	4.4	Light snow..	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.99	761.7	19.7	— 6.8	88	E	.....	.....	3	.....	10n	.....	.....	0.07	1.8	Snowing.....	James Smith, M. A.
Dalhousie, N. B.	.....	.....	30.32	770.1	— 2.5	—19.2	83	NW	.....	.....	2	.....	.....	.....	.....	0.30	7.6	Bright.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.94	760.5	41.1	5.1	92	W	4	1.8	.....	4ck	.....	SW	.....	0.16	4.1	Clear.....	W. H. Bevis.
Fredericton, N. B.	.....	.....	30.31	769.9	— 3.9	—19.9	97	Calm	0	0	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	29.27	743.4	26	— 3.3	94	W	21	9.4	.....	2c	5n	W	W	0	0	Fair.....	James Stewart.
Goderich, Ontario	.....	.....	29.84	757.9	35.6	2.0	97	SW	.....	.....	3	.....	10n	.....	.....	0	0	Fine.....	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.86	758.4	35.0	1.7	.....	SW	.....	.....	1	.....	10n	.....	.....	0	0	Cloudy.....	James Grant.
*Halifax, N. S.	.....	.....	30.23	767.8	13	—10.4	90	S	4	1.8	.....	.....	8n	.....	.....	0.288	7.31	Cloudy.....	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.93	760.2	34	1.1	98	E	2	0.9	.....	.....	10s	.....	.....	0.02	0.5	Cloudy...	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.99	754.1	34.8	1.6	.....	Calm	0	0	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.04	763.0	14	—10.6	87	NE	16	7.2	.....	.....	10n	.....	NE	0.01	0.3	Light snow..	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.97	761.2	20	— 6.7	79	E	11	4.9	.....	.....	10n	.....	E	0.05	1.3	Heavy snow	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.78	756.4	34	1.1	95	S	12	5.4	.....	.....	10n	.....	S	0.03	0.8	Light snow.	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.91	759.7	37	2.8	100	SW	10	4.5	.....	.....	Fog	.....	SW	0.11	2.8	Threatening	H. Morgan.
Port Hastings, N. S.	.....	.....	30.20	767.1	19.0	— 7.2	.....	NW	15	6.7	.....	0	0	.....	.....	0	0	Fine.....	P ter Grant.
*Port Stanley, Ontario	.....	.....	29.91	759.7	34	1.1	94	W	12	5.4	.....	.....	Fog	.....	.....	0.14	3.6	Cloudy, foggy	M. Payne.
*Quebec, Quebec	.....	.....	30.21	767.3	12	—11.1	81	NE	19	8.5	.....	.....	10n	.....	NE	0.10	2.5	Cloudy.....	Capt. Ash, R. N.
St. John, N. B.	.....	.....	30.35	770.9	7.0	21.2	77	Calm	0	0	.....	3cs	0	NE	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.78	756.4	36	2.2	90	SW	4	1.8	.....	.....	10n	.....	.....	0.12	3.0	Cloudy.....	K. Stewart.
Stayner, Ontario	.....	.....	29.81	757.2	34	1.1	79	Calm	0	0	.....	.....	10n	.....	.....	Inap.	Inap.	Cloudy.....	R. J. Cole.
Stratford, Ontario	.....	.....	29.86	758.4	34.6	1.4	95	SW	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.....	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	30.15	765.8	20	— 6.7	93	N	3	1.3	.....	0	8ks	.....	N	0.47	11.9	Clearing.....	T. C. Hill.
*Toronto, Ontario	.....	.....	29.88	758.9	35	1.7	99	SW	7	3.1	.....	.....	10s	.....	W	0.12	3.0	Cloudy.....	Magnetic Observatory.
Woodstock, Ontario	.....	.....	29.87	758.7	36.4	2.4	99	SW	1	0.4	.....	.....	10s	.....	.....	0.13	3.3	Light snow..	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.09	762.0	36	2.2	100	S	5	2.2	.....	.....	10n	.....	.....	0.10	2.5	Light rain....	
Alpena, Mich.	.....	.....	29.92	752.3	36	2.2	90	SW	8	3.6	.....	.....	10s	.....	SW	0.11	2.8	Cloudy.....	
Atlantic City, N. J.	.....	.....	30.10	764.5	41	5.0	100	S	13	5.8	.....	.....	10n	.....	S	0.29	7.4	Light rain...	
Augusta, Ga.	.....	.....	30.10	764.5	48	8.9	85	S	2	0.9	.....	0	5s	.....	S	0	0	Cloudy.....	
Baltimore, Md.	.....	.....	30.31	769.9	48	8.9	85	S	2	0.9	.....	.....	Fog	.....	.....	0.38	9.7	Threatening	
Barnegat, N. J.	.....	.....	30.09	764.3	42	5.6	91	SE	1	0.4	.....	.....	10n	.....	.....	0.32	8.1	Light rain...	
Benton, Montana	.....	.....	30.10	764.5	39	3.9	100	S	12	5.4	.....	.....	10s	.....	.....	0.20	5.1	Cloudy.....	
Bismarck, Dakota	26.94	684.3	29.74	755.4	53	11.7	79	N	4	1.8	.....	.....	10s	.....	.....	0.20	5.1	Cloudy.....	
Boston, Mass.	27.77	705.4	29.43	747.5	27	— 2.8	55	NW	9	4.0	.....	5k	5s	NW	.....	0.01	0.3	Cloudy.....	
Breckenridge, Minn	.....	.....	30.10	766.8	35	1.7	90	S	9	4.0	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow..	
Buffalo, N. Y.	.....	.....	29.45	748.0	34	1.1	80	W	20	8.9	.....	0	8ks	.....	.....	0	0	Cloudy.....	
Burlington, Vt.	.....	.....	29.87	758.7	37	2.8	90	SW	12	5.4	.....	.....	10n	.....	.....	0.17	4.3	Light rain...	
Cairo, Ill.	.....	.....	30.02	762.5	32	0.0	100	SE	5	2.2	.....	.....	10n	.....	.....	0.08	2.0	Light snow..	
Cape Hatteras, N. C.	.....	.....	30.10	764.5	47	8.3	92	S	4	1.8	.....	.....	10s	.....	S	0.12	3.0	Cloudy.....	
Cape Henry, Va.	.....	.....	30.22	767.6	56	13.3	87	SW	11	4.9	.....	5es	5ks	W	SW	Inap.	Inap.	Cloudy.....	
Cape May, N. J.	.....	.....	30.18	766.6	52	11.1	73	SW	16	7.2	.....	.....	10s	.....	W	0.01	0.3	Threatening	
Charleston, S. C.	.....	.....	30.11	764.8	41	5.0	91	S	10	4.5	.....	.....	10s	.....	.....	0.38	9.7	Cloudy.....	
Cheyenne, Wyoming	.....	.....	30.35	770.9	52	11.1	93	S	4	1.8	.....	5ck	2s	.....	SW	0	0	Fair.....	
Chicago, Ill.	23.71	602.2	29.65	753.1	39	3.9	37	NW	36	16.1	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Cincinnati, Ohio	.....	.....	29.84	757.9	49	4.4	82	SW	12	5.4	.....	.....	10s	.....	SW	0.14	3.6	Cloudy.....	
Cleveland, Ohio	.....	.....	29.98	761.5	47	8.3	85	Calm	0	0	.....	.....	10s	.....	.....	0.22	5.6	Cloudy.....	
Colorado Springs, Col.	23.86	606.0	29.73	755.1	32	0.0	59	SW	10	4.5	.....	0	0	.....	.....	0	0	Clear.....	
Corsicana, Texas	.....	.....	30.07	763.8	50	10.0	100	N	7	3.1	.....	.....	Fog	.....	.....	0.33	8.4	Light rain...	
Davenport, Iowa	.....	.....	29.82	757.4	38	3.3	86	N	4	1.8	.....	.....	10s	.....	.....	0.08	2.0	Fair.....	
Denison, Texas	.....	.....	30.04	763.0	49	9.4	93	SW	12	5.4	.....	0	5s	.....	SW	0.08	2.0	Foggy	
Denver, Col.	.....	.....	30.04	763.0	49	9.4	93	Calm	0	0	.....	.....	Fog	.....	.....	0.01	0.3	Foggy	
Detroit, Mich.	24.57	624.1	29.79	756.7	32	0.0	59	SW	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
Dodge City, Kan.	.....	.....	29.85	758.2	38	3.3	89	SW	11	4.9	.....	.....	10s	.....	SW	0.10	2.5	Cloudy.....	
Dubuque, Iowa	27.26	692.4	29.61	752.1	29	— 1.7	78	S	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Duluth, Minn.	.....	.....	29.72	754.9	30	3.9	82	S	8	3.6	.....	0	2s	.....	.....	0	0	Clear.....	
Eastport, Me.	.....	.....	29.31	744.5	35	1.7	70	SW	8	3.6	.....	2c	2s	.....	.....	0.05	1.3	Clear.....	
Erie, Pa.	.....	.....	30.28	769.1	14	10.0	63	NE	9	4.0	.....	5c	5s	W	NE	0.07	1.8	Fair.....	
Escanaba, Mich.	.....	.....	29.91	759.7	41	5.0	91	SW	10	4.5	.....	.....	10n	.....	.....	0.06	1.5	Light rain...	
Fort Gibson, Indian Terr.	.....	.....	29.48	748.8	33	0.6	89	SW	16	7.2	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Fort Sill, Indian T.	.....	.....	30.01	762.2	46	7.8	100	S	6	2.7	.....	.....	Fog	.....	.....	0.07	1.8	Foggy.....	
Fort Sully, Dakota	28.80	731.5	29.93	760.2	41	5.0	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy.....	
Galveston, Texas	27.92	709.2	29.57	751.1	36	2.2	70	W	8	3.6	.....	5es	0	.....	.....	0	0	Fair.....	
Grand Haven, Mich.	.....	.....	30.11	764.8	65	18.3	94	SE	6	2.7	.....	.....	10s	.....	SE	0	0	Cloudy.....	
Indianapolis, Ind.	.....	.....	29.77	756.1	40	4.4	86	SW	24	10.7	.....	.....	10s	.....	SW	0.17	4.3	Cloudy	
Indianola, Texas	.....	.....	29.98	761.5	43	6.1	91	W	7	3.1	.....	.....	10s	.....	SW	0 14	3.6	Threatening	
Jacksonville, Fla.	.....	.....	30.08	764.0	68	20.0	94	S	16	7.2	.....	.....	10s	.....	S	0.02	0.5	Cloudy.....	
Keokuk, Iowa	.....	.....	30.36	771.1	50	10.0	86	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Key West, Fla.	.....	.....	29.87	758.7	43	6.1	83	SW	13	5.8	.....	.....	10s	.....	SW	0.05	1.3	Cloudy.....	
Kittyhawk, N. C.	.....	.....	30.3	769.6	67.4	19.7	90	E	9	4.0	.....	2k	5ks	E	E	0.02	0.5	Cloudy.....	
Knoxville, Tenn.	.....	.....	30.23	767.8	50	10.0	86	W	14	6.3	.....	.....	Fog	.....	.....	0	0	Foggy.....	
La Crosse, Wis.	.....	.....	30.20	767.1	45	7.2	100	SW	1	0.4	.....	.....	10n	.....	S W	0.40	10.2	Mist.....	
Leavenworth, Kan.	.....	.....	29.57	751.1	40	4.4	64	S	9	4.0	.....	8c	0	.....	.....	0	0	Cloudy.....	
Lexington, Ky.	.....	.....	29.85	758.2	43	6.1	83	S S W	12	5.4	.....	0	5s	.....	SW	0.03	0.8	Fair.....	
Long Branch, N. J.	28.98	736.1	30.01	764.3	50	10.0	100	S S W	16	7.2	.....	.....	10s	.....	S W	0.59	15.0	Cloudy.....	
Louisville, Ky.	.....	.....	30.01	764.3	45	7.2	87	S S W	10	4.5	.....	.....	10s	.....	SW	0.35	8.9	Cloudy.....	
Lynchburg, Va.	.....	.....	30.01	763.0	51	10.6	93	S S W	6	2.7	.....	.....	10s	.....	SW	0.62	15.7	Cloudy.....	
Malone, N. Y.	.....	.....	30.14	765.5	47	8.3	77	S S E	4	1.8	.....	5	5s	W	W	0.27	6.9	Cloudy.....	
Marquette, Mich.	.....	.....	29.92	760.0	29	— 1.7	88	N E	2	0.9	.....	.....	10n	.....	.....	0.06	1.5	Light snow..	
Memphis, Tenn.	.....	.....	29.38	746.2	37	2.8	71	S	12	5.4	.....	0	8s	.....	W	0	0	Cloudy.....	
Milwaukee, Wis.	.....	.....	30.15	765.8	52	11.1	100	Calm	0	0	.....	.....	10n	.....	.....	1.94	49.3	Light rain ..	
Mobile, Ala.	.....	.....	29.72	754.9	40	4.4	82	SW	1	0.4	.....	.....	10ks	.....	SW	0	0	Cloudy.....	
Montgomery, Ala.	.....	.....	30.26	768.6	60	15.6	100	Calm	0	0	.....	10es	Sm'e	S	.....	0	0	Cloudy.....	
Morgantown, W. Va.	.....	.....	30.30	769.9	54.5	12.5	90	S E	2	0.9	.....	10es	Haze	S W	.....	0	0	Cloudy.....	
Mt. Washington, N. H.	23.62	599.9	30.01	762.2	53	11.7	86	S W	7	3.1	.....	.....	10n	.....	S	0.31	7.9	Light rain...	
Nashville, Tenn.	.....	.....	29.98	761.5	17	— 8.3	100	S W	26	11.6	.....	.....	10n	.....	S W	0.10	2.5	Light snow	
New Haven, Conn.	.....	.....	30.13	765.3	51	12.2	93	Calm	0	0	.....	.....	10n	.....	SW	1.56	39.6	Light rain...	
New London, Conn.	.....	.....	30.10	764.5	33	3.3	100	S E	4	1.8	.....	.....	10n	.....	.....	0.18	4.6	Light rain...	
New Orleans, La.	.....	.....	30.17	766.3	37.5	3.1	90	S	5	2.2	.....	.....	10n	.....	S	0.06	1.5	Light rain...	
Newport, R. I.	.....	.....	30.21	767.3	63	17.2	89	S S E	6	2.7	.....	.....	10 s	.....	S	0	0	Cloudy.....	
New York, N. Y.	.....	.....	30.17	766.3	39	3.9	91	S	4	1.8	.....	.....	10n	.....	S	0.04	1.0	Light rain...	
Norfolk, Va.	.....	.....	30.07	763.8	40	4.4	100	S E	16	7.2	.....	.....	10n	.....	.....	0.25	6.3	Light rain...	
North Platte, Neb.	.....	.....	30.20	767.1	51	10.6	72	S W	14	6.3	.....	.....	10n	.....	W	0.01	0.3	Light rain...	
Omaha, Neb.	26.78	680.2	29.44	747.8	22	— 5.6	86	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair.....	
Oswego, N. Y.	28.61	726.7	29.69	754.1	36	2.2	80	S W	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Peck's Beach, N. J.	.....	.....	29.90	759.4	38	3.3	90	S	7	3.1	.....	.....	10n	.....	.....	0.11	2.8	Light rain...	
Pembina, Dakota	.....	.....	30.11	764.8	40	4.4	91	S S W	16	7.2	.....	.....	10s	.....	.....	0.33	8.4	Cloudy.....	
Philadelphia, Penn.	.....	.....	29.98	761.5	23	— 5.0	80	S W	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Pike's Peak, Colorado	.....	.....	30.09	764.3	41	5.0	91	S W	9	4.0	.....	.....	Fog	.....	.....	0.28	7.1	Foggy	
Pittsburgh, Penn.	17.58	446.5	29.80	756.9	14	—10.1	61	N E	16	7.2	.....	0	0	.....	.....	0	0	Clear.....	
Port Huron, Mich.	.....	.....	30.00	762.0	45	7.2	92	W	6	2.7	.....	.....	10s	.....	W	0.08	2.0	Cloudy.....	
Portland, Me.	.....	.....	29.82	757.4	38	3.3	90	S	10	4.5	.....	.....	10s	.....	SW	0.10	2.5	Cloudy.....	
Portland, Oregon	.....	.....	30.24	768.1	33	0.6	80	S E	15	6.7	.....	.....	10s	.....	S E	0	0	Cloudy.....	
Punta Rassa, Fla.	.....	.....	30.19	766.8	47	8.3	99	Calm	0	0	.....	5es	2s	W	.....	0.30	7.6	Cloudy.....	
Rochester, N. Y.	.....	.....	30.35	770.9	60.5	15.8	90	N E	6	2.7	.....	Haze	Sm'e	.....	.....	0	0	Clear.....	
Salt Lake City, Utah	25.69	652.5	29.80	7 8.4	38	3.3	90	S W	8	3.6	.....	.....	10s	.....	W	0.24	6.1	Threatening	
Sandy Hook, N. J.	.....	.....	30.02	762.5	27	— 2.8	77	Calm	0	0	.....	2ck	5ks	SW	.....	0	0	Fair.....	
San Diego, Cal.	.....	.....	30.04	763.5	40	4.4	91	S	10	4.5	.....	.....	10s	.....	.....	0.25	6.3	Threatening	
San Francisco, Cal.	.....	.....	30.27	768.8	44	6.7	92	N E	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Santa Fe, N. M.	.....	.....	30.26	768.6	46	7.8	85	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Savannah, Ga.	23.18	588.8	29.72	754.9	17	— 8.3	.....	.....	11	6.3	.....	0	0	.....	.....	0	0	Clear.....	
Shreveport, La.	.....	.....	30.35	770.9	52	11.1	86	S W	8	3.6	.....	10es	0	SW	.....	0	0	Cloudy.....	
Smithville, N. C.	.....	.....	30.15	765.8	61	16.1	97	S E	4	1.8	.....	.....	10n	.....	.....	1.71	43.4	Heavy rain..	
Springfield, Mass.	.....	.....	30.34	77 .6	52	11.1	93	S	4	1.8	.....	5es	2ks	W	W	0	0	Cloudy.....	
St. Louis, Mo.	.....	.....	30.14	765.0	36	2.2	90	S	1	0.4	.....	.....	10n	.....	.....	0.06	1.5	Light snow.	
St. Marks, Fla.	.....	.....	29.99	761.7	46	7.8	76	Calm	8	3.6	.....	.....	10s	.....	.....	0.01	0.3	Cloudy.....	
St. Paul, Minn.	.....	.....	30.34	770.6	43	6.7	91	Calm	0	0	.....	5c	0	W	.....	0	0	Fair.....	
St. Paul's Island, Alaska	.....	.....	30. 0	772.1	38	3.3	71	S W	18	8.0	.....	8c,c8	0	NW	.....	0	0	Fair.....	
Squan Beach, N. J.	.....	.....	30.02	762.5	39	3.9	91	.....	15	6.7	.....	.....	10s	.....	SW	0.37	9.4	Cloudy.....	
Thatcher's Island, Mass.	.....	.....	30.19	766.8	37	2.8	80	S	8	3.6	.....	.....	10s	.....	S	0	0	Cloudy.....	
Toledo, Ohio	.....	.....	29.88	758.9	43	6.1	7	S E	12	5.4	.....	.....	10s	.....	SW	0.15	3.8	Cloudy.....	
Tucson, Arizona	27.72	704.1	30.2	767.1	31	— 0.6	.....	.....	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
Tybee Island, Ga.	.....	.....	30.38	771.6	31	— 0.6	100	Calm	0	0	.....	8c	1s	SW	.....	0	0	Cloudy.....	
Vicksburg, Miss.	.....	.....	30. 4	767.3	64	17.8	94	S	3	1.3	.....	.....	Fog	.....	.....	0	0	Foggy	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.90	607.0	29.38	746.2	36	2.2	70	SW	21	9.4	.....	.....	10n	.....	.....	0	0	Light snow..	
Washington, D. C	.....	.....	30.09	764.3	43	6.1	91	S	4	1.8	.....	.....	10s	.....	SW	0.45	11.4	Cloudy..	
Wilmington, N. C	.....	.....	30.31	769.9	56	13.3	80	SW	7	3.1	.....	8ck	Haze	NW	.....	0	0	Cloudy.....	
Wood's Holl, Mass	.....	.....	30.21	767.3	37	2.8	80	SE	11	4.9	.....	.....	10n	.....	.....	0.02	0.5	Light rain...	
Wytheville, Va	27.79	705.8	29.97	761.2	47	8.3	100	W	4	1.8	.....	.....	10n	.....	W	0.24	6.1	Light rain....	
Yankton, Dakota	28.32	719.3	29.61	752.1	32	0.0	69	SW	3	1.3	.....	0	0	.....	.....	0	0	Clear.....	
Yuma, Arizona	.....	.....	30.26	768.6	36	2.2	.....	E	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.07	763.8	80	26.7	86	NE	3	1.3	.....	8k	8s	NE	S	0.18	4.6	Fair.....	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.04	763.0	74	23.3	85	NE	.....	.....	.....	0	0	.....	.....	0.52	13.2	Clear.....	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.26	768.6	67	19.4	79	Calm	0	0	.....	1k	0	E	.....	0	0	Foggy.....	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.29	769.4	75	23.9	81	Calm	0	0	.....	8c	8s	.....	.....	0.20	5.1	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.31	769.9	77	25.0	85	ENE	16	7.2	.....	4ck	8kn	NE	.....	0	0	Cloudy.....	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	30.00	762.0	71	21.7	71	NE	8.4	3.8	.....	0	0	.....	.....	.....	.....	Clear.....	Robert Mason.
St. Georges, Bermudas	.....	.....	30.44	773.2	61.0	16.1	64	W	4.0	1.8	.....	1s	1k	.....	.....	0	0	Fair.....	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	29.09	738.9	15	— 9.4	100	SE	10	4.5	.....	.....	10s	.....	.....	0.05	1.3	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.57	751.1	30.0	— 1.1	100	S	.....	.....	.....	.....	10n	.....	.....	0.03	0.8	Snowing.....	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.30	693.4	30.12	765.0	63	17.2	94	N	9.4	4.2	.....	2c	10k	NNW	.....	1.44	36.6	Raining.....	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.20	640.0	.....	.....	64.0	17.8	85	.....	0	0	.....	.....	10s	.....	.....	0.04	1.0	Cloudy.....	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.01	762.2	81	27.2	78	E	.....	.....	2	.....	6k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.03	762.8	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.069	1.75	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
*Steamer Nürnberg, }	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1 ? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.
*Observation not simultaneous.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 18, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.42	772.6	53.8	12.1	73	Calm			0		0			0	0	Clear	Charnot.
Algiers			30.42	772.7	53.6	12.0	78	WNW			1		4			0	0	Fair	Peter.
La Calle																			Kuntz.
Tunis			30.37	771.4	54.3	12.4	61	NW			6		5			0.091	2.3	Fair	Jacques.
Sfax			30.34	770.6	59.0	15.0	39	NW			4		2			0	0	Clear	Chauvey.
Saida			30.40	772.1	44.6	7.0	71	S			1		0			0	0	Clear	Grosjean.
Tebessa			30.35	771.0	43.0	6.1		W			4		10			0.039	1.0	Hidden.	Colin.
Gerlville			30.41	772.4	30.6	— 0.8	72	NNE			1		2			0.012	0.3	Clear	Buard.
Laghouat			30.37	771.3	46.4	8.0	72	NE			1		1			0	0	Clear	Simon.
Biskra			30.37	771.5	58.6	14.8	36	E			1		0			0	0	Clear	Coulon.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.30	769.7	27.0	— 2.3	87	SW			1		4			0	0		Prof. Ivan Stosir.
Buda-Pesth																			I. R. Cen. M. I., Hungary.
Cracow																			I. R. Observatory.
Eperies			30.17	766.3	20.6	— 3.0	94	W			1		7			0	0		Julius Mikolik.
Gratz			30.24	768.0	41.4	5.2	90	S			2		10			0	0		Andreas Rospini.
Hermannstadt	28.99	736.3	30.28	769.1	23.7	— 4.6	70	SW			2		2			0	0		Prof. Reissenberger.
Kremsmünster	28.72	729.4	30.20	768.5	21.6	— 5.8	90	SE			1		10			0	0		Prof. C. Wagner.
Lemberg	28.81	731.8	30.23	767.9	28.8	— 1.8	84	Calm			0		10			0.252	6.4		Dr. T. Stanecki.
Nyiregyhaza			30.13	765.2	22.5	— 5.8	93	NW			1		10			0.059	1.5		Habsuda Daniel.
Pola			30.28	769.2	20.5	— 6.4	95	W			2		5			0.003	0.008		I.R. Hydrographic Of'ce
Szegedin			30.21	767.3	43.3	6.3	75	NW			2		2ks			0	0		Karl Stancel.
Trieste			30.31	769.8	20.8	— 6.2	98	S			2		10			0.022	0.55		Prof. V. Farolfi.
Vienna			30.21	767.2	43.3	6.3	48	ENE			1		1			0	0		I. R. Central Institute.
			30.18	766.6	32.7	0.5	75	S			1		10			0.043	1.1		

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.10	764.4	40.3	4.6	100	SW			1		10			0.242	6.15		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.82	757.4	45.1	7.3		W	21	9.4			4			0	0	Blue sky	William Boswell.
Ardrossan			29.98	761.5	47	8.3		WNW			4		4					*D. clouds	J. Mayes.
Armagh Observatory			30.14	765.5	45.7	7.6		W 3W	10	4.5			5					*D. clouds	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs			30.10	764.5	45	7.2		WSW	32	14.3			1					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			30.21	767.3	46.7	8.2		W			1		10					Overcast	J. Dreyer.
Bradford			30.02	762.6	46.1	7.8		W			2		9			0.05	1.3	Drizzling	J. McLandsborough.
Bridgetown, (Barbados)			29.93	760.2	80.1	26.7		NE			4		5					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.10	764.5	50.5	10.3		WNW			2		1			Blank	Blank	*D. clouds	H. Todd.
Cardington			30.14	765.5	48.0	8.9		NW			2		1					Blue sky	John McLaren.
Carlisle			30.00	762.0	46.1	7.8		W			2		4			0.11	2.8	*D. clouds	J. Bell, for J. Cartmell.
Chatham, School M. E.			30.25	768.3	47.2	8.4		W			1							Blue sky	Capt. J. Fellowes, R. E.
Dartmoor	28.79	731.3	30.34	770.6	41.4	5.2		NW			2		10					Overcast	R. E. Power.
Donaghadee			30.06	763.5	45	7.2		W			3		5					*D. clouds	J. Mac Gowan.
Dover			30.13	765.8	46	7.8		W			3		10					Foggy	J. Costello.
Eccles, (near Manchester)			30.08	764.0	47.1	8.4		WSW	5.4	2.4			7					*D. clouds	Thomas Mackereth.
Falmouth Observatory			30.29	769.4	48.5	9.2		WNW	11	4.9			10					Overcast	The Staff.
Fort Napier, (Natal)	27.49	698.2	29.74	755.4	78.3	25.7		E			2		1					*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.86	758.4	83	28.3		N			2		7					*D. clouds	Lis.
Galway, Queen's College			30.02	760.0	49	9.4		SW			3		10					Gloomy	B. G. Clare, for Prof. Cur
Gibraltar, (Mediterranean)			30.38	771.6	59.8	15.4		E			5		5					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.94	760.5	45.2	7.3		NW			2		7					*D. clouds	Lewis Stuart.
Great Yarmouth			30.06	763.5	46	7.8		W			4		5					Hazy	G. T. Watson.
Greenwich Royal Obs			30.14	765.5	48.7	9.3		WSW			1		3			Blank	Blank	*D. clouds	The Staff for G. B. Airy
Guernsey			30.25	768.3	49.5	9.7		WNW			1		0					Blue sky	Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.09	764.3	45.1	7.3		WNW			2		9			Blank	Blank	*D. clouds	L. J. Crossley.
Helston			30.31	769.9	50	10.0		NW			0		10			0.13	3.3	Gloomy	M. P. Moyle.
Holyhead			30.16	766.1	47	8.3		W			4		3					Blue sky	John Tilston.
Kew Observatory			30.26	768.6	49.1	9.5		W	12	5.4			1					Hazy	The Staff.
Kingstown			30.17	766.3	47	8.3		W			5		7					*D. clouds	George Mitchell.
Leicester Museum			30.13	765.3	49.0	9.4		NW			2		2					*D. clouds	William J. Harrison.
Malta, (Mediterranean)			30.09	764.7	55.0	12.8		NW			2		6k						Fred Travis, Pvt A.H.C
Nairn			29.73	755.1	44	6.7		WSW			3		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.30	769.6	68.4	20.2		E			2		7					D. clouds	Surg.-Maj. Henry.
Nottingham			30.10	764.5	48.8	9.3		WNW			3		3		WNW			Blue sky	E. J. Lowe, F. R. S
Oscott, St. Mary's College			30.13	765.3	47.8	8.8		W			3		1					Blue sky	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			30.13	765.3	49	9.4		W			1		1					Blue sky	J. Lucas.
Plymouth			30.25	768.3	47.4	8.6		NW			1		10					Misty	John Merrifield.
Roche's Point			30.25	768.8	48	8.9		WNW			3		5					Cloudy	W. Kennedy.
Saint Ann's Head			30.24	768.1	48	8.9		WNW			2		5					*D. clouds	John C. Walker.
Saint Heller, (Jersey)			30.26	768.6	51.0	10.6		WNW			3		8					¾ clouded	A. P. Amy.
Sandwick Manse (Orkneys)			29.67	753.0	43.5	6.4		W	45	20.1			0					Bright	Rev. Dr. Clouston
Scarborough			29.99	761.7	47.9	8.8		WNW			3		1					Blue sky	F. Shaw.
Scutari Cemetery (Turkey)			29.99	761.7	39.8	4.3		ENE			2		9					Showery	Sergt. W. H. Lyne.
Sheffield			30.05	763.3	47.2	8.4		NW			4		6			0.010	0.25	*D. clouds	W. F. Cooper.
Silloth Rectory			30.01	762.2	46.5	8.1		W			2		5			0.065	1.65	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			30.15	765.8	45.5	7.5		W			4		6			Blank	Blank	Squally	The Staff.
Stornoway, Lews C. (Hebr)			29.86	758.4	41	5.0		W			4		8					Showery	John Smith.
Stratfield Turgiss			30.18	766.6	48.5	9.2		NW			1		0					Blue sky	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.73	755.1	44	6.7		WNW			7		4					*D. clouds	John Trotter.
Truro, Royal Institution			30.25	768.3	50	10.0		NW			3		10					Gloomy	W. Newcombe.
Valencia Observatory			30.25	768.3	48.9	9.4		SW	9	4.0			10					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs			29.74	755.4	87.6	30.9	41	WNW	5	2.2			0						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)																			
Leith, Restalrig Park			29.92	760.0	46.1	7.8		W			5					0.004	1.0	Fine	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.61	752.0	32.0	0.0	100	SSW			2		10					Foggy	
Fanöe			29.67	753.5	37.4	3.0	96	WSW			6		9						
Godthaab, (Greenland)			30.11	764.7	12.6	—10.8	83	NNE			4		2						
Stykkisholm, (Iceland)			29.38	746.2	25.7	— 3.5	91	SE			2		4						
Thorshavn, (Faröe)			29.51	749.5	38.5	3.6	70	NW			4		6						
Vestervig			29.47	748.4	38.8	3.8	93	WSW			7		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.37	771.4	33.8	1	91	SW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	30.14	765.6	45.0	7.2	88	WNW	.....	.....	8	.....	10	.....	.....	0	0	Cloudy.....	Normal School.
Avignon	.....	.....	30.20	769.3	48.9	6.6	65	N	.....	.....	4	.....	5	.....	NNW	0	0	Cloudy.....	Normal School.
Bar-sur-Seine	.....	.....	30.32	770.1	39.7	4.3	97	SW	.....	.....	2	.....	10	.....	W	0.311	7.9	Light rian...	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.35	770.9	43.7	6.5	82	SW	9.4	4.2	.....	.....	.....	.....	W	0.008	0.2	....	Beaumette Observatory
Beauvais	.....	.....	30.24	768.0	44.8	7.1	91	W	.....	.....	3	.....	8	.....	W	0.04	1.	Very cloudy	Normal School.
Besançon	.....	.....	30.42	772.6	34.3	1.3	94	S	.....	.....	3	.....	10	.....	SW	0.008	0.2	Covered	Normal School.
Bourg en Bresse	.....	.....	30.48	774.2	32.0	0	100	S	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Normal School.
Bourges	.....	.....	30.41	772.4	35.6	2	80	SW	.....	.....	2	.....	10	.....	SW	0.28	7.	Covered	Normal School.
Brest	.....	.....	30.25	768.4	50.2	10.1	84	N	.....	.....	2	.....	8	.....	NNW	0.030	0.75	Almost cov'd	Naval Observatory.
Caen	.....	.....	30.22	767.6	43.7	6.5	57	SW	.....	.....	1	.....	10	.....	SE	0.051	1.3	Covered	Normal School.
Chartres	.....	.....	30.28	769.2	37.2	2.9	.....	W	.....	.....	3	.....	10	.....	.....	0.131	3.4	Covered.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.45	773.3	37.9	3.3	75	NW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Puy de Dome, Obs
Commercy	.....	.....	30.28	769.1	34.5	1.4	96	W	.....	.....	4	.....	10	.....	W	0	0	Covered.....	Normal School.
Commune de Gréasque*	.....	.....	30.26	768.5	41.4	5.2	63	NW	.....	.....	2	.....	2	.....	NW	0	0	.....	
Grenoble	.....	.....	30.47	774.0	32.0	0	81	N	.....	.....	2	.....	10n	.....	.....	0	0	Misty.....	Normal School.
Le Mans	.....	.....	30.34	770.5	37.8	3.2	97	SW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lons-Le-Saulnier	.....	.....	30.42	772.6	37.6	3.1	83	S	.....	.....	1	.....	10	.....	.....	0	0	Raining.....	Normal School.
Mâcon	.....	.....	30.39	77..9	33.1	0.6	92	S	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.31	769.8	31.8	— 0.1	93	SE	.....	.....	2	.....	8	.....	NW	0	0	Almost cov'd	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Nismes	.....	.....	30.32	770.2	46.4	8	72	N	.....	.....	2	.....	2	.....	N	0	0	Slightly cl'dy	Normal School.
Orleans	.....	.....	30.31	769.8	35.2	1.8	93	SW	.....	.....	3	.....	8	.....	SW	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	30.36	768.7	40.6	4.8	93	WSW	.....	.....	1	.....	10	.....	W	0.112	2.85	Covered	National Observatory
Parthenay	.....	.....	30.37	771.3	32.9	0.5	93	SW	.....	.....	2	.....	10	.....	.....	0	0	Covered ...	Normal School.
Privas	.....	.....	30.30	772.0	37.9	3.3	.....	W	.....	.....	2	.....	8	.....	W	0	0	Very cloudy	Normal School.
La Roche-sur-Yon	.....	.....	30.40	772.1	37.8	3.2	93	E	.....	.....	1	.....	8	.....	E	0	0	Very cloudy	Normal School.
Rochefort, Observatory	.....	.....	30.44	773.1	36.6	2.5	98	SSW	.....	.....	3	.....	10	.....	NE	0	0	Covered	Naval Observatory.
Rouen	.....	.....	30.28	769.1	44.8	7.1	91	WSW	.....	.....	2	.....	10	.....	.....	0.126	3.2	Covered	Normal School.
Saint Lo	.....	.....	30.28	769.0	48.7	9.3	92	NW	.....	.....	1	.....	10	.....	NW	0.043	1.1	....	Normal School.
Tarbes	.....	.....	30.46	773.6	40.4	8	71	S	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	.....	.....	30.52	775.1	38.3	3.5	96	N	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Villefranche	.....	.....	30.50	774.7	31.1	— 0.5	81	SE	.....	.....	1	.....	10	.....	.....	0	0	Covered.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.96	761.0	73.8	23.2	91	NE	.....	.....	.....	.....	8kn?	.....	.....	0.79	20.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Marseilles	.....	.....	30.24	767.9	46.6	8.1	64	NW	.....	.....	3	.....	3	.....	.....	0	0	.....	Marseilles Observatory
Mont-Louis	25.05	636.2	30.50	774.8	38.1	3.4	51	N	1.9	0.83	.....	.....	8	.....	N	0	0	.....	—. Faiguère.
Montsouris, Paris	.....	.....	30.25	768.4	40.6	4.8	97	WSW	.....	.....	2	.....	10	.....	WSW	0.102	2.6	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.32	770.2	50.0	10.0	62	NW	9.3	4.17	.....	.....	4	.....	NW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.40	543.6	.....	.....	29.1	— 1.0	.....	N	.....	.....	1	.....	10	.....	.....	0	0	Fair.	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.26	768.6	39.5	4.0	95	SSW	.....	.....	1	.....	10	.....	.....	0.138	3.5	Rainy.....	E. Renou.
Toulouse	.....	.....	30.50	774.8	31.1	— 0.5	100	NW	.....	.....	1	.....	4	.....	.....	0	0	.....	Toulouse Observatory.
Tours	.....	.....	30.36	771.7	37.0	2.8	90	W	.....	.....	1	.....	10	.....	.....	0	0	Rainy.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.25	768.4	40.6	4.8	97	W	.....	.....	1	.....	10	.....	.....	0.171	4.34	Covered.....	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.50	774.6	31.6	— 0.2	68	NNE	14.1	6.3	.....	0	1k	.....	.....	{0.122 0.283	{3.1 7.2	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,436.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.04	762.9	31.8	— 0.1	96	SW	.....	.....	4	.....	10	.....	.....	0.157	4.0	Snowing.....	Prof. T. Hoh.
Berlin	.....	.....	29.92	759.9	32.9	0.5	90	SW	.....	.....	2	.....	10	.....	.....	0.004	0.1	Snow & rain.	Prof. Arndt.
Breslau	.....	.....	30.05	763.3	31.8	— 0.1	81	S-E	.....	.....	6	.....	10	.....	.....	0.028	0.7	.....	Dr. P. Saugebauer
Carlsruhe	.....	.....	30.21	767.4	35.2	1.8	88	SW	.....	.....	5	.....	10	.....	.....	0.102	2.6	.....	A. Senz.
Cassel	.....	.....	30.06	763.4	34.7	1.5	84	SW	.....	.....	6	.....	10	.....	.....	0.016	0.4	Snowing.....	Dr. H. Möhl.
Cassel	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Society.
Frankfort on the Main	.....	.....	30.23	767.9	34.7	1.5	98	SSW	.....	.....	2	.....	10	.....	.....	0.079	2.0	Raining.....	M. Wilhelm.
Friedrichshafen	.....	.....	30.35	770.8	32.7	0.4	87	SW	.....	.....	.....	.....	10	.....	.....	0.020	3.2	.....	Deutsche Seewarte.
Hamburg	.....	.....	29.80	756.9	37.0	2.8	96	WSW	.....	.....	4	.....	10	.....	.....	0.157	4.0	....	Prof. G. Karsten.
Kiel	.....	.....	29.80	756.9	38.7	3.7	94	WSW	.....	.....	3	.....	10	.....	.....	0.042	3.6	....	Prof. E. Luther.
Königsberg	.....	.....	29.93	760.3	30.6	— 0.8	91	SW	.....	.....	2	.....	10	.....	.....	0.028	0.7	Snowing.....	H. Müller.
Koslin	.....	.....	29.85	758.1	28.6	— 1.9	.....	SSW	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. Bruhns.
Leipsic	.....	.....	30.02	762.4	32.7	0.4	90	SSW	.....	.....	5	.....	10	.....	.....	9	0	Light snow	Prof. E. Heis.
Münster	.....	.....	30.02	762.6	40.6	4.8	97	SW	.....	.....	1	.....	10	.....	.....	0	0	....	Dr. Magener.
Posen	.....	.....	30.03	762.7	30.0	— 1.1	98	S	.....	.....	1	.....	10	.....	.....	0.272	6.9	....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.28	769.0	36.0	2.2	87	S	.....	.....	2	.....	10	.....	.....	0.154	3.9	Rain & snow	Dr. Schur.
Stuttgart	.....	.....	30.23	767.9	36.9	2.7	94	W	.....	.....	.....	.....	10	.....	.....	0.150	3.8	Raining.....	Mr. Würth.
Thorn	.....	.....	29.95	760.7	27.9	— 2.3	97	SW	.....	.....	5	.....	10	.....	.....	0.106	2.7	Snowing.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.14	765.5	34.7	1.5	98	W	.....	.....	4	.....	10	.....	.....	0.131	3.4	Light fog.....	Prof. Fiesch.
Wustrow, Naval School	.....	.....	29.76	756.0	32.0	0.0	91	WSW	.....	.....	4	.....	10	.....	.....	0	0	Hail & rain..	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.91	759.6	45.0	7.2	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Covered	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.18	766.6	38.8	3.8	45	NE			4		6			0	0		
Padua			30.23	767.7	36.7	2.6	62	N	1.8	0.8			10			0	0		
Verona			30.16	766.0	41.0	5.0	81	E			1		10			0	0		
Bergamo			30.19	766.7	34.5	1.4	78	S			1		9			0	0		
Milan			30.26	768.6	31.5	— 0.3	100	NW			1		10			0	0		
Moncalieri			30.29	769.2	26.8	— 2.9	93	ENE	0	0			10			0	0		
Mondovi			30.23	767.9	34.2	1.2	75	E			2		10			0	0		
Porto Maurizio			30.23	767.9	50.4	10.2		SSE			2		10			0	0		
Genoa			30.21	767.2	49.1	9.5	68	N	0	0			10	S		0	0		
Piacenza			30.27	768.9	31.8	— 0.1	100	NW	7.4	3.3			0			0	0	Light fog	
Bologna			30.27	768.8	28.6	— 1.9	44	NW			1		8	SE		0	0		
Florence			30.27	768.8	43.5	6.4	54	NE			2		0			0	0		
Leghorn			30.21	767.4	48.4	9.1	31	NE	7.4	3.3			10			0	0		
Siena			30.19	766.8	43.0	6.1	59	NW	0	0			2	SW		0	0		
Urbino																			
Pesaro																			
Ancona			30.23	767.9	38.8	3.8	73	NW			6		10			0	0		
Rome			30.15	765.9	50.0	10.0	36	[illegible]	12.5	5.6			0			0	0		
Naples, O. U.			30.14	765.6	51.3	10.7	31	NNE			2		1	NNE		0	0		
Lecce			29.98	761.4	43.2	6.2	79	NW	12.5	5.6			10	NE		0.079	2.0		
Cosenza			30.08	764.0	45.3	7.4	80	N			4		3			0	0		
Riposto, (Sicily)			29.98	761.5	54 3	12.4	48	N			4		5	NE		0	0		
Palermo			30.07	763.7	53.1	11.7	71	NE	3.1	1.4			9			0	0		
Caltanissetta			30.10	764.5	45.5	7.5	56	NW			6		2	SE		0	0		
Sub-Series.																			
Naples, S. R.			30.13	765.4	49.1	9.5	37	W			6					0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.6 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.08	764.1	38.8	3.8		NW			4								
Groningen			29.85	758.2	41.5	5.3		NW			4								
Helder			29.95	760.7	40.8	4.9		W			4								
Utrecht			29.97	761.3	42.3	5.7	97	WSW			4		10					Dull	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.13	739.9	40.3	4.6	90	S	23.7	10.6			10			0.335	8.5	Raining	
Brönö			29.46	748.2	34.9	1.6	72	NE	9	4			9			0	0		
Christiania			29.37	746.1	29.5	— 1.4	100	E	0.9	0.4			10			0	0	Snowing	
Tromsö			29.62	752.4	17.6	— 8.0	83	E	2	1			5			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low't. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.49	774.5	58.6	14.8	84	S	2.4	1.08	.....	.....	4	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.43	772.8	50.0	10.0	45	ESE	3.5	1.56	.....	.....	1	ESE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.35	770.9	61.7	16.5	56	E	8.0	3.58	.....	.....	1	.....	.....	0.244	6.2	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.48	774.3	47.7	8.7	43	NNE	7.4	3.3	.....	.....	0	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.07	763.8	26.2	— 3.2	98	SW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	29.98	761.6	27.0	— 2.3	97	SW	4	2	.....	.....	10	.....	.....	.....	.....	Foggy	Astronomical Obs.
Dorpat	.....	.....	29.84	758.0	27.3	— 2.0	91	WSW	7	3	.....	.....	8	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.14	765.5	25.5	— 3.6	98	WSW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	29.72	755.0	21.7	— 5.7	93	N	.....	.....	.....	.....	10	.....	.....	0.043	1.10	Snowing	Ch. Forsten.
Kief	.....	.....	30.09	764.3	13.8	—10.1	100	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.21	767.2	24.4	— 4.2	75	Calm	0	0	.....	.....	9	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.12	765.0	14.0	—10.0	87	N	13	6	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.95	760.8	21.4	— 5.9	74	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.08	764.1	9.5	—12.5	88	N	13	6	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	29.49	749.0	12.9	—10.6	90	N	22	10	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.54	724.8	30.02	762.5	30.2	— 1.0	88	Calm	0	0	.....	.....	8	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.14	765.5	15.1	— 9.4	94	NNW	9	4	.....	.....	4	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	29.84	757.8	13.3	—10.4	93	SW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.82	731.9	29.90	759.5	8.2	—13.2	92	SW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.34	770.6	3.7	—15.7	57	E	4	2	.....	.....	5	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.71	729.3	30.54	775.8	23.5	— 4.7	84	N	13	6	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.45	773.4	— 7.6	—22.0	74	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	29.99	761 8	— 2.4	—19.1	88	SE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.46	773.7	17.6	— 8.0	42	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.91	709.0	30.24	768.0	—12.6	—24.8	56	WNW	13	6	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.28	769.0	3.6	—15.8	95	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—15.5	—26.4	.....	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 404.2?, or 1,021.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.49	774.5	41.5	5.3	61	NW	0.7	0.3	.....	0	0	.....	.....	0	0	Clear	Royal Observatory.
San Fernando	.....	.....	30.42	772.6	53.8	12.1	74	N	6.3	2.8	.....	3	2	SW	SW	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.83	757.6	10.4	—12.0	93	N	.....	.....	2	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	29.72	754.8	20.8	— 6.2	95	NE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	29.62	752.3	18.3	— 7.0	95	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Stockholm	.....	.....	29.60	751.9	28.8	— 1.8	96	SSE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	29.76	755.8	32.7	0.4	92	WSW	.....	.....	4	.....	10	.....	.....	0	0	.....	
Sun-Series.																			
Upsala	.....	.....	29.62	752.4	37.6	— 3.1	74	SSE	10.1	4.5	.....	.....	10	.....	SW	0.110	2.95	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.93	734.8	30.42	772.7	32.4	0.2	78	S			1		10			0	0	Covered	The Observatory.
Zurich	28.64	727.5	30.35	771.0	33.1	0.6	95	SE			1		10			0.122	3.1	Snowing	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +7.1 mm.; Thermometer, +1.3 cent.; Relative Humidity, —1 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.00	762.1	39.7	4.3	83	ENE	17	7.5			10		NE	0	0		
Fao, (Persian Gulf)																			
Salonica			30.07	763.8	48.2	9.0		NE			1		8						
Valona			29.81	757.1	44.2	6.8		NW			2		10						
Varna			30.04	763.0	30.2	— 1.0		NW			3		10						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.			29.62	752.3	64.6	18.1	52	ENE			1		9cs			0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.			30.10	764.5	14.2	— 9.9	91	SW	40	1.8						0	0		Hon. J. Ferguson.
Brockville, Ontario			29.92	760.0	39	3.9		Calm	0	0			10s		SW	0.03	0.8	Cloudy	W. R. Bigg.
*Chatham, N. B.			30.18	766.6	14	—10.0	91	Calm	0	0			10ks			0.01	0.3	Cloudy	G. A. Blair.
Charlottetown, P. E. Island.			30.23	767.8	21	— 6.1	85	SE	9	4.0			10s			0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario			29.84	757.9	32.7	0.4	87	SE			1		10ks			0.082	2.08	Unsettled	James Smith, M. A.
Dalhousie, N. B.			30.13	765.3	13.0	—10.6	80	E			5					0.10	2.5	Cloudy	H. A. Johnson.
Esquimault, B. C.																0.04	1.0		W. H. Bevis.
Fredericton, N. B.			30.16	766.1	18.0	— 7.8	97	Calm	0	0			10n			0.050	1.27	Snowing	Prof. Harrison.
*Fort Garry, Manitoba			29.84	757.9	6	—14.4	95	NW	15	6.7		2c	5ks	NW	NW	0	0	Fair	James Stewart.
Goderich, Ontario			29.69	754.1	39.8	4.3	93	SW			1		10n			0	0	Dull	H. J. Strang, M. A.
Granton, Ontario			29.72	754.9	37.0	2.8		E			1		10n			0	0	Cloudy	James Grant.
*Halifax, N. S.			30.24	768.1	28	— 2.2	94	SE	5	2.2			10n			0	0	Threatening	F. Allison, M. A.
*Kingston, Ontario			29.88	758.9	39	3.9	87	S	1	0.4			10s			0.06	1.5	Cloudy	S. Woods, M. A.
Little Current, Ontario			29.99	754.1	33.8	1.0		Calm	0	0			10s			0	0	Raining	G. B. Abrey, C. E.
*Montreal, Quebec			29.90	759.4	36	2.2	89	SW	16	7.2			10n			0.14	3.6	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario			29.86	758.4	37	2.8	72	S	4	1.8			10n		S	Inap.	Inap.	Threatening	J. B. Haney.
*Parry Sound, Ontario			29.73	755.1	37	2.8	95	S	8	3.6			10n		S	0.20	5.1	Cloudy	Rev. R. Mooley.
*Port Dover, Ontario			29.78	756.4	39	3.9	96	Calm	0	0			Fog			0.02	0.5	Light rain	H. Morgan.
Port Hastings, N. S.			30.29	769.4	29.1	— 1.6		S	7	3.1						0	0	Fair	Peter Grant.
*Port Stanley, Ontario			29.75	755.6	36	2.2	93	E	6	2.7			Fog		E	0.01	0.3	Light rain	M. Payne.
*Quebec, Quebec			29.94	760.5	28	— 2.2	88	Calm	0	0			10ks		W	0.15	3.8	Cloudy	Capt. Ash, R. N.
St. John, N. B.			30.20	767.1	27.0	— 2.8	94	SE	4	1.8			10n			0.40	10.16		G. Murdoch, C. E.
*Saugeen, Ontario			29.71	754.6	37	2.8	90	S	4	1.8			10ks		W	0	0	Cloudy	K. Stewart.
Stayner, Ontario			29.72	754.9	37	2.8	95	SE	1	0.4		10cs	0	SW		Inap.	Inap.	Cloudy	R. J. Cole.
Stratford, Ontario			29.72	754.9	37.4	3.0	96	SE	6	2.7			Fog			0	0	Foggy	C. J. MacGregor, M. A.
*Sydney, C. B.			30.38	771.6	17	— 8.3	93	Calm	0	0			10n			0	0	Cloudy	T. C. Hill.
*Toronto, Ontario			29.83	757.7	38	3.3	100	SE	3	1.3			Fog			0	0	Foggy	Magnetic Observatory.
Woodstock, Ontario			29.74	755.4	39.0	3.9	100	Calm	0	0			10s			0.54	13.7	Foggy	J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.97	761.2	30	3.9	100	S	4	1.8	.....	.....	Fog	.....	.....	0.02	0.5	Foggy	
Alpena, Mich.	.....	.....	29.59	751.6	35	1.7	90	Calm	0	0	.....	.....	10s	.....	SE	0	0	Cloudy	
Atlantic City, N. J.	.....	.....	30.07	763.8	42	5.6	100	S	3	1.3	.....	.....	10n	.....	SW	0	0	Light rain	
Augusta, Ga.	.....	.....	30.16	766.1	52	11.1	93	Calm	0	0	.....	.....	10ks	.....	S	0	0	Cloudy	
Baltimore, Md.	.....	.....	30.22	767.6	41	5.0	56	SW	2	0.9	.....	8k	Fog	W	.....	0	0	Foggy	
Barnegat, N. J.	.....	.....	30.06	763.5	41	5.0	95	S	10	4.5	.....	.....	Fog	.....	.....	0	0	Foggy	
Benton, Montana	27.16	689.8	29.96	761.0	28	— 2.2	59	W	6	2.7	.....	0	5c	.....	.....	0	0	Fair	
Bismarck, Dakota	28.07	713.0	29.80	756.9	18	— 7.8	52	NW	14	6.3	.....	0	0	.....	.....	0	0	Clear	
Boston, Mass.	.....	.....	30.12	765.0	37	2.8	100	S	5	2.2	.....	Fog	Fog	.....	.....	0.15	3.8	Foggy	
Breckenridge, Minn	.....	.....	29.74	755.4	24	— 4.4	88	NW	20	8.9	.....	.....	10s	.....	N	0	0	Cloudy	
Buffalo, N. Y.	.....	.....	29.75	755.6	42	5.6	100	Calm	0	.....	.....	.....	Fog	.....	.....	0.02	0.5	Light rain	
Burlington, Vt.	.....	.....	29.94	760.5	39	3.9	82	S	6	2.7	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Cairo, Ill.	.....	.....	29.65	753.1	57	13.9	100	SW	4	1.8	.....	.....	10n	.....	SW	*4.97	*.2126	Heavy rain	
Cape Hatteras, N. C.	.....	.....	30.16	766.1	57	13.9	87	SW	8	3.6	.....	8c	Haze	.....	.....	Inap.	Inap.	Fair	
Cape Henry, Va.	.....	.....	30.13	765.3	61	16.1	66	SW	14	6.3	.....	8c	2s	.....	.....	Inap.	Inap.	Cloudy	
Cape May, N. J.	.....	.....	30.06	763.5	44	6.7	92	S	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy	
Charleston, S. C.	.....	.....	30.14	765.5	58	14.4	93	S	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy	
Cheyenne, Wyoming	23.81	604.8	29.75	755.6	16	— 8.9	83	N	16	7.2	.....	Haze	0	.....	.....	0.01	0.3	Fair	
Chicago, Ill.	.....	.....	29.63	752.6	49	9.4	100	S	2	0.9	.....	.....	10n	.....	.....	0.18	4.6	Light rain	
Cincinnati, Ohio	.....	.....	29.63	752.6	55	12.8	93	SW	1	0.4	.....	.....	10n	.....	.....	1.35	34.3	Light rain	
Cleveland, Ohio	.....	.....	29.64	752.8	52.7	11.5	93	SE	11	4.9	.....	.....	10n	.....	SE	0.25	6.3	Light rain	
Colorado Springs, Col.	23.79	604.3	29.66	753.4	28	— 2.2	77	NE	4	1.8	.....	0	8ks	.....	SW	0.03	0.8	Fair	
Corsicana, Tex.	.....	.....	29.75	755.6	52	11.1	86	S	12	5.4	.....	0	2s	.....	.....	1.23	31.2	Clear	
Davenport, Iowa	.....	.....	29.41	747.0	47	8.3	92	NE	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Denison, Tex.	.....	.....	29.61	752.1	54	12.2	62	SE	12	5.4	.....	0	0	.....	.....	0.61	15.5	Clear	
Denver, Col.	24.00	624.8	29.82	757.4	23	— 5.0	60	NE	12	5.4	.....	.....	10n	.....	.....	0.01	0.3	Light snow	
Detroit, Mich.	.....	.....	29.69	754.1	48	8.9	100	S	5	2.2	.....	.....	Fog	.....	.....	0.04	1.0	Foggy	
Dodge City, Kan.	27.01	686.0	29.27	743.4	40	4.4	56	NW	28	12.5	.....	.....	10s	.....	NW	0	0	Cloudy	
Dubuque, Iowa	.....	.....	29.48	748.8	36	2.2	90	NW	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Duluth, Minn.	.....	.....	29.57	751.1	31	0.6	68	Calm	0	0	.....	0	2s	.....	.....	0	0	Clear	
Eastport, Me.	.....	.....	30.11	764.8	34	1.1	100	S	10	4.5	.....	.....	10s	.....	SE	0.13	3.3	Cloudy	
Erie, Pa.	.....	.....	29.71	754.6	53	11.7	93	S	12	5.4	.....	.....	10n	.....	.....	0.04	1.0	Light rain	
Escanaba, Mich.	.....	.....	29.58	751.3	35	1.7	95	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Fort Gibson, Indian Terr.	.....	.....	29.54	750.3	48	8.9	86	S	6	2.7	.....	0	1s	.....	W	0.10	2.5	Clear	
Fort Sill, Indian T.	28.37	720.6	29.48	748.8	38	3.3	80	N	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Fort Sully, Dakota	28.17	715.5	29.93	760.2	19	— 7.2	84	NW	10	4.5	.....	.....	10s	.....	NW	0.03	0.8	Cloudy	
Galveston, Tex.	.....	.....	29.90	759.4	57	13.9	94	N	2	0.9	.....	.....	10s	.....	N	0.73	18.5	Cloudy	
Grand Haven, Mich.	.....	.....	29.48	748.8	45	7.2	100	E	3	1.3	.....	.....	Fog	.....	.....	0.04	1.0	Foggy	
Indianapolis, Ind.	.....	.....	29.52	749.8	53	11.7	93	S	11	4.9	.....	.....	10n	.....	SW	0.20	5.1	Light rain	
Indianola, Tex.	.....	.....	29.94	760.5	60	15.6	88	NW	2	0.9	.....	0	8s	.....	W	0.43	10.9	Cloudy	
Jacksonville, Fla.	.....	.....	30.23	767.8	59	15.0	81	S	8	3.6	.....	5k	0	.....	.....	0	0	Fair	
Keokuk, Iowa	.....	.....	29.35	745.5	52	11.1	93	SW	20	8.9	.....	.....	10n	.....	SW	0.14	3.6	Light rain	
Key West, Fla.	.....	.....	30.20	767.1	70.6	21.4	85	SE	8	3.6	.....	.....	8s	.....	SE	0.09	2.3	Cloudy	
Kittyhawk, N. C.	.....	.....	30.18	766.6	52	11.1	86	SW	16	7.2	.....	Haze	Haze	.....	.....	0	0	Fair	
Knoxville, Tenn.	.....	.....	29.71	759.7	61	16.1	66	SW	24	10.7	.....	.....	10ks	.....	SW	0.64	16.3	Cloudy	
La Crosse, Wis.	.....	.....	29.54	750.3	35	2.2	100	N	11	4.9	.....	.....	10n	.....	N	0.01	0.3	Light rain	
Leavenworth, Kan.	.....	.....	29.38	746.2	40	4.4	85	Calm	0	0	.....	1s	0	.....	.....	0	0	Clear	
Lexington, Ky.	28.02	720.9	29.69	754.1	58	14.4	81	S	28	12.5	.....	.....	10s	.....	.....	0.77	19.6	Cloudy	
Long Branch, N. J.	.....	.....	30.08	764.0	40	4.4	91	Calm	0	0	.....	.....	10n	.....	.....	0.02	0.5	Light rain	
Louisville, Ky.	.....	.....	29.67	753.6	55	12.8	93	SE	5	2.2	.....	.....	10n	.....	.....	2.27	57.7	Heavy rain	
Lynchburg, Va.	.....	.....	30.04	763.0	54	12.2	90	S	3	1.3	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy	
Malone, N. Y.	.....	.....	29.86	758.4	44	6.7	84	S	8	3.6	.....	.....	10ks	.....	SW	0.15	3.8	Cloudy	
Marquette, Mich.	.....	.....	29.99	761.6	36	2.2	86	W	4	1.8	.....	.....	8s	.....	.....	0	0	Cloudy	
Memphis, Tenn.	.....	.....	29.74	755.4	57	13.9	100	SW	7	3.1	.....	.....	10n	.....	.....	2.39	60.7	Light rain	
Milwaukee, Wis.	.....	.....	29.48	748.8	39	3.9	100	NE	4	1.8	.....	.....	Fog	.....	.....	0.02	0.5	Foggy	
Mobile, Ala.	.....	.....	30.01	762.2	62	16.7	94	S	12	5.4	.....	.....	10n	.....	S	0.06	1.5	Light rain	
Montgomery, Ala.	.....	.....	30.02	762.5	63.5	17.5	91	S	6	2.7	.....	.....	10s	.....	S	0	0	Threatening	
Morgantown, W. Va.	.....	.....	29.78	756.4	58	14.4	87	SE	2	0.9	.....	.....	10s	.....	S	0.22	5.6	Cloudy	
Mt. Washington, N. H.	23.05	600.7	30.01	762.2	27	— 2.8	100	SW	40	17.9	.....	10s	8s	NW	NW	0.10	2.5	Cloudy	
Nashville, Tenn.	.....	.....	29.70	754.4	62	16.7	83	SE	16	7.2	.....	.....	10ks	.....	S	1.57	39.9	Cloudy	
New Haven, Conn.	.....	.....	30.08	764.0	38	3.3	100	Calm	0	0	.....	.....	Fog	.....	.....	0.03	0.8	Foggy	
New London, Conn.	.....	.....	30.12	765.0	38	3.3	100	SE	6	2.7	.....	.....	Fog	.....	SE	0.16	4.1	Foggy	
New Orleans, La.	.....	.....	29.95	760.7	68	20.0	89	S	12	5.4	.....	5k	Fog	S	.....	0	0	Fair	
Newport, R. I.	.....	.....	30.11	764.8	38	3.3	100	SE	10	4.5	.....	.....	Fog	.....	.....	0.10	2.5	Foggy	
New York, N. Y.	.....	.....	30.01	762.2	36	2.2	100	NE	10	4.5	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy	
Norfolk, Va.	.....	.....	30.09	764.5	50	10.0	75	S	7	3.1	.....	6c	Fog	.....	.....	0.01	0.3	Fair	
North Platte, Neb.	.....	.....	30.12	765.0	50	10.0	75	N	14	6.3	.....	.....	10s	.....	N	0	0	Cloudy	
Omaha, Neb.	26.82	681.2	29.42	747.3	30	— 1.1	89	N	20	8.9	.....	5cs	0	.....	.....	0	0	Cloudy	
Oswego, N. Y.	28.46	722.6	29.51	749.5	37	2.8	80	SE	7	3.1	.....	.....	10s	.....	W	0.03	0.8	Threatening	
Peck's Beach, N. J.	.....	.....	29.84	757.9	42.1	5.6	83	S	2	0.9	.....	.....	10ks	.....	W	Inap.	Inap.	Cloudy	
Pembina, Dakota	.....	.....	30.08	764.0	40	4.4	100	NW	20	8.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Philadelphia, Penn.	.....	.....	29.85	758.2	10	—12.2	100	E	7	3.1	.....	.....	Fog	.....	.....	0	0	Foggy	
Pike's Peak, Colorado	17.22	437.5	29.43	747.5	—11	—23.9	100	W	32	14.3	.....	0	0	.....	.....	0	0	Clear	
Pittsburgh, Penn.	.....	.....	29.80	756.9	55	12.8	93	S	12	5.4	.....	.....	10n	.....	S	0.35	8.9	Light rain	
Port Huron, Mich.	.....	.....	29.92	759.3	43	6.1	100	SE	6	2.7	.....	.....	Fog	.....	.....	0	0	Foggy	
Portland, Me.	.....	.....	30.14	765.5	29	— 1.7	78	Calm	0	0	.....	.....	Fog	.....	.....	0.16	4.1	Foggy	
Portland, Oregon	.....	.....	30.54	775.7	41	5.6	73	SE	6	2.7	.....	.....	10s	.....	SW	0.06	1.5	Cloudy	
Punta Rassa, Fla.	.....	.....	30.22	767.6	68.1	17.3	88	E	10	4.5	.....	0	2ks	.....	SE	0	0	Clear	
Rochester, N. Y.	.....	.....	29.77	756.1	46	7.8	92	S	8	3.6	.....	.....	10s	.....	W	Inap.	Inap.	Threatening	
Salt Lake City, Utah	25.69	652.5	30.02	762.5	9	— 1.7	89	E	2	0.9	.....	.....	10n	.....	.....	0.10	2.5	Light snow	
Sandy Hook, N. J.	.....	.....	30.07	763.8	37	2.8	100	E	4	1.8	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy	
San Diego, Cal.	.....	.....	30.25	768.3	58	14.7	79	SE	8	3.6	.....	.....	10s	.....	SE	0	0	Cloudy	
San Francisco, Cal.	.....	.....	30.31	770.5	45	7.2	92	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Santa Fe, N. M.	23.05	585.5	29.59	751.6	22	— 5.6	.....	NW	13	5.8	.....	2k	0	NW	.....	0	0	Fair	
Savannah, Ga.	.....	.....	30.21	767.3	59	15.0	87	SW	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy	
Shreveport, La.	.....	.....	29.81	757.2	54.5	12.5	93	S	7	3.1	.....	.....	10ks	.....	SW	2.18	55.4	Threatening	
Smithville, N. C.	.....	.....	30.22	767.6	67	19.9	93	W	5	2.2	.....	5ck	5ks	W	SW	0	0	Cloudy	
Springfield, Mass.	.....	.....	30.09	764.7	37	2.8	90	Calm	0	0	.....	.....	Fog	.....	.....	0.15	3.8	Foggy	
St. Louis, Mo.	.....	.....	29.46	748.7	54	12.2	100	S	20	8.9	.....	.....	10n	.....	.....	0.25	6.3	Light rain	
St. Marks, Fla.	.....	.....	30.14	765.5	63	17.2	83	.....	17	7.6	.....	2c	8ks	W	S	0	0	Cloudy	
St. Paul, Minn.	.....	.....	29.59	751.8	33	0.6	71	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
St. Paul's Island, Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squan Beach, N. J.	.....	.....	30.01	762.2	45	4.5	91	S	1	0.4	.....	.....	10n	.....	.....	Inap.	Inap.	Light rain	
Thatcher's Island, Mass.	.....	.....	30.13	765.3	38	3.3	90	S	15	6.7	.....	.....	Fog	.....	.....	0.06	1.5	Foggy	
Toledo, Ohio	.....	.....	29.56	750.8	40	9.4	100	SE	6	2.7	.....	.....	Fog	.....	.....	0.14	3.6	Light rain	
Tucson, Arizona	27.72	704.1	30.21	767.1	32	0.0	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Tybee Island, Ga.	.....	.....	30.19	766.8	61	16.1	83	SW	10	4.5	.....	5c	2s	NW	.....	0	0	Fair	
Vicksburg, Miss.	.....	.....	29.86	758.4	60	18.9	94	SW	16	7.2	.....	8k	2s	SW	SW	0	0	Cloudy	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.18	614.2	29.66	753.4	11	—11.7	79	Calm	0	0	.....	8c	0	NW	.....	0.09	2.3	Cloudy	
Washington, D. C	.....	.....	30.02	762.5	52	11.1	100	SE	4	1.8	.....	.....	Fog	.....	SE	0.04	1.0	Foggy	
Wilmington, N. C	.....	.....	30.21	767.3	58	14.4	93	SW	7	3.1	.....	.....	10s	.....	SW	0	0	Cloudy	
Wood's Holl, Mass	.....	.....	30.14	765.5	37	2.8	100	SE	9	4.0	.....	.....	Fog	.....	.....	0.08	2.0	Foggy	
Wytheville, Va	27.62	701.5	29.74	755.4	54	12.2	73	S	12	5.4	.....	10k	0	SW	.....	0.19	4.8	Cloudy	
Yankton, Dakota	28.46	722.9	29.77	756.1	32	0.0	89	NW	1	0.4	.....	.....	10s	.....	.....	0.02	0.5	Cloudy	
Yuma, Arizona	.....	.....	30.24	768.1	43	6.1	.....	E	.....	.....	.....	2c	5ks	SE	SE	0	0	Fair	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.09	764.3	78	25.6	86	NE	7	3.1	.....	2c	5s	W	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.05	763.3	75	23.9	81	NE	.....	.....	.....	0	5ks	.....	.....	0.07	1.8	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.18	766.6	73	22.8	71	Calm	0	0	.....	1fk	0	NNE	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.25	768.3	73	22.8	76	Calm	0	0	.....	2k	2s	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.34	770.6	77	25.0	72	E	10	4.5	.....	4ck	8ks	E	N	0.07	1.8	Clearing	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.91	759.7	73	22.8	76	NE	7.2	3.2	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
St. Georges, Bermudas	.....	.....	30.42	772.7	62.5	16.9	83	NW	5.0	2.2	.....	8cs	1k	NW	.....	0	0	Fair	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	29.56	750.8	1	—17.2	100	N	24	10.7	.....	.....	10n	.....	.....	0.15	3.8	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.44	773.2	17.0	-- 8.3	.....	W	.....	.....	.....	5k	5s	.....	.....	0.02	0.5	Fair	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.28	692.9	30.10	764.5	63	17.2	88	SE	0.5	0.2	.....	0	0	.....	.....	0	0	Clear	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Medellin, Colombia, S. A	25.21	640.3	.....	.....	64.3	17.9	81	.....	0	0	.....	2c	3s	.....	.....	0.35	8.9	Fair	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.01	762.2	79	26.1	78	NW	.....	.....	2	.....	10n,ks	.....	.....	1.110	28.19	Heavy rain	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.03	762.8	79.7	26.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Marine Series.	True course towards.	Hourly rate in knots.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	State of ocean.	Direction of swell from—	Weather.	Observer.
Steamer Nürnberg, N. 49° 53′, W. 20° 02′	W	.....	.....	.....	29.93	760.2	53.4	11.9	.....	W ?	.....	.....	2?	.....	Fog	.....	.....	Rough sea.	NW	Overcast	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 807.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.
* Total amount of rain-fall not measured.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Bric. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 19, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.26	768.5	58.6	14.8	53	ENE	.....	.....	1	.....	2	.....	.....	0	0	Clear	Charnot.
Algiers	.....	.....	30.34	770.7	55.8	13.2	86	SE	.....	.....	1	.....	0	.....	.....	Inap.	Inap.	Clear	Poter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.44	773.2	55.8	13.2	68	NW	.....	.....	4	.....	8	.....	.....	0.008	0.2	Cloudy	Jacques.
Sfax	.....	.....	30.44	773.1	62.4	16.9	50	N	.....	.....	2	.....	3	.....	.....	0	0	Fair	Chauvey.
Saïda	.....	.....	30.28	769.0	50.0	10.0	46	SSW	.....	.....	2	.....	2	.....	.....	0	0	Clear	Grosjean.
Tebessa	.....	.....	30.43	773.0	44.8	7.1	.....	W	.....	.....	3	.....	10	.....	.....	0	0	Hidden	Colin.
Gerlville	.....	.....	30.34	770.5	38.1	3.4	49	SE	.....	.....	1	.....	2	.....	.....	0.020	0.5	Clear	Buard.
Laghouat	.....	.....	30.30	771.9	46.4	8.0	59	SE	.....	.....	1	.....	1	.....	.....	0	0	Clear	Simon.
Biskra	.....	.....	30.43	772.8	53.6	12.0	73	NW	.....	.....	1	.....	2	.....	.....	0	0	Clear	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.42	772.6	29.8	— 1.2	82	SW	.....	.....	3	.....	5	.....	.....	0	0	.....	Prof. Ivan Stosir.
Buda-Posth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.23	767.7	36.0	2.2	98	W	.....	.....	3	.....	10	.....	.....	0.012	0.3	.....	I. R. Observatory.
Eperies	.....	.....	30.28	769.2	45.0	7.2	90	Calm	.....	.....	0	.....	10	.....	.....	0.014	0.35	.....	Julius Mikolik.
Gratz	29.12	739.5	30.39	771.9	31.8	— 0.1	75	SSW	.....	.....	2	.....	0	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.78	730.9	30.32	770.1	19.0	— 7.2	93	SSE	.....	.....	1	.....	10	.....	.....	0.024	0.60	Light snow	Prof. Reissenberger.
Kremsmünster	29.03	737.3	30.43	773.0	37.6	3.1	88	W	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	.....	.....	30.02	762.5	28.2	— 2.1	98	NW	.....	.....	4	.....	10	.....	.....	0.039	1.0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.32	770.1	21.9	— 5.6	100	S	.....	.....	1	.....	0	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.35	771.0	43.2	6.2	76	WNW	.....	.....	1	.....	1s	.....	.....	0	0	.....	I.R. Hydrographic Of'ce
Szegedin	.....	.....	30.30	769.6	31.1	— 0.5	96	S	.....	.....	2	.....	4	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.36	771.2	42.1	5.6	79	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear	Prof. V. Farolfi.
Vienna	.....	.....	30.32	770.1	40.3	4.6	69	W	.....	.....	3	.....	10	.....	.....	0.142	3.6	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	30.28	769.2	41.5	5.3	82	SW	.....	.....	2	.....	10	.....	.....	0.002	0.05	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.57	751.1	46.0	7.8	.....	S	19	8.5	.....	.....	7	.....	.....	0	0	*D. clouds	William Boswell.
Ardrossan	.....	.....	29.67	753.6	49	9.4	.....	SSW	.....	.....	5	.....	8	.....	.....	.....	.....	Overcast	J. Mayes.
Armagh Observatory	.....	.....	29.75	755.6	50.5	10.3	.....	SSW	28	12.5	.....	.....	10	.....	.....	.....	.....	Squall	S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	29.92	760.0	54	10.1	.....	SW	23	10.3	.....	.....	9	.....	.....	.....	.....	Overcast	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.82	757.4	51.7	10.9	.....	SSW	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	J. Dreyer.
Bradford	.....	.....	29.88	758.9	46.3	7.9	.....	SW	.....	.....	1	.....	0	.....	.....	0	0	Blue sky	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	29.96	761.0	79.1	26.2	.....	NE	.....	.....	4	.....	6	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.12	765.0	45.5	7.5	.....	SSW	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	H. Todd.
Cardington	.....	.....	30.14	765.5	45.6	7.6	.....	SW	.....	.....	2	.....	9	.....	.....	.....	.....	Overcast	John McLaren.
Carlisle	.....	.....	29.80	756.9	48.8	9.3	.....	W	.....	.....	6	.....	10	.....	.....	0.04	1.0	Snowi g	C. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	29.64	752.8	46.2	7.9	.....	W	.....	.....	1	.....	8	.....	.....	.....	.....	*D. clouds	Cadet J. Fellowes, R. E.
Dartmoor	28.67	728.2	30.21	767.3	43.6	6.4	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Foggy	R. E. Power.
Donaghadee	.....	.....	29.72	754.9	45	7.2	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast	J. Mac Gowan.
Dover	.....	.....	30.22	767.6	42	5.6	.....	SW	.....	.....	3	.....	7	.....	.....	.....	.....	¾ cl uded	J. Costello.
Eccles, (near Manchester)	.....	.....	29.96	761.0	47.7	8.7	.....	SW	2.8	1.3	.....	.....	10	.....	.....	.....	.....	Misty	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.16	766 1	49.2	9.6	.....	SSW	17	7.6	.....	.....	10	.....	.....	.....	.....	Rain and fog	The Staff.
Fort Napier, (Natal)	27.34	694.4	29.59	751.6	89.6	32.0	.....	SE	.....	.....	2	.....	9	.....	.....	.....	.....	*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.86	758.4	84	28.9	.....	N	.....	.....	2	.....	6	.....	.....	.....	.....	*D. clouds	Pvt. [illegible]
Galway, Queen's College	.....	.....	29.68	753.9	49	9.4	.....	W	.....	.....	1	.....	10	.....	.....	.....	.....	*D. clouds	B. G. Clare, for Prof. Carr
Gibraltar, (Mediterranean)	.....	.....	30.30	769.6	55.4	13.0	.....	NE	.....	.....	6	.....	9	.....	.....	.....	.....	Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.64	752.8	49.1	9.5	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Squally	Lewis Stuart.
Great Yarmouth	.....	.....	30.14	765.5	42	5.6	.....	SW	.....	.....	3	.....	5	.....	.....	.....	.....	Hazy	G. T. Watson.
Greenwich Royal Obs.	.....	.....	30.17	766.3	46.2	7.9	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast	The Staff for G. B. Airy
Guernsey	.....	.....	30.25	768.3	45.5	7.5	.....	SSW	.....	.....	2	.....	6	.....	.....	.....	.....	*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	29.94	760.5	45.6	7.6	.....	SSW	.....	.....	4	.....	8	.....	.....	.....	.....	Threatening	L. J. Crossley.
Helston	.....	.....	30.18	766.6	51	10.6	.....	SW	.....	.....	2	.....	10	.....	.....	0	0	Misty	M. P. Moyle.
Holyhead	.....	.....	30.90	759.4	48	8.9	.....	SSW	.....	.....	6	.....	10	.....	.....	.....	.....	Hazy	John Tilston.
Kew Observatory	.....	.....	30.28	769.1	45.5	7.5	.....	SW	21	9.4	.....	.....	10	.....	.....	.....	.....	Misty	The Staff.
Kingstown	.....	.....	29.87	758.7	53	11.7	.....	WSW	.....	.....	4	.....	9	.....	.....	.....	.....	Overcast	George Mitchell.
Leicester Museum	.....	.....	30.08	764.0	46.2	7.9	.....	WSW ?	.....	.....	3	.....	5	.....	.....	.....	.....	*D. clouds	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.25	768.3	57.6	13.9	.....	NW	.....	.....	3	.....	6k	.....	.....	.....	.....	.....	Fred Travis, Pvt A. H. C
Nairn	.....	.....	29.45	748.0	47	8.3	.....	WSW	.....	.....	3	.....	10	.....	.....	.....	.....	Over ast	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.18	766.6	72.6	22.4	.....	SE	.....	.....	4	.....	8	.....	.....	.....	.....	*D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	30.04	763.0	45.5	7.5	.....	SW	.....	.....	3	.....	10d	.....	SW	.....	.....	Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.04	763.0	45.1	7.3	.....	SSW	.....	.....	6	.....	9	.....	.....	.....	.....	Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	30.11	764.8	46	7.8	.....	SSW	.....	.....	3	.....	10	.....	.....	.....	.....	Gloomy	J. Lucas.
Plymouth	.....	.....	30.17	766.3	48.8	9.3	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast	John Merrifield.
Roche's Point	.....	.....	29.96	761.0	50	10.0	.....	SW	.....	.....	5	.....	8	.....	.....	.....	.....	Cloudy	W. Kennedy.
Saint Ann's Head	.....	.....	30.04	763.0	48	8.9	.....	SSW	.....	.....	5	.....	10	.....	.....	.....	.....	Foggy	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.27	768.8	45.5	7.5	.....	S	.....	.....	4	.....	5	.....	.....	.....	.....	½ c ouded	A. P. Amy.
Sandwick Manse(Orkneys	.....	.....	29.37	746.0	46.9	8.3	.....	SW	19	8.5	.....	.....	10	.....	.....	.....	.....	Hazy	Rev. Dr. Clouston
Scarborough	.....	.....	29.92	760.0	45.2	7.3	.....	SW	.....	.....	5	.....	7	.....	.....	.....	.....	*D. clouds	F. Shaw.
Scutari Cemetery(Turkey	.....	.....	30.15	765.8	35.0	1.7	.....	NNE	.....	.....	2	.....	10	.....	.....	.....	.....	Snow & sleet	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.98	761.5	47.0	8.3	.....	WSW	.....	.....	4	.....	6	.....	.....	0	0	*D. clouds	W. F. Cooper.
Silloth Rectory	.....	.....	29.78	756.4	46.9	8.3	.....	SW	.....	.....	6	.....	10	.....	.....	0.234	5.94	Overcast	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	29.91	759.7	45.2	7.3	.....	S	.....	.....	2	.....	10	.....	.....	.....	.....	Gloomy	The Staff.
Stornoway, Lews C. (Hebr)	.....	.....	29.41	747.0	47	8.3	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast	John Smith.
Strathfield Turgiss	.....	.....	30.19	766.8	45.4	7.4	.....	SW	.....	.....	1–2	.....	10	.....	.....	.....	.....	Overcast	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.37	746.0	47	8.3	.....	SSW	.....	.....	3	.....	8	.....	.....	.....	.....	Overcast	John Trotter.
Truro, Royal Institution	.....	.....	30.14	765.5	51	10.6	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Gloomy	W. Newcombe.
Valencia Observatory	.....	.....	29.86	758.4	51.1	10.6	.....	SSW ?	45	20.1	.....	.....	10	.....	.....	.....	.....	*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.92	760.0	73.9	23.3	44	S	24	10.7	.....	.....	2	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Leith, Restalrig Park	.....	.....	29.68	753.9	51.8	11.0	.....	W	.....	.....	5	.....	10ks	.....	.....	0	0	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Youngel uso.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.94	760.4	36.5	2.5	91	WNW	.....	.....	2	.....	10	.....	.....	.....	.....	.....	.....
Fanöe	.....	.....	30.01	762.2	36.1	2.3	98	WSW	.....	.....	4	.....	10	.....	.....	.....	.....	.....	.....
Godthaab, (Greenland)	.....	.....	29.91	759.8	18.3	— 7.6	52	SSE	.....	.....	5	.....	2	.....	.....	.....	.....	.....	.....
Stykkisholm, (Iceland)	.....	.....	29.43	747.4	25.0	— 3.9	96	NE	.....	.....	8	.....	10	.....	.....	.....	.....	.....	.....
Thorshavn, (Faröe)	.....	.....	28.91	734.4	44.1	6.7	72	WSW	.....	.....	6	.....	3	.....	.....	.....	.....	Rain & hail	.....
Vestervig	.....	.....	29.87	758.7	37.0	2.8	96	SW	.....	.....	6	.....	10	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alengon			30.39	772.0	35.6	2	83	SW			1		10			0.04	1.	Covered	Normal School.
Amiens			30.30	769.5	41.4	5.2	81	NW			3		10			0	0	Covered	Normal School.
Avignon			30.38	771.6	48.2	9	65	N			2		10			0	0	Very clear	Normal School.
Bar-sur-Seine			30.42	772.6	40.1	4.5	92	SW			1		10			0.161	4.1	Covered	C. Saillard.
Beaumette, (near Angers)			30.36	771.1	43.9	6.6	100	SSW	3.1	1.4					SW	0.016	0.4	Raining	Beaumette Observatory
Beauvais			30.35	770.8	44.8	7.1	74	SW			1		8		WSW	0	0	Very cloudy	Normal School.
Besançon			30.47	773.9	39.9	4.4	90	SSW			2		8		SW	0.244	6.2	Very cloudy	Normal School.
Bourg en Bresse			30.54	775.8	35.6	2	92	SW			1		10n			0	0	Covered	Normal School.
Bourges			30.42	772.7	39.2	4	90	S			2		10		S	0.39	10.	Covered	Normal School.
Brest			30.19	766.9	48.4	9.1	92	SW			2		10		SSW	0.118	3.00	Rain & fog	Naval Observatory.
Caen			30.26	768.7	46.5	7.5	83	S			2		10		SW	0	0	Covered	Normal School.
Chartres			30.36	771.2	37.2	2.9		SW			3		10			0	0	Covered	Normal School.
Chaumont																			Normal School.
Clermont			30.46	773.6	43.7	6.5	63	NW			2					0	0	Misty	Puy de Dome, Obs
Commercy			30.44	773.1	36.1	2.3	96	SW			2		10		SW	0.059	1.5	Covered	Normal School.
Commune de Gréasque*			30.37	771.5	50.0	10.0	54	NW			1		0			0	0		
Grenoble			30.47	773.9	37.4	2.8	62	N			2		0			0	0	Clear	Normal School.
Le Mans			30.37	771.3	40.1	4.5	100	S			2		10			0.08	2.	Covered	Normal School.
Loches																			
Lons-Le-Saulnier			30.49	774.2	39.0	3.9	97	SSE			2		10			0.126	3.20		Normal School.
Mâcon			30.46	773.6	36.5	2.5	58	S			1		10			0.043	1.1	Covered	Normal School.
Mirecourt			30.43	773.0	35.2	1.8	85	SSW			2		8		NNE	0	0	Almost ev'd.	Normal School.
Metz																			
Nismes			30.39	772.0	48.9	9.4	73	N			2		0			0	0	Clear	Normal School.
Orleans			30.37	771.5	38.5	3.6	97	SW			3		10			0	0	Covered	Normal School.
Paris Observatory			30.37	771.3	38.5	3.7	97	S			2		10			0.053	1.35	Foggy	National Observatory.
Parthenay			30.38	771.7	41.9	5.5	95	SW			4		5		SW	0.24	6.	Cloudy	Normal School.
Privas			30.46	773.6	42.3	5.7		W			1		2		W	0	0	Slightly cl'dy	Normal School.
La Roche-sur-Yon			30.34	770.6	43.5	6.4	94	E			1		10			0.140	3.7	Covered	Normal School.
Rochefort, Observatory			30.40	772.1	41.2	5.1	92	SE			3		10		NW	0	0	Covered	Naval Observatory.
Rouen			30.33	770.3	45.3	7.4	69	SSW			2		10		S	0	0	Covered	Normal School.
Saint Lo			30.31	770.5	47.3	8.5	66	WSW			1		3		W	0	0		Normal School.
Tarbes			30.39	771.8	46.4	8	61	SW			2		0			0	0	Clear	Normal School.
Toulouse			30.42	772.7	46.4	8.0	93	NW			2		10					Covered	Normal School
Villefranche			30.54	775.8	39.4	4.1	87	SSW			1		10			0.12	3.	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.93	760.1	77.0	25	85	NE			3		8k			0.16	4.		L'Abbé Marchési.
Gorée																			
Marseilles			30.34	770.5	53.2	11.8	75	W			1		1			0	0		Marseilles Observatory
Mont-Louis			30.59	774.6	38.3	3.5		N	0.0	0.00			0			0	0		—. Faiguère.
Montsouris, Paris	24.16	636.0	30.35	770.9	38.	3.6	98	S			2		10			Inap.	Inap.		Montsouris Observ'tory
Perpignan			30.36	771.2	53.2	11.8	70	SE	1.9	0.83			0			0	0		Dr. Finos.
Pic du Midi, (Summit) H. P.	21.43	541.8			24.1	— 4.4		W			3		0			0	0	Clear	M. Baylac.
Saint Maur, (near Paris)			30.35	771.0	38.5	3.6	98	SSW			1		10			0.047	1.2	Drizzling	E. Renou.
Toulouse			30.43	772.8	38.7	3.8	97	NNW			1		10			0	0	Dense Fog	Toulouse Observatory.
Tours			30.37	771.5	41.2	5.1	98	SW			1		10			0.150	3.8	Rainy	C. Marquet.
Versailles, (near Paris)			30.31	770.6	40.5	4.6	93	W			1		10			0.022	0.56	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.46	773.6	32.0	0.0	81	N	5.8	2.6		0	10			{ C. 0 / 0 0 }	{ 0 / 0 }	Misty	H. Le Lee, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			30.25	768.4	35.2	1.8	97	W			3		10			0	0		Prof. T. Hoh.
Berlin			30.21	767.3	40.8	4.9	82	SW			4		8			0.031	0.8		Prof. Arndt.
Breslau			30.24	768.2	36.3	2.4	87	WNW			4		3			0	0		Dr. P. Neugebauer
Carlsruhe			30.41	772.3	38.8	3.8	86	SSW			2		10			0.126	3.2		A. Senz.
Cassel			30.32	770.2	39.0	3.9	84	SSW			2		9			0.122	3.1	Raining	Dr. H. Möhl.
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main			30.47	774.0	38.1	3.4	96	SW			1		10			0.024	0.6	Foggy	Physical Society.
Friedrichshafen			30.52	775.1	37.4	3.0	75	SW					10			0	0		M. Wilhelm.
Hamburg			30.17	766.4	37.8	3.2	97	WSW			4		10			0.016	0.4	Misty	Deutsche Seewarte.
Kiel			30.11	764.8	36.5	2.5	98	SW			4		10			0.012	0.3		Prof. G. Karsten.
Königsberg			29.82	757.3	37.0	2.8	79	W			5		0			0.146	3.7		Prof. E. Luther.
Köslin			30.03	762.8	35.6	2.0		W			4		10			0.110	2.8		H. Müller.
Leipsic			30.31	769.8	38.1	3.4	82	SW			6		10			0.047	1.2		Prof. Bruhns.
Münster			30.26	768.5	40.1	4.5	84	SW			1		10			0.004	0.1		Prof. E. Heis.
Posen			30.20	767.0	34.7	1.5	100	W			4		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.45	773.3	39.4	4.1	92	S			1		10			0	0		Dr. Schur.
Stuttgart			30.46	773.6	40.5	4.7	71	W					10			0.031	0.8		Mr. Würth.
Thorn			29.99	761.8	38.1	3.4	81	NW			4		10			Inap.	Inap.		Dr. Hasenbalg
Treves, (Trier)			30.33	770.3	37.6	3.1	91	SW			2		10			0	0	Light fog	Prof. Flesch.
Wustrow, Naval School			30.10	764.6	34.3	1.3	100	SW			4		10			0.264	6.7	Misty	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.15	765.9	44.6	7.0		NW										Half clear	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.30	769.6	38.8	3.8	50	Calm			0		1			0	0		
Padua			30.37	771.3	36.7	2.6	98	SW	1.3	0.6			0			0	0	Light fog.	
Verona			30.37	771.4	41.0	5.0	80	E			1		10			0	0		
Bergamo			30.30	769.7	34.5	1.4	80	NE			2		1			0	0		
Milan			30.38	771.7	31.5	— 0.3	94	NW			1		10			0	0		
Moncalieri			30.40	772.3	26.8	— 2.9	93	NNE	3.1	1.4			0			0	0		
Mondovi			30.38	771.6	34.2	1.2	43	ESE			2		0			0	0		
Porto Maurizio			30.39	771.8	50.4	10.2		E			2		0			0	0		
Genoa			30.35	771.0	49.1	9.5	62	SW	1.8	0.8			0			0	0		
Piacenza			30.41	772.3	31.8	— 0.1	98	WNW	8.1	3.6			0			0	0		
Bologna			30.40	772.1	28.6	— 1.9	52	NW			1		10			0	0	Light fog.	
Florence			30.37	771.4	43.5	6.4	51	S			2		0			0	0		
Leghorn			30.34	770.7	48.4	9.1	75	NE	6.3	2.8			3			0	0		
Siena			30.34	776.7	43.0	6.1	65	NNW	0	0			0			0	0		
Urbino																			
Pesaro																			
Ancona			30.41	772.3	38.8	3.8	89	NW			4		10			0	0		
Rome			30.36	771.1	50.0	10.0	43	NNE	1.3	0.6			0			0	0		
Naples, O. U.			30.35	770.9	51.3	10.7	44	NE			2		0			0	0		
Lecce			30.26	768.7	43.2	6.2	54	N	15.0	6.7			6	N		0	0		
Cosenza			30.33	770.3	45.3	7.4	77	N			2		0			0	0		
Riposto, (Sicily)			30.25	768.3	54.3	12.4	51	NE			2		4			0	0		
Palermo			30.27	768.8	53.1	11.7	50	NW	6.9	3.1			4			0	0		
Caltanissetta			30.27	768.9	45.5	7.5	50	NW			6		0	SE		0	0		
Sub-Series.																			
Naples, S. R.			30.35	770.8	51.6	10.9	48	WSW			4					0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.28	769.2	40.3	4.6		SW			3								
Groningen			30.11	764.7	37.6	3.1		SW			1								
Helder			30.15	765.8	39.9	4.4		SSW			4								
Utrecht			30.21	767.3	39.6	4.2	82	SSW			3		10					Dull	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.60	751.9	38.5	3.6	93	S	23.0	10.3			10						
Brönö			29.58	751.2	40.6	4.8	64	E	2	1			3			1.063	27.0	Raining	
Christiania			29.68	753.8	30.6	— 0.8	83		0.4	0.2			10			0	0		
Tromsö			29.67	753.6	12.4	—10.9	90	E	2	1			3			0.165	4.2		
																0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.22	767.6	58.8	14.9	84	SSE	5.7	2.56	.....	.....	5	.....	.....	0.039	1.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.07	779.0	53.2	11.8	43	E	4.1	1.84	.....	.....	1	E	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.21	767.4	60.8	16.0	57	E	7.0	3.13	.....	.....	1	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.32	770.2	48.7	9.3	51	ENE	7.4	3.3	.....	.....	0	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Warsaw	.....	.....	29.99	761.7	34.9	1.6	94	W	25	11	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	29.68	753.8	33.6	0.9	100	W	4	2	.....	.....	10	.....	.....	.....	.....	Snowing.....	Astronomical Obs.
Dorpat	.....	.....	29.52	749.7	25.7	— 3.5	92	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.55	750.5	26.8	— 2.9	96	SSE	9	4	.....	.....	10	.....	.....	.....	.....	Light snow..	Central Physical Obs
Kuopio	.....	.....	29.53	750.0	17.1	— 8.3	100	NE	.....	.....	.....	.....	10	.....	.....	0.022	0.55	Snowing.....	Ch. Forsten.
Kieff	.....	.....	29.96	761.0	20.7	— 6.3	98	S	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.16	766.1	20.1	— 6.6	65	W	4	2	.....	.....	7	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.12	765.1	19.9	— 6.7	84	NNW	7	3	.....	.....	6	.....	.....	.....	.....	Light snow..	Lagorio.
Moscow	.....	.....	30.00	762.1	16.5	— 8.6	88	SSE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.00	762.0	10.8	—11.8	82	NW	22	10	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.87	758.8	—11.9	—24.4	79	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.50	724.0	29.99	761.7	30.2	— 1.0	90	Calm	0	0	.....	.....	8	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.16	766.1	10.6	—11.9	89	WNW	4	2	.....	.....	3	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.01	762.2	18.3	— 7.6	97	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	28.94	735.1	30.02	762.4	14.7	— 9.6	96	Calm	0	0	.....	.....	9	.....	.....	.....	.....	.....	Bobrof.
Tashkend	.....	.....	30.05	763.2	13.0	—10.2	73	E	4	2	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	28.56	725.5	30.37	771.3	29.8	— 1.2	88	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.30	769.5	2.7	—16.3	75	S	7	3	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	29.87	758.8	8.4	—13.1	88	S	11	5	.....	.....	10	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.46	773.7	22.6	— 5.2	27	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	28.22	716.7	30.59	776.9	—13.9	—25.5	77	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.37	771.4	5.9	—14.5	74	NW	11	5	.....	.....	0	.....	.....	.....	.....	.....	.....
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—15.0	—26.1	.....	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Madrid	.....	.....	30.36	771.1	46.9	8.3	54	N	2.9	1.3	.....	0	0	.....	.....	0	0	Clear.....	Royal Observatory.
San Fernando	.....	.....	30.26	768.7	57.9	14.4	58	ESE	16.3	7.3	.....	0	2	.....	ESE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Haparanda	.....	.....	29.72	755.0	6.8	—14.0	91	E	.....	.....	2	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	29.56	750.8	16.5	— 8.6	100	NNE	.....	.....	4	.....	10	.....	.....	0	0	Light snow..	
Hernosand	.....	.....	29.50	749.3	23.0	— 5.0	90	NNW	.....	.....	2	.....	9	.....	.....	0.315	8.0	.....	
Stockholm	.....	.....	29.63	750.1	30.9	— 0.6	71	W	.....	.....	4	.....	0	.....	.....	0.031	0.8	.....	
Wisby	.....	.....	29.08	753.8	35.6	2.0	78	W	.....	.....	6	.....	3	.....	.....	0.122	3.1	.....	
Sub-Series.																			
Upsala	.....	.....	29.56	750.7	30.6	— 0.8	75	W	12.1	5.4	.....	.....	1	NW	.....	0.126	3.21	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.00	736.5	30.50	774.7	29.8	— 1.2	100	S	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.76	730.4	30.45	773.5	36.9	2.7	83	NW	.....	.....	1	.....	10	.....	.....	0	0	Overcast	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +8.9 mm.; Thermometer, —2.7 cent.; Relative Humidity, +21 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.16	766.1	34.0	1.1	85	NNE	12	5.5	.....	.....	10	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.08	764.0	57.2	14.0	.....	NW	.....	.....	3	.....	5	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.24	768.0	38.8	3.8	.....	NW	.....	.....	4	.....	0	.....	.....	.....	.....	.....	
Valona	.....	.....	30.06	763.4	45.1	7.3	.....	NW	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Varna	.....	.....	30.12	765.0	26.6	— 3.0	.....	NW	.....	.....	2	.....	5	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.59	751.5	59.7	15.4	62	N	.....	.....	2	.....	3k	.....	N	0	0	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.31	744.5	32.7	0.4	97	Calm	0	0	.....	.....	10s	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.58	751.3	39	3.9	.....	SW	12	5.4	.....	.....	10s	.....	SW	0.66	16.8	Cloudy	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.38	746.2	39	3.9	61	SW	12	5.4	.....	2k	8ks	SW	SW	0.52	13.2	Cloudy	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	29.47	748.5	41	5.0	96	S	8	3.6	.....	.....	10n	.....	.....	0.480	12.19	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.65	753.1	43.7	6.5	78	SW	.....	.....	6	.....	10s	.....	.....	0.765	19.43	Unsettled	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.38	746.2	30.2	— 1.0	94	W	.....	.....	2	10k	.....	.....	.....	0.25	6.3	Cloudy	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.95	760.7	34.1	1.2	91	N	6	2.7	.....	.....	10	.....	.....	0	0	Snow	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.47	748.5	43.7	6.5	92	W	6	2.7	.....	.....	10n	.....	.....	0.390	9.91	Foggy	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.18	766.6	2	—16.7	100	N	11	4.9	.....	.....	10n	.....	.....	0	0	Cloudy	James Stewart.
Goderich, Ontario	.....	.....	29.53	750.0	36.6	2.6	93	SW	.....	.....	3	.....	10n	.....	.....	0.776	19.74	Raining	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.52	749.8	40.0	4.4	.....	SW	.....	.....	3	.....	10n	.....	.....	0.42	10.7	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	29.60	751.8	41	5.0	95	SW	16	7.2	.....	.....	10n	.....	.....	0.359	9.12	Cloudy	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.58	751.3	37	2.8	94	SW	10	4.5	.....	10c	0	W	.....	0.73	18.5	Fair	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.43	747.5	31.8	— 0.1	.....	Calm	0	0	.....	.....	10s	.....	.....	0.94	23.9	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.42	747.3	45	7.2	80	SW	20	12.1	.....	Haze	5ks	.....	.....	0.99	25.1	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.43	747.5	40	4.4	74	SW	16	7.2	.....	.....	10n	.....	SW	0.95	24.1	Threatening	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.48	748.8	33	0.6	100	S	7	3.1	.....	.....	10n	.....	SE	0.73	18.5	Foggy	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.57	751.1	40	4.4	91	SW	7	3.1	.....	10k	0	SW	.....	0.58	14.7	Fair	H. Morgan.
Port Hastings, N. S.	.....	.....	29.56	750.8	45.8	7.7	.....	Calm	0	0	.....	.....	.....	.....	.....	1.02	41.1	Fine	P. ter Grant.
*Port Stanley Ontario	.....	.....	29.60	751.8	36	2.2	92	W	27	8.9	.....	.....	10n	.....	W	0.60	15.2	Lich [illegible]	M. Payne.
*Quebec, Quebec	.....	.....	29.42	748.8	29	— 1.7	94	NE	10	4.5	.....	.....	10n	.....	NE	0.43	10.9	Cloudy	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.58	751.3	38.0	3.3	100	S	6	2.7	.....	.....	10n	.....	.....	0.162	4.11	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.49	749.0	33	0.6	89	SW	2	0.9	.....	.....	10n	.....	.....	1.10	27.9	Light snow	K. Stewart.
Stayner, Ontario	.....	.....	29.49	749.0	36	2.2	95	SE	4	1.8	.....	10cs	10n	SW	W	0.49	12.4	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	29.52	749.8	39.6	4.2	89	SW	13	5.8	.....	.....	10n	.....	.....	0.509	12.93	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.65	753.1	41	5.0	98	SW	14	6.3	.....	.....	10n	.....	.....	0.85	21.6	Cloudy	T. C. Hill.
*Toronto, Ontario	.....	.....	29.56	750.8	36	2.2	90	SW	1	0.4	.....	2cs	5ks	SW	SW	0.60	15.2	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	29.53	750.0	41.6	5.3	100	SW	1	0.4	.....	.....	10s	.....	.....	0.37	9.4	Gr[illegible]omy	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.61	752.1	52	11.1	86	S	6	2.7	.....	.....	10ks	.....	SW	0.05	1.3	Cloudy	
Alpena, Mich	.....	.....	29.50	749.3	32	0.0	100	NW	6	2.7	.....	.....	10n	.....	.....	0.25	6.3	Light snow.	
Atlantic City, N. J	.....	.....	29.77	756.1	44	6.7	100	SW	7	3.1	.....	.....	10n	.....	SW	0.01	0.3	Light rain	
Augusta, Ga.	.....	.....	29.92	760.0	65	18.3	89	S	4	1.8	.....	.....	10n	.....	SW	Inap.	Inap.	Light rain	
Baltimore, Md.	.....	.....	29.68	753.9	60	15.6	82	SW	2	0.9	.....	8clk	Sm'e	.....	SW	0.01	0.3	Cloudy	
Barnegat, N. J.	.....	.....	29.73	755.1	47	8.3	92	SW	20	8.9	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Benton, Montana	27.27	692.6	30.07	763.8	9	−12.8	100	NE	4	1.8	.....	.....	10n	.....	.....	0 14	3.6	Light snow.	
Bismarck, Dakota	28.28	718.3	30.10	764.5	1	−17.2	72	NW	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Boston, Mass.	.....	.....	29.62	752.3	54	12.2	93	SW	16	7.2	.....	.....	10s	.....	SW	0.05	1.3	Cloudy	
Breckenridge, Minn	.....	.....	30.12	765.0	5	−15.0	88	N	18	8.0	.....	.....	10s	.....	N	0.02	0.5	Cloudy	
Buffalo, N. Y.	.....	.....	29.55	750.6	39	3.9	86	SW	8	3.6	.....	.....	10ks	.....	SW	0.72	18.3	Cloudy	
Burlington, Vt.	.....	.....	29.49	749.0	50	10.0	72	S	7	3.1	.....	5k	2s	W	.....	0.18	3.3	Cloudy	
Cairo, Ill.	.....	.....	30.05	763.3	35	1.7	61	N	20	8.9	.....	1k	0	N	.....	0.20	5.1	Clear	
Cape Hatteras, N. C.	.....	.....	29.93	760.2	62	16.7	88	SW	18	8.0	.....	8c	Haze	.....	.....	0.03	0.8	Fair	
Cape Henry, Va.	.....	.....	29.86	758.4	60.5	19.2	71	S	16	7.2	.....	8c	2s	SW	.....	0	0	Cloudy	
Cape May, N. J.	.....	.....	29.78	756.4	46	7.8	92	S	14	6.3	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Charleston, S. C.	.....	.....	30.02	762.5	62	16.7	88	S	16	7.2	.....	5k	5s	S	S	0	0	Cloudy	
Cheyenne, Wyoming	23.92	607.6	29.86	758.4	13	−10.6	61	NW	20	8.9	.....	0	2s	.....	.....	0	0	Clear	
Chicago, Ill.	.....	.....	29.80	756.9	27	−2.8	88	W	12	5.4	.....	8k	0	NW	.....	1.35	34.3	Fair	
Cincinnati, Ohio	.....	.....	29.71	754.6	45	7.2	68	NW	12	5.4	.....	.....	10s	.....	NW	1.62	41.1	Cloudy	
Cleveland, Ohio	.....	.....	29.67	754.1	46.1	7.8	89	SW	10	4.5	.....	.....	10n	.....	SW	0.33	8.4	Light rain	
Colorado Springs, Col.	24.04	610.6	29.92	760.0	18	−7.8	52	S	8	3.6	.....	5cs	0	SW	.....	0	0	Fair	
Corsicana, Tex.	.....	.....	30.31	769.9	39	3.9	81	NW	7	3.1	.....	0	0	.....	.....	0	0	Clear	
Davenport, Iowa	.....	.....	29.97	761.2	22	−5.6	86	NW	24	10.7	.....	.....	10s	.....	NW	0.96	24.4	Cloudy	
Denison, Tex.	.....	.....	30.30	769.6	35	1.7	69	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Denver, Col.	24.75	628.6	29.97	761.2	24	−4.4	48	N	16	7.2	.....	0	0	.....	.....	0.18	4.6	Clear	
Detroit, Mich.	.....	.....	29.57	751.1	38	3.3	80	W	12	5.4	.....	.....	10ks	.....	W	0.37	9.4	Cloudy	
Dodge City, Kan.	27.53	699.2	30.01	762.2	15	−9.4	82	W	6	2.7	.....	5c	0	.....	.....	Inap.	Inap.	Fair	
Dubuque, Iowa	.....	.....	29.94	760.5	21	−6.1	57	NW	12	5.4	.....	.....	10s	.....	.....	0.12	3.0	Threatening	
Duluth, Minn.	.....	.....	29.97	761.2	10	−12.2	79	Calm	0	0	.....	.....	10s	.....	.....	0.03	0.8	Cloudy	
Eastport, Me.	.....	.....	29.52	749.8	42	5.6	100	S	10	4.5	.....	Haze	Fog	.....	.....	0.21	5.3	Foggy	
Erie, Pa.	.....	.....	29.54	750.3	48	8.9	80	S	14	6.3	.....	.....	8s	.....	SW	0.38	9.7	Fair	
Escanaba, Mich.	.....	.....	29.67	753.6	25	−3.9	87	NW	16	7.2	.....	.....	10s	.....	NW	0	0	Cloudy	
Fort Gibson, Indian Terr.	.....	.....	30.26	768.6	30	−1.1	78	NW	9	4.0	.....	0	2ks	.....	N	0	0	Fair	
Fort Sill, Indian T.	29.04	737.6	30.23	767.8	28	−2.2	59	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Fort Sully, Dakota	28.32	719.3	30.13	765.3	8	−13.3	78	Calm	0	0	.....	.....	8s	.....	NW	0	0	Cloudy	
Galveston, Tex.	.....	.....	30.20	767.1	53	11.7	64	N	40	17.9	.....	0	0	.....	.....	0	0	Clear	
Grand Haven, Mich.	.....	.....	29.74	755.4	34	1.1	79	NW	17	7.6	.....	.....	10n	.....	.....	1.07	27.2	Light snow.	
Indianapolis, Ind.	.....	.....	29.82	757.4	36	2.2	80	NW	11	4.9	.....	.....	10s	.....	W	0.18	4.6	Cloudy	
Indianola, Tex.	.....	.....	30.25	768.6	50	10.0	94	N	36	16.1	.....	2cs	0	SW	.....	0	0	Fair	
Jacksonville, Fla.	.....	.....	30.06	763.5	54	12.2	88	S	12	5.4	.....	10k	0	S	.....	0	0	Cloudy	
Keokuk, Iowa	.....	.....	29.99	761.7	26	−3.3	76	NW	6	2.7	.....	0	0	.....	.....	0.35	8.9	Clear	
Key West, Fla.	.....	.....	30.17	766.3	72.8	22.7	90	SE	6	2.7	.....	1c	2s	.....	SE	0.09	2.3	Hazy	
Kittyhawk, N. C.	.....	.....	29.95	760.7	60	15.6	88	SW	18	8.0	.....	5k	2s	SW	.....	0	0	Fair	
Knoxville, Tenn.	.....	.....	29.77	756.1	56	13.3	74	SW	10	4.5	.....	.....	10ks	.....	SW	0.80	20.3	Cloudy	
La Crosse, Wis.	.....	.....	29.92	760.0	18	−7.8	68	NW	6	2.7	.....	.....	10s	.....	NW	0.02	0.5	Threatening	
Leavenworth, Kan.	.....	.....	30.13	765.3	24	−4.4	83	W	6	2.7	.....	0	0	.....	.....	0.06	1.3	Fair	
Lexington, Ky.	28.67	728.2	29.77	756.1	48	8.9	85	W	12	5.4	.....	.....	10s	.....	SW	0.16	4.1	Cloudy	
Long Branch, N. J.	.....	.....	29.73	755.1	48	8.9	86	SW	10	4.5	.....	.....	10n	.....	.....	0.01	0.3	Light rain	
Louisville, Ky.	.....	.....	29.82	757.4	49	4.4	73	W	16	7.2	.....	.....	10s	.....	W	0.21	30.7	Cloudy	
Lynchburg, Va.	.....	.....	29.71	754.6	61	16.1	88	S	6	2.7	.....	.....	10s	.....	S	0.18	4.6	Cloudy	
Malone, N. Y.	.....	.....	29.43	747.5	48	8.9	70	SW	20	8.9	.....	.....	10ks	.....	SW	0.40	10.2	Cloudy	
Marquette, Mich.	.....	.....	29.72	754.9	22	−5.6	86	NW	20	8.9	.....	.....	10s	.....	NW	0.02	0.5	Cloudy	
Memphis, Tenn.	.....	.....	30.04	763.0	43	6.1	75	NW	16	7.2	.....	.....	10ks	.....	NW	0.36	9.1	Cloudy	
Milwaukee, Wis.	.....	.....	29.79	756.7	21	−6.1	86	W	23	10.3	.....	.....	8ks	.....	W	0.75	19.1	Cloudy	
Mobile, Ala.	.....	.....	30.02	762.5	57	13.9	93	Calm	0	0	.....	.....	8s	.....	W	0.12	3.0	Cloudy	
Montgomery, Ala.	.....	.....	29.97	761.2	58	14.4	91	SW	6	2.7	.....	.....	10s	.....	NW	2.31	58.6	Threatening	
Morgantown, W. Va.	.....	.....	29.94	760.8	52	11.1	79	Calm	0	0	.....	.....	10s	.....	SW	0.24	6.1	Cloudy	
Mt. Washington, N. H.	23.23	590.0	29.59	751.6	32	0.0	100	NW	90	40.2	.....	.....	Fog	.....	.....	0.90	22.9	Foggy	
Nashville, Tenn.	.....	.....	29.84	757.9	50	10.0	68	NW	9	4.0	.....	10k	0	NW	.....	0.78	19.8	Cloudy	
New Haven, Conn.	.....	.....	29.70	754.4	46	7.8	100	Calm	0	0	.....	.....	Fog	.....	.....	0.02	0.5	Foggy	
New London, Conn.	.....	.....	29.72	754.9	45.5	7.5	96	W	4	1.8	.....	.....	Fog	.....	W	0.02	0.5	Foggy	
New Orleans, La.	.....	.....	30.04	763.5	59	15.0	76	W	6	2.7	.....	.....	10s	.....	W	1.90	48.3	Cloudy	
Newport, R. I.	.....	.....	29.72	754.9	44	6.7	100	S	10	4.5	.....	.....	Fog	.....	.....	0	0	Foggy	
New York, N. Y.	.....	.....	29.72	754.9	55	12.8	93	SW	8	3.6	.....	.....	10ks	.....	W	0	0	Cloudy	
Norfolk, Va.	.....	.....	29.86	758.4	63	17.2	78	SW	10	4.5	.....	5c	2s	SW	S	0	0	Fair	
North Platte, Neb.	27.05	687.3	29.84	757.2	15	−9.4	82	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Omaha, Neb.	28.95	735.3	30.08	764.0	22	−5.6	93	W	4	1.8	.....	.....	10s	.....	NW	0	0	Cloudy	
Oswego, N. Y.	.....	.....	29.58	751.3	50	10.0	71	SW	4	1.8	.....	.....	10s	.....	W	0.28	7.1	Cloudy	
Peck's Beach, N. J.	.....	.....	29.75	755.6	46	7.8	92	SW	14	6.3	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Pembina, Dakota	.....	.....	30.14	765.5	7	−13.9	100	NW	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Philadelphia, Penn.	.....	.....	29.74	755.4	57	13.9	87	SW	11	4.9	.....	8ck	2s	SW	.....	0	0	Cloudy	
Pike's Peak, Colorado	17.34	440.4	29.55	750.6	−13	−25.0	100	W	60	26.8	.....	0	0	.....	.....	0	0	Clear	
Pittsburgh, Penn.	.....	.....	29.60	751.8	51	10.6	86	SW	6	2.7	.....	.....	10s	.....	SW	0.03	0.8	Cloudy	
Port Huron, Mich.	.....	.....	29.52	749.8	39	3.9	81	SW	18	8.0	.....	.....	10s	.....	SW	0.36	9.1	Threatening	
Portland, Me.	.....	.....	29.58	751.3	42	5.6	83	S	4	1.8	.....	5c	5s	.....	SW	0.10	2.5	Cloudy	
Portland, Oregon	.....	.....	29.61	752.1	44	6.7	76	S	16	7.2	.....	.....	8s	.....	SW	0.94	23.9	Cloudy	
Punta Rassa, Fla.	.....	.....	30.15	765.8	66.8	19.3	93	SE	14	6.3	.....	8cs	Haze	SE	SE	Inap.	Inap.	Cloudy	
Rochester, N. Y.	.....	.....	29.55	750.6	45	7.2	84	W	9	4.0	.....	2c	5s	W	W	0.30	7.6	Fair	
Salt Lake City, Utah	25.58	649.7	29.91	759.7	25	−3.9	75	SW	1	0.4	.....	.....	10s	.....	.....	0.04	1.0	Cloudy	
Sandy Hook, N. J.	.....	.....	29.73	755.1	50	10.0	90	SW	1	0.4	.....	.....	10ks	.....	SW	0.06	1.5	Cloudy	
San Diego, Cal.	.....	.....	30.20	767.1	50	10.0	77	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear	
San Francisco, Cal.	.....	.....	30.25	768.3	47	8.3	92	W	8	3.6	.....	Haze	5s	.....	W	0	0	Fair	
Santa Fe, N. M.	23.31	592.1	29.85	758.2	9	−12.8	.....	NE	4	1.8	.....	0	1cs	.....	.....	0	0	Clear	
Savannah, Ga.	.....	.....	30.04	763.0	62	16.7	86	S	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy	
Shreveport, La.	.....	.....	30.24	768.1	42	5.6	94	NW	7	3.1	.....	10k	0	WSW	.....	0	0	Cloudy	
Smithville, N. C.	.....	.....	30.01	762.2	60	15.6	88	SW	12	5.4	.....	1k	0	SW	.....	0	0	Fair	
Springfield, Mass.	.....	.....	29.66	753.4	48.5	9.2	92	S	4	1.8	.....	.....	10ks	.....	S	0.05	1.3	Cloudy	
St. Louis, Mo.	.....	.....	30.01	763.3	30	−1.1	78	NW	12	5.4	.....	0	0	.....	.....	0.12	3.0	Clear	
St. Marks, Fla.	.....	.....	30.02	762.5	63	17.2	94	S	13	5.8	.....	2c	2ks	.....	S	0.04	1.0	Fair	
St. Paul, Minn.	.....	.....	29.97	761.2	8.5	−13.1	78	NW	11	4.9	.....	10es	0	NW	.....	0	0	Cloudy	
St. Paul's Island, Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squam Beach, N. J.	.....	.....	29.69	754.1	46	7.8	92	S	13	5.8	.....	2c	8s	.....	S	0	0	Cloudy	
Thatcher's Island, Mass.	.....	.....	29.62	752.3	43	6.1	94	W	9	4.0	.....	.....	10s	.....	W	0	0	Cloudy	
Toledo, Ohio	.....	.....	29.52	752.3	41	5.0	74	W	10	4.5	.....	.....	10ks	.....	W	0.23	5.8	Cloudy	
Tucson, Arizona	27.78	705.6	30.25	768.3	33	0.6	.....	SW	.....	.....	.....	2c	0	W	.....	0	0	Fair	
Tybee Island, Ga.	.....	.....	30.03	763.0	60	15.6	94	S	12	5.4	.....	Haze	5s	.....	SW	0	0	Fair	
Vicksburg, Miss.	.....	.....	30.16	766.1	47	8.3	92	NW	11	4.9	.....	Haze	2s	.....	.....	0.88	22.4	Clear	

UNITED STATES SERIES.—CONTINUED.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.00	609.6	29.48	748.8	14	—10.0	72	Calm	0	0	.....	.....	10ks	.....	.....	0	0	Cloudy	
Washington, D. C	.....	.....	29.73	755.1	58.5	14.7	84	S	16	7.2	.....	.....	10s	.....	SW	0	0	Cloudy	
Wilmington, N. C	.....	.....	29.99	761.7	66	18.9	78	SW	18	8.0	.....	2cs	0	SW	.....	Inap.	Inap.	Fair	
Wood's Holl, Mass	.....	.....	29.69	754.1	44	6.7	100	SW	10	4.5	.....	.....	Fog	.....	.....	0	0	Foggy	
Wytheville, Va	27.41	696.2	29.50	749.3	54	12.2	93	W	4	1.8	.....	10k	0	W	.....	0.27	6.9	Cloudy	
Yankton, Dakota	28.79	733.8	30.20	767.1	11	—11.7	69	N	1	0.4	.....	0	2s	.....	NW	0	0	Fair	
Yuma, Arizona	.....	.....	30.25	768.3	43	6.1	.....	NE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.04	763.0	79	26.1	90	NE	4	1.8	.....	2ck	8s	S	NE	0.10	2.5	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, d	.....	.....	30 03	762.7	75	23.9	85	NE	.....	.....	.....	0	5k	.....	.....	0.11	2.8	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.14	765.5	70	21.1	90	Calm	0	0	.....	1c	0	WNW	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.26	768.6	73	22.8	76	Calm	0	0	.....	0	0	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.32	770.1	75	23.9	76	E	12	5.4	.....	2c	8k	E	.....	0	0	Fair	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.94	760.5	74	23.3	72	NE	3.2	1.4	.....	0	2k	.....	.....	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.35	770.9	63.5	17.5	78	S	3.0	1.3	.....	10s	2ks	SW	.....	0	0	Cloudy	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	29.73	755.1	—18.5	—28.1	67	Calm	0	0	.....	1c	0	NW	.....	0.11	2.8	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.08	764.0	30.0	— 1.1	.....	SE	.....	.....	.....	.....	10n	.....	.....	0.23	5.8	Snowing	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.31	693.7	30.12	765.0	65	18.3	83	N	1.0	0.4	.....	0	0	.....	.....	0	0	Fine	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.23	640.9	.....	.....	64.0	17.8	85	.....	0	0	.....	.....	10s	.....	.....	0.06	1.5	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.96	761.0	81	27.2	82	E	.....	.....	3	.....	10n,ks	.....	.....	0.025	0.64	Showery	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.04	762.9	81.5	27.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.148	3.75	.....	Dr. H. Groot.

MARINE SERIES.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—	
Steamer Nürnberg, N. 49° 54′, W. 24° 56′	W	.. ..	29.70	754.4	47.8	8.8	.....	W?	.....	.....	8?	.....	7k	.....	WNW	Heavy sea.	WNW	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 20, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.13	765.4	50.7	10.4	70	SE	.....	.....	3	.....	10	.....	.....	0.205	5.2	Hidden.	Charnot.
Algiers	.....	.....	30.18	766.6	55.4	13.0	47	SSE	.....	.....	2	.....	10	.....	.....	0	0	Hidden.	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.39	771.9	55.2	12.9	75	ENE	.....	.....	2	.....	6	.....	.....	0	0	Fair.	Jacques.
Sfax	.....	.....	30.43	773.0	61.3	16.3	61	E	.....	.....	1	.....	3	.....	.....	0	0	Fair.	Chauvey.
Saida	.....	.....	30.15	765.8	50.0	10.0	28	SSW	.....	.....	3	.....	2	.....	.....	0	0	Clear.	Grosjean.
Tebessa	.....	.....	30.38	771.6	48.0	8.9	.....	SW	.....	.....	3	.....	3	.....	.....	0	0	Fair.	Colin.
Gerlville	.....	.....	30.22	767.6	37.0	2.8	63	SE	.....	.....	5	.....	6	.....	.....	0	0	Fair.	Buard.
Laghouat	.....	.....	30.31	769.8	44.6	7.0	71	SE	.....	.....	2	.....	3	.....	.....	0	0	Fair.	Simon.
Biskra	.....	.....	30.32	770.1	60.1	15.6	21	SE	.....	.....	1	.....	10	.....	.....	0	0	Hidden.	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.33	770.4	27.1	— 2.7	92	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. Ivan Stosir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.21	767.4	36.7	2.6	79	W	.....	.....	1	.....	6	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.34	770.7	40.6	4.8	98	S	.....	.....	1	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	29.02	737.2	30.31	769.8	28.4	— 2.0	70	SW	.....	.....	2	.....	0	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.87	733.2	30.39	771.9	28.0	— 2.2	83	SE	.....	.....	1	.....	8	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.89	733.7	30.30	769.6	33.1	0.6	82	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	.....	.....	30.17	766.2	31.6	— 0.2	96	NW	.....	.....	2	.....	4	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.38	771.6	28.0	— 2.2	100	S	.....	.....	2	.....	10	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.42	772.6	39.4	4.1	85	W	.....	.....	0	.....	8ks	.....	.....	0	0	.....	I.R. Hydrographic Office
Szegedin	.....	.....	30.38	771.6	29.8	— 0.2	95	SW	.....	.....	2	.....	3	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.41	772.5	39.6	4.2	84	SE	.....	.....	1	.....	10	.....	.....	0	0	Misty?	Prof. V. Faroffi.
Vienna	.....	.....	30.20	768.5	33.3	0.7	84	N	.....	.....	1	.....	0	.....	.....	0	0	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	30.00	762.1	38.5	3.6	92	SSW	.....	.....	2	.....	10	.....	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.40	746.7	43.0	6.1	.....	WSW	19	8.5	.....	.....	4	.....	.....	0.010	0.25	Blue sky	William Boswell.
Ardrossan	.....	.....	29.55	750.6	46	7.8	.....	W	.....	.....	4	.....	8	.....	.....	.....	.....	Overcast	J. Mayes.
Armagh Observatory	.....	.....	29.64	752.8	45.0	7.2	.....	W 3W	5	2.2	.....	.....	10	.....	.....	.....	.....	Gloomy	S. Cal., for Dr. Robinson
Bidston, Liverpool Obs	.....	.....	29.68	753.9	44.3	6.8	.....	W	15	6.7	.....	.....	10	.....	.....	.....	.....	Raining	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.66	753.4	44.5	6.9	.....	WNW	.....	.....	1	.....	10	.....	.....	.....	.....	Drizzling	J. Dreyer.
Bradford	.....	.....	29.62	752.3	43.6	6.4	.....	SW	.....	.....	2	.....	10	.....	.....	0.08	2.0	Raining	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	29.98	761.5	79.4	26.3	.....	NE	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.79	756.7	47.8	8.8	.....	SSW	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	H. Todd.
Cardington	.....	.....	29.79	756.7	47.0	8.3	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast	John McLaren.
Carlisle	.....	.....	29.57	751.1	44	6.7	.....	W	.....	.....	3	.....	10	.....	.....	0.23	5.8	Raining	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	29.83	757.7	43.2	6.2	.....	SW	.....	.....	2	.....	.....	.....	.....	.....	.....	Gloomy	Capt. J. Fellowes, R. E.
Dartmoor	28.36	720.3	29.88	758.9	43.0	6.1	.....	S	.....	.....	3	.....	10	.....	.....	.....	.....	Raining	R. E. Power.
Donaghadee	.....	.....	29.61	752.1	44	6.7	.....	WSW	.....	.....	3	.....	7	.....	.....	.....	.....	*D. clouds	J. Mac Gowan.
Dover	.....	.....	29.91	759.7	40	4.4	.....	SSW	.....	.....	5	.....	6	.....	.....	.....	.....	¾ clouded	J. Costello.
Eccles, (near Manchester)	.....	.....	29.66	753.4	42.0	5.6	.....	WNW	3.8	1.7	.....	.....	10	.....	.....	.....	.....	Drizzling	Thomas Mackereth.
Falmouth Observatory	.....	.....	29.80	756.9	49.4	9.7	.....	SSW	24	10.7	.....	.....	10	.....	.....	.....	.....	Drizzling	The Staff.
Fort Napier, (Natal)	27.45	697.2	29.71	754.6	71.3	21.8	.....	E	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	Pvt G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.85	758.2	87	30.6	.....	N	.....	.....	1	.....	4	.....	.....	.....	.....	Blue sky	[illegible]
Galway, Queen's College	.....	.....	29.61	752.1	51	10.6	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	*D. clouds	B. G. Clare, for Prof. Cur
Gibraltar, (Mediterranean)	.....	.....	30.08	764.0	55.2	12.9	.....	NE	.....	.....	3	.....	10	.....	.....	.....	.....	Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.52	749.8	43.1	6.2	.....	W	.....	.....	1	.....	9	.....	.....	.....	.....	Fine	Lewis Stuart.
Great Yarmouth	.....	.....	29.81	757.2	45	7.2	.....	SW	.....	.....	4	.....	7	.....	.....	.....	.....	Misty	G. T. Watson.
Greenwich Royal Obs	.....	.....	29.86	758.4	43.7	6.5	.....	SSW	.....	.....	5	.....	10	.....	.....	Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey	.....	.....	29.92	760.0	44.5	6.9	.....	S 3W	.....	.....	3	.....	8	.....	.....	.....	.....	Gloomy	Dr. S. E. Hoskins.
Halifax, Moorside Obs	.....	.....	29.68	753.9	41.6	5.3	.....	WNW	.....	.....	1	.....	10	.....	.....	.....	.....	Raining	L. J. Cr[illegible]sley.
Helston	.....	.....	29.79	756.7	51	10.6	.....	SW	.....	.....	6	.....	10	.....	.....	.....	.....	Misty	M. P. Moyle.
Holyhead	.....	.....	29.65	753.1	43	6.1	.....	SW	.....	.....	2	.....	10	.....	.....	0.1	2.5	Raining	John Tilston.
Kew Observatory	.....	.....	29.86	758.4	44.4	6 9	.....	SW	22	9.8	.....	.....	10	.....	.....	.....	.....	Threatening	The Staff.
Kingstown	.....	.....	29.66	753.4	47	8.3	.....	W	.....	.....	3	.....	10	.....	.....	.....	.....	Gloomy	George Mitchell.
Leicester Museum	.....	.....	29.73	755 1	48.0	8.9	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Misty	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.41	772.4	56.2	13.4	.....	NE	.....	.....	2	.....	6k	.....	.....	.....	.....	.....	Fred Travis, Pvt A. H. C.
Nairn	.....	.....	29.40	746.7	39	3.9	.....	WSW	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.25	768.3	72.6	22.6	.....	SE	.....	.....	5	.....	6	.....	.....	.....	.....	D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	29.70	754.4	47.3	8.5	.....	SW	.....	.....	5	.....	10d	.....	SSW	.....	.....	Ov rcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	29.70	754.4	46.0	7.8	.....	S	.....	.....	6	.....	10	.....	.....	.....	.....	Light rain	Rev. Stephen Whitty.
Oxford, Radcliffe Obs	.....	.....	29.77	756.1	48	8.9	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Gloomy	J. Lucas.
Plymouth	.....	.....	29.81	757.2	48.5	9.2	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Rain & Mist	John Merrifield.
Roche's Point	.....	.....	29.72	754.9	44	6.7	.....	N	.....	.....	2	.....	10	.....	.....	.....	.....	Raining	W. Kennedy.
Saint Ann's Head	.....	.....	29.70	754.4	48	8.9	.....	SW	.....	.....	6	.....	10	.....	.....	.....	.....	Foggy	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.94	760.5	42.2	5.7	.....	S	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast	A. P. Amy.
Sandwick Manse (Orkneys	.....	.....	29.25	742.9	36.7	2.6	.....	NW	20	8.9	.....	.....	10	.....	.....	.....	.....	Sleet	Rev. Dr. Clouston
Scarborough	.....	.....	29.64	752.8	44.5	6.9	.....	WSW	.....	.....	2	.....	10	.....	.....	.....	.....	Gloomy	F. Shaw.
Scutari Cemetery (Turkey)	.....	.....	30.34	770.6	37.0	3.8	.....	N	.....	.....	2	.....	10	.....	.....	.....	.....	Snowy	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.65	753.1	46.7	8.2	.....	WNW	.....	.....	1	.....	10	.....	.....	0	0	Drizzling	W. F. Cooper.
Silloth Rectory	.....	.....	29.58	751.3	44.5	6.9	.....	W	.....	.....	3	.....	8	.....	.....	0.065	1.65	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	29.65	753.1	41.7	5.4	.....	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Raining	The Staff.
Stornoway, Lewis C. (Hebr)	.....	.....	29.38	746.2	37	2.8	.....	WNW	.....	.....	6	.....	10	.....	.....	.....	.....	Snowing	John Smith.
Stratfield Turgiss	.....	.....	29.87	758.7	45.3	7.4	.....	S	.....	.....	2	.....	10	.....	.....	.....	.....	Raining	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.31	744.5	38	3.3	.....	WNW	.....	.....	6	.....	10	.....	.....	.....	.....	Snowing	John Trotter.
Truro, Royal Institution	.....	.....	29.77	756.1	51	10.6	.....	SW	.....	.....	6	.....	10	.....	.....	.....	.....	Raining	W. Newcombe.
Valencia Observatory	.....	.....	29.68	753.9	47.9	8.8	.....	NW	6	2.7	.....	.....	10	.....	.....	.....	.....	Misty	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	30.00	762.0	75.8	24.3	39	SE	20	8.9	.....	.....	3	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Leith, Restalrig Park	.....	.....	29.51	749.4	43.7	6.5	.....	W	.....	.....	4	.....	108	.....	.....	0.42	10.7	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Youngehusc.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.69	751.2	37.4	3.0	95	W	.....	.....	4	.....	10	.....	.....	.....	.....	Foggy	
Fanöe	.....	.....	29.68	753.8	37.9	3.2	98	WSW	.....	.....	6	.....	10	.....	.....	.....	.....	.....	
Godthaab, (Greenland)	.....	.....	29.51	749.6	25.5	— 3.6	93	S	.....	.....	6	.....	10	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.78	756.3	14.2	— 9.9	94	E	.....	.....	2	.....	5	.....	.....	.....	.....	.....	
Thorshavn, (Faröe)	.....	.....	29.34	745.3	24.6	— 4.1	57	NW	.....	.....	5	.....	3	.....	.....	.....	.....	.....	
Vestervig	.....	.....	29.50	749.4	39.6	4.2	97	SW	.....	.....	6	.....	10	.....	.....	.....	.....	Snowing	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alongon	.....	.....	30.07	763.8	35.6	2	93	SW	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	30.07	763.8	38.5	3.6	83	S	.....	.....	3	.....	8	.....	SW	0	0	Very cloudy	Normal School.
Avignon	.....	.....	30.32	770.1	45.3	7.4	77	ENE	.....	.....	1	.....	8	.....	S	0	0	Very cloudy	Normal School.
Bar-sur-Seine	.....	.....	30.15	765.8	44.4	6.9	70	S	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.02	762.8	44.8	7.1	79	S	5.4	2.4	.....	.....	.....	.....	SW	0	0	Raining.....	Beaumette Obse vatory
Beauvais	.....	.....	30.08	764.0	38.7	3.7	83	S	.....	.....	3	.....	10	.....	S5W	0	0	Covered	Normal School.
Besançon	.....	.....	30.26	768.7	35.6	2	67	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourg en Bresse	.....	.....	30.38	771.7	35.1	1.7	96	SE	.....	.....	8	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourges	.....	.....	30.17	766.2	32.0	0	95	S	.....	.....	2	.....	2	.....	S	0	0	Slightly cl'dy	Normal School.
Brest	.....	.....	29.85	758.1	48.4	9.1	89	SW	.....	.....	3	.....	10	.....	SW	0.049	1.25	Raining.....	Naval Observatory.
Caen	.....	.....	30.04	763.1	42.8	6	85	SW	.....	.....	6	.....	10	.....	SW	0	0	Covered	Normal School.
Chartres	.....	.....	30.08	764.0	32.2	0.1	.....	WSW	.....	.....	3	.....	10	.....	.....	0.020	0.5	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.19	766.9	45.9	7.7	62	S	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Puy de Dome, Obs
Commercy	.....	.....	30.18	766.5	38.3	3.5	87	SE	.....	.....	4	.....	2	.....	SE	0	0	Slightly cl'dy	Normal School.
Commune de Gréasque*	.....	.....	30.35	770.8	48.6	9.2	69	SE	.....	.....	3	.....	8	.....	SE	0	0	.....	.....
Grenoble	.....	.....	30.35	770.8	30.2	— 1	100	NE	.....	.....	1	.....	.....	.....	.....	0	0	Dense Fog...	Normal School.
Le Mans	.....	.....	30.11	764.7	33.6	0.9	96	S	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.30	769.5	45.1	7.3	77	S	.....	.....	6	.....	0	.....	.....	0.201	5.10	Clear.....	Normal School.
Mâcon	.....	.....	30.00	762.1	34.7	1.4	78	S	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.22	767.6	35.1	1.7	93	SSW	.....	.....	2	.....	8	.....	NNE	0	0	Almost cov'd	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.30	769.6	50.0	10	72	E	.....	.....	2	.....	5	.....	S	0	0	Cloudy.....	Normal School.
Orleans	.....	.....	30.13	765.3	40.3	4.6	87	SSW	.....	.....	3	.....	2	.....	SSW	0	0	Slightly cl'dy	Normal School.
Paris Observatory	.....	.....	30.10	764.4	36.1	2.3	93	SSW	.....	.....	2	.....	10	.....	.....	0.006	0.15	Covered	National Observatory.
Parthenay	.....	.....	30.08	763.9	41.0	5	82	SW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30.35	770.8	43.7	6.5	.....	S	.....	.....	4	.....	10	.....	S	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	30.07	763.8	38.5	3.6	93	E	.....	.....	4	.....	8	.....	E	0	0	Very cloudy	Normal School.
Rochefort, Observatory	.....	.....	30.11	764.7	44.1	6.7	81	SE	.....	.....	3	.....	8	.....	NE	0	0	¾ covered...	Naval Observatory.
Rouen	.....	.....	30.04	763.0	38.1	3.4	76	SSE	.....	.....	3	.....	10	.....	.....	0	0	Covered	Normal School.
Saint Lo	.....	.....	30.02	762.4	40.1	4.5	84	SW	.....	.....	3	.....	10	.....	W	0	0	.....	Normal School.
Tarbes	.....	.....	30.19	766.9	48.2	9	91	S	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Toulouse	.....	.....	30.17	766.3	49.8	9.9	89	S	.....	.....	2	.....	0	.....	.....	.....	.....	Clear.....	Normal School
Villefranche	.....	.....	30.21	767.4	44.8	7.1	68	ESE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.93	760.2	75.4	24.2	84	NE	.....	.....	2	.....	5km?	.....	.....	0.16	4.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.32	770.0	52.7	11.5	81	ESE	.....	.....	2	.....	10	.....	.....	0	0	.....	Marseilles Observatory
Mont-Louis	24.93	633.2	30.39	772.0	32.7	0.4	71	SW	14.9	6.66	.....	.....	8	.....	SW	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	30.08	764.0	36.0	2.2	91	S	.....	.....	4	.....	10	.....	SSW	0.003	0.1	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.19	766.7	53.6	12.0	75	SE	9.3	4.17	.....	.....	7	SSW	SW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.20	538.5	.....	.....	24.8	— 4.0	.. ....	WSW	.....	.....	3	.....	10	.....	.....	0	0	Cloudy.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.08	764.1	38.1	3.4	81	SSW	.....	.....	2	.....	10	.....	.....	0.004	0.1	Very cloudy	E. Renou.
Toulouse	.....	.....	30.13	765.4	47.3	8.5	77	SE	.....	.....	4	.....	3	.....	.....	0	0	.....	Toulouse Observatory.
Tours	.....	.....	30.09	764.3	40.6	4.8	79	SW	.....	.....	1	.....	2	.....	W	0	0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.06	763.2	37.8	3.2	83	SW	.....	.....	3	.....	10	.....	.....	0.012	0.31	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.47	774.0	32.9	0.5	86	N	3.4	1.5	.....	0	6	.....	.....	{ 0 0	0 0 }	Misty.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
* Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bombay	.....	.....	30.08	764.1	35.2	1.8	82	SW	.....	.....	4	.....	3	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.05	763.2	42.1	5.6	84	S	.....	.....	4	.....	8	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.16	766.0	37.5	2.9	71	SW	.....	.....	3	.....	5	.....	.....	0	0	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.17	766.4	38.5	3.6	75	SW	.....	.....	2	.....	0	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.12	765.0	39.0	3.9	71	SSW	.....	.....	3	.....	5	.....	.....	0	0	.....	Dr. H. Möhn.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe.
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.23	767.7	41.0	5.0	75	S	.....	.....	1	.....	2	.....	.....	0	0	.....	Physical Society.
Friedrichshafen	.....	.....	30.33	770 3	31.1	— 0.5	77	S W	.....	.....	.....	.....	9	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	29.92	760.0	39.2	4.0	93	SW	.....	.....	5	.....	10	.....	.....	0.008	0.2	Misty.....	Deutsche Seewarte.
Kiel	.....	.....	29.89	759.1	39.9	4.4	92	WSW	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.87	758.7	35.6	2.0	78	SW	.....	.....	7	.....	10	.....	.....	Imap.	Imap.	.....	Prof. E. Luther.
Köslin	.....	.....	29.92	759.9	35.4	1.9	.....	SW	.....	.....	4	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.13	765.2	38.3	3.5	72	SW	.....	.....	5	.....	4	.....	.....	0	0	.....	Prof. Bruhns.
Münster	.....	.....	30.02	762.5	44.4	6.9	89	W	.....	.....	1	.....	4	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.14	765.5	37.4	3.0	79	W	.....	.....	5	.....	10	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.17	766.2	38.1	3.4	82	SW	.....	.....	1	.....	1	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.17	766.3	46.4	8.0	58	SE	.....	.....	.....	.....	2	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	29.99	761.8	36.3	2.4	78	SW	.....	.....	5	.....	10	.....	.....	Inap.	Inap	.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	30.09	764 2	35.4	1.9	82	SW	.....	.....	6	.....	8	.....	.....	0	0	Light fog.....	Prof. Flosch.
Wustrow, Naval School	.....	.....	29.89	759.2	37.4	3.0	90	SW	.....	.....	4	.....	10	.....	.....	Blank	Blank	Rain, snow, hail	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.34	770.6	44.1	6.7	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Cloudy.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—12.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.36	771.1	32.7	0.4	92	E			2					0	0	Foggy	
Padua			30.41	772.5	27.1	— 2.7	100	WNW	0.7	0.3			0			0	0	Light fog	
Verona			30.39	771.8	32.0	0.0	81	E			1		10			0	0		
Bergamo			30.34	770.6	38.1	3.4	73	S			1		0			0	0		
Milan			30.45	773.5	28.8	— 1.8	96	WSW			1		10			0	0		
Moncalieri			30.46	773.7	24.1	— 4.4	98	NNE	0.7	0.3			3			0	0		
Mondovi			30.42	772.6	36.3	2.4	52	SSE			2		0			0	0		
Porto Maurizio			30.41	772.3	51.8	11.0		SE			2		6			0	0		
Genoa			30.40	772.1	50.0	10.0	67	SE	2.5	1.1			10	SW		0	0		
Piacenza			30.44	773.2	26.8	— 2.9	98	NW	15.4	6.9			0			0	0	Light fog	
Bologna			30.46	773.6	27.7	— 2.4	52	NW			1		10			0	0		
Florence			30.44	773.2	45.1	7.3	67	N			2		0			0	0		
Leghorn			30.41	772.5	49.5	9.7	73	ENE	4.9	2.2			10			0	0		
Siena			30.40	772.1	45.7	7.6	73	NNW	0	0			1	N		0	0		
Urbino																			
Pesaro																			
Ancona			30.46	773.7	33.8	1.0	73	NW			4		10			0	0		
Rome			30.39	772.0	50.7	10.4	57	NNE	0.7	0.3			0			0	0		
Naples, O. U.			30.43	772.9	54.9	12.7	51	NE			2		1			0	0		
Lecce			30.41	772.3	54.9	9.8	54	NNW	12.5	5.6			1			0	0		
Cosenza			30.43	772.9	49.8	9.9	56	N			2		0			0	0		
Riposto, (Sicily)			30.37	771.5	55.4	13.0	58	SSE			2		1			0	0		
Palermo			30.36	771.1	55.6	13.1	52	E	6.3	2.8			0			0	0		
Caltanissetta			30.41	772.3	47.1	8.4	68	N			1		0			0	0		
Sub-Series.																			
Naples, S. R.			30.41	772.4	52.5	11.4	51	NW			4					0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.99	761.8	38.5	3.6		SW			5								
Groningen			30.23	767.8	38.8	3.8		SW			6								
Helder			29.85	758.1	39.6	4.2		SSW			5								
Utrecht			29.92	759.9	40.3	4.0	74	SSW			5		10					Dull	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.08	738.6	43.5	6.4	71	SSW	22.2	9.9			10			0.177	4.5		
Brönö			28.85	732.7	33.4	0.8	70	SSE	27	12			8			0	0		
Christiania			29.11	739.3	42.4	5.8	70	SW	11.0	4.9			1			0.004	0.1		
Tromsö			29.05	737.9	21.2	— 6.0	77	SSE	7	3			10			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.22	767.6	54.3	12.3	72	NW	7.0	3.13	.....	.....	5	.....	.....	0.039	1.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.12	765.0	43.7	6.5	65	SE	3.7	1.67	.....	.....	10	.....	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.14	765.6	59.0	15.0	58	Calm?	0.22	2.78?	.....	.....	9	.....	.....	0.071	1.8	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.11	764.9	41.9	5.5	69	NNE	8.7	3.9	.....	.....	10	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.09	764.3	34.3	1.3	92	WSW	25	11	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	29.89	759.2	34.3	1.3	100	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	29.64	752.9	20.8	— 2.9	92	ESE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.66	753.3	20.8	— 6.2	98	SE	7	3	.....	.....	10	.....	.....	.....	.....	Light fog	Central Physical Obs
Kuopio	.....	.....	29.48	748.9	15.8	— 9.0	100	ESE	.....	.....	.....	.....	10	.....	.....	0.073	1.85	Snowing.	Ch. Forsten.
Kieff	.....	.....	30.01	762.2	33.4	0.8	85	NW	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.18	766.6	35.6	2.0	82	W	4	2	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.17	766.4	22.3	— 5.4	87	Calm	0	0	.....	.....	10	.....	.....	.....	.....	Light snow.	Lagorio.
Moscow	.....	.....	29.78	756.5	14.0	—10.0	84	S	9	4	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.96	761.0	14.5	— 9.7	74	SW	20	13	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	29.81	757.1	— 8.3	—22.4	83	ENE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.62	727.0	30.08	764.1	36.7	2.6	54	NW	13	6	.....	.....	8	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.20	767.0	11.5	—11.4	93	W	7	3	.....	.....	6	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	29.95	760.8	11.7	—11.3	97	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.12	739.5	30.19	766.9	14.7	— 9.6	100	W	4	2	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	29.90	759.5	12.7	—10.7	76	E	4	2	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.32	719.3	30.11	764.8	26.8	— 2.9	83	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.26	768.6	14.4	— 9.8	84	SW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	29.85	758.2	9.0	—12.8	89	W	9	4	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Gorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.44	773.1	25.2	— 3.8	47	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	28.05	712.4	30.46	773.6	—21.0	—29.8	83	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.48	774.1	— 1.7	—18.7	65	NW	11	5	.....	.....	0	.....	.....	.....	.....	.....	.....
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—15.5	—26.4	.....	NW	7	3	.....	.....	0	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Gorga, 1,281.0. m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.19	766.7	43.7	6.5	67	E	5.8	2.6	.....	.....	10	.....	.....	0	0	Covered	Royal Observatory.
San Fernando	.....	.....	30.08	764.1	57.4	14.1	70	ESE	5.8	2.6	.....	0	10	.....	SE	0.272	6.9	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.41	747.1	12.9	—10.6	100	SE	.....	.....	7	.....	10	.....	.....	0	0	Snowing	
Umea	.....	.....	29.17	740.8	19.6	— 6.9	100	ENE	.....	.....	2	.....	10	.....	.....	0.398	10.1	Snowing	
Hernosand	.....	.....	28.94	735.0	29.5	— 1.4	100	SW	.....	.....	2	.....	10	.....	.....	0.094	2.4	Snowing	
Stockholm	.....	.....	29.20	741.6	37.0	2.8	94	SSW	.....	.....	6	.....	10	.....	.....	0.079	2.0	.....	
Wisby	.....	.....	29.51	749.5	35.2	1.8	96	SW	.....	.....	7	.....	10	.....	.....	0.059	1.5	.....	
Sub-Series.																			
Upsala	.....	.....	29.13	740.0	37.6	3.1	91	WSW	26.8	12.0	.....	.....	10	.....	WSW	0.021	0.53	Raining	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor É. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.85	732.7	30.35	771.0	28.0	— 2.2	100	NE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.61	726.6	30.32	770.1	33.3	0.7	82	W	.....	.....	1	.....	2	.....	.....	0	0	Clear	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +5.1 mm.; Thermometer, —3.7 cent.; Relative Humidity, +21 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.35	771.0	35.8	2.1	74	N	8	3.5	.....	.....	10	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.08	764.0	58.8	14.9	.....	SE	.....	.....	4	.....	5	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.32	770.2	38.3	3.5	.....	N	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Valona	.....	.....	30.18	766.5	47.8	8.8	.....	N	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Varna	.....	.....	30.24	768.0	37.4	3.0	.....	NW	.....	.....	3	.....	5	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.87	758.8	64.4	18.0	62	W	.....	.....	1	.....	9m	.....	SW	0	0	.....	Prof. C. V. A. Van Dyck.

NOTE.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	28.833	732.32	32.7	0.4	97	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.81	757.2	25	— 3.9	.....	W	6	2.7	.....	.....	10s	.....	.....	0.33	8.4	Light snow.	W. R. Bigg.
*Chatham, N. B	.....	.....	28.97	73 .8	35	1.7	100	Calm	0	0	.....	.....	Fog	.....	.....	0.61	15.5	Foggy	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	28.98	736.1	39	3.9	99	S	13	5.8	.....	.....	Fog	.....	.....	0.360	9.14	Foggy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.08	753.9	28.5	— 1.9	71	W	..	.....	4	.....	10s	.....	.....	0	0	Unsettled	James Smith, M. A.
Dalhousie, N. B	.....	.....	28.90	734.0	30.5	— 0.8	100	E	.....	.....	2	.....	.....	.....	.....	0	0	Cloudy	H. A. Johnson.
Esquimault, B. C	.....	.....	29.83	757.7	32.0	0.0	69	N	7	3.1	.....	.....	10	.....	.....	0	0	Cloudy	W. H. Bevis.
Fredericton, N. B	.....	.....	29.03	737.3	37.0	2.8	90	W	15	6.7	.....	.....	10m	.....	.....	0.90	22.86	Raining	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.39	769.4	—22	—30.0	100	NW	10	4.5	.....	0	0	.....	.....	0	0	Clear	James Stewart.
Goderich, Ontario	.....	.....	30 12	765.0	24.0	— 5.0	80	NW	.....	.....	3	.....	10n	.....	.....	0.10	2.5	Threatening	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.12	765.0	21.3	— 5.9	.....	NW	.....	.....	3	.....	10n	.....	.....	0	0	Cloudy	James Grant.
*Halifax, N. S	.....	.....	29.11	739.4	43	6.1	97	SW	23	10.3	.....	.....	10n	.....	.....	0.368	9.34	Cloudy	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.84	757.9	24	— 3.3	89	W	9	4.0	.....	10es	0	W	.....	0.10	2.5	Fa r	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.07	763.8	5.6	—14.7	.....	Calm	0	0	.....	.....	1os	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.62	752.3	25	— 3.9	69	NW	32	14.3	.....	Haze	5ks	.....	.....	0.13	3.3	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.75	755 6	23	— 5.0	73	..	14	6.3	.....	.....	10n	.....	W	0.02	0.5	Threatening	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.03	762.7	10	—12.2	92	NW	5	2.2	.....	0	2ks	.....	W	0.17	4.3	Fair	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.07	763.8	21	— 4.4	87	..	24	10.7	.....	.....	1 n	.....	W	0.04	1.0	Threatening	H. Morgan.
Port Hastings, N. S	.....	.....	29.00	736.6	44.8	7.1	.....	SW	25	11.2	.....	.....	.....	.....	.....	0.25	6.3	Rainy	P. ter Grant.
*Port Stanley, Ontario	.....	.....	30.11	764.8	24	— 4.4	86	W	20	8.9	.....	.....	10n	.....	W	0.04	1.0	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	29.26	743.2	27	— 2.8	88	W	30	13.4	.....	.....	10n	.....	W	0.35	8.9	Cloudy	Capt. Ash, R. N.
St. John, N. B	.....	.....	29.12	739.6	36.0	2.2	100	W	12	5.4	.....	.....	10n	.....	.....	0.560	14.22	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.01	762.2	21	— 6.1	93	NW	7	3.1	.....	.....	10s	.....	.....	0.15	3.8	Light snow	K. Stewart.
Stayner, Ontario	.....	.....	30.08	764.0	20	— 6.7	77	NW	11	4.9	.....	.....	10n	.....	NW	Inap.	Inap.	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	30.09	764.3	20.4	— 6.4	87	NW	9	4.0	.....	.....	1 s	.....	.....	0.450	11.43	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	29.20	741.7	42	5.6	97	S	10	4.5	.....	.....	10n	.....	.....	0.22	5.6	Heavy rain	T. C. Hill.
*Toronto, Ontario	.....	.....	30.02	762.5	26	— 3.3	78	W	22	9.8	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	30.09	764.3	21.1	— 6.1	98	W	2	0.9	.....	.....	10s	.....	.....	0.200	5.08	Gloomy	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.78	756.4	32	0.0	79	W	31	13.9	.....	5k	5s	W	W	0.20	5.1	Cloudy.	
Alpena, Mich.	.....	.....	30.04	763.0	18	— 7.8	100	W	8	3.6	.....	.....	10n	.....	.....	0.02	0.5	Light snow.	
Atlantic City, N. J.	.....	.....	30.04	763.0	34	1.1	61	W	23	10.3	.....	0	0	.....	.....	0.32	8.1	Clear.	
Augusta, Ga.	.....	.....	30.39	771.9	36	2.2	80	NW	1	0.4	.....	0	0	.....	.....	0.54	13.7	Clear.	
Baltimore, Md.	.....	.....	30.12	765.0	34	1.1	44	NW	15	6.7	.....	0	Fog	.....	.....	0.78	19.8	Clear.	
Barnegat, N. J.	.....	.....	30.00	762.0	34	1.1	79	W	24	10.7	.....	0	0	.....	.....	0.43	10.9	Clear.	
Benton, Montana	27.59	700.8	30.39	771.9	—10	—23.3	100	NE	4	1.8	.....	5c	0	.....	.....	0	0	Fair.	
Bismarck, Dakota	28.08	728.5	30.61	777.5	—11	—23.9	28	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Boston, Mass.	.....	.....	29.62	752.3	35	1.7	61	SW	22	9.8	.....	0	1s	.....	W	0.21	5.3	Clear.	
Breckenridge, Minn	.....	.....	30.42	772.7	—10	—23.3	77	W	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Buffalo, N. Y.	.....	.....	29.55	750.6	39	3.9	86	SW	8	3.6	.....	.....	10ks	.....	SW	0.72	18.3	Cloudy.	
Burlington, Vt.	.....	.....	29.62	752.3	32	0.0	79	W	13	5.8	.....	.....	10s	.....	W	0.09	2.3	Cloudy.	
Cairo, Ill.	.....	.....	30.34	770.6	36	2.2	62	S	1	0.4	.....	1cs	0	.....	.....	0	0	Clear.	
Cape Hatteras, N. C.	.....	.....	30.15	765.8	44	6.7	44	NW	20	8.9	.....	Haze	2s	.....	N	Inap.	Inap.	Fair.	
Cape Henry, Va.	.....	.....	30.18	766.6	42	5.6	42	NW	20	8.9	.....	2c	0	NW	.....	0	0	Fair.	
Cape May, N. J.	.....	.....	30.10	764.5	35	1.7	52	NW	28	12.5	.....	0	0	.....	.....	0.22	5.6	Clear.	
Charleston, S. C.	.....	.....	30.38	771.6	44	6.7	52	W	7	3.1	.....	0	0	.....	.....	0.24	6.1	Clear.	
Cheyenne, Wyoming	23.76	603.5	29.70	754.4	22	— 5.6	72	NW	8	3.6	.....	Haze	5s	.....	.....	0	0	Fair.	
Chicago, Ill.	.....	.....	30.23	767.8	20	— 6.7	85	SW	3	1.3	.....	2ok	2s	SW	.....	Inap.	Inap.	Fair.	
Cincinnati, Ohio	.....	.....	30.26	768.6	33	0.6	69	SW	4	1.8	.....	5cs	0	NW	.....	0	0	Fair.	
Cleveland, Ohio	.....	.....	30.19	766.8	23.7	— 4.6	84	SW	16	7.2	.....	.....	10ks	.....	SW	0.01	0.3	Clearing.	
Colorado Springs, Col.	23.93	607.8	29.80	756.9	22	— 5.6	72	N	1	0.4	.....	.....	10ks	.....	W	0	0	Cloudy.	
Corsicana, Tex.	.....	.....	30.22	767.6	36	2.2	70	S	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Davenport, Iowa	.....	.....	30.27	768.8	21	— 6.1	85	N	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Denison, Tex.	.....	.....	30.16	766.1	37	2.8	63	SE	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Denver, Col.	24.59	624.6	29.81	757.2	21	— 6.1	57	Calm	0	0	.....	0	5s	.....	.....	0	0	Fair.	
Detroit, Mich.	.....	.....	30.15	765.8	24	— 4.4	74	W	7	3.1	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy.	
Dodge City, Kan.	27.23	691.6	29.62	752.3	21	— 6.1	85	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	30.28	769.1	16	— 8.9	49	SW	4	1.8	.....	5c	0	W	.....	Inap.	Inap.	Fair.	
Duluth, Minn.	.....	.....	30.20	767.1	5	—15.0	62	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Eastport, Me.	.....	.....	29.12	739.6	37	2.8	100	NW	11	4.9	.....	.....	10n	.....	NW	0.53	13.5	Light rain.	
Erie, Pa.	.....	.....	30.09	764.3	27	— 2.8	88	W	28	12.5	.....	.....	10n	.....	W	0.16	4.1	Light snow.	
Escanaba, Mich.	.....	.....	30.11	764.8	13	—10.6	81	W	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.	
Fort Gibson, Indian Terr.	.....	.....	30.13	765.3	37	2.8	71	SE	9	4.0	.....	0	0	.....	.....	0	0	Clear.	
Fort Sill, Indian T.	28.81	731.8	29.97	761.2	33	0.6	69	S	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Fort Sully, Dakota	28.58	725.9	30.47	773.9	— 1	—18.3	68	NE	20	8.9	.....	1c	0	.....	.....	Inap.	Inap.	Clear.	
Galveston, Tex.	.....	.....	30.24	768.1	55	12.8	62	E	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Grand Haven, Mich.	.....	.....	30.17	766.3	23	— 5.0	78	W	16	7.2	.....	.....	10s	.....	W	0.13	3.3	Cloudy.	
Indianapolis, Ind.	.....	.....	30.24	768.1	31	— 0.6	79	SW	2	0.9	.....	5cs	0	.....	.....	0	0	Fair.	
Indianola, Tex.	.....	.....	30.23	767.8	54	12.2	86	E	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Jacksonville, Fla.	.....	.....	30.33	770.4	48	8.9	48	NW	12	5.4	.....	5k	0	W	.....	0	0	Fair.	
Keokuk, Iowa	.....	.....	30.25	768.3	21	— 6.1	85	E	8	3.6	.....	8c	0	.....	.....	0	0	Fair.	
Key West, Fla.	.....	.....	30.17	766.3	72.8	22.7	90	SE	7	3.1	.....	5c	Haze	W	.....	0	0	Fair.	
Kittyhawk, N. C.	.....	.....	30.22	767.6	41	5.0	57	NW	14	6.3	.....	2 8	0	NW	.....	0	0	Clear.	
Knoxville, Tenn.	.....	.....	30.43	772.9	29	— 1.7	77	SW	6	2.7	.....	0	0	.....	.....	0.04	1.0	Clear.	
La Crosse, Wis.	.....	.....	30.26	768.6	13	—10.6	62	N	6	2.7	.....	10 8	0	NW	.....	0	0	Cloudy.	
Leavenworth, Kan.	.....	.....	30.18	766.6	33	0.6	79	Calm	0	0	.....	0	5s	.....	.....	0	0	Fair.	
Lexington, Ky.	29.19	741.4	30.37	771.4	30	— 1.1	78	S	12	5.4	.....	0	5s	.....	.....	0.08	2.0	Fair.	
Long Branch, N. J.	.....	.....	29.96	761.0	34	1.1	79	W	30	13.4	.....	0	0	.....	.....	0.58	14.7	Clear.	
Louisville, Ky.	.....	.....	30.30	769.6	34	1.1	71	S	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Lynchburg, Va.	.....	.....	30.26	768.6	35	1.7	53	S	4	1.8	.....	5k	0	SW	.....	0.31	7.9	Fair.	
Malone, N. Y.	.....	.....	29.96	760.4	26	— 3.3	88	W	16	7.2	.....	.....	10s	.....	W	0.32	8.1	Threatening	
Marquette, Mich.	.....	.....	30.16	766.1	14	—10.0	82	W	12	5.4	.....	.....	10s	.....	W	0	0	Cloudy.	
Memphis, Tenn.	.....	.....	30.36	771.1	35	1.7	70	Calm	0	0	.....	5cs	Sm'e	.....	.....	0	0	Fair.	
Milwaukee, Wis.	.....	.....	30.24	768.1	14	—10.0	81	W	9	4.0	.....	.....	10ks	.....	.....	0.08	2.0	Cloudy.	
Mobile, Ala.	.....	.....	30.34	770.6	41	5.0	83	N	6	2.7	.....	0	Haze	.....	.....	0	0	Clear.	
Montgomery, Ala.	.....	.....	30.41	772.4	36.5	2.5	90	N	4	1.8	.....	0	Sm'e	.....	.....	0	0	Clear.	
Morgantown, W. Va.	.....	.....	30.24	768.1	31	— 0.6	68	W	15	6.7	.....	0	1s	.....	W	0.21	5.3	Clear.	
Mt. Washington, N. H.	22.85	580.4	29.21	741.9	8	—13.3	100	NW	96	42.9	.....	.....	Fog	.....	.....	0.22	5.6	Foggy	
Nashville, Tenn.	.....	.....	30.37	771.4	37	2.8	71	Calm	0	0	.....	5c	0	.....	.....	0	0	Fair.	
New Haven, Conn.	.....	.....	29.83	757.7	37	2.8	54	W	22	9.8	.....	5s	0	NW	.....	0.38	9.7	Fair.	
New London, Conn.	.....	.....	29.80	756.9	36.5	2.5	61	W	15	6.7	.....	0	0	.....	.....	0.48	12.2	Clear.	
New Orleans, La.	.....	.....	30.33	770.4	45.5	7.5	57	E	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Newport, R. I.	.....	.....	29.75	755.6	37	2.8	71	W	22	9.8	.....	0	0	.....	.....	0.32	8.1	Clear.	
New York, N. Y.	.....	.....	29.93	760.2	33	0.6	67	NW	32	14.3	.....	0	0	.....	.....	0.27	6.9	Clear.	
Norfolk, Va.	.....	.....	30.20	767.1	41	5.0	41	NW	11	4.9	.....	2c	0	SW	.....	0	0	Fair.	
North Platte, Neb.	27.01	686.0	29.72	754.9	20	— 6.7	85	NE	10	4.5	.....	.....	10s	.....	NE	0	0	Cloudy.	
Omaha, Neb.	29.01	736.8	30.14	765.5	26	— 3.3	76	NE	7	3.1	.....	.....	10s	.....	W	0	0	Cloudy.	
Oswego, N. Y.	.....	.....	29.88	758.9	29.8	— 1.2	68	NW	24	10.7	.....	.....	10ks	.....	NW	0.15	3.8	Cloudy.	
Peck's Beach, N. J.	.....	.....	30.09	764.3	33	0.6	89	NW	20	8.9	.....	Haze	0	.....	.....	0.58	14.7	Clear.	
Pembina, Dakota	.....	.....	30.41	772.4	—20	—28.9	100	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Philadelphia, Penn.	.....	.....	30.07	763.8	33	0.6	61	NW	14	6.3	.....	0	0	.....	.....	0.51	13.0	Clear.	
Pike's Peak, Colorado	17.38	441.4	29.59	751.6	— 3	—19.4	66	SW	36	16.1	.....	1c	5s	.....	.....	0	0	Fair.	
Pittsburgh, Penn.	.....	.....	30.21	767.3	28	— 2.2	67	NW	12	5.4	.....	.....	10ks	.....	NW	0.05	1.3	Cloudy.	
Port Huron, Mich.	.....	.....	30.13	765.3	23	— 5.0	86	W	13	5.8	.....	.....	10s	.....	.....	0.09	2.3	Cloudy.	
Portland, Me.	.....	.....	29.43	747.5	37	2.8	53	W	22	9.8	.....	1k	0	W	.....	0.21	5.3	Clear.	
Portland, Oregon	.....	.....	29.80	756.9	34	1.1	79	Calm	0	0	.....	0	1ks	.....	S	0.33	8.4	Clear.	
Punta Rassa, Fla.	.....	.....	30.23	767.8	69.1	17.3	78	NE	20	8.9	.....	.....	10ks	.....	NE	0	0	Cloudy.	
Rochester, N. Y.	.....	.....	29.93	760.2	26	— 3.3	88	W	25	11.2	.....	2c	8s	W	W	0.22	5.6	Cloudy.	
Salt Lake City, Utah	25.27	641.8	29.90	751.8	34	1.1	79	SW	12	5.4	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.	
Sandy Hook, N. J.	.....	.....	29.93	760.2	34	1.1	69	W	30	13.4	.....	0	0	.....	.....	0.46	11.7	Clear.	
San Diego, Cal.	.....	.....	29.97	761.2	49	9.4	93	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
San Francisco, Cal.	.....	.....	29.87	758.7	45	7.2	68	NW	12	5.4	.....	.....	10s	.....	.....	0.31	7.9	Threatening	
Santa Fe, N. M.	23.13	587.5	29.67	753.6	16	— 8.9	.....	E	3	1.3	.....	0	0	.....	.....	0	0	Clear.	
Savannah, Ga.	.....	.....	30.35	770.9	40	4.4	63	N	12	5.4	.....	0	0	.....	.....	1.27	32.3	Clear.	
Shreveport, La.	.....	.....	30.32	770.1	36.5	2.5	81	SE	3	1.3	.....	0	0	.....	.....	0	0	Clear.	
Smithville, N. C.	.....	.....	30.32	770.1	39	3.9	66	NW	3	1.3	.....	1cs	0	.....	.....	0	0	Fair.	
Springfield, Mass.	.....	.....	29.76	755.9	38	3.3	46	W	16	7.2	.....	0	5s	.....	W	0.35	8.9	Fair.	
St. Louis, Mo.	.....	.....	30.23	767.8	38	3.3	54	Calm	0	0	.....	.....	1 8	.....	.....	0	0	Cloudy.	
St. Marks, Fla.	.....	.....	30.33	770.4	40	4.4	82	N	4	1.8	.....	0	1s	.....	.....	0.69	15.0	Fair.	
St. Paul, Minn.	.....	.....	30.24	768.1	8	—13.3	66	W	6	2.7	.....	10cs	0	W	.....	0	0	Cloudy.	
St. Paul's Island, Alaska.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squam Beach, N. J.	.....	.....	29.97	761.2	33	0.6	70	W	24	10.7	.....	0	0	.....	.....	0.61	15.5	Clear.	
Thatcher's Island, Mass.	.....	.....	29.58	751.3	36	2.2	62	W	36	16.1	.....	0	0	.....	.....	0.23	5.8	Clear.	
Toledo, Ohio	.....	.....	30.16	766.1	28	— 2.2	78	SW	14	6.3	.....	.....	10s	.....	SW	0	0	Cloudy.	
Tucson, Arizona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	Clear.	
Tybee Island, Ga.	27.41	696.2	29.82	757.4	32	0.0	.....	S	.....	.....	.....	0	0	.....	.....	.....	.....	.....	
Vicksburg, Miss.	.....	.....	30.37	771.4	43	6.1	75	N	12	5.4	.....	0	0	.....	.....	1.01	25.7	Clear.	
	.....	.....	30.39	771.9	38	3.3	71	SE	6	2.7	.....	0	0	.....	.....	0	0	Clear.	

UNITED STATES SERIES.—CONTINUED.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.03	610.4	29.51	749.5	— 3	—19.4	83	E	14	6.3	.....	.....	10ks	.....	W	0.23	5.8	Cloudy..	
Washington, D. C	.....	.....	30.15	765.8	34	1.1	52	SW	16	7.2	.....	0	Haze	.....	.....	0.71	18.0	Clear.....	
Wilmington, N. C	.....	.....	30.30	769.6	39	3.9	56	NW	4	1.8	.....	0	1s	....	.....	Inap.	Inap.	Clear.....	
Wood's Holl, Mass	.....	.....	29.71	754.6	36	2.2	70	NW	23	10.3	.....	.....	2s	.....	NW	0.12	3.0	Fair.....	
Wytheville, Va	27.81	706.4	30.09	764.3	28	— 2.2	77	W	6	2.7	.....	2k	0	W	.....	0.80	2.0	Fair.	
Yankton, Dakota	28.95	735.3	30.38	771.6	8	—13.3	78	NE	12	5.4	.....	.....	10n	....	.....	0.09	2.3	Light snow..	
Yuma, Arizona	.....	.....	29.90	759.4	40	4.4	.....	E	.....	.....	.....	8cs	0	W	.....	0	0	Fair.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.06	763.5	78	25.6	86	NE	6	2.7	.....	2ck	5s	N	NE	0	0	Fair.....	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.02	762.5	75	23.9	76	NE	.....	.....	.....	0	5k	.....	....	0	0	Clear..... ...	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.17	766.3	69	20.6	75	Calm	0	0	.....	1c	0	WNW	.....	0	0	Foggy.....	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.26	768.6	73	22.8	76	Calm	0	0	.....	2c	2s	SE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.31	769.9	76	24.4	95	E	6	2.7	.....	4ck	8kn	E	.....	0.01	0.3	Cloudy.....	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.94	760.5	69	20.6	79	NW	4.8	2.1	.....	0	0	.....	.....	.....	.....	Clear.....	Robert Mason.
St. Georges, Bermudas	.....	.....	30.25	768.3	65.5	18.6	81	SW	21.0	9.4	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	29.96	761.0	—22	—30.0	.....	NW	18	8.0	.....	0	6s	.....	.....	0.03	0.8	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.15	740.4	37.0	2.8	.....	E	.....	.....	.....	.....	10n	.....	.....	0.23	5.8	Rain and fog	John Delanev.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.28	692.9	30.09	764.3	64	17.8	83	N	2.5	1.1	.....	0	2k	.....	.....	0	0	Fine..... ..	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.22	640.5	.....	.....	66.2	19.0	84	.....	0	0	.....	.....	10s	....	.....	0.60	15.2	Cloudy.....	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.97	761.2	81	27.2	83	E	.....	.....	3	.....	5k	.....	.....	0	0	....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.03	762.8	82.0	27.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
*Steamer Nürnberg,	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.
*Observation not simultaneous.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 21, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.19	766.9	61.5	16.4	48	W	.....	.....	1	.....	2	.....	.....	0.079	2.0	Clear	Charnot.
Algiers	.....	.....	30.16	766.0	59.9	15.5	68	SW	.....	.....	2	.....	7	.....	.....	0.142	3.6	Cloudy	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.20	769.4	54.1	12.3	87	W	.....	.....	3	.....	10	.....	.....	0.138	3.5	Hidden.	Jacques.
Sfax	.....	.....	30.34	770.5	57.4	14.1	65	S	.....	.....	4	.....	4	.....	.....	0.047	1.2	Fair	Chauvey.
Saida	.....	.....	30.19	766.7	50.0	10.0	39	W	.....	.....	2	.....	2	.....	.....	0	0	Clear	Grosjean.
Tebessa	.....	.....	30.28	769.2	50.2	10.1	.....	S	.....	.....	4	.....	2	.....	.....	0.039	1.0	Clear	Colin.
Gerfville	.....	.....	30.23	767.7	51.4	10.8	62	N	.....	.....	1	.....	2	.....	.....	0.004	0.1	Clear	Buard.
Laghouat	.....	.....	30.19	766.8	48.2	9.0	73	NE	.....	.....	1	.....	1	.....	.....	0	0	Clear	Simon.
Biskra	.....	.....	30.24	768.0	61.9	16.6	31	SE	.....	.....	5	.....	8	.....	.....	0	0	Clear	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.21	767.4	43.5	6.4	62	SW	.....	.....	2	.....	2	.....	.....	0	0	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.11	764.7	29.8	— 1.2	98	NE	.....	.....	1	.....	9	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.24	768.1	34.7	1.5	94	S	.....	.....	1	.....	5	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.34	770.5	43.3	6.3	87	ESE	.....	.....	2	.....	7	.....	.....	0.008	0.2	.....	Andreas Rospini.
Hermannstadt	28.91	734.2	30.19	766.7	28.2	— 2.1	77	SW	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.85	732.7	30.43	772.9	12.4	—10.9	90	SE	.....	.....	1	.....	8	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	28.72	729.5	30.16	766.0	23.7	— 4.6	90	NW	.....	.....	2	.....	2	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.07	763.8	33.6	0.9	90	S	.....	.....	1	.....	0	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.26	768.6	28.4	2.0	88	S	.....	.....	1	.....	10ks	.....	.....	0	0	.....	I.R. Hydrographic Office
Szegedin	.....	.....	30.34	770.5	43.3	6.3	87	ESE	.....	.....	3	.....	3	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.25	768.3	20.1	— 6.6	89	S	.....	.....	0	.....	10	.....	.....	0.539	13.7	Rain & fog	Prof. V. Farolfi.
Vienna	.....	.....	30.31	770.5	30.6	4.2	92	Calm	.....	.....	1	.....	10	.....	.....	0	0	Foggy	I. R. Central Institute.
.....	.....	.....	30.19	766.9	23.4	— 4.8	98	S	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	29.78	756.3	44.1	6.7	79	SSW	.....	.....	2	.....	10	.....	.....	0.004	0.10	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.92	760.0	33.7	0.9		W	12	5.4			2			0.040	1.02	Blue sky	William Boswell.
Ardrossan			29.95	760.7	35	1.7		Calm			0		0					Foggy	J. Mayes.
Armagh Observatory			29.99	761.7	36.0	2.2		N	2	0.9			0					Blue sky	S. Call, for Dr. Robinson
Bidston, Liverpool Obs			29.80	756.7	38.2	3.4		NE	13	5.8			10					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			29.97	761.2	36.8	2.7		NNW			1		0					Blue sky	J. Dreyer.
Bradford			29.77	756.7	38.9	3.8		N			3		10					Gloomy	J. McLandsborough.
Bridgetown, (Barbados)			29.98	761.5	78.0	25.6		NE			2		4			0.09	2.3	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.67	753.6	39.2	4.0		NE			1		10					Raining	H. Todd.
Cardington			29.67	753.6	36.0	2.2		E			4		10					Rain & snow	John McLaren.
Carlisle			29.88	758.9	31.7	— 0.2		N			1		3			0.06	1.5	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			29.66	753.4	44.7	7.1		SW			1		8					Overcast	Capt. J. Fellowes, R. E.
Dartmoor	28.05	712.5	29.60	751.8	32.4	0.2		NE			7		10					Snowing	R. E. Power.
Donaghadee			29.93	760.2	40	4.4		ENE			4		3					*D. clouds	J. Mac Gowan.
Dover			29.69	754.1	41	5.0		SSW			3		7					¾ clouded	J. Costello.
Eccles, (near Manchester)			29.78	756.4	39.0	3.9		ENE	5.8	2.6			10					Gloomy	Thomas Mackereth.
Falmouth Observatory			29.68	753.9	40.0	4.4		NW	39	17.4			10					Gloomy	The Staff.
Fort Napier, (Natal)	27.53	699.2	29.79	756.7	61.8	16.6		E			2		10					Overcast	Pvt G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.86	758.4	84	28.9		N			6		5						
Galway, Queen's College			29.99	761.7	48	8.9		E			1		0					Blue sky	B. G. Clare, for Prof. Currie.
Gibraltar, (Mediterranean)			30.16	766.1	56.5	13.6		SW			4		9					Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.92	760.2	33.6	0.9		Calm			0		6					Misty	Lewis Stuart.
Great Yarmouth			29.73	755.1	39	3.9		ENE			4		8					Misty	G. T. Watson.
Greenwich Royal Obs			29.64	752.8	40.0	4.4		SSE			1		10					Raining	The Staff for G. B. Airy
Guernsey			29.59	751.6	48.5	9.2		SSW			5		6					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.82	757.4	38.0	3.3		NE			2		10					Threatening	L. J. Crossley.
Helston			29.79	756.7	43	6.1		N			7		10			0.16	4.1	Misty	M. P. Moyle.
Holyhead			29.85	758.2	41	5.0		NNE			5		5					*D. clouds	John Tilston.
Kew Observatory			29.64	752.8	45.1	7.3		SSE	12	5.4			10					Raining	The Staff.
Kingstown			29.91	759.7	41	5.0		NNE			5		5					*D. clouds	George Mitchell.
Leicester Museum			29.64	752.8	33.3	0.7		NE			3		10					Gloomy	William J. Harrison.
Malta, (Mediterranean)			30.37	771.4	55.8	13.2		SE			2		8k						Fred Travis, Pvt A.H.C
Nairn			29.9-	760.0	33	0.6		Calm			0		2					¼ clouded	W. D. Penny.
Nassau, (Bahamas)			30.34	770.6	72.4	22.4		NE			5		4					D. clouds	Surg.-Maj. Henry.
Nottingham			29.76	755.9	33.8	1.0		N			4		10n		N			Snowing	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			29.72	754.9	32.6	0.3		NNE			4		10					Snowing	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			29.60	751.8	39	3.9		NNE			3		10					Raining	J. Lucas.
Plymouth			29.52	749.8	40	4.4		NE			5		10					Overcast	John Merrifield.
Roche's Point			29.90	759.4	39	3.9		NNE			5		2					Fine	W. Kennedy.
Saint Ann's Head			29.76	755.9	41	5.0		NNE			3		5					*D. clouds	John C. Walker.
Saint Helier, (Jersey)			29.62	752.6	48.0	8.9		SSW			6		8					¾ clouded	A. P. Amy.
Sandwick Manse(Orkneys)			29.93	760.2	33.8	1.0		NW	19	8.5			8					Bright	Rev. Dr. Clouston
Scarborough			29.83	757.7	40.1	4.5		ENE			5		10					Overcast	F. Shaw.
Scutari Cemetery(Turkey)			30.39	771.9	45.0	7.2		SW			1		0					Clear	Sergt. W. H. Lyne.
Sheffield			29.77	756.1	40.0	4.4		E			2		10			0.455	11.56	Drizzling	W. F. Cooper.
Siloth Rectory			29.91	759.7	36.0	2.2		N			1		2			0	0	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			29.81	757.2	37.6	3.1		NE			2		10			Blank	Blank	Gloomy	The Staff.
Stornoway, Lewis C. (Hebr)			29.94	760.5	33	0.6		ENE			1		10					Blue sky	John Smith.
Stratfield Turgiss			29.60	751.8	45.8	7.7		S			1		10					Raining	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.88	758.9	35	1.7		NNW			2		10					Overcast	John Trotter.
Truro, Royal Institution			29.70	754.4	41	5.0		N			7		10					Raining	W. Newcombe.
Valencia Observatory			29.97	761.2	40.2	4.6		NNE	11	4.9			0					Blue sky	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.96	761.0	75.5	24.2	44	S	28	12.5			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)																			
Leith, Restalrig Park			30.05	763.3	36.1	2.3		W			2					0	0	Fine	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,409 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.74	755.5	35.6	2.0	75	NW			2		10						
Fanöe			29.84	757.8	36.1	2.3	96	WNW			2		9						
Godthaab, (Greenland)			28.64	727.5	27.9	— 2.3	65	NE			2		8						
Stykkisholm, (Iceland)			29.74	755.4	25.7	— 3.5	95	E			2		8						
Thorshavn, (Faröe)			29.83	757.6	30.4	— 0.9	63	NNW			3		3						
Vestervig			29.76	755.9	34.9	1.6	82	WNW			2		4					Snowing	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors.		Barometer. Reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount.		Clouds. Direction.		Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Upper 0—10.	Low'r 0—10.	Upper From—	Lower. From—	Inches.	Millimeters.		
Alençon	.....	.....	29.89	759.2	37.4	3	85	SW	.....	.....	1	.....	10	.....	.....	0.028	0.7	Covered	Normal School.
Amiens	.....	.....	29.85	758.2	37.4	3.0	86	WSW	.....	.....	3	.....	8	.....	SW	0	0	Very cloudy	Normal School.
Avignon	.....	.....	30.04	763.0	50.4	10.2	72	SE	.....	.....	3	.....	8	.....	S	0	0	Raining.....	Normal School.
Bar-sur-Seine	.....	.....	29.88	758.9	47.7	8.7	74	S	.....	.....	2	.....	8	.....	W	0	0	Very cloudy	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.78	756.5	45.5	7.5	97	SW	11.9	5.2	.....	.....	.....	.....	SW	0.028	0.7	Raining.....	Beaumette Observatory.
Beauvais	.....	.....	29.81	757.2	44.4	6.9	79	S	.....	.....	2	.....	10	.....	SW	0	0	Covered	Normal School.
Besançon	.....	.....	30.05	763.3	44.6	7	79	SSW	.....	.....	2	.....	8	.....	SW	0	0	Very cloudy	Normal School.
Bourg en Bresse	.....	.....	30.18	766.6	45.0	7.2	89	SW	.....	.....	3	.....	10n	.....	.....	0	0	Covered	Normal School.
Bourges	.....	.....	29.92	759.9	37.4	3	86	SW	.....	.....	2	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Brest	.....	.....	29.68	753.9	46.2	7.9	77	WNW	.....	.....	3	.....	10	.....	NW	0.079	2.00	Covered.....	Naval Observatory.
Caen	.....	.....	29.67	753.7	44.6	7	93	SW	.....	.....	2	.....	10	.....	.....	0.04	1.	Covered	Normal School.
Chartres	.....	.....	29.80	756.9	43.7	6.5	.....	SW	.....	.....	3	.....	10	.....	.....	0	0	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.00	761.9	45.7	7.6	69	S	.....	.....	2	.....	10	.....	NE	0.004	0.1	Covered	Puy de Dome, Obs
Commercy	.....	.....	29.95	760.6	43.2	6.2	82	SW	.....	.....	4	.....	5	.....	SW	0	0	Cloudy.....	Normal School.
Commune de Gréasque*	.....	.....	30.07	763.8	45.0	7.2	77	SE	.....	.....	4	.....	10	.....	SE	0	0	Raining.....	
Grenoble	.....	.....	30.07	763.8	36.0	2.2	67	N	.....	.....	2	.....	10s	.....	.....	0	0	Covered	Normal School.
Le Mans	.....	.....	30.00	761.9	46.4	8	86	SSE	.....	.....	4	.....	5	.....	SW	0	0	Cloudy.....	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.45	773.3	46.6	8.1	81	W	.....	.....	1	.....	10	.....	.....	0.140	3.70	Covered	Normal School.
Macon	.....	.....	29.92	759.9	42.4	5.8	78	.....	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.00	761.9	40.1	4.5	87	SSW	.....	.....	4	.....	8	.....	NNE	0	0	Almost cov'd	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Orleans	.....	.....	30.04	763.0	48.2	9	95	SE	.....	.....	2	.....	10	.....	.....	0.715	18.15	Covered	Normal School.
Paris Observatory	.....	.....	29.85	758.3	47.5	8.6	76	SW	.....	.....	3	.....	2	.....	SW	0.094	2.4	Slightly cl'dy	Normal School.
Parthenay	.....	.....	29.82	757.4	47.7	8.7	76	S	.....	.....	3	.....	8	.....	SW	0.004	0.10	Very cloudy	National Observatory.
Privas	.....	.....	29.86	758.1	50.4	10.2	76	SW	.....	.....	2	.....	5	.....	SW	0	0	Cloudy.....	Normal School.
La Roche-sur-Yon	.....	.....	30.05	763.2	46.2	7.9	.....	S	.....	.....	4	.....	10	.....	S	0.016	0.4	Covered	Normal School.
Rochefort, Observatory	.....	.....	29.83	757.6	48.6	9.2	92	SW	.....	.....	4	.....	8	.....	NE	0	0	Very cloudy	Normal School.
Rouen	.....	.....	29.89	759.2	51.3	10.7	73	SW	.....	.....	6	.....	10	.....	NE	0.197	5.0	Covered.....	Naval Observatory.
Saint Lo	.....	.....	29.78	756.4	44.2	6.8	77	SSW	.....	.....	3	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Tarbes	.....	.....	29.70	754.3	49.4	8	89	SW	.....	.....	4	.....	7	.....	W	0.016	0.4	.....	Normal School.
Toulouse	.....	.....	30. 1	762.3	44.6	7	69	SW	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Villefranche	.....	.....	29.98	761.6	47.3	8.5	86	SE	.....	.....	4	.....	0	.....	.....	.....	.....	Clear.....	Normal School.
	.....	.....	30. 8	763.9	49.8	9.9	83	SW	.....	.....	3	.....	10	.....	.....	0.04	1.	Covered.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.93	760.2	77.7	25.4	84	NE	.....	.....	2	.....	2k	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.02	762.	48.1	9.2	97	SE	.....	.....	2	.....	10	.....	.....	0	0	Raining.....	Marseilles Observatory
Mont-Louis	24.71	627.6	30. 3	767.8	35.4	1.9	71	SW	3.7	1.67	.....	.....	10	.....	SW	0.12	0.7	.....	—. Falguère.
Montsouris, Paris	.....	.....	29.82	757.3	47.1	8.7	75	SSW	.....	.....	4	.....	9	.....	SW	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	29.94	760.5	51.8	11.	81	W	7.4	3.33	.....	.....	10	.....	.....	0.059	1.5	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.01	533.7	.....	.....	19.	— 7.	.....	WSW	.....	.....	3	.....	10	.....	.....	0	0	Snowy.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.81	757.0	46.0	7.8	77	SSW	.....	.....	1	.....	10	.....	.....	0	0	Covered.....	E. Renou.
Toulouse	.....	.....	29.97	761.3	49.3	9.6	85	NNW	.....	.....	1	.....	10	.....	.....	0	0	.....	Toulouse Observatory.
Tours	.....	.....	29.85	758.1	48.9	9.4	76	SW	.....	.....	3	.....	7	.....	WSW	0	0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.81	757.1	47.1	8.4	76	SW	.....	.....	3	.....	10	.....	.....	0	0	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.43	772.8	32.0	0.0	91	NNW	4.07	1.81	.....	.....	10k	.....	.....	0	0	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,336 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.92	760.0	39.2	4.0	77	SW	.....	.....	3	.....	6	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	29.88	759.0	41.9	5.5	75	S	.....	.....	2	.....	8	.....	.....	0	0	Light rain...	Prof. Arndt.
Breslau	.....	.....	30.00	762.1	38.3	3.5	69	SSW	.....	.....	6	.....	10	.....	.....	0	0	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	29.97	761.2	40.6	4.8	78	SSW	.....	.....	1	.....	10	.....	.....	0.012	0.3	Foggy	A. Senz.
Cassel	.....	.....	29.92	760.0	42.6	5.9	77	S	.....	.....	3	.....	6	.....	.....	0	0	.....	Dr. H. Möhn.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.04	763.0	39.7	4.3	88	SW	.....	.....	1	.....	9	.....	.....	0	0	.....	Physical Society
Friedrichshafen	.....	.....	30.14	765.6	34.5	1.4	76	NW	.....	.....	.....	.....	10	.....	.....	0.031	0.8	.....	M. Wilhelm.
Hamburg	.....	.....	29.81	757.1	38.1	3.4	98	SW	.....	.....	2	.....	10	.....	.....	0.051	1.3	Fog, rain, snow.	Deutsche Seewarte.
Kiel	.....	.....	29.84	758.0	36.1	2.3	91	SW	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.78	756.3	34.5	1.4	86	W	.....	.....	5	.....	10	.....	.....	0.020	0.5	.....	Prof. E. Luther.
Konitz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leipsic	.....	.....	29.80	757.0	34.7	1.5	.....	SSW	.....	.....	2	.....	10	.....	.....	0	0	Snowing.....	H. Müller.
Münster	.....	.....	29.95	760.6	39.2	4.0	80	SSW	.....	.....	4	.....	9	.....	.....	0	0	.....	Prof. Bruhns.
Posen	.....	.....	29.84	757.9	44.4	6.9	81	SW	.....	.....	2	.....	10	.....	.....	0.106	2.7	.....	Prof. E. Heis.
Strassburg, (in Alsace)	.....	.....	29.96	760.9	38.8	3.8	85	WSW	.....	.....	2	.....	10	.....	.....	0	0	.....	Dr. Mayener.
Stuttgart	.....	.....	30.01	762.2	41.5	5.3	74	SW	.....	.....	2	.....	10	.....	.....	0.122	3.1	.....	Dr. Schur.
Thorn	.....	.....	30.02	762.5	43.9	6.6	59	W	.....	.....	.....	.....	8	.....	.....	0	0	.....	Mr. Wurth.
Treves, (Trier)	.....	.....	29.87	758.7	36.3	2.4	85	W	.....	.....	4	.....	10	.....	.....	Inap.	Inap.	.....	Dr. Hasenbalg.
Wustrow, Naval School	.....	.....	29.85	758.2	43.5	6.4	75	W	.....	.....	5	.....	9	.....	.....	0	0	Light fog....	Prof. Flesch.
	.....	.....	29.83	757.6	33.1	0.6	98	WSW	.....	.....	3	.....	10	.....	.....	0.035	0.9	Snowing.....	E. F. Schütt.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,355.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.42	772.6	52.0	11.1	.....	NW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Very clear...	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. corrected for instrumental errors. Inches.	Barometer. corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. Lb.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.32	770.0	34.3	1.3	80	N	0.7	0.3			0			0	0	Light fog	
Padua			30.35	770.9	31.5	— 0.3	93	NE	4.2	1.9			10			0	0		
Verona			30.32	770.1	33.8	1.0	87	E			2		10			0	0		
Bergamo			30.26	768.5	28.4	— 2.0		NE			2		0			0	0	Light fog	
Milan			30.34	770.6	31.1	— 0.5	92	E			1		10			0	0		
Moncalieri			30.34	770.7	30.6	— 0.8	96	NNE	0	0			10			4.529	115.0	Rain & snow	
Mondovi			30.29	769.4	33.1	0.6	92	NW			2		10			0	0		
Porto Maurizio			30.22	767.5	50.0	10.0		NNE			4		10			0.071	1.8		
Genoa			30.23	767.7	45.7	7.6	97	[illegible]	6.3	2.8			10	SE		0.154	3.9		
Piacenza			30.35	770.8	27.9	— 2.3	98	SE	9 4	4.2			0			0	0	Light fog	
Bologna			30.32	770.0	28.6	— 1.9	51	NW			1		10			0	0		
Florence			30.27	768.9	47.8	8.8	63	NE			2		10			0	0		
Leghorn			30.25	768.3	45.1	7.3	89	ENE	9.4	4.2			10			0	0		
Siena			30.27	768.8	42.1	5.6	87	ESE	3.1	1.4			10	SW		0.307	7.8		
Urbino																			
Pesaro																			
Ancona			30.35	771.0	36.7	2.6	75	SSE			2		5			0	0		
Rome			30.34	770.5	49.1	9.5	69	ESE	9.4	4.2			10	SW		0	0		
Naples, O. U			30.28	769.0	54.3	12.4	59	S			2		10	SW		0	0		
Lecce			30.43	772.9	50.7	10.4	66	SW	4.9	2.2			3			0	0		
Cosenza			30.39	772.0	50.5	10.3	64	NW			1		4	NW		0	0		
Riposto, (Sicily)			30.39	771.9	54.0	12.2	60	NE			2		5	SE		0	0		
Palermo			30.27	768.8	56.3	13.5	60	SW	10.5	4.7			10			0	0		
Caltanissetta			30.41	772.3	46.9	8.3	89	SE			2		10			0	0		
Sub-Series.																			
Naples, S. R			30.41	772.5	52.7	11.5	63	SW			4		[illegible]	WSW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.79	756.6	39.6	4.2		SSW			4								
Groningen			29.72	754.9	37.9	3.3		SW			1								
Helder			29.72	754.8	39.0	3.9		SSW			6								
Utrecht			29.74	755.5	39.9	4.4	97	SSW			3		10					Dull	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.66	753.3	31.6	— 0.2	92	NNW	17.0	7.6			10			0.276	7.0		
Brönö			29.01	736.9	33.8	1.0	72	W	36	16			10			0	0	Snowing	
Christiania			29.54	750.4	32.9	0.5	73	W	16.6	7.4			0			0	0		
Tromsö			28.94	735.1	20.5	— 6.4	71	E	2	1			2			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.21	767.4	56.8	13.8	94	W	9.4	4.20	.....	.....	10	.....	.....	0.197	5.0	Rain and fog	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.12	765.0	51.8	11.0	61	SSW	8.7	3.89	.....	.....	9	WNW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.14	765.6	61.3	16.3	67	Calm ?	0?	0?	.....	.....	5	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.13	765.2	45.7	7.6	97	Calm ?	1.3?	0.6?	.....	.....	10	SW	.....	0.098	2.5	Raining.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.94	760.4	35.1	1.7	93	SW	11	5	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	29.77	756.2	35.8	2.1	98	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	29.44	747.7	34.9	1.6	92	WSW	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.20	741.7	33.3	0.7	83	W	16	7	.....	.....	9	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	29.06	738.2	18.7	— 7.4	97	W	.....	.....	.....	.....	10	.....	.....	0.167	4.25	Snowing.....	Ch. Forsten.
Kief	.....	.....	30.00	761.9	28.4	— 2.0	76	W	11	5	.....	.....	2	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.28	769.0	33.8	1.0	68	SW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Kurdakof.
Kerich	.....	.....	30.30	769.7	36.5	2.5	84	WSW	2	1	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.62	752.4	34.0	1.1	89	S	9	4	.....	.....	10	.....	.....	.....	.....	Snowing.....	Meteorological Obs.
Lugan	.....	.....	30.05	763.2	30.9	— 0.6	90	SSW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.00	736.7	12.9	—10.6	93	SE	34	15	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.74	730.1	30.22	767.5	38.5	3.6	45	NW	20	9	.....	.....	5	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.32	770.0	10.4	—12.0	93	WNW	4	2	.....	.....	1	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	29.92	760.0	10.0	—12.2	96	S	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.00	736.6	30.08	764.0	7.9	—13.4	90	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	.....	.....	30.11	764.8	14.0	—10.0	64	SW	11	5	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.77	730.7	30.60	777.1	29.5	— 1.4	94	Calm	0	0	.....	.....	10	.....	.....	Blank	Blank	.....	Michelson.
Barnaul	.....	.....	30.25	768.4	3.4	—15.9	85	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.24	768.0	— 9.9	—23.3	90	SSW	2	1	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Orga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.31	769.9	21.2	— 6.0	54	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.86	770.7	30.21	767.3	—17.0	—27.2	86	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.38	771.7	2.7	—16.3	56	NW	13	6	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—10.1	—23.4	83	N	2	1	.....	.....	0	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Orga, 1,281.6? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.12	765.0	43.7	6.5	76	SW	6.7	3.0	.....	1	1	W	.....	0	0	Clouds.....	Royal Observatory.
San Fernando	.....	.....	30.20	767.0	59.0	15.0	56	S	0	0	.....	3	4	S	S	0.020	0.5	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.13	740.0	— 2.2	—19.0	88	N	.....	.....	2	.....	5	.....	.....	0	0	.....	
Umea	.....	.....	29.14	740.2	11.8	—11.2	93	Calm	.....	.....	0	.....	10	.....	.....	0.339	8.6	.....	
Hernosand	.....	.....	29.16	740.7	24.8	— 4.0	82	SW	.....	.....	2	.....	8	.....	.....	0.331	8.4	.....	
Stockholm	.....	.....	29.41	747.0	31.6	— 0.2	66	W	.....	.....	4	.....	1	.....	.....	0	0	.....	
Wisby	.....	.....	29.56	750.8	35.2	1.8	90	WNW	.....	.....	4	.....	5	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	29.42	747.3	31.5	— 0.3	54	W	10.7	4.8	.....	.....	0	.....	.....	0	0	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.62	726.9	30.11	764.9	31.8	— 0.1	100	SSE			0		10			0	0	Foggy	The Observatory.
Zurich	28.40	721.1	30.11	764.7	32.2	0.1	85	NW			1		9			0	0	Foggy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.7 mm.; Thermometer, —1.4 cent.; Relative Humidity, +21 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Counbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.42	772.7	42.4	5.8	61	S	7	3.0			0			0	0		
Fao, (Persian Gulf)			30.08	764.0	58.3	14.6		SE			3		10						
Salonica			30.40	772.1	48.6	9.2		NW			1		0						
Valona			30.26	768.5	50.4	10.2		W			1		0						
Varna			30.16	766.0	42.8	6.0		SE			2		0						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.			30.09	764.2	57.9	14.4	66	SW			1		8n		SW	0.007	0.18	Rainy	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.			29.86	758.4	19.6	— 6.9	87	NW								0	0		Hon. J. Ferguson.
Brockville, Ontario			30.38	771.6	13	—10.6		W	11	4.9		0	2s		W	0.10	2.5	Fair	W. R. Bigg.
*Chatham, N. B.			29.91	759.7	5	—15.0	87	W	9	4.0		8c	2ks	SW	SW	0.15	3.8	Fair	G. A. Blair.
Charlottetown, P. E. Island.			29.83	757.7	14	— 9.4	85	W	20	8.9		8k	0	W		0.050	1.27	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario			30.28	769.1	13.7	—10.2	87	W			3		6ks			0.04	1.0	Stormy	James Smith, M. A.
Dalhousie, N. B.			29.94	760.5	— 1.0	—18.3	84	W			5	1k				0.40	10.2		H. A. Johnson.
Esquimault, B. C.			29.92	760.0	24.0	— 4.4	11	NE	3	1.3						0	0	Clear	W. H. Bevis.
Fredericton, N. B.			30.02	762.5	10.1	—12.2	66	NW	15	6.7		3cs		NW		0	0	Fair	Prof. Harrison.
*Fort Garry, Manitoba			30.72	780.3	-34	—36.7	100	Calm	0	0		0	0			0	0	Clear	James Stewart.
Goderich, Ontario			30.53	775.4	18.1	— 7.7	80	NW			3	5k	8s	NW		0	0	Threatening	D. J. Strang, M. A.
Granton, Ontario			30.50	774.7	13.4	—10.3		W			1	2cs	0	E		0	0	Fair	Jam s Gran .
*Halifax, N. S.			29.94	760.5	20	— 6.7	84	NW	15	6.7		0	0			0.016	0.40	Clear	F. Allison, M. A.
*Kingston, Ontario			30.42	772.7	16	— 8.9	91	W	20	8.9		8k	0	W		0	0	Cloudy	S. Woods, M. A.
Little Current, Ontario			30.57	776.5	— 3.4	—19.7		W	1	0.4		0	0			0	0		G. B. Abbey, C. E.
*Montreal, Quebec			30.25	768.3	10	—12.2	75	W	10	4.5		5k	5ks	W	W	0.06	1.5	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario			30.30	769.6	11	—11.7	69	W	20	8.9		2k	0	W		0.03	0.8	Clear	J. B. Haney.
*Parry Sound, Ontario			30.51	774.9	1	—17.2	79	NW	12	5.4		2ek	2ks	NW	NW	0.25	6.3	Fair	Rev. R. Mooley.
*Port Dover, Ontario			30.48	774.2	18	— 7.8	68	W	7	3.1		0	0			0	0	Clear	H. Morgan.
Port Hastings, N. S.			29.92	760.0	23.2	— 4.9		NW	20	8.9						0	0	Fine	P ter Grant.
*Port Stanley, Ontario			30.50	776.7	17	— 8.3	92	W	8	3.6		2cs	0	W		0	0	Clear	M. Payne.
*Quebec, Quebec			30.15	765.8	4	—15.6	74	SW	8	3.6		0	0			0	0	Clear	Capt. Ash, R. N.
St. John, N. B.			30.07	763.8	15.0	— 9.4	73	W	16	7.2		1k	0			0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.45	773.4	16	— 8.9	83	NW	10	4.5			10s			0.04	1.0	Light snow	K. Stewart.
Stayner, Ontario			30.44	773.2	15	— 9.4	82	NW	13	5.8			10n		NW	Inap.	Inap.	Threatening	R. J. Cole.
Stratford, Ontario			30.47	773.9	17.0	— 8.3	73	NW	9	4.0			10s			0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			29.80	756.9	20	— 6.7	69	W	12	5.4		0	5ks		W	0.20	5.1	Fair	T. C. Hill.
*Toronto, Ontario			30.46	773.7	18	— 7.8	76	W	19	8.5		0	2ks		W	Inap.	Inap.	Clear	Magnetic Observatory.
Woodstock, Ontario			30.50	774.7	12.7	—10.7	100	W	1	0.4		0	2c			Inap.	Inap.	Fine	J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; tratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.30	769.6	24	— 4.4	87	NW	14	6.3	.....	5k	0	W	.....	0.02	0.5	Fair.	
Alpena, Mich.	.....	.....	30.52	775.2	6	—14.4	76	W	2	3.6	.....	0	1s	.....	.....	Inap.	Inap.	Clear.	
Atlantic City, N. J.	.....	.....	30.40	772.1	35	1.7	70	W	8	3.6	.....	2cs	0	W	.....	0	0	Fair.	
Augusta, Ga.	.....	.....	30.53	775.4	34	1.1	79	NW	1	0.4	.....	2cs	Sm'e	.....	.....	0	0	Clear.	
Baltimore, Md.	.....	.....	30.45	773.4	38	3.3	55	SW	4	1.8	.....	5cs	Sm'e	W	.....	0	0	Fair.	
Barnegat, N. J.	.....	.....	30.38	771.6	32	0.0	79	W	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Benton, Montana	27.31	693.7	30.11	764.8	—15	—26.1	100	NE	1	0.4	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow.	
Bismarck, Dakota	28.59	726.2	30.51	774.9	—10	—23.3	77	E	3	1.3	.....	.....	10n	.....	.....	0.04	1.0	Light snow.	
Boston, Mass.	.....	.....	30.17	766.3	29	— 1.7	78	SW	17	7.6	.....	0	1s	.....	.....	0	0	Clear.	
Breckenridge, Minn	.....	.....	30.68	779.3	—14	—25.6	73	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Buffalo, N. Y.	.....	.....	30.46	773.7	20	— 6.7	70	W	14	6.3	.....	0	8ks	.....	W	0	0	Fair.	
Burlington, Vt.	.....	.....	30.28	769.1	14	—10.0	72	N	8	3.6	.....	0	5s	.....	.....	0.01	0.3	Fair.	
Cairo, Ill.	.....	.....	30.35	770.9	42	5.6	49	SE	4	1.8	.....	5ck	0	S	.....	0	0	Fair.	
Cape Hatteras, N. C.	.....	.....	30.47	773.9	38	3.3	81	Calm	0	0	.....	5c	Haze	W	.....	0	0	Fair.	
Cape Henry, Va.	.....	.....	30.52	775.2	42	5.6	50	SW	7	3.1	.....	5c	0	.....	.....	0	0	Fair.	
Cape May, N. J.	.....	.....	30.48	774.2	38	3.3	71	W	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Charleston, S. C.	.....	.....	30.51	773.9	44	6.7	60	N	10	4.5	.....	5cs	0	NW	.....	0	0	Fair.	
Cheyenne, Wyoming	23.68	601.5	29.02	752.3	2	—16.7	100	S	16	7.2	.....	.....	Fog	.....	S	0.01	0.3	Foggy	
Chicago, Ill.	.....	.....	30.47	773.9	26	— 3.3	75	N	5	2.2	.....	2c	0	Ne	.....	0	0	Fair.	
Cincinnati, Ohio.	.....	.....	30.39	771.9	40	4.4	56	NE	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Cleveland, Ohio.	.....	.....	30.51	774.9	24	— 4.4	82	NW	6	2.7	.....	5k	5s	NW	NW	0	0	Cloudy.	
Colorado Springs, Col.	23.95	608.3	29.82	757.4	9	—12.8	100	SE	1	0.4	.....	.....	10n	.....	.....	0.04	1.0	Light snow.	
Corsicana, Texas.	.....	.....	30.11	764.8	54	12.2	93	E	11	4.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Davenport, Iowa.	.....	.....	30.47	773.9	21	— 6.1	86	NE	16	7.2	.....	.....	10s	.....	.....	0.10	2.5	Cloudy.	
Denison, Texas.	.....	.....	30.09	764.3	53	11.7	79	S	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.	
Denver, Col.	24.57	624.1	29.79	756.7	10	—12.2	58	N	3	1.3	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.	
Detroit, Mich.	.....	.....	30.53	775.4	18	— 7.8	84	N	4	1.8	.....	5ck	0	W	.....	0	0	Fair.	
Dodge City, Kan.	27.42	696.5	29.88	758.9	15	— 9.4	82	NW	8	3.6	.....	.....	10s	.....	NW	0	0	Threatening	
Dubuque, Iowa.	.....	.....	30.54	775.7	17	— 8.3	51	NE	8	3.6	.....	10c	0	SW	.....	0	0	Cloudy.	
Duluth, Minn.	.....	.....	30.69	779.5	—12	—24.4	.....	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Eastport, Me.	.....	.....	30.04	763.0	20	— 6.7	70	W	10	4.5	.....	2c	5s	W	W	0.07	1.8	Fair.	
Erie, Pa.	.....	.....	30.47	773.9	23	— 5.0	86	NW	12	5.4	.....	2c	5ks	.....	NW	Inap.	Inap.	Fair.	
Escanaba, Mich.	.....	.....	30.60	777.2	0	—17.8	69	W	8	3.6	.....	0	1s	.....	.....	0	0	Clear.	
Fort Gibson, Indian Terr.	.....	.....	30.09	764.3	52	11.1	60	SE	13	5.8	.....	.....	10ks	.....	SW	0	0	Cloudy.	
Fort Sill, Indian T.	28.80	731.5	29.91	759.7	51	10.6	93	S	16	7.2	.....	.....	10s	.....	S	0	0	Cloudy.	
Fort Sully, Dakota.	28.58	725.9	30.49	774.4	— 3	—19.4	67	SE	12	5.4	.....	.....	10n	.....	.....	0.03	0.8	Light snow	
Galveston, Tex.	.....	.....	30.15	765.8	62	16.7	94	E	8	3.6	.....	.....	Fog	.....	.....	0	0	Foggy.	
Grand Haven, Mich.	.....	.....	30.53	775.4	15	— 9.4	74	NE	8	3.6	.....	0	5s	.....	W	0	0	Fair.	
Indianapolis, Ind.	.....	.....	30.40	772.1	32	0.0	79	NE	4	1.8	.....	.....	10s	.....	SW	0	0	Cloudy.	
Indianola, Tex.	.....	.....	30.10	764.5	63	17.2	97	SE	11	4.9	.....	0	5s	.....	S	0	0	Fair.	
Jacksonville, Fla.	.....	.....	30.41	772.4	50	10.0	86	N	6	2.7	.....	8k	0	S	.....	0	0	Fair.	
Keokuk, Iowa.	.....	.....	30.35	770.9	23	— 5.0	73	E	14	6.3	.....	.....	10s	.....	E	0	0	Cloudy.	
Key West, Fla.	.....	.....	30.28	769.1	71.6	22.0	90	E	9	4.0	.....	1c	2ks	N	E	0	0	Clear.	
Kittyhawk, N. C.	.....	.....	30.54	775.7	40	4.4	64	W	3	1.3	.....	5c	0	.....	.....	0	0	Fair.	
Knoxville, Tenn.	.....	.....	30.55	776.0	28	— 2.2	100	NW	3	1.3	.....	1c	Fog	NW	.....	0	0	Fair.	
La Crosse, Wis.	.....	.....	30.52	775.2	5	—15.0	50	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Leavenworth, Kan.	.....	.....	30.22	767.6	30	— 1.1	79	E	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Lexington, Ky.	29.27	743.4	30.45	773.4	33	0.6	69	SE	12	5.4	.....	.....	1os	.....	.....	0	0	Cloudy.	
Long Branch, N. J.	.....	.....	30.38	771.6	34	1.1	79	W	12	5.4	.....	2k	0	SW	.....	0	0	Clear.	
Louisville, Ky.	.....	.....	30.40	772.1	37	2.8	62	S	4	1.8	.....	0	Fog	.....	.....	0	0	Clear.	
Lynchburg, Va.	.....	.....	30.54	775.7	29	— 1.7	89	Calm	0	0	.....	1oc	0	W	.....	0	0	Cloudy.	
Malone, N. Y.	.....	.....	30.25	768 3	14	—10.0	75	W	3	1.3	.....	.....	10ks	.....	W	0.22	5.6	Clearing.	
Marquette, Mich.	.....	.....	30.59	777.0	3	—16.1	86	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Memphis, Tenn.	.....	.....	30.36	771.1	43	6.1	58	Calm	0	0	.....	Haze	8s	.....	SW	0	0	Cloudy.	
Milwaukee, Wis.	.....	.....	30.61	777.5	10	—12.2	78	N	12	5.4	.....	.....	10ks	.....	N	0	0	Cloudy.	
Mobile, Ala.	.....	.....	30.30	771.0	45	7.2	86	E	3	1.3	.....	2c	Haze	.....	.....	0	0	Fair.	
Montgomery, Ala.	.....	.....	30.49	774.4	37	2.8	81	E	2	0.9	.....	2c	Sm'e	.....	.....	0	0	Clear.	
Morgantown, W. Va.	.....	.....	30.47	773.9	35	1.7	79	Calm	0	0	.....	10c	Haze	W	.....	0	0	Cloudy	
Mt. Washington, N. H.	29.30	591.8	30.66	753.4	— 2	—18.9	100	NW	54	24.1	.....	.....	Fog	.....	.....	0	0	Foggy.	
Nashville, Tenn.	.....	.....	30.42	772.7	36	2.2	70	SE	3	1.3	.....	10k	0	SW	.....	0	0	Cloudy.	
New Haven, Conn.	.....	.....	30.29	769.4	34	1.1	69	NW	12	5.4	.....	Haze	0	.....	.....	Inap.	Inap.	Clear.	
New London, Conn.	.....	.....	30.28	769.1	33.5	0.8	61	W	15	6.7	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
New Orleans, La.	.....	.....	30.31	769.9	55	12.8	84	E	8	3.6	.....	10k	0	SW	.....	0	0	Cloudy.	
Newport, R. I.	.....	.....	30.23	767.8	34	1.1	71	W	32	14.3	.....	0	0	.....	.....	0	0	Clear.	
New York, N. Y.	.....	.....	30.36	771.1	32	0.0	68	SW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Norfolk, Va.	.....	.....	30.53	775.4	39	3.9	55	Calm	0	0	.....	5c	Haze	W	.....	0	0	Clear.	
North Platte, Neb.	27.15	689.6	29.99	761.7	3	—16.1	86	NE	8	3.6	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.	
Omaha, Neb.	29.15	740.4	30.32	770.1	15	— 9.4	74	NE	12	5.4	.....	10cs	0	.....	.....	0	0	Cloudy.	
Oswego, N. Y.	.....	.....	30.38	771.6	21	— 6.1	85	NW	18	8.0	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow.	
Peck's Beach, N. J.	.....	.....	30.44	773.2	36	2.2	80	W	12	5.4	.....	2c	2s	W	.....	0	0	Fair.	
Pembina, Dakota.	.....	.....	30.73	755.1	—36	—37.8	100	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair.	
Philadelphia, Penn.	.....	.....	30.42	772.7	34	1.1	69	W	6	2.7	.....	2ck	Sm'e	W	.....	0	0	Fair.	
Pike's Peak, Colorado.	17.29	439.2	29.50	749.3	1	—17.2	71	SW	52	23.2	.....	0	1s	.....	.....	0	0	Clear.	
Pittsburgh, Penn.	.....	.....	30.44	773.2	32	0.0	60	NW	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Port Huron, Mich.	.....	.....	30.53	775.4	13	—10.6	81	W	8	3.6	.....	1c	2s	.....	.....	Inap.	Inap.	Fair.	
Portland, Me.	.....	.....	30.09	764.3	25	— 3.9	75	W	11	4.9	.....	1k	0	NW	.....	0.01	0.3	Clear.	
Portland, Oregon.	.....	.....	29.92	760.0	28	— 2.2	77	E	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Punta Rassa, Fla.	.....	.....	30.33	770.4	62.8	17.1	94	NE	10	4.5	.....	Haze	Sm'e	.....	NE	0	0	Hazy.	
Rochester, N. Y.	.....	.....	30.40	772.1	21	— 6.1	70	W	12	5.4	.....	Haze	5s	.....	W	0.01	0.3	Fair.	
Salt Lake City, Utah	25.22	640.6	29.55	750.6	26	— 3.3	100	N	4	1.8	.....	.....	10n	.....	.....	0.22	5.6	Heavy snow	
Sandy Hook, N. J.	.....	.....	30.34	770.6	35	1.7	70	W	23	10.3	.....	1c	0	W	.....	0	0	Clear.	
San Diego, Cal.	.....	.....	29.87	758.7	48	8.9	85	W	20	8.9	.....	.....	10n	.....	W	0.52	13.2	Heavy rain.	
San Francisco, Cal.	.....	.....	29.72	754.9	40	4.4	82	SE	8	3.6	.....	0	8s	.....	.....	0.12	3.0	Fair.	
Santa Fe, N. M.	23.02	584.7	29.56	755.0	36	2.2	.....	SE	12	5.4	.....	0	2cs	.....	.....	0	0	Fair.	
Savannah, Ga.	.....	.....	30.49	774 4	42	5.6	75	NE	3	1.3	.....	.....	10s	.....	S	0	0	Cloudy.	
Shreveport, La.	.....	.....	30.28	769.1	47	8.3	85	SE	8	3.6	.....	10c	0	SW	.....	0	0	Fair.	
Smithville, N. C.	.....	.....	30.54	775.7	37	2.8	67	N	8	3.6	.....	5cs	0	W	.....	0	0	Fair.	
Springfield, Mass.	.....	.....	30.28	769.1	32	0.0	49	W	16	7.1	.....	5k	0	W	.....	0	0	Fair.	
St. Louis, Mo.	.....	.....	30.31	769.9	34	1.1	79	NE	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
St. Marks, Fla.	.....	.....	30.40	772.1	44	6.7	75	NE	6	2.7	.....	5k	0	SE	.....	0	0	Fair.	
St. Paul, Minn.	.....	.....	30.61	752.1	— 1	—18.3	84	N	5	2.2	.....	10cs	0	.....	.....	0	0	Cloudy.	
St. Paul's Island, Alaska.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squan Beach, N. J.	.....	.....	30.31	769.9	31	— 0.6	79	W	6	2.7	.....	5cs	0	W	.....	0	0	Fair.	
Thatcher's Island, Mass.	.....	.....	30.18	766.6	30	— 1.1	48	W	21	9.4	.....	0	5s	.....	NW	0	0	Clear.	
Toledo, Ohio.	.....	.....	30.50	774.7	23	— 5.0	86	N	2	0.9	.....	.....	10ks	.....	N	0	0	Cloudy.	
Tucson, Arizona.	27.39	695.7	29.76	754.4	51	10.6	.....	S	.....	.....	.....	2c	0	.....	.....	0	0	Clear.	
Tybee Island, Ga.	.....	.....	30.47	773.9	48	8.9	85	NE	14	6.3	.....	2c	2s	NW	.....	0	0	Fair.	
Vicksburg, Miss.	.....	.....	30.36	771.1	44	6.7	67	SE	13	5.8	.....	0	2s	.....	.....	0	0	Clear.	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.82	605.0	29.30	744.2	--11	—23.9	76	E	1	0.4	.....	.....	10n	.....	.....	0.04	1.0	Light snow..	
Washington, D. C	.....	.....	30.47	773.9	35.5	1.9	61	S	4	1.8	.....	2cs	Haze	NW	.....	0	0	Fair	
Wilmington, N. C	.....	.....	30.55	776.0	33	0.6	79	N	2	0.9	.....	8c	Sm'e	NW	.....	0	0	Fair	
Wood's Holl, Mass	.....	.....	30.24	768.1	35	1.7	61	NW	24	10.7	.....	1k	0	NW	.....	0	0	Clear	
Wytheville, Va	28.06	712.7	30.41	772.4	22	— 5.6	86	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	29.06	738.1	30.54	775.7	0	—17.8	69	NE	9	4.0	.....	.....	10s	.....	.....	0.04	1.0	Cloudy	
Yuma, Arizona	.....	.....	29.87	758.7	46	7.8	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Hazy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.07	763.8	79	26.1	90	NE	6	2.7	.....	5ck	5s	NE	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.02	762.5	74	23.3	81	NE	.....	.....	.....	2cs	2k	.....	.....	0.07	1.8	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.24	768.1	69	20.6	84	Calm	0	0	.....	1c	1k	W	E	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.25	768.3	72	22.2	76	Calm	0	0	.....	2ck	2s	SE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.31	769.9	77	25.0	72	ENE	14	6.3	.....	4c	8k	NE	.....	0.01	0.3	Fair	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.97	761.2	73	22.8	76	NE	1.2	0.5	.....	0	2k	.....	NE	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.31	769.9	62.5	16.9	67	N	11.0	4.9	.....	0	5k	.....	.....	0.03	0.8	Fair	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.12	765.0	— 9.5	—23.1	100	W	8	3.6	.....	.....	8s	.....	.....	0.06	1.5	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.37	746.0	25.0	-- 3.9	87	SW	.....	.....	.....	.....	10n	.....	.....	0.45	11.4	Stormy	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.27	692.6	30.08	764.0	64	17.8	83	W	2.0	0.9	.....	5c	2k	NE	.....	0	0	Dull	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.21	640.2	.....	.....	61.5	16.4	86	.....	0	0	.....	4ck	5s	.....	.....	0	0	Clearing	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.01	762.2	80	26.7	82	SE	.....	.....	2	.....	6k	.....	.....	0.350	8.89	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.04	762.9	80.6	27.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.043	26.50	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
Steamer Nürnberg, N. 48° 02', W. 36° 18'	SW by W, ¾ W.	.....	Heavy sea.	WNW	Clearing
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,037.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 22, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.21	767.3	58.5	14.7	57	Calm			0		6			0	0	Fair	Charnot.
Algiers			30.28	769.0	57.2	14.0	71	N			1		2			0	0	Clear	Peter.
La Calle																			Kunts.
Tunis																			
Sfax			30.29	769.4	61.2	16.2	64	N			2		4			0	0	Fair	Jacques.
Saida			30.30	769.7	59.0	15.0	76	Calm			0		6			0	0	Fair	Chauvey.
Tebessa			30.26	768.6	51.8	11.0	30	NW			1		0			0	0	Clear	Grosjean.
Geriville			30.29	769.4	50.4	10.2		SE			3		2			0	0	Clear	Colin.
Laghouat			30.26	768.7	36.0	2.2	60	N			1		2			0	0	Clear	Buard.
Biskra			30.24	768.1	51.8	11.0	63	SE			2		1			0	0	Clear	Simon.
			30.28	769.2	61.2	16.2	32	NW			1		0			0	0	Clear	Coulon.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.14	765.5	42.8	6.0	75	SW			2		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow																			
Eperies			30.08	763.9	33.4	0.8	87	NE			1		10			0	0		I. R. Observatory.
Gratz			30.13	765.4	36.0	2.2	87	Calm			0		10			0	0		Julius Mikolik.
Hermannstadt	28.85	732.8	30.10	764.4	39.0	3.9	75	SSW			2		7			0	0		Andreas Rospini.
Kremsmünster	28.67	728.2	30.10	766.8	27.5	— 2.5	77	SSE			1		7			0	0		Prof. Reissenberger.
Lemberg	28.79	731.3	30.21	767.2	31.3	— 0.4	92	Calm			0		10			0.126	3.2		Prof. C. Wagner.
Nylregyhaza			29.97	761.1	30.7	2.6	79	NW			4		8			0.094	2.4		Dr. T. Stanecki.
Pola			30.16	766.0	25.5	— 3.6	91	S			1		0			0	0		Habzsuda Daniel.
Segedin			30.18	766.6	40.8	8.2	98	WSW			1		10s			0.276	7.00		I.R. Hydrographic Office
Trieste			30.14	765.5	32.4	0.2	89	S			1		10			0	0		Karl Stancel.
Vienna			30.18	766.5	47.7	8.7	95	Calm			0		10			0.043	1.1	Rain and fog	Prof. V. Faroiti.
			30.16	765.7	28.6	— 1.9	90	Calm			0		7			0	0		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.13	765.2	39.6	4.2	98	N			0		10			0.075	1.90	Foggy	Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.06	763.5	33.7	0.9		SSW	16	7.2			4			0	0	Blue sky	William Boswell.
Ardrossan			30.13	765.3	42	5.6		SSW			5		7					*D. clouds	J. Mayes.
Armagh Observatory			30.18	766.6	33.6	0.9		S	22	9.8			10					Squally	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs			30.28	769.1	38	3.3		S	8	3.6			2					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			30.20	767.1	35.6	2.0		SSE			1		10					Overcast	J. Dreyer.
Bradford			30.22	767.6	36.6	2.6		SW			1		0			0.02	0.5	Blue sky	J. McLandsborough.
Bridgetown, (Barbados)			30.01	762.2	81.6	27.6		NE			4		6					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.30	769.6	40.9	4.9		N			1		0					Blue sky	H. Todd.
Cardington			30.31	769.9	36.6	2.6		N			1		1					Blue sky	John McLaren.
Carlisle			30.18	766.6	31.2	0.4		S			1		6			0.08	2.0	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.24	768.1	37.2	2.9		N			2		4					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.87	733.3	30.44	773.2	36.8	2.7		N			2		0					Blue sky	R. E. Power.
Donaghadee			30.16	766.1	35	1.7		WSW			4		5					*D. clouds	J. Mac Gowan.
Dover			30.21	767.3	39	3.9		NE			4		8					¾ clouded	J. Costello.
Eccles, (near Manchester)			30.28	769.1	36.5	2.5		W	0.2	0.1								Blue sky	Thomas Mackereth.
Falmouth Observatory			30.37	771.4	39.7	4.3		NNW	4	1.8			2					*D. clouds	The Staff.
Fort Napier, (Natal)	27.66	702.6	29.91	759.7	63.6	17.6		SE			3		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.85	758.2	86	30.0		N			2		2					Blue sky	
Galway, Queen's College			30.01	762.2	43	6.1		W			4		10					Gloomy	B. G. Clare, for Prof. Currey.
Gibraltar, (Mediterranean)			30.21	767.3	59.9	15.5		W			2		6					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.10	764.5	36.9	2.7		S			1		10					Overcast	Lewis Stuart.
Great Yarmouth			30.25	768.3	38	3.3		NE			4		4					*D. clouds	G. T. Watson.
Greenwich Royal Obs			30.26	768.6	39.5	4.2		NNE			1		9					Covered	The Staff for G. B. Airy
Guernsey			30.29	769.4	39.5	4.2		NE			2		7					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.33	770.4	33.6	0.9		NW			1		10					Hazy	L. J. Crossley.
Helston			30.34	770.6	44	6.7		N			2		2			0	0	Fine	M. P. Moyle.
Holyhead			30.24	768.1	39	3.9		S			3		6					*D. clouds	John Tilston.
Kew Observatory			29.28	769.1	39.8	4.3		NNE	13	5.8			5					*D. clouds	The Staff.
Kingstown			30.23	767.8	40	4.4		SSW			3		10					Overcast	George Mitchell.
Leicester Museum			30.32	770.1	38.0	3.3		N			1		4					Hazy	William J. Harrison.
Malta, (Mediterranean)			30.23	767.8	61.2	16.2		SE			2		8k						Fred Travis, Pvt A. H. C.
Nairn			29.93	760.2	33	0.6		Calm			6		2					¼ clouded	W. D. Penny.
Nassau, (Bahamas)			30.36	771.4	73.4	23.0		NE			6		6					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.32	770.1	38.5	3.6		SSW			1		8c					Blue sky	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.30	769.6	36.7	2.6		NNW			0–1		5					*D. clouds	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			30.27	768.8	37	2.8		NW			1		5					*D. clouds	J. Lucas.
Plymouth			30.34	770.6	40.1	4.5		NW			1		0					Blue sky	John Merrifield.
Roche's Point			30.27	768.8	44	6.7		SW			5		5					Fine	W. Kennedy.
Saint Ann's Head			30.32	770.1	41	5.0		S			2		3					*D. clouds	John C. Walker.
Saint Helier, (Jersey)			30.28	769.1	41.5	5.3		NNE			4		10					Overcast	A. P. Amy.
Sandwick Manse (Orkneys)			29.93	760.2	34.8	1.6		S	20	8.9			10					Cloudy	Rev. Dr. Clouston
Scarborough			30.25	768.3	37.0	2.8		SW			1		2					Blue sky	F. Shaw.
Scutari Cemetery (Turkey			30.28	769.1	46.0	7.8		SW			2		7c,ck						Sergt. W. H. Lyne.
Sheffield			30.28	769.1	39 0	3.9		SW			1		4			0.12	3.10	Blue sky	W. F. Cooper.
Silloth Rectory			29.20	767.1	37.5	3.1		WSW			2		4			0.275	6.99	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			30.26	768.6	35.3	1.8		SW			1		5					Hazy	The Staff.
Stornoway, Lews C. (Hebr)			29.79	756.7	38	3.3		SSW			7		10					Raining	John Smith.
Stratfield Turgiss			30.28	769.1	37.5	3.1		NE			1		0					Blue sky	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.90	759.4	33	0.6		S			3		10					Overcast	John Trotter.
Truro, Royal Institution			30.36	771.1	46	7.8		SE			4		6					*D. clouds	W. Newcombe.
Valencia Observatory			30.19	766.8	46.9	8.3		S	40	17.9			10					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs			29.89	759.2	92.1	33.4	23	WNW	12	5.4			4						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)																			
Leith, Restalrig Park			30.13	765.3	37.7	3.2		SW			2		10s			0	0	Fine	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclaus.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Low'r 0—10.	Weather.	Observer.
Copenhagen			30.05	763.2	33.8	1.0	77	WNW			2	0		
Fanöe			30.16	766.1	34.2	1.2	85	W			4	1		
Godthaab, (Greenland)			28.38	720.8	19.6	— 6.9	94	NNW			6	10		
Stykkisholm, (Iceland)			28.67	728.2	37.9	3.3	97	SE			4	8	Raining	
Thorshavn, (Faröe)			29.57	751.1	39.0	3.9	75	S			4	10	Raining	
Vestervig			30.08	764.0	34.9	1.6	91	W			4	4		

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory; and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alengon	.....	.....	30.28	769.2	37.4	3	87	NE	.....	.....	3	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	29.85?	758.1?	41.7	5.4	81	S	.....	.....	3	.....	10	.....	.....	0.362	9.2	Covered	Normal School.
Avignon	.....	.....	30.21	767.3	45.1	7.3	94	ESE	.....	.....	1	.....	8	.....	.....	0.205	5.2	Misty.....	Normal School.
Bar-sur-Seine	.....	.....	30.18	766.6	40.6	4.8	79	SW	.....	.....	2	..c	.....	SW	.....	0	0	.....	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.22	767.5	40.1	4.5	83	NW	4.0	1.8	.....	.....	.....	.....	N	0	0	.....	Beaumette Observatory.
Beauvais	.....	.....	30.15	765.8	40.1	4.5	84	N	.....	.....	2	.....	10	.....	N	0.04	1.	Covered	Normal School.
Besançon	.....	.....	30.27	768.9	41.0	5	90	SSW	.....	.....	3	.....	8	.....	SW	0.260	6.6	Very cloudy	Normal School.
Bourg en Bresse	.....	.....	30.28	769.2	40.8	4.9	91	N	.....	.....	1	.....	10n	.....	.....	0	0	Covered	Normal School.
Bourges	.....	.....	30.30	769.5	41.7	5.4	85	SW	.....	.....	4	.....	10	.....	SW	0.	0	Covered	Normal School.
Brest	.....	.....	30.27	768.9	42.6	5.9	58	NE	.....	.....	3	.....	1k	.....	NNE	0	0	Clear.....	Naval Observatory.
Caen	.....	.....	30.24	768.1	42.8	6	83	NW	.....	.....	6	.....	10	.....	.....	0.08	2.	Covered	Normal School.
Chartres	.....	.....	30.19	766.7	38.1	3.4	.....	N	.....	.....	3	.....	10	.....	.....	0	0	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.21	767.3	44.2	6.8	78	W	.....	.....	2	.....	10	.....	E	0.071	1.8	Covered	Puy de Dome, Obs.
Commercy	.....	.....	30.18	766.5	38.1	3.4	90	WSW	.....	.....	2	.....	5	.....	WSW	0.020	0.5	Cloudy.....	Normal School.
Commune de Gréasque*	.....	.....	30.21	767.4	48.2	9.0	73	NW	.....	.....	2	.....	5	.....	NW	0.795	20.2	.....	
Grenoble	.....	.....	30.23	767.8	38.8	3.8	74	NNW	.....	.....	2	.....	8k	.....	.....	0.16	4.	Misty.....	Normal School.
Le Mans	.....	.....	30.24	767.4	40.1	4.5	83	NW	.....	.....	2	.....	8	.....	NW	0.051	1.3	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lons-Le-Saulnier	.....	.....	30.24	768.2	37.9	5.3	88	SW	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Mâcon	.....	.....	30.22	767.6	41.9	5.5	81	SW	.....	.....	2	.....	10	.....	.....	0.205	5.2	Covered	Normal School.
Mirecourt	.....	.....	30.20	767.1	39.0	3.9	70	SSW	.....	.....	2	.....	8	.....	NNE	0.24	6.	Almost cov'd	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Nismes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Orleans	.....	.....	30.26	768.6	52.2	11.2	85	NW	.....	.....	1	..c	..n	.....	SW	0	0	.....	Normal School.
Paris Observatory	.....	.....	30.14	765.6	39.4	4.2	87	WNW	.....	.....	3	.....	8	.....	W	0	0	Very cloudy	Normal School.
Parthenay	.....	.....	30.12	765.1	40.3	4.6	85	NW	.....	.....	2	.....	10	.....	NW	Inap.	Inap.	Rainy.....	National Observatory.
Privas	.....	.....	30.21	767.2	41.0	5	90	W	.....	.....	4	.....	10	.....	.....	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	30.23	767.7	48.4	9.1	.....	SW	.....	.....	2	.....	2	.....	SW	0.205	5.2	Slightly cl'dy	Normal School.
Rochefort, Observatory	.....	.....	30.28	769.2	42.1	5.6	81	WSW	.....	.....	2	.....	8	.....	SE	0.131	3.4	Very cloudy	Normal School.
Rouen	.....	.....	30.29	769.4	42.8	6.0	91	NNE	.....	.....	3	.....	10	.....	SW	0	0	.....	Naval Observatory.
Saint Lo	.....	.....	30.15	765.7	41.5	5.5	88	NNW	.....	.....	3	.....	10	.....	.....	0	0	Covered	Normal School.
Tarbes	.....	.....	30.28	769.2	39.2	4	91	N	.....	.....	2	.....	10	.....	N	0.12	3.	.....	Normal School.
Toulouse	.....	.....	30.30	769.6	46.4	8	78	S	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Villefranche	.....	.....	30.47	773.8	41.9	5.5	83	SE	.....	.....	2	.....	0	.....	.....	.....	.....	Clear.....	Normal School.
	.....	.....	30.31	769.6	46.2	7.9	84	NE	.....	.....	1	.....	8	.....	N	0.173	4.40	Very cloudy	Normal School.
Sun-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.1	77.0	25	83	NE	.....	.....	2	.....	2k	.....	.....	0.16	4.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Marseilles	.....	.....	30.17	766.2	51.4	10.8	82	WNW	.....	.....	2	.....	1	.....	.....	1.195	29.60	.....	Marseilles Observatory.
Mont-Louis	24.90	632.4	30.36	771.1	32.4	0.2	96	ESE	3.7	1.67	.....	.....	10	.....	SW	0.024	0.6	.....	—. Faïguère.
Montsouris, Paris	.....	.....	30.11	764.8	39.7	4.3	89	NNW	.....	.....	2	.....	10	.....	NW	0.008	0.2	Sprinkling...	Montsouris Observ'tory
Perpignan	.....	.....	30.23	767.8	50.0	10.0	76	SE	3.7	1.67	.....	.....	9	.....	SW	Inap.	Inap.	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.09	535.7	...	.....	17.6	— 8.0	...	W	.....	.....	2	.....	10	.....	.....	0	0	Snowy	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.11	764.9	34.4	4.4	94	NW	.....	.....	2	.....	10	.....	.....	0.008	0.1	Drizzling.....	E. Renou.
Toulouse	.....	.....	30.26	768.7	45.3	7.4	89	NNW	.....	.....	2	.....	10	.....	.....	0.157	4.0	Light rain...	Toulouse Observatory.
Tours	.....	.....	30.22	767.4	40.3	4.6	77	NNW	.....	.....	2	.....	9	.....	NW	0.071	1.8	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.12	765.1	41.0	5.0	84	NW	.....	.....	2	.....	10	.....	.....	0.052	1.33	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.38	771.7	30.2	— 1.0	92	N ?	3.1 ?	1.4 ?	.....	0	0	.....	.....	{ 0 / 0	{ 0 / 0	.....	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,646.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,055.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

* Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.96	760.9	38.7	3.7	97	SW	.....	.....	3	.....	10	.....	.....	0.157	4.0	Rain & fog...	Prof. T. Hoh.
Berlin	.....	.....	30.11	764.7	32.2	0.1	100	N	.....	.....	1	.....	10	.....	.....	0.110	2.8	.....	Prof. Arndt.
Breslau	.....	.....	30.07	763.8	37.2	2.9	79	W	.....	.....	3	.....	10	.....	.....	0.106	2.7	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.15	765.8	42.1	5.6	92	SW	.....	.....	4	.....	5	.....	.....	0.370	9.4	.....	A. Senz.
Cassel	.....	.....	30.14	765.6	41.9	5.5	86	SSW	.....	.....	2	.....	10	.....	.....	0.043	1.1	Snowing.....	Dr. H. Möhl.
Cologn	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Friedrichshafen	.....	.....	30.23	767.7	43.9	6.6	96	SW	.....	.....	1	.....	9	.....	.....	0.131	3.4	Foggy.....	Physical Society.
Hamburg	.....	.....	30.25	768.3	37.0	2.8	77	N	.....	.....	.....	.....	10	.....	.....	0	0	.....	M. Wilhelm.
Kiel	.....	.....	30.15	765.9	32.7	0.4	80	NE	.....	.....	2	.....	1	.....	.....	0.280	7.1	.....	Deutsche Seewarte.
Königsberg	.....	.....	30.13	765.4	34.9	1.6	76	N	.....	.....	1	.....	3	.....	.....	0.055	1.4	.....	Prof. G. Karsten.
Köslin	.....	.....	29.95	760.6	32.9	0.5	72	NW	.....	.....	5	.....	5	.....	.....	0.083	2.1	.....	Prof. E. Luther.
Leipsic	.....	.....	30.02	762.4	30.6	— 0.8	.....	Calm	.....	.....	0	.....	5	.....	.....	0.157	4.0	.....	H. Müller.
Münster	.....	.....	30.08	764.1	39.4	4.1	93	SW	.....	.....	2	.....	10	.....	.....	0	0	Raining.....	Prof. Bruhns.
Posen	.....	.....	30.11	764.7	38.3	3.5	89	NW	.....	.....	2	.....	10	.....	.....	0.016	0.4	.....	Prof. E. Heis.
Strassburg, (in Alsace)	.....	.....	30.10	764.5	34.4	0.8	88	NW	.....	.....	2	.....	10	.....	.....	0.035	0.9	.....	Dr. Mageuer.
Stuttgart	.....	.....	30.19	766.7	43.2	6.2	90	Calm	.....	.....	0	.....	8	.....	.....	0	0	.....	Dr. Schur.
Thorn	.....	.....	30.16	766.0	45.5	7.5	75	SW	.....	.....	.....	.....	5	.....	.....	0.154	3.9	.....	Mr. Würth.
Treves, (Trier)	.....	.....	29.98	761.4	36.3	2.4	89	NW	.....	.....	3	.....	10	.....	.....	0.075	1.9	Raining.....	Dr. Hasenbalg
Wustrow, Naval School	.....	.....	30.09	764.2	41.9	5.5	82	W	.....	.....	2	.....	10	.....	.....	0.083	2.1	Light fog.....	Prof. Flesch.
	.....	.....	30.13	765.3	32.0	0.0	92	N	.....	.....	2	.....	78	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.38	771.7	53.6	12.0	.....	SW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Misty.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	30.15	765.9	43.5	6.4	84	N	0.7	0.3	.....	.....	8	.....	.....	0.335	8.5	.....	
Padua	.....	.....	30.18	766.5	41.2	5.1	97	W	3.8	0.7	.....	.....	10	SW	.....	0	0	.....	
Verona	.....	.....	30.17	766.3	42.8	6.0	70	E	.....	.....	1	.....	10	.....	.....	0	0	.....	
Bergamo	.....	.....	30.17	766.4	35.6	2.0	82	W	.....	.....	1	.....	10	.....	.....	0	0	Foggy	
Milan	.....	.....	30.25	768.4	34.5	1.4	89	NW	.....	.....	1	.....	10	.....	.....	0	0	.....	
Moncalieri	.....	.....	30.27	768.9	34.3	1.3	81	ESE	0	0	.....	.....	3	W	.....	0.591	15.0	.....	
Mondovi	.....	.....	30.25	768.4	35.6	2.0	66	WSW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Porto Maurizio	.....	.....	30.21	767.3	50.0	10.0	.....	NW	.....	.....	4	.....	10	.....	.....	0.480	12.2	.....	
Genoa	.....	.....	30.17	766.4	46.4	8.0	55	NW	3.1	1.4	.....	.....	2	N	.....	Blank	Blank	.....	
Piacenza	.....	.....	30.24	768.2	34.5	1.4	85	NW	3.1	1.4	.....	.....	10	W	.....	0	0	.....	
Bologna	.....	.....	30.19	766.7	31.8	— 0.1	55	NW	.....	.....	1	.....	8	E	.....	0	0	.....	
Florence	.....	.....	30.17	766.3	50.0	10.0	90	SSW	.....	.....	2	.....	10	SW	.....	0.539	13.7	.....	
Leghorn	.....	.....	30.14	765.6	55.9	13.3	86	S	5.6	2.5	.....	.....	4	.....	.....	0	0	.....	
Siena	.....	.....	30.16	766.0	49.6	9.8	86	SW	0	0	.....	.....	10	SW	.....	0.331	8.4	Light rain...	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ancona	.....	.....	30.23	767.7	39.9	4.4	90	WSW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Rome	.....	.....	30.19	766.8	57.2	14.0	79	SSW	9.4	4.2	.....	.....	8	WSW	.....	0.071	1.8	.....	
Naples, O. U.	.....	.....	30 26	768.7	56.5	13.6	73	SSW	.....	.....	6	.....	10	SSW	.....	0	C	.....	
Lecce	.....	.....	30.33	770.4	54.7	12.6	81	SSW	12.5	5.6	.....	.....	9	SW	.....	0	0	.....	
Cosenza	.....	.....	30.32	770.1	57.2	14.0	63	W	.....	.....	2	.....	9	NW	.....	0.020	0.5	.....	
Riposto, (Sicily)	.....	.....	30.29	769.3	57.6	14.2	84	S	.....	.....	2	.....	10	NE	.....	0	0	.....	
Palermo	.....	.....	30.18	766.6	62.6	17.0	59	WSW	4.9	2.2	.....	.....	10	.....	.....	0	0	.....	
Caltanissetta	.....	.....	30.30	769.6	48.7	9.3	92	SE	.....	.....	6	.....	10	NW	.....	0.016	0.4	.....	
Sub-Series.																			
Naples, S. R.	.....	.....	30.26	768.7	52.5	11.4	90	N	.....	.....	4	.....	..cs	NW	.....	0.445	11.3	.....	Prof. F. Brioschi.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	30.20	767.0	37.0	2.8	.....	NE	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	30.13	765.3	34.0	1.1	.....	NE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	30.16	766.0	35.6	2.0	.....	NE	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	30.15	765.9	34.3	1.3	87	NNE	.....	.....	4	.....	8	.....	.....	.....	.....	Very cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	29.95	760.8	32.4	0.2	89	SSE	5.6	2.5	.....	.....	10	.....	.....	0.512	13.0	Snowing.....	
Brönö	.....	.....	29.41	746.9	32.7	0.4	89	SSE	20	9	.....	.....	10	.....	.....	0	0	Snowing.....	
Christiania	.....	.....	29.85	758.2	29.5	— 1.4	66	Calm	0	0	.....	.....	0	.....	.....	0	0	.....	
Tromsö	.....	.....	29.61	752.0	22.3	— 5.4	93	SW	2	1	.....	.....	1	.....	.....	0	0	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.30	769.7	59.4	15.2	89	W	8.6	3.83	.....	.....	3	.....	.....	0.039	1.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.21	767.2	49.3	9.6	92	SW	4.3	1.92	.....	.....	10	SW	.....	0.070	1.78	Light rain—	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.25	768.3	62.1	16.7	46	NNE	4.2	1.88	.....	.....	2	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.26	768.6	54.1	12.3	66	ENE	15.0	6.7	.....	.....	2	N	.....	0.118	3.0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.95	760.7	32.9	0.5	92	WSW	9	4	.....	.....	10	.....	.....	.....	.....	Snowing.....	Astronomical Obs
Wilna	.....	.....	29.87	758.7	30.7	— 0.7	80	NW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	29.74	755.5	25.2	— 3.8	81	W	7	3	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.56	750.7	23.4	— 4.8	90	WNW	9	4	.....	.....	9	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	29.57	751.1	1.8	—16.8	90	NW	.....	.....	.....	.....	0	.....	.....	0.045	1.15	Snowing ?....	Ch. Forsten.
Kief	.....	.....	29.91	759.6	32.7	0.4	76	W	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.15	765.9	31.3	— 0.4	72	S	4	2	.....	.....	8	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.20	767.0	42.3	5.7	77	SW	9	4	.....	.....	4	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.67	753.5	23.9	— 4.5	77	SSW	4	2	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.95	760.6	28.6	— 1.9	72	SW	34	15	.....	.....	3	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.10	739.2	11.1	—11.6	93	NW	22	10	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.97	735.9	30.45	773.5	36.5	2.5	67	Calm	0	0	.....	.....	8	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.28	769.0	34.0	1.1	79	SW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	29.45	748.1	32.0	0.0	90	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.56	725.5	29.64	752.8	9.3	—12.6	90	SE	9	4	.....	.....	10	.....	.....	.....	.....	Snowing.....	Meteorological Obs.
Kasaly	.....	.....	30.17	766.3	23.9	— 4.5	86	SW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.82	731.9	30.64	778.3	29.5	— 1.4	84	N	13	6	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30 36	771.1	— 2.2	—19.0	80	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs
Yeniselsk	.....	.....	30.12	765.1	— 9.8	—23.2	93	E	2	1	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.33	770.3	28.4	— 2.0	41	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	28.03	711.9	30.42	772.6	—18.0	—28.1	64	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.22	767.6	11.7	—11.3	78	Calm	0	0	.....	.....	2	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—10.7	—23.7	75	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.30	769.6	37.2	2.9	94	NW	7.4	3.3	.....	.....	10	.....	.....	0.079	2.0	Raining.....	Royal Observatory.
San Fernando	.....	.....	30.26	768.5	56.5	13.6	79	NW	4.0	1.8	.....	0	5	.....	SE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.71	754.5	— 8.0	—22.2	41	N	.....	.....	2	.....	0	.....	.....	0.157	4.0	.....	
Umea	.....	.....	29.71	754.5	9.5	—12.5	96	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	29.64	752.9	20.1	— 6.6	97	NE	.....	.....	2	.....	9	.....	.....	0	0	.....	
Stockholm	.....	.....	29.71	754.6	25.5	— 3.6	56	WSW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Wisby	.....	.....	29.93	760.2	30.2	— 1.0	100	NNW	.....	.....	6	.....	0	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	29.74	755.3	24.3	— 4.3	66	WSW	7.6	3.4	.....	.....	0	.....	.....	0.001	0.03	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.76	730.4	30.22	767.5	43.0	6.1	83	E			1		9			0.083	2.1	Covered	The Observatory.
Zurich	28.54	725.0	30.24	768.0	38.1	3.4	79	E			1		9			0.012	0.3	Rain and fog	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +2.0 mm.; Thermometer, +4.4 cent.; Relative Humidity, +6 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, of 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.30	769.5	48.7	9.3	48	WSW	12	5.5			4		SW	0	0		
Fao, (Persian Gulf)			30.08	764.0	58.1	14.5		SE			1		5						
Salonica			30.35	771.0	45.1	7.3		N			1		8						
Valona			30.18	766.5	55.0	12.8		S			2		10						
Varna			30.04	763.0	28.4	— 2.0		N			2		2						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			30.37	771.5	57.9	14.4	49	N			2		0			0	0	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.			30.27	768.8	— 3.5	—19.7	83	NW								0	0		Hon. J. Ferguson.
Brockville, Ontario			30.67	779.0	5	—15.0		Calm	0	0			10s		NE	0	0	Cloudy	W. R. Bigg.
*Chatham, N. B.			30.33	770.4	— 4	—20.0	89	W	10	4.5		0	0			0	0	Clear	G. A. Blair.
Charlottetown P. E. Island.			30.27	768.8	— 4	—20.0	86	NW	5	2.2		2k	0			0	0	Fair	H. J. Cundall, C. E.
Cornwall, Ontario			30.61	777.5	0.8	—17.3	100	SE			1		10s			0	0	Unsettled	James Smith, M. A.
Dalhousie, N. B.			30.36	771.1	— 9.2	—22.9	78	W			4					0	0		H. A. Johnson.
Esquimault, B. C.			29.86	758.4	26.0	— 3.3	88	N	2	0.9			10			0	0	Cloudy	W. H. Bevis.
Fredericton, N. B.			30.46	773.7	— 3.5	—19.7	82	NW	8	3.6						0	0	Fair	Prof. Harrison.
*Fort Garry, Manitoba			30.27	768.8	— 4	—20.0	100	E	10	4.5			10n			0	0	Light snow	James Stewart.
Goderich, Ontario			30.43	772.9	17.3	— 8.2	97	E			1		10n			0.20	5.1	Heavy snow	H. J. Strang, M. A.
Granton, Ontario			30.43	772.9	17.3	— 8.2		E			3		10n			0	0	Cloudy	James Grant.
*Halifax, N. S.			30.31	769.9	5	—15.0	75	W	20	8.9		0	0			0	0	Clear	F. Allison, M. A.
*Kingston, Ontario			30.66	778.7	9	—12.8	78	NE	1	0.4		10cs	0			0	0	Cloudy	S. Woods, M. A.
Little Current, Ontario			30.52	775.2	7.6	—13.6		E	10	4.5			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.63	778.0	0	—17.8	61	W	14	6.3		0	2ks			Imp.	Imp.	Clear	C. H. McLeod, C.
*Ottawa, Ontario			30.65	778.5	— 7	—21.7	80	Calm	0	0		5es	0			0	0	Fair	J. B. Haney.
*Parry Sound, Ontario			30.59	777.0	5	—15.0	90	E	6	2.7			10n		E	0	0	Cloudy	Rev. R. Mooley.
*Port Dover, Ontario			30.48	774.2	20	— 6.7	85	NE	14	6.3			10n		NE	0	0	Hailing	H. Morgan.
Port Hastings, N. S.			30.08	764.0	5.2	—14.9		NW	25	11.2						0	0	Fine	Peter Grant.
*Port Stanley Ontario			30.42	772.7	22	— 5.6	85	E	12	5.4			10n		E	0	0	Cloudy	M. Payne.
*Quebec, Quebec			30.58	776.7	— 4	—20.0	65	SW	19	8.5		8ck	1ks	SW	SW	0	0	Cloudy	Capt. Ash, R. N.
St. John, N. B.			30.51	774.9	1.0	—17.2	84	W	12	5.4			10s			0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.47	773.9	14	—10.0	83	E	8	3.6			10s			0.31	7.9	Light snow	K. Stewart.
Stayner, Ontario			30.56	776.2	11	—11.7	98	SE	3	1.3			10n		SE	0.06	1.5	Light snow	R. J. Cole.
Stratford, Ontario			30.47	773.9	16.0	— 8.9	91	E	13	5.8			10s			0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			30.13	765.3	2	—16.7	86	NW	16	7.2		Haze	5ks		NW	0	0	Fair	T. C. Hill.
*Toronto, Ontario			30.55	776.0	13	—10.6	91	N	12	5.4			10n		N	0.02	0.5	Light snow	Magnetic Observatory.
Woodstock, Ontario			30.47	773.9	17.4	— 8.1	91	E	1	0.4			10s			0.225	5.72	Snowing	J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.61	777.5	15	— 9.4	82	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Alpena, Mich	.....	.....	30.30	771.1	21	— 6.1	100	SE	19	8.5	.....	.....	10n	.....	.....	0.03	0.8	Light snow	
Atlantic City, N. J.	.....	.....	30.54	775.7	36	2.2	70	E	17	7.6	.....	.....	10s	.....	W	0	0	Cloudy	
Augusta, Ga.	.....	.....	30.47	773.9	50	10.0	79	Calm	0	0	.....	.....	10s	.....	W	0	0	Cloudy	
Baltimore, Md	.....	.....	30.53	775.4	32	0.0	59	E	5	2.2	.....	5ok	Sm'e	W	.....	0	0	Fair	
Barnegat, N. J.	.....	.....	30.57	776.5	33	0.6	79	E	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy	
Benton, Montana	27.28	692.9	30.08	764.0	—23	—30.6	100	Calm	0	0	.....	0	0	.....	.....	0.14	3.6	Clear	
Bismarck, Dakota	28.26	717.8	30.10	764.5	— 2	—18.9	67	E	2	0.9	.....	.....	10s	.....	.....	0.63	16.0	Cloudy	
Boston, Mass.	.....	.....	30.59	777.0	15	— 9.4	64	W	11	4.9	.....	.....	10s	.....	W	0	0	Cloudy	
Breckenridge, Minn	.....	.....	30.19	766.8	2	—16.7	86	Calm	0	0	.....	.....	10s	.....	.....	0.04	1.0	Cloudy	
Buffalo, N. Y.	.....	.....	30.47	773.9	20	— 6.7	70	E	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy	
Burlington, Vt.	.....	.....	30.66	778.7	5	—15.0	62	E	3	1.3	.....	2c	5s	.....	.....	0	0	Cloudy	
Cairo, Ill.	.....	.....	30.10	764.5	50	10.0	93	S	2	0.9	.....	.....	10n	.....	.....	1.77	45.0	Light rain	
Cape Hatteras, N. C.	.....	.....	30.43	772.9	44	6.7	84	Calm	0	0	.....	Haze	Haze	.....	.....	0	0	Hazy	
Cape Henry, Va.	.....	.....	30.50	774.7	43	6.1	59	SW	8	3.6	.....	2ck	5s	NW	.....	0	0	Fair	
Cape May, N. J.	.....	.....	30.52	775.2	40	4 4	64	E	16	7.2	.....	.....	10ks	.....	W	0	0	Cloudy	
Charleston, S. C.	.....	.....	30.48	774.2	52	11.1	78	N	5	2.2	.....	5k	0	SW	.....	0	0	Fair	
Cheyenne, Wyoming	23.72	602.5	29.66	753.4	23	— 5.0	60	W	12	5.4	.....	1k	0	.....	.....	0	0	Clear	
Chicago, Ill.	.....	.....	30.02	762.5	36	2.2	90	SE	9	4.0	.....	.....	10n	.....	.....	0.17	4.3	Light rain	
Cincinnati, Ohio	.....	.....	30.11	764.8	46	7.8	85	S	1	0.4	.....	.....	10n	.....	S	0.08	2.0	Light rain	
Cleveland, Ohio	.....	.....	30.30	769.6	29.7	— 1.3	82	NE	2	0.9	.....	.....	Sm'e	.....	NE	0	0	Cloudy	
Colorado Springs, Col.	23.83	605.3	29.70	754.4	13	—10.6	0	N	1	0.4	.....	0	5s	.....	.....	0.03	0.8	Fair	
Corsicana, Tex.	.....	.....	30.02	762.5	66	18.9	90	S	10	4.5	.....	.....	10s	.....	s	0.03	0.8	Cloudy	
Davenport, Iowa	.....	.....	29.95	760.7	36	2.2	95	E	4	1.8	.....	.....	Fog	.....	.....	0.08	2.0	Foggy	
Denison, Tex.	.....	.....	29.95	760.7	70	21.1	75	SW	20	8.9	.....	.....	10s	.....	.....	0.12	3.0	Cloudy	
Denver, Col.	24.55	623.6	29.77	756.1	13	—10.6	44	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Detroit, Mich.	.....	.....	30.28	769.1	27	— 2.8	77	E	17	7.6	.....	.....	10s	.....	E	0	0	Cloudy	
Dodge City, Kan.	27.34	694.4	29.78	756.4	17	— 8.3	100	N	3	1.3	.....	Fog	Fog	.....	.....	Inap.	Inap.	Foggy	
Dubuque, Iowa	.....	.....	29.92	760.0	34	1.1	71	SE	4	1.8	.....	.....	Fog	.....	.....	0.11	2.8	Foggy	
Duluth, Minn.	.....	.....	30.15	765.8	16	— 8.9	83	NE	16	7.2	.....	.....	10n	.....	.....	0.24	6.1	Light snow	
Eastport, Me.	.....	.....	30.49	774.4	4	—15.6	74	NW	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Erie, Pa.	.....	.....	30.36	771.1	27	— 2.8	88	NE	12	5.4	.....	.....	10n	.....	.....	Inap	Inap.	Light snow	
Escanaba, Mich	.....	.....	30.19	766.8	21	— 6.1	85	E	16	7.2	.....	.....	10n	.....	E	0.08	2.0	Light snow	
Fort Gibson, Indian Terr.	.....	.....	29.90	759 4	63	17.2	89	SE	10	4.5	.....	5c	5s	S	S	0.15	3.8	Cloudy	
Fort Sill, Indian T.	28.70	729.0	29.78	756.4	57	13.9	93	S	4	1.8	.....	.....	10n	.....	S	0.40	10.2	Light rain	
Fort Sully, Dakota	28.31	719.1	30.19	766.8	— 5	—20.6	64	NW	5	2.2	.....	0	1s	.....	.....	0.02	0.5	Clear	
Galveston, Tex.	.....	.....	30.14	765.5	64	17.7	100	SE	7	3.1	.....	.....	Fog	.....	.....	0	0	Foggy	
Grand Haven, Mich.	.....	.....	30.14	765.5	24	— 4.4	89	E	23	10.3	.....	.....	10n	.....	SE	0.03	0.8	Light rain	
Indianapolis, Ind.	.....	.....	30.08	764.0	43	6.1	95	SE	8	3.6	.....	.....	10n	.....	.....	0.14	3.6	Light rain	
Indianola, Tex.	.....	.....	30.12	765.0	66	18.9	94	SE	10	4.5	.....	0	Fog	.....	.....	0	0	Clear	
Jacksonville, Fla.	.....	.....	30.43	772.9	51	10.6	93	NE	4	1.8	.....	5c	Fog	.....	.....	0	0	Foggy	
Keokuk, Iowa	.....	.....	29.88	758.9	46	7.8	92	SW	6	2.7	.....	.....	10s	.....	SW	0.10	2.5	Cloudy	
Key West, Fla.	.....	.....	30.31	769.9	71.2	21.8	90	E	16	7.2	.....	.....	8ks	.....	E	0.03	0.8	Threatening	
Kittyhawk, N. C.	.....	.....	30.51	774.9	43	6.1	75	SW	6	2.7	.....	0	2s	.....	.....	0	0	Clear	
Knoxville, Tenn.	.....	.....	30.37	771.4	41	5.0	65	NE	5	2.2	.....	.....	10n	.....	.....	0	0	Light rain	
La Crosse, Wis.	.....	.....	29.99	761.7	21	— 6.1	71	N	3	1.3	.....	.....	10s	.....	.....	0.55	14.0	Cloudy	
Leavenworth, Kan.	.....	.....	29.91	759.7	38	3.3	90	NW	12	5.4	.....	.....	10n	.....	.....	0.08	2.0	Light rain	
Lexington, Ky.	29.08	738.6	30.20	767.1	46	7.8	92	S	20	8.9	.....	.....	10n	.....	.....	0.50	12.7	Light rain	
Long Branch, N. J.	.....	.....	30.60	777.2	29	— 1.7	66	E	16	7.2	.....	10c8	0	.....	.....	0	0	Cloudy	
Louisville, Ky.	.....	.....	30.12	765.0	48	8.9	85	S	6	2 7	.....	.....	10n	.....	.....	0.04	1.0	Light rain	
Lynchburg, Va.	.....	.....	30.47	773.9	35	1.7	89	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Malone, N. Y.	.....	.....	30.04	778.2	2	-16.7	72	S	4	1.8	.....	5cs	0	NW	.....	0	0	Fair	
Marquette, Mich.	.....	.....	30.26	768.6	19	— 7.2	84	E	12	5.4	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Memphis, Tenn.	.....	.....	30.16	766.1	58	14.4	81	Calm	0	0	.....	.....	10ks	.....	S	0.24	6.1	Threatening	
Milwaukee, Wis.	.....	.....	30.00	763.5	33	0.6	100	SE	20	8.9	.....	.....	10n	.....	.....	0.45	11.4	Light rain	
Mobile, Ala.	.....	.....	30.32	770.1	56	13.3	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Montgomery, Ala.	.....	.....	30.39	771.9	54	12.2	87	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Morgantown, W. Va.	.....	.....	30.32	770.1	37	2.8	70	Calm	0	0	.....	10c,e8	Haze	W	.....	0	0	Cloudy	
Mt. Washington, N. H.	23.62	599.9	29.98	761.5	—10	—23.3	54	N	56	25.0	.....	0	5s	.....	.....	0	0	Fair	
Nashville, Tenn.	.....	.....	30.18	766.6	54	12.2	79	S	8	3.6	.....	.....	10s	.....	S	0.14	3.6	Cloudy	
New Haven, Conn.	.....	.....	30.61	777.5	23	— 5.0	72	N	8	3.6	.....	5cs	2s	.....	.....	0	0	Cloudy	
New London, Conn.	.....	.....	30.62	777.7	23	— 5.0	73	NE	2	0.9	.....	5ck	2s	W	W	0	0	Fair	
New Orleans, La.	.....	.....	30.26	768.6	64	17.8	94	S	12	5.4	.....	.....	Fog	.....	.....	0	0	Foggy	
Newport, R. I.	.....	.....	30.61	777.5	23	— 5.0	73	N	4	1.8	.....	8c-	0	NW	.....	0	0	Cloudy	
New York, N. Y.	.....	.....	30.61	777.5	25	— 3.9	62	E	10	4.5	.....	.....	10ks	.....	E	0	0	Cloudy	
Norfolk, Va.	.....	.....	30.51	774.9	43	6.1	67	S	4	1.8	.....	5k	Haze	W	.....	0	0	Fair	
North Platte, Neb.	26.98	685.3	29.74	755.4	10	—12.2	79	Calm	0	.....	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Omaha, Neb.	28.86	733.0	29.90	761.7	21	— 6.1	93	NW	12	5.4	.....	.....	10s	.....	.....	0.08	2.0	Cloudy	
Oswego, N. Y.	.....	.....	30.60	777.2	21	— 6.1	72	SE	5	2.2	.....	.....	1cs	.....	.....	Inap.	Inap.	Cloudy	
Peck's Beach, N. J.	.....	.....	30.55	776.0	37	2.8	90	E	20	8.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Pembina, Dakota	.....	.....	30.22	767.6	— 1	—18.3	100	NE	4	1.8	.....	5c	2s	.....	.....	0.02	0.5	Cloudy	
Philadelphia, Penn.	.....	.....	30.59	777.0	27	— 2.8	64	NE	11	4.9	.....	10k	0	W	.....	0	0	Cloudy	
Pike's Peak, Colorado	17.26	438.4	29.47	748.5	— 1	—18.3	69	SW	28	12.5	.....	Haze	Haze	.....	.....	0	0	Hazy	
Pittsburgh, Penn.	.....	.....	30.35	770.9	35	1.7	79	E	2	0.9	.....	.....	10s	.....	E	0	0	Cloudy	
Port Huron, Mich.	.....	.....	30.36	771.1	22	— 5.6	86	E	12	5.4	.....	.....	10s	.....	.....	0.02	0.5	Cloudy	
Portland, Me.	.....	.....	30.58	776.7	12	—11.1	80	NW	2	0.9	.....	0	Haze	.....	.....	0.01	0.3	Clear	
Portland, Oregon	.....	.....	29.91	759.7	22	— 5.6	72	E	4	1.8	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow	
Punta Rassa, Fla.	.....	.....	30.37	771.4	64.1	17.8	83	E	10	4.5	.....	Haze	1ks	NE	.....	0	0	Clear	
Rochester, N. Y.	.....	.....	30.55	776.0	19	— 7.2	84	SE	8	3.6	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow	
Salt Lake City, Utah	25.37	644.4	29.70	754.4	25	— 3.9	87	W	2	0 9	.....	.....	10n	.....	.....	0.32	8.1	Light snow	
Sandy Hook, N. J.	.....	.....	30.59	777.0	27	— 2.8	77	E	11	4.9	.....	10k	0	W	.....	0	0	Cloudy	
San Diego, Cal.	.....	.....	30.14	765.5	41	5.0	91	NE	12	5.4	.....	0	0	.....	.....	0.11	2.8	Clear	
San Francisco, Cal.	.....	.....	29.90	759.4	41	5.0	82	SE	18	8.0	.....	.....	10ks	.....	SE	0.04	1.0	Threatening	
Santa Fe, N. M.	23.11	587.0	29.65	753.1	29	— 1.7	.....	SE	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy	
Savannah, Ga.	.....	.....	30.47	773.9	49	9.4	85	E	4	1.8	.....	2k	2s	NW	.....	0	0	Fair	
Shreveport, La.	.....	.....	30.17	766.3	65	18.3	100	SE	5	2.2	.....	2ck	0	SW	.....	0.12	3.0	Fair	
Smithville, N. C.	.....	.....	30.51	774.9	53	11.7	93	NE	4	1.8	.....	10k	0	SW	.....	0	0	Cloudy	
Springfield, Mass.	.....	.....	30.61	777.5	22	— 5.6	57	NE	4	1.8	.....	.....	10s	W	.....	0	0	Cloudy	
St. Louis, Mo.	.....	.....	30.02	762.5	53	11.7	79	S	4	1.8	.....	.....	10n	.....	.....	0.35	8.9	Light rain	
St. Marks, Fla.	.....	.....	30.39	771.9	59	15.0	87	SE	8	3.6	.....	5k	0	S	.....	0	0	Fair	
St. Paul, Minn.	.....	.....	30.03	762.7	16.5	— 8.6	83	NE	3	1.3	.....	.....	10s	.....	.....	0.08	2.0	Cloudy	
St. Paul's Island, Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Squan Beach, N. J.	.....	.....	30.51	774.9	31	— 0.6	68	E	12	5.4	.....	10ck	0	E	.....	0	0	Cloudy	
Thatcher's Island, Mass.	.....	.....	30.69	777.2	18	— 7.8	37	NW	18	8.1	.....	.....	10s	.....	NW	0	0	Cloudy	
Toledo, Ohio	.....	.....	30.22	767.6	31	— 0.6	89	NE	14	6.3	.....	.....	10n	.....	E	Inap.	Inap.	Light snow	
Tucson, Arizona	27.57	700.3	29.93	760.2	49	9.4	.....	S	.....	.....	.....	0	8ks	.....	S	0.01	0.3	Threatening	
Tybee Island, Ga.	.....	.....	30.48	774.2	51	10.6	79	E	8	3.6	.....	2k	2s	NW	.....	0	0	Fair	
Vicksburg, Miss.	.....	.....	30.26	768.6	65	18.3	100	S	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	

UNITED STATES SERIES.—CONTINUED.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	23.88	606.5	29.36	745.7	— 7	—21.7	80	Calm	0	0	.....	.....	10n	.....	.....	0.03	0.8	Light snow..	
Washington, D. C.	.....	.....	30.52	775.2	30.5	— 0.8	74	NE	8	3.6	.....	.....	10s	.....	W	0	0	Cloudy.....	
Wilmington, N. C	.....	.....	30.50	774.7	43	6.1	91	NE	3	1.3	.....	.....	10s	.....	SW	0	0	Cloudy, smoky..	
Wood's Holl, Mass.	.....	.....	30.62	777.7	21	— 6.1	57	N	17	7.6	.....	0	5s	.....	N	0	0	Fair.....	
Wytheville, Va.	27.99	710.9	30.28	769.1	33	0.6	89	W	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Yankton, Dakota	28.77	730.7	30.18	766.6	9	—12.8	78	NW	6	2.7	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.....	
Yuma, Arizona	.....	.....	30.19	766.8	35	1.7	.....	SE	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.05	763.3	80	26.7	91	SE	6	2.7	.....	5k	5ks	SE	NE	0	0	Fair.....	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	29.97	761.2	73	22.8	85	E	.....	.....	.....	5cs	0	.....	.....	0.03	0.8	Clear.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	30.27	768.8	70	21.1	84	E	1.2	0.5	.....	6k, fk	0	E	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I.	.....	.....	30.26	768.6	75	23.9	76	Calm	0	0	.....	8c	8s	NE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.33	770.4	76	24.4	67	E	4	1.8	.....	4cs	8k	E	.....	0.11	2.8	Fair.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.97	761.2	72	22.2	71	NW	9.6	4.3	.....	0	2k	.....	E	.....	.....	Fair.....	Robert Mason.
St. Georges, Bermudas	.....	.....	30.53	775.4	61.5	16.4	61	NE	12.0	5.4	.....	10c	1fk	NE	.....	0	0	Fair.....	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A.	.....	.....	30.11	764.8	—14.5	—25.8	73	SW	14	6.3	.....	0	Haze	.....	.....	0	0	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.78	756.4	8.0	—13.3	.....	W	.....	.....	.....	5ks	5s	.....	.....	0	0	Fair.....	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I.	27.26	692.4	30.07	763.8	65	18.3	90	N	1.0	0.4	.....	.....	10k	.....	.....	1.68	42.7	Raining.....	C. Partridge.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A.	25.18	639.5	.....	.....	63.4	17.4	79	.....	0	0	.....	.....	1s	.....	.....	0	0	Fair.....	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.01	762.2	79	26.1	82	N	.....	.....	3	.....	8ks	.....	.....	2.435	61.85	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.08	764.1	74.8	23.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.305	7.75	.....	Dr. H. Groot.

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—
*Steamer Nürnberg,	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

*Observation not simultaneous.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 23, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.23	767.7	59.9	15.5	52	E			1		3			0	0	Fair	Charnot.
Algiers			30.32	770.1	56.8	13.8	82	NNE			1		8			Inap.	Inap.	Cloudy	Peter.
La Calle																			Kuntz.
Tunis			30.37	771.5	55.8	13.2	90	SE			3		8			0.098	2.5	Cloudy	Jacques.
Sfax			30.26	768.6	55.8	13.2	88	NE			2		6			0.512	13.0	Fair	Chauvey.
Saida			30.26	768.6	50.0	10.0	39	NE			1		2			0.039	1.0	Clear	Grosjean.
Tebessa			30.35	771.0	48.4	9.1		SW			2		10			0.512	13.0	Hidden.	Colin.
Geriville			30.26	768.5	38.3	3.5	56	ESE			2		2			0	0	Clear	Buard.
Lagtouat			30.29	769.4	50.0	10.0	74	NE			1		2			0	0	Clear	Simon.
Biskra			30.33	770.3	59.5	15.3	66	Calm			0		10			0	0	Hidden	Coulon.

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.60	777.1	45.3	7.4	77	NE			1		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.58	776.6	30.4	— 0.9	97	W			1		10			0	0		I. R. Observatory.
Eperies			30.52	775.3	33.4	0.8	81	N			1		10		N	0	0		Julius Mikolik.
Gratz	29.40	746.8	30.68	779.2	37.6	3.1	83	SE			2		0			0	0		Andreas Rospini.
Hermannstadt	28.98	736.0	30.48	774.1	35.2	1.8	90	NW			2		4			0	0		Prof. Reissenberger.
Kremsmünster	29.22	742.1	30.63	777.9	38.8	3.8	83	Calm			0		7			0	0		Prof. C. Wagner.
Lemberg			30.26	768.6	25.9	— 3.4	93	NW			3		9			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.55	776.0	32.7	0.4	95	N			3		8			0	0		Habzsuda Daniel.
Pola			29.95	760.8	47.5	8.6	89	WNW			3		10cks			0	0	Foggy	I.R. Hydrographic Office
Szegedin			30.55	776.0	33.8	1.0	85	W			2		0			0	0		Karl Stancel.
Trieste			30.56	776.1	46.4	8.0	94	Calm			0		0			0	0		Prof. V. Faroffi.
Vienna			30.56	776.2	41.0	5.0	78	W			1		3			0	0		I. R. Central Institute.

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.55	776.0	39.4	4.1	86	SW			2		10			0	0		Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.86	758.4	43.1	6.2		S	24	10.7			10			0.020	0.51	Drizzling	William Boswell.
Ardrossan																			J. Mayes.
Armagh Observatory			30.01	762.2	47.6	8.7		SSW	29	13.0									S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.			30.27	768.8	45.8	7.7		SSW	24	10.7			9					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			30.07	763.8	48.8	9.3		SSW			1		10					Gloomy	J. Dreyer.
Bradford																			J. McLandsborough.
Bridgetown, (Barbados)			30.02	762.5	80.4	26.9		NE			4		2					*D.clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.43	772.9	38.0	3.3		SW			2		10					Misty	H. Todd.
Cardington			30.44	773.2	39.0	3.9		SW			1		9					Overcast	John McLaren.
Carlisle			30.13	765.3	48	8.9		W			6		9			0	0	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.37	771.4	44.7	7.1		N			1		8					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.93	734.8	30.50	774.7	37.0	2.8		S			2		10					Gloomy	R. E. Power.
Donaghadee			29.99	761.7	45	7.2		SW			6		10					Squally	J. Mac Gowan.
Dover			30.51	774.9	40	4.4		WSW			3		4					½ clouded	J. Costello.
Eccles, (near Manchester)			30.30	769.6	42.0	5.6		SSE	5.8	2.6			8					*D. clouds	Thomas Mackereth.
Falmouth Observatory			30.44	773.2	46.1	7.8		S	25	11.2			4					*D. clouds	The Staff.
Fort Napier, (Natal)	27.49	698.2	29.74	755.4	74.3	23.5		E			2		0					Blue sky	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	86	30.0		NE			0		1					Blue sky	(tis.
Galway, Queen's College			30.16	766.1	49	9.4		W			3		10					Gloomy	B. G. Clare, for Prof. Carr
Gibraltar, (Mediterranean)			30.10	764.5	54.0	12.2		E			6		10					Gloomy	Pvt. C. Aitkon, A. H. C.
Glasgow Observatory			29.96	761.0	47.0	8.3		SSW			4		10					Squally	Lewis Stuart.
Great Yarmouth			30.42	772.7	38	3.3		SW			4		8					Misty	G. T. Watson.
Greenwich Royal Obs.			30.48	774.2	42.5	5.8		SSW			3		6					*D. clouds	The Staff for G. B. Airy
Guernsey			30.50	774.7	42	5.6		SSW			3		6					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.26	768.6	41.4	5.2		SSW			4		8					*D. clouds	T. J. Crossley.
Helston			30.42	772.7	48	8.9		SW			6		4			0	0	*D. clouds	M. P. Moyle.
Holyhead			30.19	766.8	47	8.3		SSW			6		10					Misty	John Tilston.
Kew Observatory			30.49	774.4	41.3	5.2		SSW	18	8.0			4					*D. clouds	The Staff.
Kingstown			30.17	766.3	49	9.4		SSW			4		9					Overcast	George Mitchell.
Leicester Museum			30.39	771.9	37.0	2.8		SW			3		9					Misty	William J. Harrison.
Malta, (Mediterranean)			30.43	772.9	59.0	15.0		SE			3		10kn					Raining	Fred Travis, Pvt A.H.C.
Nairn			29.67	753.6	50	10.0		WSW			2		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.34	770.6	73.6	23.1		NE			5		6					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.38	771.6	39.3	4.1		S			4		9cs, k		WSW			Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.36	771.1	36.9	2.7		S			4		9					Misty	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.42	772.7	41	5.0		SW			2		7					*D. clouds	J. Lucas.
Plymouth			30.46	773.7	44.1	6.7		SW			4		10					Overcast	John Merrifield.
Roche's Point			30.20	767.1	48	8.9		SSW			6		10					Overcast	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.53	775.4	42.0	5.6		SSW			2		5					½ clouded	A. P. Amy.
Sandwick Manse (Orkneys			29.52	749.8	45.8	7.7		S	35	15.6			10					Showery	Rev. Dr. Clouston
Scarborough																			F. Shaw.
Scutari Cemetery (Turkey			30.42	772.7	45.8	7.7		S			1		9			Blank	Blank	*D. clouds	Sergt. W. H. Lyne.
Sheffield			30.28	769.1	40.2	4.6		SW			5		8			0	0	Overcast	W. F. Cooper.
Silloth Rectory			30.09	764.3	45.7	7.6		SW			6		10			0.340	8.64	Overcast	Rev Francis Redford.
Stonyhurst Observatory			30.26	768.6	40.9	4.9		S			2					Blank	Blank		The Staff.
Stornoway, Lews C. (Hebr)			29.51	749.5	48	8.9		SSW			9		10					Raining	John Smith.
Stratfield Turgiss			30.47	773.9	41.1	5.1		SW			1–2		5					*D. clouds	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.61	752.1	45	7.2		SSE			5		9					Gloomy	John Trotter.
Truro, Royal Institution			30.43	772.9	49	9.4		S			6		5					*D. clouds	W. Newcombe.
Valencia Observatory			30.06	762.7	50.8	10.4		S	55	24.6			10					Threatening	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.94	760.5	80.8	27.1	39	S	9	4.0			9						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)																			
Leith, Restalrig Park			29.97	761.2	48.8	9.3		SW			4		8ks			0.07	1.78	Cloudy	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclauss.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.21	767.3	35.4	1.9	84	SW			4		10						
Fanöe			30.30	769.5	36.5	2.5	91	WSW			4		10					Snowing	
Godthaab, (Greenland)			28.94	735.0	5.2	—14.9	100	NW			4		10					Snowing	
Stykkisholm, (Iceland)			28.61	726.7	32.7	0.4	92	SE			2		10					Snowing	
Thorshavn, (Faröe)			29.20	741.6	43.2	6.2	76	SSW			5		10					Raining	
Vestervig			30.14	765.5	37.8	3.2	97	SW			6		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols: no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.62	777.8	37.4	3	87	SW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	30.52	775.3	41.7	5.4	84	SW	.....	.....	3	.....	5	.....	SW	0	0	Cloudy.....	Normal School.
Avignon	.....	.....	30.57	776.4	49.6	9.8	66	N	.....	.....	1	.....	0	.....	.....	0	0	Very clear....	Normal School.
Bar-sur-Seine	.....	.....	30.63	777.9	41.2	5.1	70	SW	.....	.....	1	.....	5	.....	.....	0	0	Cloudy.....	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.37	776.4	42.1	5.6	81	N	0	0	.....	.....	.....	.....	S	0	0	.....	Beaumette Observatory.
Beauvais	.....	.....	30.64	778.3	40.8	4.9	85	SSE	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Besançon	.....	.....	30.66	778.7	39.9	4.4	80	E	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourg en Bresse	.....	.....	30.63	778.1	39.2	4	78	N	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourges	.....	.....	30.66	778.8	41.7	5.4	95	SW	.....	.....	2	.....	2	.....	.....	0	0	Slightly cl'dy	Normal School.
Brest	.....	.....	30.43	773.0	46.9	8.3	64	SW	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	Naval Observatory.
Caen	.....	.....	30.47	774.0	41.9	5.5	77	S	.....	.....	2	.....	10	.....	.....	0.008	0.2	Covered	Normal School.
Chartres	.....	.....	30.60	777.3	36.3	2.4	.....	SW	.....	.....	3	.....	10	.....	.....	0.024	0.6	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.57	776.4	43.9	6.6	65	S	.....	.....	2	.....	1	.....	N	0	0	Clear....	Puy de Dome, Obs.
Commercy	.....	.....	30.66	778.8	38.7	3.7	80	SW	.....	.....	2	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Commune de Gréasque*	.....	.....	30.54	775.7	51.4	10.8	68	NE	.....	.....	2	.....	5	.....	NW	0	0	.....	.....
Grenoble	.....	.....	30.21	767.4	40.6	4.8	84	NE	.....	.....	2	.....	2k	.....	S	0	0	Slightly cl'dy	Normal School.
Le Mans	.....	.....	30.62	777.7	41.4	5.2	84	SSE	.....	.....	2	.....	8	.....	SW	0	0	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.68	779.2	38.7	3.7	93	NW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Mâcon	.....	.....	30.61	777.6	39.2	4	97	Calm	.....	.....	0	.....	10	.....	.....	0.043	1.1	Covered	Normal School.
Mirecourt	.....	.....	30.60	777.2	40.6	4.8	82	SSW	.....	.....	2	.....	1	.....	NNE	0	0	Clear.....	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.61	777.4	50.4	10.2	56	N	.....	.....	4	.....	.....	.....	.....	0	0	.....	Normal School.
Orleans	.....	.....	30.58	776.6	42.1	5.6	78	SE	.....	.....	3	.....	8	.....	SE	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	30.61	777.6	39.0	3.9	90	SSW	.....	.....	1	.....	10	.....	.....	0.004	0.09	Foggy	National Observatory.
Parthenay	.....	.....	30.39	771.9	42.8	6	75	E	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Privas	.....	.....	30.63	777.9	44.8	7.1	.....	SSW	.....	.....	2	.....	2	.....	SSW	0	0	Slightly cl'dy	Normal School.
La Roche-sur-Yon	.....	.....	30.56	776.3	43.2	6.2	82	SW	.....	.....	1	.....	8	.....	NW	0	0	Very cloudy	Normal School.
Rochefort, Observatory	.....	.....	30.60	777.1	47.5	8.6	64	S	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	Naval Observatory.
Rouen	.....	.....	30.58	776.7	44.4	6.9	70	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear....	Normal School.
Saint Lo	.....	.....	30.59	777.0	39.6	4.2	87	SW	.....	.....	2	.....	9	.....	W	0	0	.....	Normal School.
Tarbes	.....	.....	30.56	776.3	50.0	10	71	SW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	.....	.....	30.56	776.2	49.6	9.8	75	N	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	Normal School.
Villefranche	.....	.....	30.69	779.4	42.1	5.6	81	NE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.1	77.0	25	83	NE	.....	.....	2	.....	5k, n	.....	.....	0.20	5.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.50	774.6	56.1	13.4	.....	NW	.....	.....	1	.....	3	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	25.16	639.0	30.66	778.7	32.7	0.4	94	E	1.9	0.83	.....	.....	4	.....	E	0.047	1.2	.....	—. Faiguère.
Montsouris, Paris	.....	.....	30.59	776.9	39.2	4.0	93	SSE	.....	.....	1	.....	10	.....	.....	0.008	0.2	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.58	776.6	49.6	9.8	66	NE	7.4	3.33	.....	.....	2	.....	E	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.42	543.9	.....	.....	19.4	— 7.0	.....	SW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.60	777.3	38.8	3.8	95	SSW	.....	.....	1	.....	10	.....	.....	0.012	0.3	Very cloudy	E. Renou.
Toulouse	.....	.....	30.58	776.8	42.1	5.6	72	NE	.....	.....	2	.....	0	.....	.....	0	0	....	Toulouse Observatory.
Tours	.....	.....	30.58	776.7	42.4	5.	61	SW	.....	.....	1	.....	6	.....	SW	0	0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.58	776.7	39.6	4.2	90	SW	.....	.....	1	.....	10	.....	.....	0.014	0.36	Covered.....	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.44	773.1	32.5	0.3	94	NE	3.1	1.4	.....	0	..k	.....	.....	{ 0 0	{ 0 0	Foggy	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Bamberg	.....	.....	30.49	774.4	38.1	3.4	93	SW	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.52	775.3	36.1	2.3	87	W	.....	.....	1	.....	10	.....	.....	0.067	1.7	.....	Prof. Arndt.
Breslau	.....	.....	30.54	775.8	32.7	0.4	90	S	.....	.....	3	.....	10	.....	.....	0	0	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.63	778.0	41.0	5.0	70	S	.....	.....	1	.....	1	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.58	776.7	40.1	4.5	72	SSW	.....	.....	2	.....	8	.....	.....	0	0	....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	Dr. Garthe.
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.71	780.1	30.7	2 6	98	SSW	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Physical Society.
Friedrichshafen	.....	.....	30.67	779.0	35.4	1.9	88	W	.....	.....	.....	.....	2	.....	.....	0	0	....	M. Wilhelm.
Hamburg	.....	.....	30.48	774.2	33.8	1.0	94	SW	.....	.....	3	.....	9	SW	.....	0	0	....	Deutsche Seewarte.
Kiel	.....	.....	30.44	773.1	35.1	1.7	72	SW	.....	.....	4	.....	10	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.30	769.6	30.2	— 1.0	91	W	.....	.....	5	.....	9	.....	.....	0	0	.....	Prof. E. Luther.
Köslin	.....	.....	30.36	771.1	29.5	— 1.4	.....	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.41	772.3	38.5	3.6	82	WSW	.....	.....	3	.....	9	.....	.....	0	0	....	Prof. Bruhns.
Münster	.....	.....	30.55	775.9	38.5	3.6	85	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.54	775.7	31.0	— 0.5	90	SW	.....	.....	7	.....	10	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.65	778.5	38.8	3.8	78	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.64	778.2	39.9	4.4	60	N	.....	.....	.....	.....	2	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.42	772.7	29.3	— 1.5	85	SW	.....	.....	5	.....	10	.....	.....	Inap.	Inap.	.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	30.56	776.1	38.7	3.7	85	SW	.....	.....	2	.....	1	.....	.....	0	0	Light fog.....	Prof. Flesch.
Wustrow, Naval School	.....	.....	30.39	772.0	32.0	0.0	92	WSW	.....	.....	6	.....	7s	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Athens	.....	.....	30.45	773.5	58.3	14.6	.....	SE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Misty.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	30.54	775.6	49.6	9.8	59	Calm	0	0	.....	.....	0	.....	.....	0	0	.....	
Padua	.....	.....	30.58	776.6	38.3	3.5	98	WSW	2.5	1.1	.....	.....	6	.....	.....	0	0	.....	
Verona	.....	.....	30.51	775.8	39.2	4.0	83	E	.....	.....	1	.....	10	.....	.....	0	0	.....	
Bergamo	.....	.....	30.54	775.8	41.7	5.4	75	S	.....	.....	2	.....	0	.....	.....	0	0	.....	
Milan	.....	.....	30.65	778.4	28.4	— 2.1	94	NNW	.....	.....	1	.....	0	.....	.....	0	0	.....	
Moncalieri	.....	.....	30.66	778.7	27.1	— 2.7	96	ESE	1.8	0.8	.....	.....	0	.....	.....	0	0	.....	
Mondovi	.....	.....	30.63	777.9	40.6	4.8	50	NW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Porto Maurizio	.....	.....	30.55	775.9	54.0	12.2	.....	E	.....	.....	6	.....	0	.....	.....	0	0	.....	
Genoa	.....	.....	30.56	776.1	51.8	11.0	47	N	6.9	3.1	.....	.....	0	.....	.....	0	0	.....	
Piacenza	.....	.....	30.64	778.3	31.3	— 0.4	87	NW	15.4	6.9	.....	.....	0	.....	.....	0	0	.....	
Bologna	.....	.....	30.54	775.6	21.9	— 5.3	31	W	.....	.....	1	.....	2	E	.....	0	0	.....	
Florence	.....	.....	30.51	774.9	65.8	18.8	60	NE	.....	.....	2	.....	2	.....	.....	0	0	.....	
Leghorn	.....	.....	30.50	774.6	56.1	13.4	58	NNE	7.4	3.3	.....	.....	0	.....	.....	0	0	.....	
Siena	.....	.....	30.49	774.4	53.1	11.7	70	ENE	3.8	1.7	.....	.....	3	E	.....	0	0	.....	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ancona	.....	.....	30.61	777.5	41.7	5.4	88	WNW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Rome	.....	.....	30.48	774.1	57.2	14.0	71	N	5.6	2.5	.....	.....	1	.....	.....	0	0	.....	
Naples, O. U.	.....	.....	30.43	772.9	59.5	15.3	56	NE	.....	.....	4	.....	5	SE	.....	0	0	.....	
Lecce	.....	.....	30.52	775.1	53.1	11.7	96	NE	6.9	3.1	.....	.....	10	NE	.....	0	0	.....	
Cosenza	.....	.....	30.52	775.1	50.9	10.5	75	WNW	.....	.....	1	.....	10	.....	.....	0.020	0.5	.....	
Riposto, (Sicily)	.....	.....	30.38	771.6	56.8	13.8	92	ESE	.....	.....	2	.....	0	.....	.....	0.079	2.0	Light fog	
Palermo	.....	.....	30.33	770.3	59.9	15.5	68	W	1.8	0.8	.....	.....	10	.....	.....	0	0	.....	
Caltanissetta	.....	.....	30.44	773.1	52.2	11.2	85	E	.....	.....	2	.....	10	W	.....	0.315	8.0	Raining	
Sub-Series.																			
Naples, S. R.	.....	.....	30.48	774.2	56.8	13.8	71	NE	.....	.....	6	.....	..c	N	.....	0.130	3.3	.....	Prof. F. Brioschi.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	30.58	776.6	37.9	3.3	.....	WSW	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	30.40	772.2	34.0	1.1	.....	SW	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	30.44	773.2	36.7	2.6	.....	SSW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	30.50	774.6	36.5	2.5	90	SW	.....	.....	3	.....	5	.....	.....	.....	.....	Cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	29.86	758.5	41.4	5.2	90	SSE	13.2	5.9	.....	.....	10	.....	.....	0.709	18.0	.....	
Brönö	.....	.....	29.50	749.3	34.5	1.4	78	E	18	8	.....	.....	10	.....	.....	0.520	12.2	.....	
Christiania	.....	.....	29.83	757.6	34.0	1.1	87	NE	0	0	.....	.....	0	.....	.....	0.043	1.1	.....	
Tromsö	.....	.....	29.52	749.7	22.5	— 5.3	54	SSW	12	5.5	.....	.....	0	.....	.....	0	0	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.23	767.8	61.0	16.1	87	SSW	8.2	3.67	.....	.....	5	.....	.....	0.039	1.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.30	769.6	49.1	9.5	76	E	22.6	10.08	.....	.....	9	ESE	.....	0.043	1.11	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.28	769.0	61.2	16.2	67	NNE	3.8	1.71	.....	.....	9	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.32	770.1	48.9	9.4	83	NNE	15.0	6.7	.....	.....	7	ESE	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.45	773.5	25.2	— 3.8	87	WSW	20	9	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30.21	767.3	30.9	— 0.6	85	E	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.13	765.2	14.9	— 9.5	93	SSE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.04	763.1	1.4	—17.0	88	WNW	4	2	.....	.....	2	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	30.04	763.0	—11.9	—24.4	91	Calm	.....	.....	.....	.....	0	.....	.....	0	0	.....	Ch. Forsten.
Kiefl	.....	.....	30.17	766.4	27.7	— 2.4	75	WNW	25	11	.....	.....	7	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.32	770.1	30.9	— 0.6	70	WNW	25	11	.....	.....	0	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.07	763.7	34.9	1.6	94	WNW	18	8	.....	.....	10	.....	.....	.....	.....	Snowing	Lagorio.
Moscow	.....	.....	29.92	760.0	15.3	— 9.3	84	NNW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.68	753.8	29.5	— 1.4	90	W	29	13	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	29.65	753.0	10.8	—11.8	93	N	29	13	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.74	730.1	30.23	767.7	36.9	2.7	85	WNW	9	4	.....	.....	9	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.06	763.4	35.2	1.8	75	SW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	29.56	750.8	16.9	— 8.4	82	NW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.47	723.2	29.54	750.2	12.6	—10.6	86	Calm	0	0	.....	.....	3	.....	.....	.....	.....	.....	Meteorological Obs.
Kusaly	.....	.....	30.13	765.3	25.7	— 3.5	80	SW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.91	734.3	30.76	781.2	25.0	— 3.9	100	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.38	771.7	14.2	— 9.9	80	S	13	6	.....	.....	5	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.31	769.9	—14.3	—25.7	94	SSE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzof.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.43	773.1	23.0	— 5.0	52	SSE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	28.08	713.1	30.47	773.8	—17.9	—27.7	81	Calm	0	4	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.55	775.9	3.0	—16.1	76	NW	7	3	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	— 8.3	—22.4	84	NW	16	7	.....	.....	2	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.47 m., or 1,005.27 ft.; Tashkend, m. 494.27, or 1,621.37 ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.07 m., or 1,942.27 ft.; Oorga, 1,281.06 m., or 4,202.67 ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.48	774.2	41.4	5.2	81	NE	8.9	4.0	.....	.....	10	.....	.....	0	0	Covered	Royal Observatory.
San Fernando	.....	.....	30.25	768.3	57.0	13.9	71	ESE	16.6	7.4	.....	2	8	E	SE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.05	763.2	—22.0	—30.0	100	N	.....	.....	2	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	29.96	760.9	1.4	—17.0	100	NE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	29.80	756.8	18.7	— 7.4	100	NNW	.....	.....	2	.....	10	.....	.....	0.055	1.4	Snowing	
Stockholm	.....	.....	29.76	756.0	31.1	— 0.5	94	SW	.....	.....	2	.....	10	.....	.....	0	0	Snowing	
Wisby	.....	.....	29.98	761.6	32.0	0.0	100	WSW	.....	.....	7	.....	10	.....	.....	0	0	Snowing	
Upsala	.....	.....	29.80	756.8	30.6	— 0.8	96	SSW	11.4	5.1	.....	.....	10	WNW	{SSW WNW}	0.118	3.00	.....	Dr. Hildebrandsson.

Sub-Series.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.15	740.3	30.61	777.6	40.1	4.5	76	N			1		4			0.004	0.1	Clear	The Observatory.
Zurich	28.93	734.8	30.64	778.2	33.8	1.0	92	NW			1		10			0	0	Foggy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +12.9 mm.; Thermometer, +2.7 cent.; Relative Humidity, —1 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Constantinople			30.44	773.1	48.2	9.0	82	WSW	2	1.0			10		WSW	0	0		
Fao, (Persian Gulf)			30.36	771.2	51.8	11.0		NW			1		0						
Salonica			30.65	778.4	49.5	9.7		NE			1		0						
Valona			30.37	771.4	56.3	13.5		S			1		10						
Varna			30.32	770.0	44.6	7.0		N			3		8						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			30.38	771.7	60.3	15.7	63	SW			2		10n		SW	0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Bathurst, N. B.																			Hon. J. Ferguson.
Brockville, Ontario			29.94	760.5	16	— 8.9		Calm	0	0			10s			0.05	1.3	Light rain	W. R. Bigg.
*Chatham, N. B.			30.39	769.6	— 5	—20.6	96	Calm	0	0			10s			0	0	Cloudy	G. A. Blair.
Charlottetown, P. E. Island			30.37	771.4	3	—16.1	95	Calm	0	0			10s			0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario			29.99	759.4	12.7	—10.7	90	E			1		10n			0.25	6.3	Snowing	James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Esquimault, B. C.			30.03	762.7	27.0	— 2.8	68	NE	6	2.7						0	0	Clear	W. H. Bevis.
Fredericton, N. B.			30.33	770.4	0.1	—17.7	91	Calm	0	0			10s			0.170	4.32	Snowing	Prof. Harrison.
*Fort Garry, Manitoba			30.44	773.2	—24	—31.1	100	NW	4	1.8		0	0			0.79	20.1	Clear	James Stewart.
Goderich, Ontario			29.98	761.5	31.5	— 0.3	91	NW			1		10n			0	0	Threatening	H. J. Strang, M. A.
Granton, Ontario			29.96	761.0	32.0	0.0		NW			2		10n			0.41	10.4	Cloudy	Jam s Gran .
*Halifax, N. S.			30.36	771.1	7	—13.9	84	NE	2	0.9			10n			0	0	Threatening	F. Allison, M. A.
*Kingston, Ontario			29.86	758.4	33	— 0.6	96	Calm	0	0			10s			0.04	1.0	Cloudy	S. Woods, M. A.
Little Current, Ontario			30.00	762.0	20.8	— 6.2		Calm	0	0			10s			0.70	17.8		G. B. Abrey, C. E.
*Montreal, Quebec			29.93	760.2	10	—12.2	98	E	6	2.7			10n		E	0.35	8.9	Heavy snow	C. H. McLeod, C.
*Ottawa, Ontario			29.98	761.5	10	—12.2	77	E	6	2.7			10n		E	0.20	5.1	Light snow	J. B. Haney.
*Parry Sound, Ontario			29.88	758.9	22	— 5.6	100	Calm	0	0			10n			0.07	1.8	Foggy	Rev. R. Mooley.
*Port Dover, Ontario			29.87	758.7	43	6.1	98	W	10	4.5			10n		W	0.16	4.1	Threatening	H. Morgan.
Port Hastings, N. S.																			Peter Grant.
*Port Stanley, Ontario			29.97	761.2	40	4.4	97	W	24	10.7			10n		W	0.10	2.5	Cloudy	M. Payne.
*Quebec, Quebec			30.07	763.8	9	—12.8	89	NE	17	7.6			10n		NE	0.05	1.3	Light snow	Capt. Ash, R. N.
St. John, N. B.			30.36	771.1	4.0	—15.6	74	Calm	0	0		0	0			0.265	6.73		G. Murdoch, C. E.
*Saugeen, Ontario			29 93	760.2	33	0.6	89	NW	8	3.6			10n		W	0.13	3.3	Cloudy	K. Stewart.
Stayner, Ontario																0.06	1.5		R. J. Cole.
Stratford, Ontario			29.97	761.2	31.7	— 0.2	94	NW	11	4.9			10s			0.469	12.08	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			30.37	771.4	3	—16.1	92	SW	4	1.8		10cs	0	NW		0	0	Fair	T. C. Hill.
*Toronto, Ontario			29.89	759.2	33	0.6	99	E	2	0.9			10n			0.38	9.7	Cloudy	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.97	761.2	27	— 2.8	88	S	8	3.6	.....	.....	10s	.....	.....	0.16	4.1	Threatening	
Alpena, Mich.	.....	.....	29.95	760.7	26	— 3.3	88	NW	9	4.0	.....	.....	10s	.....	.....	0.37	9.4	Cloudy	
Atlantic City, N. J.	.....	.....	30.08	764.0	43	6.1	100	SW	4	1.8	.....	.....	10n	.....	SW	0.12	3.0	Light rain	
Augusta, Ga.	.....	.....	30.36	771.1	55	12.8	93	SE	1	0.4	.....	.....	5s	.....	W	0	0	Fair	
Baltimore, Md.	.....	.....	30.14	765.5	36	2.2	90	W	2	0.9	.....	.....	10n	.....	.....	0.15	3.8	Light rain	
Barnegat, N. J.	.....	.....	30.07	763.8	40	4.4	100	W	2	0.9	.....	.....	Fog	.....	.....	0.09	2.3	Light rain	
Benton, Montana	27.50	698.5	30.30	769.6	—15	—26.1	100	SW	1	0.4	.....	5c	0	.....	.....	0	0	Fair	
Bismarck, Dakota	28.57	725.7	30.54	775.7	—20	—28.9	27	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Boston, Mass.	.....	.....	30.13	765.3	25	— 3.9	87	NE	2	0.9	.....	.....	10n	.....	.....	0.15	3.8	Sleet	
Breckenridge, Minn	.....	.....	30.49	774.4	— 8	—22.2	79	NW	8	3.6	.....	0	2s	.....	.....	0.01	0.3	Clear	
Buffalo, N. Y.	.....	.....	29.81	757.2	40	4.4	91	W	14	6.3	.....	.....	Fog	.....	W	0.16	4.1	Foggy	
Burlington, Vt.	.....	.....	29.94	760.5	24	— 4.4	100	S	16	7.2	.....	.....	10n	.....	.....	0.05	1.3	Light snow	
Cairo, Ill.	.....	.....	30.11	764.8	56	13.3	100	SE	4	1.8	.....	.....	10n	.....	.....	0.89	22.6	Heavy rain	
Cape Hatteras, N. C.	.....	.....	30.23	767.8	58	14.4	87	W	14	6.3	.....	5c	Haze	W	.....	0	0	Fair	
Cape Henry, Va.	.....	.....	30.15	765.8	62	16.7	72	SW	14	6.3	.....	8c	0	W	.....	0	0	Fair	
Cape May, N. J.	.....	.....	30.09	764.3	44	6.7	100	SW	2	0.9	.....	.....	10n	.....	.....	0.11	2.8	Rain & fog	
Charleston, S. C.	.....	.....	30.38	771.6	56	13.3	87	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Cheyenne, Wyoming	24.02	610.1	29.96	761.0	6	—14.4	76	W	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Chicago, Ill.	.....	.....	30.14	765.5	31	— 0.6	68	NW	6	2.7	.....	.....	10s	.....	.....	0.05	1.3	Cloudy	
Cincinnati, Ohio.	.....	.....	30.03	762.7	56	13.3	93	SW	6	2.7	.....	.....	10n	.....	SW	1.37	34.8	Light rain	
Cleveland, Ohio.	.....	.....	29.98	761.5	41.3	5.2	100	W	12	5.4	.....	.....	Fog	.....	W	0.12	3.0	Foggy	
Colorado Springs, Col.	24.11	612.4	29.98	761.5	14	—10.0	64	NE	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Corsicana, Texas	.....	.....	30.05	763.3	67	19.4	94	SE	8	3.6	.....	.....	10s	.....	S	0	0	Cloudy	
Davenport, Iowa	.....	.....	30.27	768.8	21	— 6.1	86	NW	12	5.4	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Denison, Texas	.....	.....	30.01	762.2	68	20.0	84	S	14	6.3	.....	.....	10s	.....	.....	0	0	Cloudy	
Denver, Col.	24.85	631.2	30.07	763.8	9	—12.8	30	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Detroit, Mich.	.....	.....	29.99	761.7	38	3.3	90	NW	8	3.6	.....	.....	10ss	.....	NW	0.05	1.3	Threatening	
Dodge City, Kan.	27.62	701.5	30.14	765.3	14	—10.0	81	N	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy	
Dubuque, Iowa	.....	.....	30.38	771.6	17	— 8.3	67	NW	8	3.6	.....	10c	0	W	.....	0.03	0.8	Cloudy	
Duluth, Minn.	.....	.....	30.28	769.1	10	—12.2	68	W	8	3.6	.....	0	0	.....	.....	0.08	2.0	Clear	
Eastport, Me.	.....	.....	30.33	770.4	15	— 9.4	73	E	3	1.3	.....	.....	10s	.....	.....	0	0	Threatening	
Erie, Pa.	.....	.....	29.87	758.7	46	7.8	92	W	30	13.4	.....	.....	Fog	.....	.....	0.02	0.5	Foggy	
Escanaba, Mich.	.....	.....	30.07	763.8	23	— 5.0	80	NW	8	3.6	.....	.....	10s	.....	.....	0.16	4.1	Cloudy	
Fort Gibson, Indian Terr.	.....	.....	30.18	766.6	39	3.9	91	N	12	5.4	.....	.....	10n	.....	.....	0.81	20.6	Heavy rain	
Fort Sill, indian T.	28.94	735.1	30.10	764.5	32	0.0	100	N	12	0.9	.....	.....	10n	.....	N	1.47	37.3	Light rain	
Fort Sully, Dakota	28.68	728.5	30.63	778.0	—11	—24.9	54	NW	4	1.8	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Galveston, Tex.	.....	.....	30.16	766.1	64	17.8	100	SE	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Grand Haven, Mich.	.....	.....	30.10	764.5	33	0.6	79	NW	20	8.9	.....	.....	10s	.....	NW	0.12	3.0	Cloudy	
Indianapolis, Ind.	.....	.....	30.12	765.0	39	3.9	81	NW	10	4.5	.....	.....	10s	.....	N	0.49	12.4	Cloudy	
Indianola, Texas	.....	.....	30.13	765.3	67	19.4	94	SE	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Jacksonville, Fla.	.....	.....	30.40	772.1	51	10.6	86	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Keokuk, Iowa.	.....	.....	30.24	768.1	20	— 6.7	70	N	7	3.1	.....	.....	10s	.....	N	0.07	1.8	Cloudy	
Key West, Fla.	.....	.....	30.29	769.4	72.8	22.7	81	E	14	6.3	.....	0	2ks	.....	E	0	0	Fair	
Kittyhawk, N. C.	.....	.....	30.24	768.1	55	12.8	87	SW	12	5.4	.....	5k	0	NW	.....	0	0	Fair	
Knoxville, Tenn.	.....	.....	30.21	767.3	60	15.6	94	SW	16	7.2	.....	.....	10ks	.....	SW	0.32	8.1	Cloudy	
La Crosse, Wis.	.....	.....	30.28	769.1	16	— 8.9	66	NW	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy	
Leavenworth, Kan.	.....	.....	30.32	770.1	20	— 6.7	85	N	16	7.2	.....	.....	10s	.....	N	0.01	0.3	Cloudy	
Lexington, Ky.	29.04	737.6	30.15	765.8	53	11.7	100	S	8	3.6	.....	.....	10n	.....	.....	1.13	28.7	Light rain	
Long Branch, N. J.	.....	.....	30.01	762.2	41	5.0	91	S	4	1.8	.....	.....	Fog	.....	.....	0.10	2.5	Foggy	
Louisville, Ky.	.....	.....	30.09	764.3	55	12.8	100	S	5	2.2	.....	.....	10n	.....	.....	1.83	46.5	Light rain	
Lynchburg, Va.	.....	.....	30.11	764.8	52	11.1	89	SW	3	1.3	.....	5k	0	W	.....	0.03	0.8	Fair	
Malone, N. Y.	.....	.....	29.82	757.4	23	— 5.0	86	Calm	0	0	.....	.....	10s	.....	.....	0.15	3.8	Cloudy	
Marquette, Mich.	.....	.....	30.07	763.8	23	— 5.0	86	W	12	5.4	.....	.....	10s	.....	NW	0.02	0.5	Cloudy	
Memphis, Tenn.	.....	.....	30.13	765.3	64	17.8	91	S	8	3.6	.....	.....	10ks	.....	SW	Inap.	Inap.	Threatening	
Milwaukee, Wis.	.....	.....	30.23	767.8	20	— 6.7	70	W	12	5.4	.....	.....	10ks	.....	.....	0	0	Cloudy	
Mobile, Ala.	.....	.....	30.31	769.9	65	18.3	94	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Montgomery, Ala.	.....	.....	30.34	770.6	61	16.1	94	S	1	0.4	.....	8ck	Fog	SW	.....	0	0	Fair	
Morgantown, W. Va.	.....	.....	30.07	763.8	57	13.9	93	SW	6	2.7	.....	.....	10n	.....	SW	0.71	18.0	Light rain	
Mt. Washington, N. H.	24.47	596.1	29.83	757.7	7	—14.4	100	SW	70	31.3	.....	.....	Fog	.....	.....	0	0	Foggy	
Nashville, Tenn.	.....	.....	30.12	765.0	65	18.3	83	SW	8	3.6	.....	8k	0	SW	.....	0.02	0.5	Cloudy	
New Haven, Conn.	.....	.....	30.06	763.5	26	— 3.3	88	Calm	0	0	.....	.....	10s	.....	.....	0.25	6.3	Cloudy	
New London, Conn.	.....	.....	30.07	763.8	36.5	2.5	100	S	12	5.4	.....	.....	Fog	.....	SE	0.23	5.8	Foggy	
New Orleans, La.	.....	.....	30.25	768.3	65	18.3	100	SE	6	2.7	.....	.....	Fog	.....	.....	0	0	Foggy	
Newport, R. I.	.....	.....	30.08	764.0	38	3.3	100	SE	12	5.4	.....	.....	10n	.....	SE	0.18	4.6	Light rain	
New York, N. Y.	.....	.....	30.02	762.5	33	0.6	99	E	12	5.4	.....	.....	Fog	.....	.....	0.15	3.8	Foggy	
Norfolk, Va.	.....	.....	30.17	766.3	61	16.1	77	SW	16	7.2	.....	5c	0	W	.....	0	0	Fair	
North Platte, Neb.	27.32	693.9	30.22	767.6	— 1	—18.3	84	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair	
Omaha, Neb.	29.23	742.4	30.43	772.9	7	—14.4	89	N	16	7.2	.....	10cs	0	.....	.....	0.01	0.3	Cloudy	
Oswego, N. Y.	.....	.....	29.85	758.2	36	2.2	93	SE	10	4.5	.....	.....	10n	.....	.....	0.33	8.4	Light rain	
Peck's Beach, N. J.	.....	.....	30.08	764.0	43	6.1	100	W	4	1.8	.....	.....	10s	.....	.....	0.16	4.1	Cloudy	
Pembina, Dakota.	.....	.....	30.46	773.9	—20	—28.9	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Philadelphia, Penn.	.....	.....	30.08	764.0	34	1.1	100	SW	4	1.8	.....	.....	Fog	.....	.....	0.10	2.5	Foggy	
Pike's Peak, Colorado.	17.42	442.6	29.63	752.6	—12	—24.4	100	SW	18	8.0	.....	Haze	2s	.....	.....	0	0	Fair	
Pittsburgh, Penn.	.....	.....	30.01	762.0	55	12.8	93	SW	10	4.5	.....	.....	10n	.....	.....	0.35	8.9	Light rain	
Port Huron, Mich.	.....	.....	29.99	761.7	36	2.2	90	SW	8	3.6	.....	.....	10s	.....	NW	0.04	1.0	Threatening	
Portland, Me.	.....	.....	30.18	766.6	18	— 7.8	84	NW	8	3.6	.....	.....	10n	.....	.....	0.23	5.8	Light snow	
Portland, Oregon.	.....	.....	29.99	761.7	25	— 3.9	85	E	7	3.1	.....	0	0	.....	.....	0.07	1.8	Clear	
Punta Rassa, Fla.	.....	.....	30.35	770.9	65.0	18.3	94	NE	12	5.4	.....	Haze	Sm'e	.....	.....	0	0	Hazy	
Rochester, N. Y.	.....	.....	29.80	756.9	39	3.9	94	SW	5	2.2	.....	.....	Fog	.....	.....	0.21	5.3	Light rain	
Salt Lake City, Utah	25.61	650.5	29.94	760.5	24	— 5.0	73	SE	4	1.8	.....	.....	10s	.....	.....	0.03	0.8	Cloudy	
Sandy Hook, N. J.	.....	.....	30.01	762.2	38	3.3	100	SW	2	0.9	.....	.....	Fog	.....	.....	0.20	5.1	Foggy	
San Diego, Cal.	.....	.....	30.21	767.3	51	10.0	100	SE	4	1.8	.....	0	2s	.....	SE	0.35	8.9	Fair	
San Francisco, Cal.	.....	.....	29.91	759.7	45	7.2	84	SE	12	5.4	.....	Haze	5s	.....	.....	0.13	3.3	Threatening	
Santa Fe, N. M.	23.28	591.3	29.82	757.4	17	— 8.3	.....	NW	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Savannah, Ga.	.....	.....	30.40	772.1	53	11.7	79	SW	2	0.9	.....	0	Fog	.....	.....	0	0	Clear	
Shreveport, La.	.....	.....	30.18	766.6	64	17.8	89	SE	3	1.3	.....	10ck	0	SW	.....	Inap.	Inap.	Fair	
Smithville, N. C.	.....	.....	30.36	771.1	55	12.8	93	SW	6	2.7	.....	2cs	0	W	.....	0	0	Fair	
Springfield, Mass.	.....	.....	30.10	764.5	23	— 5.0	80	N	4	1.8	.....	.....	10n	.....	.....	0.26	6.6	Sleet	
St. Louis, Mo.	.....	.....	30.22	767.6	35	1.7	70	N	8	3.6	.....	.....	10s	.....	.....	1.10	27.9	Cloudy	
St. Marks, Fla.	.....	.....	30.38	771.6	59	15.0	93	NE	3	1.3	.....	0	2s	.....	.....	0	0	Fair	
St. Paul, Minn.	.....	.....	30.3	769.6	7.5	—13.6	77	NW	11	4.9	.....	.....	10s	.....	.....	0	0	Cloudy	
St. Paul's Island, Alaska.	.....	.....	29.80	756.9	31	— 0.6	100	NNE	13	5.8	.....	.....	10s	.....	.....	0.41	10.2	.....	
Squan Beach, N. J.	.....	.....	29.98	761.5	39	3.9	100	SW	3	1.3	.....	.....	Fog	.....	.....	0.14	3.8	Light rain	
Thatcher's Island, Mass.	.....	.....	30.10	764.5	33	0.6	89	S	20	8.9	.....	.....	.....	.....	.....	0.11	2.8	Snowing	
Toledo, Ohio.	.....	.....	30.03	762.7	39	3.9	81	W	12	5.4	.....	.....	10s	.....	W	0.02	0.5	Cloudy	
Tucson, Arizona.	27.76	705.1	30.24	768.1	33	0.6	.....	SE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Tybee Island, Ga.	.....	.....	30.36	771.1	56	13.3	93	Calm	0	0	.....	0	Fog	.....	.....	0	0	Clear	
Vicksburg, Miss.	.....	.....	30.26	768.6	65	18.3	94	S	6	2.7	.....	2k	Fog	S	.....	0	0	Fair	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.12	612.6	29.60	751.8	— 4	—20.0	82	SE	1	0.4	.....	8c	0	W	.....	0.02	0.5	Cloudy	
Washington, D. C	.....	.....	30.17	766.3	34	1.1	95	NW	4	1.8	.....	.....	10n	.....	.....	0.18	4.6	Light rain	
Wilmington, N. C	.....	.....	30.33	770.4	58	14.4	81	SW	8	3.6	.....	5c	0	NW	.....	0	0	Fair	
Wood's Holl, Mass	.....	.....	30.10	764.5	36	2.2	90	SE	20	8.9	.....	.....	10n	.....	.....	0.37	9.4	Light rain	
Wytheville, Va	27.82	706.6	29.96	761.0	55	12.8	93	W	16	7.2	.....	.....	10s	.....	W	0.99	25.1	Cloudy	
Yankton, Dakota	29.12	739.6	30.64	778.2	—12	—24.4	50	NW	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.33	770.4	36	2.2	.....	E	.....	.....	.....	5c	0	SW	.....	0.01	0.3	Fair	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.04	763.0	80	26.7	86	NE	7	3.1	.....	5k	2ks	.....	.....	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.06	763.5	75	23.9	76	E	.....	.....	.....	5c	5ks	.....	.....	0.30	7.6	Fair	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.26	768.6	69	20.6	84	SE	1.2	0.5	.....	1k	0	E	.....	Inap.	Inap.	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.26	768.6	75	23.9	76	Calm	0	0	.....	2ck	2s	E	.....	0	0		James Gall.
St. Thomas, St. T., W. I	.....	.....	30.33	770.4	76	24.4	76	E	9	4.0	.....	4ck	8k, ks	E	.....	0.04	1.0	Fair	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.96	761.0	73	22.8	71	NE	16.8	7.5	.....	0	2s	.....	NE	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.45	773.4	62.5	16.9	72	SE	7.0	3.1	.....	0	5k	.....	.....	0	0	Fair	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.17	766.3	—16.5	—26.9	70	NW	8	3.6	.....	2c	Haze	W	.....	0	0	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.20	767.1	7.0	—13.9	77	W	.....	.....	.....	0	0	.....	.....	0	0	Clear	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.28	692.9	30.09	764.3	65	18.3	83	S	1.0	0.4	.....	2c	2k	NE	.....	0.09	2.3	Clear	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.17	639.2	.....	.....	64.0	17.0	85	.....	0	0	.....	.....	10s	.....	.....	0.05	1.3	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.98	761.5	80	26.7	82	E	.....	.....	3	.....	8ks	.....	.....	0.600	15.24	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.04	762.9	81.5	27.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.394	10.00	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
Steamer Nürnberg, N. 45° 10′, W. 42° 56′	SW by W, ½ W.	.....	High sea.	WNW	Snowy

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a *spirit thermometer*. *The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day.* The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; *Dodge City, 2,478.8 ft., or 755.5 m.;* Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; *Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.*

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 24, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.15	765.9	59.0	15.0	53	Calm	.....	.....	0	.....	10	.....	.....	0	0	Hidden.	Charnot.
Algiers	.....	.....	30.24	768.0	54.0	12.2	100	E	.....	.....	0	.....	10	.....	.....	0.335	8.5	Hidden.	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.42	772.6	59.9	15.5	80	ESE	.....	.....	4	.....	10	.....	.....	0.079	2.0	Hidden.	Jacques.
Sfax	.....	.....	30.38	771.7	58.5	14.7	82	E	.....	.....	3	.....	6	.....	.....	0.079	2.0	Fair.	Chauvey.
Sadda	.....	.....	30.19	766.7	43.7	6.5	78	ENE	.....	.....	1	.....	6	.....	.....	0.079	2.0	Fair.	Grosjean.
Telemsn	.....	.....	30.36	771.1	43.2	6.2	.....	SE	.....	.....	3	.....	10	.....	.....	0.157	4.0	Hidden.	Colin.
Guerriville	.....	.....	30.19	766.9	39.9	4.4	78	SE	.....	.....	3	.....	6	.....	.....	0.177	4.5	Fair.	Buard.
Laghouat	.....	.....	30.22	767.5	44.6	7.0	85	SE	.....	.....	4	.....	3	.....	.....	0.551	14.0	Fair.	Simon.
Biskra	.....	.....	30.27	768.9	61.7	16.5	31	SE	.....	.....	4	.....	10	.....	.....	1.850	47.0	Hidden.	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.72	780.4	31.3	— 0.4	96	SW	.....	.....	3	.....	10	.....	.....	0	0	Dense fog.	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.60	777.1	38.3	3.5	69	W	.....	.....	2	.....	7	.....	.....	0	0	.....	I. R. Observatory.
Speries	.....	.....	30.68	779.2	39.4	4.1	94	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.68	779.2	39.4	4.1	94	Calm	.....	.....	2	.....	0	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	29.41	746.9	30.60	779.5	34.5	1.4	66	S	.....	.....	1	.....	5	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	29.16	740.6	30.67	779.1	33.8	1.0	81	NW	.....	.....	0	.....	0	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	29.28	743.8	30.73	780.6	28.4	— 2.0	96	Calm	.....	.....	2	.....	7	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.52	775.3	34.0	1.1	89	NW	.....	.....	1	.....	10	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.73	780.5	23.7	— 4.6	100	N	.....	.....	2	.....	Fog	.....	.....	0.004	0.11	Foggy	I.R. Hydrographic Office
Szegedin	.....	.....	30.67	778.9	43.9	6.6	99	NW	.....	.....	2	.....	0	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.70	779.7	38 7	3.7	82	S	.....	.....	6	.....	10	.....	.....	0	0	Dense fog.	Prof. V. Farolfi.
Vienna	.....	.....	30.67	779.0	39.4	4.1	100	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give, occasionally, the weather by the Vienna *symbols*. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	30.01	777.6	40.8	4.9	77	SW	.....	.....	2	.....	1	.....	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.11	764.8	47.4	8.6		WSW	19	8.5			1			0.010	0.25	Blue sky	William Boswell.
Ardrossan			30.27	768.8	48.5	9.2		WSW			4		7					*D. clouds	J. Mayes.
Armagh Observatory			30.38	771.6	47.1	8.4		SW	10	4.5			8					*D. clouds	S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.			30.41	772.4	48.2	9.0		WSW	10	4.5			10					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			30.37	771.4	50.3	10.2		SW			1		7					Misty	J. Dreyer.
Bradford			30.33	770.4	48.6	9.2		SW			4		10			0.02	0.5	Drizzling	J. McLandsborough.
Bridgetown, (Barbados)			29.99	761.7	79.6	26.4		NE			3		7					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.49	774.4	50.0	10.0		SSW			2		10					Overcast	H. Todd.
Cardington			30.52	775.2	48.0	8.9		SW			1		9					Overcast	John McLaren.
Carlisle			30.35	770.9	49.9	9.9		W			6		4			0.06	1.5	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.51	774.9	44.2	6.8		N			1							Blue sky	Capt. J. Fellowes, R. E.
Dartmoor	29.03	737.3	30.58	776.7	44.0	6.7		SW			3		10					Gloomy	R. E. Power.
Donaghadee			30.33	770.4	48	8.9		SW			3		2					Blue sky	J. Mac Gowan.
Dover			30.56	776.2	43	6.1		WSW			3		2					¼ clouded	J. Costello.
Eccles, (near Manchester)			30.39	771.9	49.7	9.8		SE	4.4	2.0			10					Gloomy	Thomas Mackereth.
Falmouth Observatory			30.54	775.7	49.7	9.8		SSW	19	8.5			10					Overcast	The Staff.
Fort Napier, (Natal)	27.51	698.7	29.76	755.9	76.8	24.9		E			2		4					*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.93	760.2	88	31.1		NE			1		3					Blue sky	[tis.
Galway, Queen's College			30.29	769.4	49	9.4		W			1		7					*D. clouds	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.20	767.1	53.8	12.1		E			3		10					Raining	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.24	768.1	47.3	8.5		WSW			2		7					Fine	Lewis Stuart.
Great Yarmouth			30.47	773.9	44	6.7		WSW			4		7					Misty	G. T. Watson.
Greenwich Royal Obs.			30.54	775.7	49.7	9.8		SW			4		3					*D. clouds	The Staff for G. B. Airy
Guernsey			30.58	776.7	46	7.8		SSW			2		0					Blue sky	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.40	772.1	48.1	8.9		W			3		10					Hazy	L. J. Crossley.
Helston			30.51	774.9	51	10.6		SW			6		4			0.3	7.6	*D. clouds	M. P. Moyle.
Holyhead			30.39	771.9	48	8.9		SW			3		4					*D. clouds	John Tilston.
Kew Observatory			30.54	775.7	49.6	9.9		WSW	15	6.7			9					*D. clouds	The Staff.
Kingstown			30.40	772.1	51	10.6		W			3		3					Blue sky	George Mitchell.
Leicester Museum			30.49	774.4	43.9	6.6		SW			1		10					Gloomy	William J. Harrison.
Malta, (Mediterranean)			30.49	774.4	59.0	15.3		NE			2		sk						Fred Travis, Pvt A.H.C
Nairn			30.05	763.3	46	7.8		WSW			2		2					¼ clouded	W. D. Penny.
Nassau, (Bahamas)			30.30	769.6	72.6	22.6		N			5		8					Raining	Surg.-Maj. Henry.
Nottingham			30.44	773.2	47.0	8.3		SSW			4		10cs,d						E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.46	773.7	42.3	5.7		SW			3		10					Misty	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.50	774.7	48	8.9		SW			2		10					Overcast	J. Lucas.
Plymouth			30.54	775.7	48.8	9.3		SSW			2		10					Overcast	John Merrifield.
Roche's Point			30.39	771.1	49	9.4		WSW			3		10					Foggy	W. Kennedy.
Saint Ann's Head			30.47	773.9	47	8.3		WSW			6		10					Misty	John C. Walker.
Saint Helier, (Jersey)			30.59	777.0	44.6	6.9		SSE			3		0					Blue sky	A. P. Amy.
Sandwick Manse(Orkneys)			29.91	759.7	44.1	6.7		W	50	22.4			10					Hailing	Rev. Dr. Clouston
Scarborough			30.34	770.6	47.8	8.8		WSW			2		10					Overcast	F. Shaw.
Scutari Cemetery(Turkey)			30.61	752.1	44.8	7.1		NNE			2		4					*D. clouds	Sergt. W. H. Lyne.
Sheffield			30.38	771.6	49.4	9.7		Calm			0		10			0	0	Overcast	W. F. Cooper.
Silloth Rectory			30.31	769.9	48.8	9.3		W			4		2			0	0	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			30.37	771.4	47.0	8.3		W			2		10			Blank	Blank	Hazy	The Staff.
Stornoway, Lews C. (Hebr.)			30.04	763.0	45	7.2		WSW			4		8					Threatening	John Smith.
Strathfield Turgiss			30.54	775.7	48.5	9.2		SW			1		8					*D. clouds	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.96	761.0	47	8.3		WSW			6		4					*D. clouds	John Trotter.
Truro, Royal Institution			30.50	774.7	51	10.6		SW			4		10					Gloomy	W. Newcombe.
Valencia Observatory			30.35	770.9	50.8	10.4		SSE	11	4.9			10					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.94	760.5	82.7	28.2	41	SSE	12	5.4			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)																			
Leith, Restalrig Park			30.24	768.1	48.0	8.9		W			4					0.18	4.6	Fine	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,410 feet, or 429.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.21	767.4	37.8	3.2	83	W			4		10						
Fanöe			30.28	769.1	38.5	3.6	90	WSW			6		10						
Godthaab, (Greenland)			29.04	737.7	3.6	—15.8	95	SE			2		10					Snowing	
Stykkisholm, (Iceland)			28.86	733.0	28.9	— 1.7	86	S			6		10					nowing	
Thorshavn, (Faröe)			29.50	749.3	41.4	5.2	71	W			7		4					Rain & hail	
Vestervig			30.10	764.6	39.6	4.2	97	WSW			6		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. nches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.63	778.1	41.0	5	87	SW			1		0			0	0	Clear	Normal School.
Amiens			29.842	758.02	42.8	6.0	70	SW			3		0			0	0	Clear	Normal School.
Avignon			30.63	777.9	48.9	9.4	60	NNE			1		1			0	0	Light clouds	Normal School.
Bar-sur-Seine			30.69	779.4	41.4	5.2	72	SW			1		0			0	0	Clear	C. Saillard.
Beaumette, (near Angers)			30.62	777.7	42.3	5.7	78	SE	2.7	1.2						0	0		Beaumette Observatory.
Beauvais			30.55	775.9	39.4	4.1	95	SSE			1		0			0	0	Clear	Normal School.
Besançon			30.74	780.8	37.0	2.8	72	E			2		0			0	0	Clear	Normal School.
Bourg en Bresse			30.76	781.3	40.5	4.7	82	N			1		0			0	0	Clear	Normal School.
Bourges			30.66	778.7	42.8	6	74	ESE			2		0			0	0	Clear	Normal School.
Brest			30.48	774.2	50.9	10.5	70	S			2		0			0	0	Clear	Naval Observatory.
Caen			30.58	776.8	43.7	6.5	73	S			2		0			0	0	Clear	Normal School.
Chartres			30.65	778.4	45.9	7.7		SW			2		0			0	0	Clear	Normal School.
Chaumont																			Normal School.
Clermont			30.67	779.0	47.3	8.5	55	S			2		0			0	0	Clear	Puy de Dome, Obs.
Commercy			30.69	779.6	36.0	2.2	93	WSW			2		0			0	0	Clear	Normal School.
Commune de Gréasque*			30.60	777.2	51.1	10.6	58	NE			2		5		NE	0	0		
Grenoble			30.72	780.2	38.8	3.8	67	NE			2		0			0	0	Clear	Normal School.
Le Mans			30.65	778.4	38.5	3.6	83	NE			2		0			0.008	0.2	Clear	Normal School.
Loches																			
Lons-Le-Saulnier			30.71	779.9	38.5	3.6	93	W			1		0			0	0	Clear	Normal School.
Mâcon			30.59	776.9	31.5	— 0.3		Calm			0		10			0	0	Covered	Normal School.
Mirecourt			30.64	778.3	41.5	5.3	85	SSW			2		1		NNE	0	0	Clear	Normal School.
Metz																			
Nismes			30.62	777.7	56.1	13.4	83	E			1					0	0		Normal School.
Orleans			30.67	778.9	39.6	4.2	77	ESE			2		0			0	0	Clear	Normal School.
Paris Observatory			30.67	778.9	38.5	3.6	83	S			1		0?			0	0	Misty?	National Observatory.
Parthenay			30.61	777.4	48.2	9	78	SE			2		8		E	0	0	Very cloudy	Normal School.
Privas			30.69	779.6	41.7	5.4		ESE			2		2		ESE	0	0	Slightly cl'dy	Normal School.
La Roche-sur-Yon			30.63	778.1	46.8	8.2	61	SW			2		0			0	0	Clear	Normal School.
Rochefort, Observatory			30.60	777.1	48.6	9.2	89	E			3		0			0	0	Clear	Naval Observatory.
Rouen			30.65	778.4	41.4	5.2	63	SSE			2		0			0	0	Clear	Normal School.
Saint Lo			30.61	777.4	45.3	7.4	60	SW			1		0			0	0		Normal School.
Tarbes			30.13	765.3	48.2	9	69	SE			2		0			0	0	Clear	Normal School.
Toulouse			30.56	776.2	53.1	11.7	79	SE			2		5					Cloudy	Normal School.
Villefranche			30.76	781.3	41.0	5	87	NE			1		0			0	0	Clear	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.95	760.8	77.0	25	83	NE			2		2k			0.51	13.		L'Abbé Marchési.
Gorée																			
Marseilles			30.55	775.9	58.6	14.8	68	E			1		4			0	0		Marseilles Observatory.
Mont-Louis	25.21	640.2	30.72	780.2	33.4	0.8	87	SSW	0.0	0.00			8		S	0	0		—. Falguère.
Montsouris, Paris			30.65	778.4	41.0	5.0	78	S E			1		0			0	0		Montsouris Observ'tory
Perpignan			30.62	777.8	48.2	9.0	85	N E	3.7	1.67			10		SE	0.031	0.8		Dr. Fines.
Pic du Midi, (Summit) H. P.	21.45	544.7			23.0	— 5.0		WSW			2		8			0	0	Fair	M. Baylac.
Saint Maur, (near Paris)			30.65	778.6	31.9	4.4	82	SSE			1		0			0	0	Clear	E. Renou.
Toulouse			30.54	775.6	52.3	11.3	50	SSE			4		1			0	0		Toulouse Observatory.
Tours			30.63	778.0	40.5	4.7	84	SE			1		0			0	0	Clear	C. Marquet.
Versailles, (near Paris)			30.63	778.0	43.5	6.4	74	SW			1		0			0	0	Very clear	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.34	770.6	38.8	3.8	89	NNE	3.8	1.7			10			{Bla'k / Bla'k}	{Bla'k / Bla'k}		H. Le Leo, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in *meters per second*. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,580.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg																			Prof. T. Hoh.
Berlin			30.52	775.3	35.4	1.9	90	SW			2		3			0	0		Prof. Arndt.
Breslau			30.58	776.6	37.4	3.0	70	S			2		10			0	0		Dr. P. Naugebauer
Carlsruhe			30.61	777.4	37.0	3.1	70	WSW			1		3			0	0		A. Senz.
Cassel			30.70	779.7	36.1	2.3	83	S			2		0			0	0		Dr. H. Möhl.
Cologne			30.64	778.3	38.1	3.4	73	SSW			2		6			0	0		Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.78	781.7	32.5	0.3	98	SW			1		10			0	0	Foggy	M. Wilhelm.
Hamburg			30.80	782.3	30.2	— 1.0	82	N					10			0	0	Foggy	Deutsche Seewarte.
Kiel			30.47	774.0	39.4	4.1	79	SW			6		6			0	0		Prof. G. Karsten.
Königsberg			30.45	773.4	38.7	3.7	77	W			4		10			0	0		Prof. E. Luther.
Koslin			30.28	769.1	33.6	0.9	90	SW			5		9			0.016	0.4		H. Müller.
Leipsic			30.40	772.2	34.5	1.4		SW			4		10			0	0		Prof. Bruhns.
Münster			30.61	777.6	37.0	2.8	82	SW			4		3			0	0		Prof. E. Heis.
Posen			30.57	776.4	37.6	3.1	94	SW			1		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.54	775.6	36.1	2.3	82	SW			4		10			0	0		Dr. Schur.
Stuttgart			30.74	780.8	32.2	0.1	98	SW			2		1			0	0		Mr. Würth.
Thorn			30.71	780.0	36.3	2.4	78	NE					0			0	0		Dr. Hasenbalg
Treves, (Trier)			30.42	772.7	34.9	1.6	88	SW			6		10			Inap.	Inap.		Prof. Fiesch.
Wustrow, Naval School			30.60	779.7	33.4	0.8	88	W			2		6			0	0	Dense Fog	E. F. Schütz.
			30.39	772.0	35.6	2.0	70	WNW			4		10			0	0		

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.58	776.8	54.7	12.6		NE										Clear	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.64	778.2	46.8	8.2	52	Calm	0	0			0			0	0		
Padua			30.67	778.9	41.4	5.2	82	NW	0.7	0.3			0			0	0		
Verona			30.69	779.5	44.6	7.0	54	W			1		0			0	0		
Bergamo			30.64	778 3	42.8	6.0	59	E			1		0			0	0		
Milan			30.73	780.6	33.3	0.7	81	NW			1		0			0	0		
Moncalieri			30.76	781.3	30.4	— 0.9	90	ESE	3.1	1.4			0			0	0		
Mondovi			30.72	780.3	41.9	5.5	47	NNW			2		0			0	0		
Porto Maurizio			30.64	778.3	59.0	15.0		ENE			6		0			0	0		
Genoa			30.64	778.2	53.4	11.9	40	NE	6.3	2.8			0			0	0		
Piacenza			30.73	780.6	34.9	1.6	72	W	7.4	3.3			0			0	0		
Bologna			30 66	778.8	44.8	7.1	29	W			1		2	W		0	0		
Florence			30.63	778.1	54.5	12.5	60	E			2		0			0	0		
Leghorn			30.62	777.7	55.2	12.8	54	E	9.4	4.2			0			0	0		
Siena			30.61	777.4	50.2	10.1	77	ESE	0.7	0.3			0			0	0		
Urbino																			
Pesaro																			
Ancona			30.71	780.0	53.9	6.6	82	W			2		1			0	0		
Grosseto			30.40	777.2	55.9	13.3	55	ENE			4		0			0	0		
Rome			30.60	777.1	56.5	13.6	58	N	9.8	4.4			0			0	0		
Naples, O. U.			30.60	777.1	62.1	16.7	48	NE			4		4			0	0		
Lecce			30.63	777.9	54.9	12.7	61	N	16.1	7.2			2			0	C		
Cosenza			30.65	778.4	54.1	12.3	67	NW			1		10			0	0		
Riposto, (Sicily)			30.53	775.4	54.7	12.6	93	NW			2		10			0.280	7.1	Light rain	
Palermo			30.45	773.5	59.4	15.2	76	NE	3.1	1.4			10			0	0		
Caltanissetta			30.51	774.9	50.9	10.5	92	E			6		10			0.008	0.2	Light rain	
Sub-Series.																			
Naples, S. R.			30.59	776.9	58.5	14.7	59	NE			2		n			0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.61	777.6	40.3	4.6		SW			4								
Groningen			30.44	773.2	37.6	3.1		SW			5								
Helder			30.47	773.0	39.9	4.4		SSW			5								
Utrecht			30.53	775.0	40.5	4.7	78	SSW			5		2					Light cloudy	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.76	755.8	43.5	6.4	73	SW	12.5	5.6			10			0.016	0.4		
Brönö			29.90	736.7	37.0	3.0	83	W	45	20			9			0	0		
Christiania			29.59	751.5	42.8	6.0	76	W	20.4	9.1			7			0	0	Raining	
Tromsö			29.58	725.9	29.5	— 1.4	80	SSW	19	8.5			10			0.270	7.0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer corrected for instrumental errors.		Barometer reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount.		Clouds. Direction.		Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Up'er 0—10.	Low'r 0—10.	Upper. From—	Lower. From—	Inches.	Millimeters.		
Angra, (Azores,)	.....	.....	29.86	758.5	58.5	14.7	91	WSW	20.1	8.97	.....	.....	0?	.....	.....	0.394	10.0	Raining ?.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.30	769.6	53.1	11.9	49	E	29.8	13.33	.....	.....	4	E	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.17	766.3	59.7	15.4	51	N	2.4	1.07	.....	.....	10	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.34	770.5	52.0	11.1	69	NE	19.9	8.9	.....	.....	0	.....	.....	0.035	0.9	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.46	773.7	31.5	1.4	91	WSW	22	10	.....	.....	5	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30.23	767.8	34.2	1.2	100	SW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.02	762.5	27.5	— 2.5	95	SE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.13	765.4	6.1	—14.4	96	SE	7	3	.....	.....	10	.....	.....	.....	.....	Foggy	Central Physical Obs
Kuopio	.....	.....	29.72	754.8	11.5	—11.4	100	S	.....	.....	.....	.....	10	.....	.....	0	0	Stormy.....	Ch. Forsten.
Kieff	.....	.....	30.39	772.0	28.0	— 1.9	86	NW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.54	775.7	29.5	— 1.4	74	N	4	2	.....	.....	0	.....	.....	.....	.....	.....	Kurdskof.
Kertch	.....	.....	30.51	774.9	33.6	0.9	79	NW	2	1	.....	.....	2	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.26	768.7	3.4	—15.9	81	S	9	4	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.20	769.3	22.3	— 5.4	76	WSW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.03	764.0	— 5.4	—20.8	88	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.77	730.8	30.26	768.7	33.3	0.7	41	NW	25	11	.....	.....	7	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.31	769.8	17.4	— 8.1	80	NW	22	10	.....	.....	2	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	29.86	758.4	0.5	—17.5	95	NW	4	2	.....	.....	6	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.63	727.3	29.71	754.6	9.1	—12.7	88	N	4	2	.....	.....	10	.....	.....	.....	.....	Snowing.....	Meteorological Obs.
Kasanly	.....	.....	29.96	761.0	21.9	— 5.6	51	SE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.57	725.7	30.37	771.5	30.2	— 1.0	100	NE	9	4	.....	.....	0	.....	.....	.....	.....	Light fog.....	Michelson.
Barnaul	.....	.....	30.23	767.9	21.9	— 5.6	85	SW	22	10	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.14	765.5	3.6	—15.8	90	SE	11	5	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Gorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.45	773.5	27.1	— 2.7	58	Calm	0	0	.....	.....	3	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	28.47	723.2	30.87	784.0	—13.2	—25.1	54	Calm	0	0	.....	.....	0	.....	.....	Blank	Blank	.....	Meteorological Obs.
Vladivostock	.....	.....	30.51	774.9	4.5	—15.3	80	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—12.3	—24.6	72	W	13	6	.....	.....	4	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Gorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.45	773.3	46.2	7.9	70	NE	21.0	9.4	.....	0	6	.....	.....	0	0	Cloudy.....	Royal Observatory.
San Fernando	.....	.....	30.23	767.7	57.6	14.2	72	E	10.7	4.8	.....	1	6	W	E	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.35	745.4	13.5	—10.3	90	S	.....	.....	6	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	29.23	742.4	33.4	0.8	100	SW	.....	.....	7	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	29.23	742.4	37.9	6.6	89	SW	.....	.....	2	.....	5	.....	.....	0.138	3.5	.....	
Stockholm	.....	.....	29.60	751.8	37.9	3.3	88	SW	.....	.....	6	.....	10	.....	.....	0.142	3.6	.....	
Wisby	.....	.....	29.97	761.1	36.7	2.6	85	W	.....	.....	7	.....	10	.....	.....	0.209	5.3	.....	
Sub-Series.																			
Upsala	.....	.....	29.58	751.4	38.5	3.6	89	SW	24.2	10.8	.....	.....	10	.....	SW	0	0	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.25	742.9	30.75	781.0	30.2	— 1.0	100	ESE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	29.02	737.1	30.74	780.8	28.6	— 1.9	94	SW	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +15.5 mm.; Thermometer, —2.8 cent.; Relative Humidity, +23 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.63	778.1	41.9	5.5	62	N	12	5.5	.....	.....	5	.....	N	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.32	770.1	55.4	13.0	.....	NW	.....	.....	1	.....	2	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.02	777.8	53.2	11.8	.....	NW	.....	.....	2	.....	0	.....	.....	.....	.....	.....	
Valona	.....	.....	30.50	774.6	54.1	12.3	.....	W	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Varna	.....	.....	30.47	774.0	42.8	6.0	.....	N	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.18	766.5	60.1	15.6	64	NW	.....	.....	3	.....	7ks	.....	NW	0	0	Rainy	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.73	755.1	5.5	—14.7	66	NW	7.0	3.1	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.32	770.1	11	—11.7	.....	Calm	0	0	.....	.....	10s	.....	W	0.04	1.0	Cloudy	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.75	755.6	6	—14.4	85	NW	15	6.7	.....	0	0	.....	.....	0.20	5.1	Clear	G. A. Blair.
Charlottetown, P. E. Island.	.....	.....	29.67	753.6	8	—13.3	91	NW	13	5.8	.....	.....	5ks	.....	.....	0.50	12.7	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.18	766.6	10.7	—11.8	86	N	..	.....	1	.....	10s, c	.....	.....	0	0	Clearing	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.92	760.0	2.8	—16.2	72	NW	.....	.....	4	.....	...	.....	.....	0.10	2.5	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	30.24	768.1	27.0	— 2.8	76	N	2	0.9	.....	.....	.....	.....	.....	0	0	Clear	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.86	758.4	6.9	—13.9	79	W	15	6.7	.....	.....	.....	.....	.....	0	0	Fair	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.59	777.0	—32	—35.6	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	James Stewart.
Goderich, Ontario	.....	.....	30.37	771.4	23.3	— 4.8	73	NW	.....	.....	3	.....	10n	.....	.....	0	0	Threatening	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.33	770.4	22.3	— 5.4	.....	NW	.....	.....	3	.....	10n	.....	.....	Inap.	Inap.	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	29.68	753.9	16	— 8.9	78	N	19	8.5	.....	.....	5ks	.....	N	0.343	8.72	Clearing	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.31	769.9	15	— 9.4	84	Calm	0	0	.....	8c	0	.....	.....	Inap.	Inap.	Fair	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.36	771.1	12.1	—11.1	.....	Calm	0	0	.....	.....	9s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.19	766.8	11	—11.7	70	NW	14	6.3	.....	5k	2ks	NW	.....	0.20	5.1	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.23	767.8	12	—11.1	80	NW	8	3.6	.....	.....	10ks	.....	W	0.05	1.3	Cloudy	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.33	770.4	11	—11.7	90	NW	3	1.3	.....	8k	2ks	W	W	0	0	Cloudy	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.39	769.6	27	— 2.8	76	NW	9	4.0	.....	10k	0	NW	.....	0	0	Cloudy	H. Morgan.
Port Hastings, N. S.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Peter Grant.
*Port Stanley, Ontario	.....	.....	30.34	770.6	25	— 3.9	89	NW	26	11.6	.....	.....	10n	.....	NW	0	0	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	30.09	764.3	7	—13.9	78	W	14	6.3	.....	2c	0	W	.....	0.10	2.5	Clear	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.86	758.4	10.0	—12.2	89	W	16	7.2	.....	0	0	.....	.....	0.01	0.3	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.29	769.4	21	— 6.1	85	N	5	2.2	.....	.....	10s	.....	.....	0.13	3.3	Light snow	K. Stewart.
Stayner, Ontario	.....	.....	30.32	770.1	17	— 8.3	83	N	3	1.3	.....	.....	10n	.....	N	0.10	2.5	Threatening	R. J. Cole.
Stratford, Ontario	.....	.....	30.34	770.6	21.9	— 5.6	87	NW	12	5.4	.....	.....	10n	.....	.....	0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.46	748.3	16	— 8.9	81	NW	13	5.8	.....	.....	10s	.....	NW	0.30	7.6	Cloudy	T. C. Hill.
*Toronto, Ontario	.....	.....	30.29	769.4	26	— 3.3	88	W	12	5.4	.....	.....	10n	.....	.....	0	0	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.14	765.5	24	— 4.4	74	NW	10	4.5	.....	0	5ks	.....	NW	0.06	1.5	Fair.	
Alpena, Mich.	.....	.....	30.34	770.6	19	— 7.2	84	W	6	2.7	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy.	
Atlantic City, N. J.	.....	.....	30.13	765.3	35	1.7	90	N	10	4.5	.....	2k	8s	W	N	0.03	0.8	Clearing	
Augusta, Ga.	.....	.....	30.20	767.1	61	16.1	82	SW	1	0.4	.....	2cs	5s	W	NW	0	0	Cloudy	
Baltimore, Md.	.....	.....	30.18	766.6	42	5.6	74	N	5	2.2	.....	2ck	5ks	NW	.....	0.10	2.5	Clearing	
Barnegat, N. J.	.....	.....	30.14	765.5	33	0.6	89	N	5	2.2	.....	.....	10n	.....	.....	0.13	3.3	Light snow.	
Benton, Montana	27.44	697.0	30.24	768.1	—22	—30.0	100	SE	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Bismarck, Dakota	28.58	725.9	30.00	777.2	—30	—34.4	37	NE	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Boston, Mass.	.....	.....	30.06	763.5	23	— 5.0	73	W	16	7.2	.....	5c	2s	W	.....	0.18	4.6	Fair.	
Breckenridge, Minn	.....	.....	30.03	778.0	—23	—30.6	59	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Buffalo, N. Y.	.....	.....	30.23	769.1	26.5	— 3.1	77	NW	11	4.9	.....	.....	10n	.....	W	0.01	0.3	Light sleet.	
Burlington, Vt.	.....	.....	30.20	767.1	15	— 9.4	65	N	10	4.5	.....	2k	5s	N	.....	0.08	2.0	Cloudy.	
Cairo, Ill.	.....	.....	30.52	775.2	27	— 2.8	88	N	12	5.4	.....	.....	10s	.....	N	1.96	49.8	Cloudy.	
Cape Hatteras, N. C.	.....	.....	30.41	772.2	62	16.7	83	W	12	5.4	.....	.....	10ks	.....	NW	0	0	Cloudy.	
Cape Henry, Va.	.....	.....	30.15	765.8	51	10.6	79	N	16	7.2	.....	.....	10s	.....	NE	0.78	19.8	Cloudy.	
Cape May, N. J.	.....	.....	30.14	765.5	38	3.3	91	N	11	4.9	.....	.....	10n	.....	.....	0.10	2.5	Light rain.	
Charleston, S. C.	.....	.....	30.20	767.1	61	16.1	77	SW	8	3.6	.....	5ck	0	SW	.....	0	0	Fair.	
Cheyenne, Wyoming	24.04	610.6	29.98	761.5	6	—14.4	100	NW	8	3.6	.....	0	2s	.....	.....	0	0	Fair.	
Chicago, Ill.	.....	.....	30.51	774.9	17	— 8.3	83	NW	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Cincinnati, Ohio	.....	.....	30.40	772.1	33	0.6	69	N	9	4.0	.....	.....	10s	.....	N	0.40	12.4	Cloudy.	
Cleveland, Ohio	.....	.....	30.38	771.6	26.9	— 2.8	75	NW	16	7.2	.....	.....	10ks	.....	NW	0.01	0.3	Cloudy.	
Colorado Springs, Col.	24.14	613.1	30.01	762.2	10	—12.2	58	N	1	0.4	.....	5cs	0	.....	.....	0	0	Fair.	
Corsicana, Texas	.....	.....	30.43	772.9	35	1.7	90	N	10	4.5	.....	.....	10s	.....	.....	0.07	1.8	Cloudy.	
Davenport, Iowa	.....	.....	30.62	777.7	11	—11.7	79	NW	3	1.3	.....	1ck	0	.....	.....	0	0	Clear.	
Denison, Texas	.....	.....	30.45	773.4	28	— 2.2	88	N	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy.	
Denver, Col.	.....	.....	30.38	771.6	28	— 2.2	77	S	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	24.87	631.7	30.09	764.3	14	—10.0	63	S	2	0.9	.....	0	0	.....	.....	0	0	Cloudy.	
Dodge City, Kan.	.....	.....	30.38	771.6	28	— 2.2	77	NW	6	2.7	.....	.....	10s	.....	W	0	0	Cloudy.	
Dubuque, Iowa	27.77	705.4	30.30	769.6	13	—10.6	100	Calm	0	0	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy	
Duluth, Minn.	.....	.....	30.58	776.7	10	—12.2	58	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Eastport, Me.	.....	.....	30.55	776.0	— 5	—20.6	63	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Erie, Pa.	.....	.....	29.80	756.7	16	— 8.9	66	NW	16	7.2	.....	0	5s	.....	NW	0.19	4.8	Fair.	
Escanaba, Mich.	.....	.....	30.30	769.6	28	— 2.2	88	N	12	5.4	.....	.....	10ks	.....	N	Inap.	Inap.	Cloudy.	
Fort Gibson, Indian Terr.	.....	.....	30.42	772.7	12	—11.1	79	W	8	3.6	.....	0	1s	.....	W	Inap.	Inap.	Fair.	
Fort Sill, Indian T.	.....	.....	30.49	774.4	24	— 4.4	74	N	8	3.6	.....	5c	2s	SW	SW	0.70	17.8	Fair.	
Fort Sully, Dakota	29.19	741.4	30.42	772.7	22	— 5.6	72	N	12	5.4	.....	0	5s	.....	N	0	0	Fair.	
Galveston, Texas	28.66	728.0	30.04	778.2	—10	—28.3	33	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Grand Haven, Mich.	.....	.....	30.28	769.1	60	15.6	94	N	22	9.8	.....	.....	10s	.....	N	0	0	Threatening	
Indianapolis, Ind.	.....	.....	30.43	772.9	25	— 3.9	81	NW	10	4.5	.....	.....	10s	.....	NW	0	0	Cloudy.	
Indianola, Texas	.....	.....	30.47	773.9	28	— 2.2	77	NW	6	2.7	.....	.....	10s	.....	N	0.04	1.0	Cloudy.	
Jacksonville, Fla.	.....	.....	30.31	769.9	55	12.8	97	N	28	12.5	.....	.....	10s	.....	N	0	0	Cloudy.	
Keokuk, Iowa	.....	.....	30.2	769.1	57	13.9	87	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Key West, Fla.	.....	.....	30.58	776.7	72	—11.1	80	N	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Kittyhawk, N. C.	.....	.....	30.26	768.9	70.0	21.1	90	E	16	7.2	.....	5ck	5s	E	E	0	0	Cloudy.	
Knoxville, Tenn.	.....	.....	30.07	763.8	61	16.1	71	N	16	7.2	.....	10k	0	NW	.....	0.01	0.3	Cloudy.	
La Crosse, Wis.	.....	.....	30.3	769.6	46	7.8	77	N	12	5.4	.....	.....	10ks	.....	NE	0.06	1.5	Cloudy.	
Leavenworth, Kan.	.....	.....	30.58	776.7	3	—16.1	59	N	1	0.4	.....	5c	0	N	.....	0	0	Fair.	
Lexington, Ky.	.....	.....	30.62	777.7	15	— 9.4	83	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Long Branch, N. J.	29.28	743.7	30.46	773.7	32	0.0	79	NW	8	3.6	.....	.....	10s	.....	.....	0.96	24.4	Cloudy.	
Louisville, Ky.	.....	.....	30.44	773.2	36	2.2	80	NW	6	2.7	.....	2k	0	W	.....	0.07	1.8	Fair.	
Lynchburg, Va.	.....	.....	30.46	773.7	31	— 0.6	89	NW	12	5.4	.....	.....	10s	.....	.....	1.14	29.0	Cloudy.	
Malone, N. Y.	.....	.....	30.17	766.3	53	11.7	61	NE	8	3.6	.....	.....	10s	.....	NW	0.03	0.8	Cloudy.	
Marquette, Mich.	.....	.....	30.20	767.1	13	—10.6	81	NW	5	2.2	.....	.....	10s	.....	NW	0	0	Cloudy.	
Memphis, Tenn.	.....	.....	30.41	772.4	16	— 8.9	83	W	8	3.6	.....	.....	10s	.....	W	0.02	0.5	Cloudy.	
Milwaukee, Wis.	.....	.....	30.44	773.2	36	2.2	90	NE	10	4.5	.....	.....	10s	.....	.....	0.71	18.0	Cloudy.	
Mobile, Ala.	.....	.....	30.56	776.2	7	—14.4	54	NW	8	3.6	.....	5c	2s	NW	.....	Inap.	Inap.	Fair.	
Montgomery, Ala.	.....	.....	30.29	769.4	65	18.3	90	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Morgantown, W. Va.	.....	.....	30.25	768.3	65.5	18.6	94	SW	0	2.7	.....	.....	10s	.....	W	0.08	2.0	Threatening	
Mt. Washington, N. H.	.....	.....	30.33	770.4	38	3.3	81	N	1	0.4	.....	.....	10s	.....	NW	1.22	31.0	Cloudy	
Nashville, Tenn.	23.24	590.3	29.60	751.8	— 9	—22.8	100	NW	48	21.5	.....	.....	Fog	.....	.....	0.31	7.9	Foggy	
New Haven, Conn.	.....	.....	30.39	771.9	39	3.9	81	N	10	4.5	.....	.....	10ks	.....	N	0.36	9.1	Cloudy.	
New London, Conn.	.....	.....	30.40	772.2	39	3.9	81	N	10	4.5	.....	.....	10s	.....	N	0	0	Fair.	
New Orleans, La.	.....	.....	30.04	763.0	32.5	0.3	59	NW	12	5.4	.....	5ck	2s	W	W	0.04	1.0	Clearing	
Newport, R. I.	.....	.....	30.27	768.8	63	17.2	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy.	
New York, N. Y.	.....	.....	30.05	763.3	31	— 0.6	68	NW	14	6.3	.....	.....	10s	.....	NW	0.04	1.0	Cloudy.	
Norfolk, Va.	.....	.....	30.14	765.5	34	1.1	80	NW	8	3.6	.....	0	Fog	.....	.....	0.17	4.3	Fair.	
North Platte, Neb.	.....	.....	30.18	766.6	44	8.1	88	N	24	10.7	.....	.....	10s	.....	N	0.25	6.3	Threatening	
Omaha, Neb.	27.30	693.4	30.14	765.5	9	—12.8	78	Calm	0	0	.....	Haze	8s	.....	.....	0	0	Cloudy.	
Oswego, N. Y.	29.40	746.8	30.32	777.7	5	—15.0	100	Calm	0	0	.....	2c	0	.....	.....	0	0	Clear.	
Peck's Beach, N. J.	.....	.....	30.24	768.1	25.5	— 3.6	88	NW	12	5.4	.....	.....	10n	.....	NW	0.13	3.3	Light snow	
Pembina, Dakota	.....	.....	30.15	765.8	37	2.8	90	N	8	3.6	.....	.....	10ks	.....	W	0.06	1.5	Cloudy.	
Philadelphia, Penn.	.....	.....	30.54	775.7	—24	—31.1	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Pike's Peak, Colorado	.....	.....	30.16	766.1	35	1.7	80	N	15	6.7	.....	8k	Sm'e	NW	.....	0.11	2.8	Clearing	
Pittsburgh, Penn.	17.60	447.0	29.81	757.2	3	—16.1	59	W	60	26.8	.....	8cs	0	.....	.....	0	0	Cloudy.	
Port Huron, Mich.	.....	.....	30.31	769.9	34	1.7	80	NW	5	2.2	.....	.....	10s	.....	NW	0.31	7.9	Cloudy.	
Portland, Me.	.....	.....	30.38	771.6	23	— 5.0	78	NW	7	3.1	.....	.....	10s	.....	.....	Blank	Blank	Cloudy.	
Portland, Oregon	.....	.....	30.04	763.0	22	— 5.6	72	NW	4	1.8	.....	Haze	2s	.....	NW	0.40	10.2	Fair.	
Punta Rassa, Fla.	.....	.....	30.14	765.5	27	— 2.8	55	NE	13	5.8	.....	0	0	.....	.....	0	0	Clear.	
Rochester, N. Y.	.....	.....	30.30	769.6	67.0	19.8	94	N	4	1.8	.....	.....	1ks	.....	NE	0.04	1.0	Cloudy.	
Salt Lake City, Utah	.....	.....	30.25	768.3	27	— 2.8	88	NW	12	5.4	.....	.....	10n	.....	.....	0.09	2.3	Light snow.	
Sandy Hook, N. J.	25.07	626.6	30.00	762.0	29	— 1.7	59	SE	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
San Diego, Cal.	.....	.....	30.11	764.8	34	1.1	79	NW	16	7.2	.....	0	5ks	.....	NW	0.04	1.0	Fair.	
San Francisco, Cal.	.....	.....	30.09	764.3	51	10.6	79	E	8	3.6	.....	0	2s	.....	E	0.01	0.3	Fair.	
Santa Fe, N. M.	.....	.....	29.74	754.6	46	7.8	88	Calm	0	0	.....	0	5s	.....	.....	1.76	45.7	Fair.	
Savannah, Ga.	23.36	593.3	29.99	761.4	23	— 5.0	.....	E	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Shreveport, La.	.....	.....	30.54	775.7	59	15.0	87	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Smithville, N. C.	.....	.....	30.48	773.9	48	8.9	78	N	6	2.7	.....	5k	0	SW	.....	0	0	Fair.	
Springfield, Mass.	.....	.....	30.48	771.6	48	8.9	78	N	6	2.7	.....	.....	10s	.....	N	0.12	3.0	Threatening	
St. Louis, Mo.	.....	.....	30.13	765.3	57	13.9	87	W	8	3.6	.....	10ck	0	W	.....	0	0	Cloudy.	
St. Marks, Fla.	.....	.....	30.10	764.5	29	— 1.7	67	N	4	1.8	.....	1k	2s	NW	W	0.05	1.5	Fair.	
St. Paul, Minn.	.....	.....	30.56	776.7	21	— 6.1	71	N	4	1.8	.....	.....	10s	.....	.....	0.04	1.0	Cloudy.	
St. Paul's Island, Alaska	.....	.....	30.29	769.4	57	13.9	100	Calm	0	0	.....	.....	Fog	.....	.....	0.03	0.8	Foggy.	
Spuan Beach, N. J.	.....	.....	30.55	776.0	1.2	-17.1	69	W	2	0.9	.....	8cs	0	.....	.....	0	0	Fair.	
Thatcher's Island, Mass.	.....	.....	30.03	764.0	33	0.6	89	NW	10	4.5	.....	5cs	5ks	.....	NW	0.07	1.8	Cloudy.	
Toledo, Ohio	.....	.....	29.40	759.1	25	— 3.9	87	NNW	23	10.3	.....	0	2k	.....	.....	0.79	20.1	.....	
Tucson, Arizona	.....	.....	30.06	763.5	24	— 4.4	48	N	24	10.7	.....	5c	0	NW	.....	0.31	7.9	Clear.	
Tybee Island, Ga.	.....	.....	30.38	771.6	29	— 1.7	78	W	7	3.1	.....	.....	10s	.....	W	0	0	Cloudy.	
Vicksburg, Miss.	27.65	702.3	30.12	765.0	31	— 0.6	.....	SE	.....	.....	.....	0	0	.....	.....	0	0	Clear.	
	.....	.....	30.21	767.3	61	16.1	94	S	4	1.8	.....	5c	Sm'e	SW	.....	0	0	Fair.	
	.....	.....	30.33	770.4	55	12.8	87	N	7	3.1	.....	.....	10s	.....	.....	0	0	Cloudy.	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.20	614.7	29.68	753.9	--15	—26.1	74	SE	5	2.2	.....	10k	0	W	.....	0.01	0.3	Cloudy	
Washington, D. C	.....	.....	30.20	767.1	41	5.0	83	NW	10	4.5	.....	0	5s	.....	W	0.05	1.3	Fair	
Wilmington, N. C	.....	.....	30.12	765.0	61	16.1	82	SW	5	2.2	.....	8cs	0	W	.....	0	0	Fair	
Wood's Holl, Mass	.....	.....	30.02	762.5	30	— 1.1	68	NW	17	7.6	.....	.....	10s	.....	N	0.16	4.1	Cloudy	
Wytheville, Va	27.82	706.6	30.04	763.0	41	5.0	83	NW	16	7.2	.....	8k	0	NW	.....	0.30	7.6	Cloudy	
Yankton, Dakota	29.15	740.4	30.68	779.3	—15	—26.1	70	NE	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.13	765.3	44	6.7	.....	E	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.06	763.5	79	26.1	82	N	5	2.2	.....	5k	10s	NE	.....	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.06	763.5	74	23.3	81	E	.....	.....	.....	0	2k	.....	.....	0.26	6.6	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.24	768.1	67	19.4	90	Calm	0	0	.....	1fk, k	0	E	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.27	768.8	74	23.3	76	Calm	0	0	.. ..	8c	8s	NE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.32	770.1	76	24.4	67	ENE	9	4.0	.....	0	2ks	.....	.....	0	0	Clear	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.92	760.0	72	22.2	76	SW	1.2	0.5	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
St. Georges, Bermudas	.....	.....	30.12	765.0	65.0	18.3	78	SW	30.0	13.4	.....	.....	10k	.....	.....	0	0	Stormy, gale	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.13	765.3	— 32	—35.6	.....	SW	4	1.8	.. ..	2c	Haze	SW	.....	0	0	Aurora	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.54	750.6	25.0	-- 3.9	.....	SE	.....	.....	.....	.....	10n	.....	.....	0.30	7.6	Snowing	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.27	692.6	30.05	763.3	64	17.8	90	N	1.0	0.4	.....	2c	8k	NE	.....	0	0	Dull	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.18	639.6	.....	.....	64.5	18.1	85	.....	0	0	.....	.....	9s	.....	.....	0.22	5.6	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.98	761.5	81	27.2	87	E	.....	.....	3	.....	6ks	.....	.....	0.180	4.57	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.02	762.4	82.4	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.217	5.50	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.
*Steamer Nürnberg,	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.
* Observation not simultaneous.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 25, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.22	767.6	60.6	15.9	64	Calm	.....	.....	0	.....	4	.....	.....	0.118	3.0	Fair	Charnot.
Algiers	.....	.....	30.22	767.6	54.7	12.6	95	SW	.....	.....	1	.....	10	.....	.....	0.094	2.4	Hidden	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.34	770.7	62.6	17.0	72	SE	.....	.....	5	.....	6	.....	.....	0.020	0.5	Fair	Jacques.
Sfax	.....	.....	30.32	770.2	59.5	15.3	78	E	.....	.....	5	.....	4	.....	.....	0	0	Fair	Chauvey.
Saida	.....	.....	30.23	767.7	47.3	8.5	67	SSW	.....	.....	1	.....	2	.....	.....	0	0	Clear	Grosjean.
Tebessa	.....	.....	30.31	769.9	44.8	7.1	.....	SE	.....	.....	4	.....	10	.....	.....	0.197	5.0	Hidden	Colin.
Geriville	.....	.....	30.23	767.8	38.5	3.6	90	N	.....	.....	2	.....	5	.....	.....	0.016	0.4	Fair	Buard.
Laghouat	.....	.....	30.23	767.7	48.2	9.0	73	NE	.....	.....	4	.....	3	.....	.....	0.748	19.0	Fair	Simon.
Biskra	.....	.....	30.21	767.4	61.2	16.2	55	Calm	.....	.....	0	.....	8	.....	.....	1.378	35.0	Cloudy	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.74	780.7	28.2	— 2.1	98	Calm	.....	.....	0	.....	10	.....	.....	0	0	Foggy	Prof. Ivan Stoxir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.74	780.7	34.5	1.4	89	W	.....	.....	3	.....	10	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.69	779.5	39.2	4.0	91	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.69	779.6	33.8	1.0	80	S	.....	.....	2	.....	0	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	29.41	747.0	30.66	778.8	31.8	— 0.1	85	NW	.....	.....	1	.....	4	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	29.14	740.2	30.06	778.2	26.6	— 3.0	91	NNE	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	29.19	741.4	30.04	778.4	31.8	— 0.1	96	NW	.....	.....	3	.....	10	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.53	775.4	29.8	— 1.2	100	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.71	780.0	43.5	6.4	98	Calm	.....	.....	0	.....	8ks	.....	.....	0.013	0.29	.....	I.R. Hydrographic Office
Szegedin	.....	.....	30.62	777.8	22.8	— 5.1	98	E	.....	.....	2	.....	10	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.73	780.6	42.6	5.9	88	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	Prof. V. Farolfi.
Vienna	.....	.....	30.62	777.7	25.5	— 3.6	100	SSE	.....	.....	1	.....	4	.....	.....	0	0	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	30.53	775.5	39.6	4.2	73	S	.....	.....	0	2	.....	W	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.14	765.5	46.5	8.1		SSW	29	13.0			6			0	0	*D. clouds	William Boswell.
Ardrossan			30.24	768.1	47	8.3		SSW			5		7					*D. clouds	J. Mayes.
Armagh Observatory			30.21	767.3	48.6	9.2		S	22	9.8			5					*D. clouds	S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.			30.34	770.6	42.9	6.1		SE	22	9.8			0					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			30.15	765.8	49.7	9.8		SSE			1		3					Blue sky	J. Dreyer.
Bradford			30.32	770.1	44.6	7.0		SW			1		0			0	0	Blue sky	J. McLandsborough.
Bridgetown, (Barbados)			29.98	761.5	78.0	25.6		NE			4		4					*D clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.47	773.9	46.0	7.8		S			1		0					Blue sky	H. Todd.
Cardington			30.48	774.2	40.0	4.4		S			1		3					Foggy	John McLaren.
Carlisle			30.30	769.6	49.3	9.6		S			1		1			0	0	Blue sky	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.50	774.7	39.7	4.3		SE			1		6					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.76	730.5	30.31	769.9	43.0	6.1		SE			3		0					Blue sky	R. E. Power.
Donaghadee			30.21	767.3	44	6.7		S			4		3					*D. clouds	J. Mac Gowan.
Dover			30.51	774.9	40	4.4		SE			1		2					¼ cl uded	J. Costello.
Eccles, (near Manchester)			30.37	771.4	44.7	7.1		S	2.2	1.0								Blue sky	Thomas Mackereth.
Falmouth Observatory			30.34	770.6	47.2	8.4		SE	20	8.9			2					*D. clouds	The Staff.
Fort Napier, (Natal)	27.51	698.7	29.76	755.9	86.8	30.4		NE			2		0					Blue sky	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.96	761.0	84	28.9		N			0		8					*D. clouds	
Galway, Queen's College			30.08	764.0	51	10.6		S			4		5					*D. clouds	B. G. Clare, for Prof. Cur- tis.
Gibraltar, (Mediterranean)			30.17	766.3	61.8	16.6		SE			1		2					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.20	767.1	46.6	8.1		S			3		8					*D. clouds	Lewis Stuart.
Great Yarmouth			30.52	775.2	40	4.4		S			3		3					Hazy	G. T. Watson.
Greenwich Royal Obs.			30.48	774.2	43.2	6.2		NNE			1		0					Blue sky	The Staff for G. B. Airy
Guernsey			30.39	771.9	45	7.2		ESE			2		0					Blue sky	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.39	771.9	46.7	8.2		WSW			1		0					Blue sky	L. J. Cre sley.
Helston			30.31	769.9	49	9.4		SE			2		2			0	0	clouds	M. P. Moyle.
Holyhead			30.28	769.1	47	8.3		S			3		0					Blue s y	John Tilston.
Kew Observatory			30.49	774.4	36.3	2.4		ESE	4	1.8								Foggy	The Staff.
Kingstown			30.26	768.6	48	8.9		SSE			5		3					Blue sky	George Mitchell
Leicester Museum			30.47	773.9	39.8	4.3		S			2		3					*D. clouds	William J. Harrison.
Malta, (Mediterranean)			30.47	773.9	60.2	15.7		SE			4		6k						Fred Travis, Pvt A.H.C
Nairn			30.04	763.0	48	8.9		SW			2							½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.25	768.3	70.4	21.3		NE			5		6					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.45	773.4	40.7	4.8		S			3		3c		SW			Blue sky	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.43	772.9	37.0	2.8		SE			2		9					Misty	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.42	772.7	39	3.9		Calm			0		5					Foggy	J. Lucas.
Plymouth			30.37	771.4	47.5	8.6		ESE			3		0					Blue sky	John Merrifield.
Roche's Point			30.31	769.9	48	8.9		S			6		10					Overcast	W. Kennedy.
Saint Ann's Head			30.31	769.9	45	7.2		SE			5		4					*D. clouds	John C. Walker.
Saint Helier, (Jersey)			30.40	772.1	46.0	7.8		ESE			3		0					Blue sky	A. P. Amy.
Sandwick Manse (Orkneys)			29.98	761.5	45.5	7.5		SSW	16	7.2			8						Rev Dr. Clouston
Scarborough			30.40	772.1	37.7	3.2		SSW			2		10					Overcast	F. Shaw.
Scutari Cemetery (Turkey)			30.57	776.5	44.6	7.0		SW			1		2					*D. clouds	Sergt. W. H. Lyne.
Sheffield			30.41	772.4	44.5	6.9		SW			1		0			0	0	Blue sky	W. F. Cooper.
Silloth Rectory			30.31	769.9	45.8	7.7		WSW			3		3			0	0	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			30.36	771.1	40.4	4.7		S			0		3					Hazy	The Staff.
Stornoway, Lews C. (Hebr.)			29.92	760.0	46	7.8		SW			7		10					Overcast	John Smith.
Stratfield Turgiss			30.50	774.7	38.3	3.5		SE			0–1		0					Blue sky	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.97	761.2	45	7.2		SSE			1		10					*D. clouds	John Trotter.
Truro, Royal Institution			30.31	769.9	52	11.1		SE			4		2					*D. clouds	W. Newcombe.
Valencia Observatory			30.10	764.5	49.6	9.8		SSE	43	19.2			10					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.92	760.0	84.7	29.3	31	NW	8	3.6			0						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					45	7.2		S			6		10			0	0		
Leith, Restalrig Park			30.26	768.6	48.4	9.1		W			2	5c				0	0	Fine	Andrew Gibb.
Monach Lt-house, Hebrides			29.81	757.2	48	8.9		NW			3	3	0			0	0		J. Youngclaus.
North Unst, (Shetland Is)			29.89	759.2	47	8.3		SW			7		10					Raining	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 1. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.57	776.4	35.1	1.7	33	SW			2		10					Foggy	
Fanöe			30.57	776.4	35.1	1.7	100	SW			4		10					Foggy	
Godthaab, (Greenland)			29.11	739.5	6.6	—14.1	83	SE			3		8						
Stykkisholm, (Iceland)			29.37	746.0	27.9	— 2.3	94	S			6		10					nowing	
Thorshavn, (Faröe)			29.53	750.0	49.6	9.8	83	SW			8		10					Raining	
Vestervig			30.45	773.5	36.3	2.4	100	SSW			4		10					Foggy	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.48	774.1	42.8	6	79	NE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Amiens	.....	.....	30.56	776.2	36.3	2.4	93	SSW	.....	.....	3	.....	0	.....	.....	0	0	Clear	Normal School.
Avignon	.....	.....	30.52	775.3	45.1	7.3	74	N	.....	.....	1	.....	10	.....	SE	0	0	Covered	Normal School.
Bar-sur-Seine	.....	.....	30.54	775.6	44.1	6.7	64	S	.....	.....	1	.....	0	.....	.....	0	0	Clear	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.43	772.8	46.8	8.2	77	E	2.0	0.9	.....	.....	.....	.....	S	0	0	.....	Beaumette Observatory.
Beauvais	.....	.....	30.49	774.5	32.9	0.5	92	SSW	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Besançon	.....	.....	30.62	777.7	34.9	1.6	74	S	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Bourg en Bresse	.....	.....	30.61	777.6	31.6	— 0.2	97	S	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Normal School.
Bourges	.....	.....	30.50	774.6	42.1	5.6	91	E	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Brest	.....	.....	30.27	768.8	53.1	11.7	65	SSE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Naval Observatory.
Caen	.....	.....	30.43	773.0	45.9	7.7	70	NE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Chartres	.....	.....	30.49	774.5	44.4	6.9	.....	E	.....	.....	2	.....	3	.....	NE	0	0	.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.46	773.6	50.4	10.2	50	S	.....	.....	2	.....	1	.....	N	0	0	Clear	Puy de Dome, Obs.
Commercy	.....	.....	30.64	778.3	29.8	— 1.2	96	SE	.....	.....	2	.....	10	.....	SE	0	0	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.53	775.5	52.2	11.2	59	SE	.....	.....	3	.....	10	.....	SE	0	0	.....	.....
Grenoble	.....	.....	30.12	765.1	33.4	0.8	85	ENE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Normal School.
Le Mans	.....	.....	30.47	774.0	38.5	3.6	87	E	.....	.....	2	.....	2	.....	E	0.008	0.2	Slightly cl'dy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.62	777.8	31.3	— 0.4	86	S	.....	.....	1	.....	.....	.....	.....	0	0	Foggy	Normal School.
Mâcon	.....	.....	30.59	776.9	31.5	— 0.3	.....	Calm	.....	.....	0	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.58	776.8	32.5	0.3	92	SSW	.....	.....	1	.....	10	.....	NNE	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Niames	.....	.....	30.52	775.2	52.2	11.2	52	NE	.....	.....	2	.....	..n	.....	S	0	0	.....	Normal School.
Orleans	.....	.....	30.50	774.8	42.1	5.6	75	E	.....	.....	2	.....	2	.....	E	0	0	Slightly cl'dy	Normal School.
Paris Observatory	.....	.....	30.52	775.2	39.6	4.2	77	SE	.....	.....	1	.....	0?	.....	.....	0	0	Misty ?	National Observatory.
Parthenay	.....	.....	30.44	743.2	41.0	5	74	SE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30.61	777.6	35.2	1.8	.....	SE	.....	.....	2	.....	10	.....	SE	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	30.43	772.8	49.6	9.8	92	SE	.....	.....	2	.....	2	.....	NW	0	0	Slightly cl'dy	Normal School.
Rochefort, Observatory	.....	.....	30.38	771.7	49.1	9.5	73	SE	.....	.....	4	.....	8	.....	N	0	0	¾ Covered	Naval Observatory.
Rouen	.....	.....	30.51	775.0	37.8	3.2	80	SSE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Saint Lo	.....	.....	30.43	773.0	50.9	10.5	37	S	.....	.....	2	.....	1	.....	N	0	0	.....	Normal School.
Tarbes	29.28	743.6	30.37	771.4	46.4	8	98	NE	.....	.....	2	.....	10	.....	W	0	0	Covered	Normal School.
Toulouse	.....	.....	30.36	771.2	53.2	11.8	87	SE	.....	.....	2	.....	5	.....	.....	0	0	Cloudy	Normal School.
Villefranche	.....	.....	30.65	778.6	34.0	1.1	85	SE	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.89	759.1	77.0	25	83	NE	.....	.....	2	.....	2k	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.46	773.7	56.1	13.4	77	ENE	.....	.....	1	.....	10	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	25.08	636.9	30.56	776.1	35.4	1.9	83	SE	5.6	2.50	.....	.....	10	.....	.....	0.205	5.2	.....	—. Faïguère.
Montsouris, Paris	.....	.....	30.30	774.6	41.7	5.4	74	SE	2.2	1	.....	.....	2	.....	S	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.45	773.5	52.2	11.2	94	SE	11.2	5.00	.....	.....	10	.....	SE	0.677	17.2	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.37	542.7	.....	.....	24.4	— 4.2	.....	ESE	.....	.....	3	.....	9	.....	.....	0	0	Fair	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.51	771.9	42.6	5.9	69	Var.	.....	.....	1	..c	.....	.....	.....	0	0	Clear	E. Renou.
Toulouse	.....	.....	30.31	770.6	51.8	11.0	77	SE	.....	.....	6	.....	7	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	30.45	773.3	40.6	4.8	81	E	.....	.....	1	.....	0	.....	.....	0	0	Clear	C. Marquet.
Versailles, (near Paris)	.....	.....	30.48	774.3	42.1	5.6	70	S	.....	.....	2	.....	1	.....	.....	0	0	Clear	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.32	770.0	35.8	2.1	100	NNW	10.5	4.7	.....	.....	10n	.....	.....	{0.213 / 0.315}	{5.4 / 8.0}	.....	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.0 ft.; Clermont 388 m., or 1,272.2 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Stations.																			
Bamberg	.....	.....	30.54	775.6	28.4	— 2.0	98	.....	.....	.....	.....	.....	9	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.71	780.0	39.0	3.9	90	S	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.74	780.8	34.0	1.1	93	NW	.....	.....	3	.....	10	.....	.....	0	0	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.63	778.1	28.8	— 1.8	93	NE	.....	.....	1	.....	10	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.63	777.9	44.8	7.1	72	SE	.....	.....	2	.....	1	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe.
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.74	780 7	32.9	0.5	92	N	.....	.....	1	.....	9	.....	.....	0	0	.....	Physical Society.
Friedrichshafen	.....	.....	30.69	779.5	27.5	— 2.5	79	N	.....	.....	.....	.....	10	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	30.66	778.7	38.1	3.4	97	SE	.....	.....	4	.....	2	.....	.....	0.020	0.5	Dense fog	Deutsche Seewarte.
Kiel	.....	.....	30.63	778.0	39.0	3.9	94	S	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.52	775.2	35.8	2.1	85	NW	.....	.....	7	.....	6	.....	.....	0.012	0.3	.....	Prof. E. Luther.
Köslin	.....	.....	30.65	778.5	32.9	0.5	.....	W	.....	.....	2	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.68	779.2	37.9	3.3	88	ENE	.....	.....	2	.....	7	.....	.....	0	0	.....	Prof. Bruhns.
Münster	.....	.....	30.52	775.1	42.8	6.0	81	E	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.74	780.8	32.9	0.5	100	W	.....	.....	4	.....	10	.....	.....	0	0	Light rain	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.67	779.0	27.0	— 2.8	100	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.63	778.1	32.7	0.4	71	NE	.....	.....	.....	.....	0	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.63	778.0	35.4	1.9	93	WNW	.....	.....	5	.....	9	.....	.....	Inap.	Inap.	.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	30.54	775 7	30.4	— 0.9	93	SW	.....	.....	2	.....	10	.....	.....	0	0	Dense fog	Prof. Fiesch.
Wustrow, Naval School	.....	.....	30.69	779.5	34.0	1.1	100	W	.....	.....	2	.....	10	.....	.....	0	0	Dense Fog	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.																			
Athens	.....	.....	30.58	776.7	55.6	13.1	.....	SW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Very clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	30.58	776.8	46.9	8.3	50	Calm	0	0	.....	.....	0	.....	.....	0	0	.....	
Padua	.....	.....	30.61	777.5	40.8	4.9	71	NW	1.3	0.6	.....	.....	5	W	.....	0	0	.....	
Verona	.....	.....	30.61	777.4	46.4	8.0	60	E	.....	.....	1	.....	0	.....	.....	0	0	.....	
Bergamo	.....	.....	30.58	776.8	43.2	6.2	48	E	.....	.....	1	.....	5	.....	.....	0	0	.....	
Milan	.....	.....	30.71	779.9	28.4	— 2.0	75	NNW	.....	.....	1	.....	8	SW	.....	0	0	.....	
Moncalieri	.....	.....	30.71	779.9	30.2	— 1.0	84	ESE	1.8	0.8	.....	.....	9	S	.....	0	0	.....	
Mondovi	.....	.....	30.67	778.9	43.3	6.3	28	SW	.....	.....	2	.....	10	SE	.....	0	0	.....	
Porto Maurizio	.....	.....	30.60	777.3	54.1	12.3	.....	E	.....	.....	4	.....	10	.....	.....	0	0	.....	
Genoa	.....	.....	30.59	776.9	51.3	10.7	37	NE	5.6	2.5	.....	.....	8	NE	.....	0	0	.....	
Piacenza	.....	.....	30.66	778.8	36.0	2.2	66	NW	9.4	4.2	.....	.....	4	S	.....	0	0	.....	
Bologna	.....	.....	30.62	777.8	44.6	7.0	31	W	.....	.....	1	.....	4	E	.....	0	0	.....	
Florence	.....	.....	30.60	777.1	52.5	11.4	59	E	9.4	4.2	.....	.....	4	SE	.....	0	0	.....	
Leghorn	.....	.....	30.57	776.5	54.1	12.3	56	ESE	0.7	0.3	.....	.....	10	.....	.....	0	0	.....	
Siena	.....	.....	30.56	776.2	48.2	9.0	77	W	.....	.....	2	.....	8	SW	.....	0	0	.....	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ancona	.....	.....	30.65	778.6	41.4	5.2	78	ENE	.....	.....	4	.....	3	.....	.....	0	0	.....	
Grosseto	.....	.....	30.55	775.9	53.1	11.7	68	.....	.....	.....	.....	.....	10	SW	.....	0	0	.....	
Rome	.....	.....	30.58	776.8	51.6	10.9	73	N	9.8	4.4	.....	.....	10	.....	.....	0	0	.....	
Naples, O. U.	.....	.....	30.61	777.4	57.0	13.9	55	NE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Lecce	.....	.....	30.62	777.8	53.6	12.0	68	N	9.4	4.2	.....	.....	5	.....	.....	0	0	.....	
Cosenza	.....	.....	30.64	778.3	52.9	11.6	69	NW	.....	.....	1	.....	10	.....	.....	0	0	.....	
Riposto, (Sicily)	.....	.....	30.54	775.8	55.4	13.0	88	NW	.....	.....	2	.....	9	.....	.....	0.413	10.5	.....	
Palermo	.....	.....	30.43	772.9	63.7	17.6	52	NE	11.0	4.9	.....	.....	10	.....	.....	0	0	.....	
Caltanissetta	.....	.....	30.51	774.9	48.2	9.0	84	E	.....	.....	6	.....	10	W	.....	0	0	.....	
Sub-Series.																			
Naples, S. R.	.....	.....	30.58	776.6	53.6	12.0	67	WSW	.....	.....	4	.....	..ks	SW	.....	0	0	.....	Prof. F. Brioschi.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	30.58	776.6	39.0	3.9	.....	SE	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	30.53	775.4	37.6	3.1	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	30.55	776.0	40.1	4.5	.....	S	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	30.54	775.6	41.4	5.2	66	SE	.....	.....	2	.....	5	.....	.....	.....	.....	Cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	30.17	766.2	42.8	6.0	91	S	25.7	11.5	.....	.....	10	.....	.....	0.039	1.0	.....	
Brönö	.....	.....	29.77	756.2	38.8	3.8	87	SW	27	12	.....	.....	10	.....	.....	1.371	34.8	Raining	
Christiania	.....	.....	30.24	768.1	39.2	4.0	72	SW	5.6	2.5	.....	.....	2	.....	.....	0	0	.....	
Tromsö	.....	.....	29.47	748.5	36.3	2.4	57	W	9	4	.....	.....	10	.....	.....	0.189	4.8	Hailing	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.99	761.8	56 8	13.8	80	SSW	6.5	2.92	.....	.....	3	.....	.....	0.110	2.8	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.19	766.9	55.6	13.1	64	ESE	8.2	3.67	.....	.....	9	ESE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.21	767.2	58.8	14.9	76	SE	3.8	1.72	.....	.....	10	.....	.....	.....	0.8	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.23	767.9	51.4	10.8	71	NE	4.9	2.2	.....	.....	0	.....	.....	0	0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.59	777.0	34.7	1.5	93	WNW	16	7	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30.32	770.2	37.9	3.3	75	NW	9	4	.....	.....	1	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	30.09	764.3	37.0	2.8	69	NW	13	6	.....	.....	6	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.82	757.3	28.6	— 1.9	90	WNW	4	2	.....	.....	1	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	29.75	756.7	32.4	0.2	78	NW	.....	.....	.....	.....	0	.....	.....	0.177	4.50	Snowing ?....	Ch. Forsten.
Kieff	.....	.....	30.10	764.4	36.5	2.5	84	NW	31	14	.....	.....	9	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.26	768.6	36.3	2.4	75	NW	31	14	.....	.....	6	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.11	764.8	33.1	0.6	90	WNW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.80	756.9	4.8	—15.1	73	NNE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.52	749.7	35.4	1.9	77	WNW	49	22	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	29.66	753.4	— 1.8	—18.8	82	SE	22	10	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	28.84	732.5	30.34	770.5	31.3	— 0.4	70	N	9	4	.....	.....	9	.....	.....	.....	.....	.....	Sebastianof.
Rasan	.....	.....	30.15	765.9	19.8	— 6.8	89	SSW	22	10	.....	.....	10	.....	.....	Blank	Blank	.....	Physical Cabinet.
Orenburg	.....	.....	29.79	756.7	— 7.2	—21.8	77	W	4	2	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Kasaly	28.78	721.1	29.48	748.8	1.0	—17.2	83	N	13	6	.....	.....	10	.....	.....	.....	.....	Snowing.....	Bobrof.
Tashkend	.....	.....	30.24	768.0	4.8	—15.4	72	W	4	2	.....	.....	5	.....	.....	.....	.....	.....	Michelson.
Barnaul	28.88	733.5	30.70	779.7	31.5	— 0.3	79	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.35	770.0	23.5	— 4.7	53	S	13	6	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	30.15	765.8	21.9	— 5.6	98	S	4	2	.....	.....	10	.....	.....	.....	.....	Snowing.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.72	780.4	18.1	— 7.7	38	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	28.48	722.0	30.89	784.6	—24.9	—31.6	78	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.6	779.1	— 2.0	—18.9	94	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—12.8	—24.9	.....	NW	7	3	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 300.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.26	768.5	52.7	11.5	64	NE	15.7	7.0	.....	1	1	NE	.....	0	0	Clouds.....	Royal Observatory.
San Fernando	.....	.....	30.21	767.3	55.9	13.3	81	SW	4.0	1.8	.....	0	4	.....	W	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Raparanda	.....	.....	29.67	753.7	32.4	0.2	89	W	.....	.....	4	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	29.91	759.7	34.5	1.4	93	NW	.....	.....	2	.....	1	.....	.....	0.102	2.6	.....	
Hernosand	.....	.....	30.04	762.9	39.6	4.2	58	W	.....	.....	2	.....	2	.....	.....	0	0	.....	
Stockholm	.....	.....	30.21	767.4	39.9	4.4	97	W	.....	.....	2	.....	8	.....	.....	0	0	.....	
Wisby	.....	.....	30.34	770.7	38.5	3.6	100	WSW	.....	.....	4	.....	3	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.22	767.6	39.6	4.2	68	SW	9.8	4.4	.....	.....	9	NW	.....	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.14	740.2	30.65	778.4	29.5	— 1.4	91	SE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.91	734.3	30.64	778.3	27.3	— 2.6	82	NW	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +12.8 mm.; Thermometer, —3.2 cent.; Relative Humidity, +14 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.58	776.7	43.7	6.5	70	SSW	7	3.0	.....	.....	2	.....	NNW	0	0	.....	
Fao, (Persian Gulf)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.58	776.8	44.2	6.8	.....	NW	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Valona	.....	.....	30.45	773.5	53.2	11.8	.....	W	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Varna	.....	.....	30.35	771.0	46.4	8.0	.....	N	.....	.....	2	.....	0	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.25	768.4	50.9	10.5	43	N	.....	.....	8	.....	0	.....	.....	0.002	0.06	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	30.04	763.0	— 8.5	—22.5	78	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.30	769.6	8	—13.3	.....	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	W. R. Bigg.
*Chatham, N. B.	.....	.....	30.05	763.3	— 8	—22.8	92	W	1	0.4	.....	0	0	.....	.....	0	0	Clear	G. A. Blair.
Charlottetown, P. E. Island.	.....	.....	30.00	762.0	— 1	—18.3	87	E	8	3.6	.....	0	0	.....	.....	0.02	0.5	Clear	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.23	767.8	— 0.2	—17.9	100	S	.....	.....	1	10cs	.....	.....	.....	Inap.	Inap.	Threatening	James Smith, M. A.
Dalhousie, N. B.	.....	.....	30.11	764.8	7.3	—13.7	79	W	.....	.....	2	.....	.....	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	30.11	764.8	22.0	— 5.6	72	NE	1	0.4	.....	.....	.....	.....	.....	0	0	Clear	W. H. Bevis.
Fredericton, N. B.	.....	.....	30.17	766.3	— 5.7	— 20.9	82	NW	10	4.5	.....	.....	.....	.....	.....	0	0	Fair	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.13	765.3	—20	—28.9	100	NW	7	3.1	.....	0	0	.....	.....	0	0	Clear	James Stewart.
Goderich, Ontario	.....	.....	30.12	765.0	23.3	— 4.8	95	NW	.....	.....	3	.....	9n	.....	.....	0	0	Snowing	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.12	765.0	22.3	— 5.4	.....	SW	.....	.....	2	.....	10n	.....	.....	0.10	2.5	Snowing	Jam s Grant.
*Halifax, N. S.	.....	.....	30.05	763.3	1	—17.2	65	NW	7	3.1	.....	0	0	.....	.....	Inap.	Inap.	Clear	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.25	768.3	12	—11.1	91	E	2	0.9	.....	10cs	0	.....	.....	0	0	Cloudy	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.97	761.2	13.6	—10.2	.....	Calm	0	0	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.25	768.3	7	—13.9	75	NW	2	0.9	.....	.....	10s	.....	.....	Inap.	Inap.	Clouds	C. H. McLeod, C.
*Ottawa, Ontario.	.....	.....	30.24	768.1	2	—16.7	72	Calm	0	0	.....	.....	10ks	.....	.....	0	0	Cloudy	J. B. Haney.
*Parry Sound, Ontario.	.....	.....	30.03	762.5	21	— 6.1	99	SW	9	4.0	.....	.....	10n	.....	SW	0.12	3.0	Light snow	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.14	765.5	28	— 2.2	78	SW	9	4.0	.....	10k	0	SW	.....	0	0	Cloudy	H. Morgan.
Port Hastings, N. S.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Peter Grant.
*Port Stanley Ontario	.....	.....	30.17	766.3	26	- 3.3	90	W	20	8.9	.....	.....	10n	.....	W	0	0	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	30.25	768.3	— 7	—21.7	80	W	24	10.7	.....	8c	0	W	.....	0	0	Fair	Capt. Ash, R. N.
St. John, N. B.	.....	.....	30.18	766.6	3.0	—16.1	83	N	2	0.9	.....	0	0	.....	.....	0	0	.....	G. Murdoch, C. E.
*Sangeen, Ontario	.....	.....	30.04	763.0	22	— 5.6	86	SW	6	2.7	.....	.....	10s	.....	.....	0.55	14.0	Light snow	K. Stewart.
Stayner, Ontario	.....	.....	30.05	763.3	19	— 7.2	83	Calm	0	0	.....	.....	10n	.....	.....	0.17	4.3	Light snow	R. J. Cole.
Stratford, Ontario	.....	.....	30.12	765.0	21.9	— 5.6	85	SW	11	4.9	.....	.....	10s	.....	.....	0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.85	758.2	9	—12.8	60	NW	11	4.9	.....	2k	2s	NW	NW	0	0	Fair	T. C. Hill.
*Toronto, Ontario	.....	.....	30.11	764.8	26	— 3.3	77	SW	13	5.8	.....	.....	10n	.....	SW	Inap.	Inap.	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.36	768.6	16	— 8.9	83	Calm	0	0	.....	.....	10ks	.....	W	0	0	Cloudy.....	
Alpena, Mich.	.....	.....	29.99	761.7	12	—11.1	100	SW	2	0.9	.....	.....	10n	.....	W	Inap.	Inap.	Light snow..	
Atlantic City, N. J.	.....	.....	30.35	770.9	30	— 1.1	78	Calm	0	0	.....	1c	0	.....	SE	0	0	Clear.....	
Augusta, Ga.	.....	.....	30.22	767.6	56	13.3	75	SE	5	2.2	.....	.....	10s	.....		0	0	Cloudy.....	
Baltimore, Md.	.....	.....	30.35	770.9	33	0.6	61	NE	3	1.3	.....	2cs	Sm'e	SW	.....	0	0	Fair.....	
Barnegat, N. J.	.....	.....	30.31	769.9	29	— 1.7	67	N	4	1.8	.....	8cs	0	NW	.....	Inap.	Inap.	Fair.....	
Benton, Montana	27.01	686.0	29.81	757.2	23	— 5.0	20	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Bismarck, Dakota	28.26	717.8	30.18	766.6	—19	—28.3	30	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Boston, Mass.	.....	.....	30.29	769.4	12	—11.1	80	SW	5	2.2	.....	1c	Haze	W	.....	0	0	Clear.....	
Breckenridge, Minn.	.....	.....	30.24	768.1	—15	—26.1	72	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Buffalo, N. Y.	.....	.....	30.10	764.5	29	— 1.7	78	SW	12	5.4	.....	.....	10s	.....	SW	0.01	0.3	Cloudy.....	
Burlington, Vt.	.....	.....	30.28	769.1	11	—11.7	69	E	2	0.9	.....	.....	10s	.....		0	0	Cloudy.....	
Cairo, Ill.	.....	.....	30.20	767.1	32	0.0	70	S	8	3.6	.....	.....	10s	.....	S	0	0	Cloudy.....	
Cape Hatteras, N. C.	.....	.....	30.23	767.8	47	8.3	69	NE	18	8.0	.....	2cs	5ks	.....	NE	0	0	Fair.....	
Cape Henry, Va.	.....	.....	30.35	770.9	37.5	3.1	62	NE	10	4.5	.....	5c	0	W	.....	0	0	Fair.....	
Cape May, N. J.	.....	.....	30.36	770.9	28	— 2.2	77	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Charleston, S. C.	.....	.....	30.24	768 1	54	12.2	68	NE	12	5.4	.....	.....	10s	.....	.....	0.01	0.3	Cloudy.....	
Cheyenne, Wyoming	23.98	609.1	29.92	760.0	19	— 7.2	67	SW	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
Chicago, Ill.	.....	.....	30.10	764.5	28	— 2.2	77	SW	9	1.3	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Cincinnati, Ohio.	.....	.....	30.15	765.8	33	0.6	79	S	4	1.8	.....	0	2s	.....	.....	0	0	Clear.....	
Cleveland, Ohio.	.....	.....	30.17	766.3	26.4	— 3.1	88	S	10	4.5	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.....	
Colorado Springs, Col.	24.16	613.6	30.04	763.0	22	— 5.6	18	NE	4	1.8	.....	0	1s	.....	SW	0	0	Clear.....	
Corsicana, Texas	.....	.....	30.22	767.6	46	7.8	100	S	4	1.8	.....	.....	Fog	.....	.....	0.04	1.0	Foggy	
Davenport, Iowa.	.....	.....	30.15	765.8	25	— 3.9	88	SW	2	0.9	.....	10cs	0	W	.....	0	0	Cloudy.....	
Denison, Texas	.....	.....	30.19	766.8	40	4.4	71	SE	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Denver, Col.	24.80	629.9	30.02	762.5	15	— 9.4	47	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Detroit, Mich.	.....	.....	30.11	764.8	25	— 3.9	88	SW	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Dodge City, Kan.	27.49	698.2	29.95	760.7	17	— 8.3	83	N	7	3.1	.....	0	5s	.....	.....	0	0	Fair.....	
Dubuque, Iowa.	.....	.....	30.16	766.1	20	— 6.7	85	NW	4	1.8	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.....	
Duluth, Minn.	.....	.....	30.17	766.3	— 6	—21.1	61	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Eastport, Me.	.....	.....	30.18	766.6	— 2	—18.9	67	NW	14	6.3	.....	0	0	.....	.....	0	0	Clear.....	
Erie, Pa.	.....	.....	30.14	765.5	28	— 2.2	88	SW	12	5.4	.....	8cs	2ks	.....	SW	0	0	Cloudy.....	
Escanaba, Mich.	.....	.....	30.06	763.5	5	—15.0	75	W	12	5.4	.....	.....	10s	.....	W	0	0	Cloudy.....	
Fort Gibson, Indian Terr.	.....	.....	30.16	766.1	39	3.9	100	SE	4	1.8	.....	.....	10n	.....	.....	0.05	1.3	Light rain...	
Fort Sill, Indian T.	28.93	734.8	30.10	764.5	34	1.1	79	N	8	3.6	.....	0	2s	.....	N	0	0	Clear.....	
Fort Sully, Dakota	28.44	722.4	30.36	771.1	—12	—24.4	75	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Galveston, Texas	.....	.....	30.20	767.1	61	16.1	100	E	22	9.8	.....	.....	10s	.....	.....	0	0	Threatening	
Grand Haven, Mich.	.....	.....	30.06	763.5	30	— 1.1	83	W	10	7.2	.....	.....	10s	.....	W	0	0	Cloudy.....	
Indianapolis, Ind.	.....	.....	30.16	766.1	27	— 2.8	77	SW	4	1.8	.....	2cs	Haze	.....	.....	0	0	Fair.....	
Indianola, Texas	.....	.....	30.21	767.3	58	14.4	100	N	10	4.5	.....	.....	Fog	.....	.....	0	0	Foggy	
Jacksonville, Fla.	.....	.....	30.20	767.1	61	16.1	88	W	4	1.8	.....	5k	0	SW	.....	0	0	Fair.....	
Keokuk, Iowa.	.....	.....	30.17	766.3	24	— 4.4	74	W	6	2.7	.....	.....	10s	.....	W	0	0	Cloudy.....	
Key West, Fla.	.....	.....	30.20	767.1	71.7	22.1	85	E	8	3.6	.....	5k	2ks	SE	SE	Inap.	Inap.	Cloudy.....	
Kittyhawk, N. C.	.....	.....	30.34	770.6	41	5.0	65	E	12	5.4	.....	5cs	0	NW	.....	0	0	Fair.....	
Knoxville, Tenn.	.....	.....	30.20	767.1	34	1.1	90	Calm	0	0	.....	10 cs,cs	Fog	.....	W	0	0	Cloudy	
La Crosse, Wis.	.....	.....	30.12	765.0	12	—11.1	61	Calm	0	0	.....	Haze	Haze	.....	.....	0	0	Hazy.....	
Leavenworth, Kan.	.....	.....	30.19	766.8	25	— 3.9	88	NW	1	0.4	.....	0	0	.....	.....	0	0	Clear.....	
Lexington, Ky.	29.04	737.6	30.21	767.3	30	— 1.1	78	SE	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Long Branch, N. J.	.....	.....	30.32	770.1	31	— 0.6	79	SW	1	0.4	.....	5cs	0	.....	.....	0	0	Fair.....	
Louisville, Ky.	.....	.....	30.16	766.1	33	0.6	80	SE	1	0.4	.....	.....	Haze	.....	.....	0	0	Cloudy.....	
Lynchburg, Va.	.....	.....	30.35	770.9	34	1.1	79	Calm	0	0	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Malone, N. Y.	.....	.....	30.24	768.1	5	—15.0	75	SW	2	0.9	.....	2cs	0	W	.....	0	0	Fair.....	
Marquette, Mich.	.....	.....	30.04	763.0	6	14.4	88	W	16	7.2	.....	.....	10s	.....	W	0	0	Cloudy.....	
Memphis, Tenn.	.....	.....	30.26	768.6	37	2.8	90	Calm	0	0	.....	.....	10n	.....	.....	Inap.	Inap.	Light rain...	
Milwaukee, Wis.	.....	.....	30.11	764.8	18	— 7.8	92	NW	7	3.1	.....	.....	10n	.....	.....	Inap	Inap.	Light snow..	
Mobile, Ala.	.....	.....	30.24	768.1	56	13.3	93	Calm	0	0	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Montgomery, Ala.	.....	.....	30.24	768.1	55	12.8	87	N	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Morgantown, W. Va.	.....	.....	30.19	766.8	30	— 1.1	68	Calm	0	0	.....	8c	Haze	W	.....	0	0	Fair.....	
Mt. Washington, N. H.	23.39	594.1	29.75	755.6	—13	—25.0	47	N	30	13.4	.....	0	2s	.....	N	0	0	Fair.....	
Nashville, Tenn.	.....	.....	30.15	765.8	37	2.8	71	W	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy.....	
New Haven, Conn.	.....	.....	30.28	769.1	28	— 2.2	77	W	2	0.9	.....	Haze	5s	.....	.....	0	0	Fair.....	
New London, Conn.	.....	.....	30.31	769.9	26.5	— 3.1	69	NW	1	0.4	.....	5ck	0	NW	.....	0	0	Fair.....	
New Orleans, La.	.....	.....	30.21	767.3	67	19.4	100	N	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy.....	
Newport, R. I.	.....	.....	30.29	769.4	22	— 5.6	72	W	10	4.5	.....	0	0	.....	.....	0	0	Clear.....	
New York, N. Y.	.....	.....	30.32	770.1	29	— 1.7	68	SW	8	3.6	.....	0	5s	.....	.....	0	0	Fair.....	
Norfolk, Va.	.....	.....	30.34	770.6	37.5	3.1	62	NE	1	0.4	.....	5c	Haze	NW	.....	0	0	Fair.....	
North Platte, Neb.	27.17	690.1	29.98	761.6	9	—12.8	78	SE	3	1.3	.....	0	0	.....	.....	0	0	Clear.....	
Omaha, Neb.	29.11	739.4	30.28	769.1	12	—11.1	90	N	13	5.8	.....	0	2s	.....	N	Inap.	Inap.	Fair.....	
Oswego, N. Y.	.....	.....	30.19	766.8	23	— 5.0	88	SE	7	3.1	.....	.....	10n	.....	NW	Inap.	Inap.	Light snow.	
Peck's Beach, N. J.	.....	.....	30.37	771.4	24	— 4.4	74	Calm	0	0	.....	2c	0	.....	.....	0	0	Clear.....	
Pembina, Dakota	.....	.....	30.14	765.5	—14	—25.6	100	W	5	2.2	.....	Haze	2s	.....	.....	0	0	Fair.....	
Philadelphia, Penn.	.....	.....	30.37	771.4	29	— 1.7	78	SW	8	3.6	.....	8cs	2s	SW	SW	0	0	Cloudy.....	
Pike's Peak, Colorado	17.60	447.0	29.81	757.2	2	—16.7	58	W	36	16.1	.....	0	5s	.....	SW	0	0	Fair	
Pittsburgh, Penn.	.....	.....	30.23	767.6	28	— 2.2	77	SW	2	0.9	.....	.....	10s	.....	SW	Inap.	Inap.	Cloudy.....	
Port Huron, Mich.	.....	.....	30.10	764.5	24	— 4.4	74	S	10	4.5	.....	.....	10s	.....	.....	0.01	0.3	Cloudy.....	
Portland, Me.	.....	.....	30.27	768 8	9	—12.8	57	NW	1	0.4	.....	0	Haze	.....	.....	0	0	Hazy.....	
Portland, Oregon	.....	.....	30.17	766.3	27	— 2.8	66	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Punta Rassa, Fla.	.....	.....	30.24	768.1	63.2	17.3	83	NE	3	1.3	.....	Haze	5ks	.....	NE	0	0	Cloudy.....	
Rochester, N. Y.	.....	.....	30.14	765.5	25	— 3.9	93	S	6	2.7	.....	.....	1 s	.....	W	0.05	1.3	Cloudy.....	
Salt Lake City, Utah	25.54	648.7	29.87	758.7	32	0.0	70	Calm	0	0	.....	5cs	5s	.....	.....	0.02	0.5	Cloudy.....	
Sandy Hook, N. J.	.....	.....	30.30	769.6	30	— 1.1	68	W	5	2.2	.....	10c	0	N	.....	0	0	Cloudy.....	
San Diego, Cal.	.....	.....	30.17	766.8	46	7.8	92	NE	8	3.6	.....	0	2s	.....	NE	0.61	15.5	Fair.....	
San Francisco, Cal.	.....	.....	29.90	759.4	47	8.3	77	E	6	2.7	.....	.....	10n	.....	.....	0.15	3.8	Light rain...	
Santa Fe, N. M.	23.20	591.6	29.83	757.7	29	— 1.7	.....	NE	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Savannah, Ga.	.....	.....	30.22	767.6	58	14.4	81	E	4	1.8	.....	.....	10s	.....	.....	0.30	7.6	Cloudy.....	
Shreveport, La.	.....	.....	30.26	768.6	47	8.3	100	E	2	0.9	.....	.....	10n	.....	.....	0.21	5.3	Light rain...	
Smithville, N. C.	.....	.....	30.24	768.1	51	10.6	79	NE	12	5.4	.....	.....	10ks	.....	SW	0	0	Cloudy.....	
Springfield, Mass.	.....	.....	30.29	769.4	23	— 5.0	72	S	4	1.8	.....	10k	0	SW	.....	0	0	Cloudy.....	
St. Louis, Mo.	.....	.....	30.19	766.8	32	0.0	79	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	
St. Marks, Fla.	.....	.....	30.22	767.6	57	13 9	100	W	6	2.7	.....	.....	Fog	.....	.....	0.02	0.5	Foggy	
St. Paul, Minn.	.....	.....	30.22	767.9	1	—17.2	69	W	1	0.4	.....	0	0	.....	.....	0	0	Clear.....	
St. Paul's Island, Alaska.	.....	.....	30.53	775.4	20	— 1.7	88	S	14	6.3	.....	0	5k	.....	.....	0.02	0.5	.....	
Squan Beach, N. J.	.....	.....	30.27	768.8	23	— 5.0	60	Calm	0	0	.....	8c	0	.....	.....	0	0	Fair.....	
Thatcher's Island, Mass.	.....	.....	30.20	769.4	12	—11.1	61	NW	11	4.9	.....	0	0	.....	.....	0	0	Clear.....	
Toledo, Ohio.	.....	.....	30.11	764.8	28	— 2.2	88	SW	4	1.8	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Tucson, Arizona.	27.59	700.8	29.97	761.2	45	7.2	.....	S	.....	.....	.....	0	10s	.....	.....	0	0	Cloudy.....	
Tybee Island, Ga.	.....	.....	30.21	767.3	53	12.8	87	NE	12	5.4	.....	.....	10ks	.....	NE	0.36	9.1	Cloudy.....	
Vicksburg, Miss.	.....	.....	30.26	768.6	48	8.9	92	Calm	0	0	.....	10s	Sm'o	S	.....	0	0	Cloudy.....	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.20	614.7	29.67	753.6	8	—13.3	78	Calm	0	0	.....	0	0	.....	.....	0.01	0.3	Clear	
Washington, D. C	.....	.....	30.36	771.1	30	— 1.1	67	SE	4	1.8	.....	2c	2s	W	.....	0	0	Fair	
Wilmington, N. C	.....	.....	30.26	768.6	45	7.2	75	NE	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy	
Wood's Holl, Mass	.....	.....	30.30	769.6	20	— 6.7	56	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va	27.82	706.6	30.08	764.0	32	0.0	79	E	4	1.8	.....	10k	0	S	.....	0	0	Cloudy	
Yankton, Dakota	28.94	735.1	30.43	772.9	— 8	—22.2	58	W	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.10	764.5	42	5.6	.....	N	.....	.....	.....	5c	2ks	SW	W	0	0	Fair	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.01	762.2	80	26.7	95	NE	5	2.2	.....	5k	5n	N	NE	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.01	762.2	73	22.8	81	E	.....	.....	.....	2k	0	.....	.....	0.05	1.3	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.16	766.1	66	18.9	90	ESE	3.2	1.4	.....	10fk	0	E	.....	0.08	2.0	Cloudy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.21	767.3	74	23.3	76	Calm	0	0	.....	5c	2s	NE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.32	770.1	73	22.8	79	E	2	0.9	.....	4cs, ck	3kn	E	.....	0	0	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.90	759.4	71	21.7	75	N	10.8	4.8	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
St. Georges, Bermudas	.....	.....	30.18	766.6	60.5	15.8	58	N	13.0	5.8	.....	2s	5k	.....	.....	0.18	4.6	Fair	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	29.69	754.1	—22	—30.0	.....	SW	3	1.3	.....	0	0	.....	.....	0	0	Aurora	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.35	745.5	7.0	—13.9	.....	NW	.....	.....	.....	5k	5s	.....	.....	0.25	6.3	Fair	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.25	692.1	30.04	763.0	63	17.2	88	N	2.0	0.9	.....	5c	2k	.....	.....	0	0	Fine	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.17	639.3	.....	.....	64.2	17.9	85	.....	0	0	.....	.....	10s	.....	.....	0.02	0.5	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.96	761.0	79	26.1	91	E	.....	.....	2	.....	8n, ks	.....	.....	0.460	11.7	Raining	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.05	763.2	78.8	26	.....	.....	.....	.....	.....	.....	..	.....	.....	0.394	10.00	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
*Steamer Nürnberg,	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 6.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

* Observation not simultaneous.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of tne co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 26, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.31	769.8	59.9	15.5	75	Calm			0		5					Fair	Charnot.
Aiglers			30.29	769.3	57.9	14.4	91	NNW			1		10			0.055	1.4	Hidden	Peter.
La Calle																0.205	5.2		Kuntz.
Tunis																			
Sfax			30.32	770.1	62.8	17.1	68	SE			4		9			0.093	1.0	Hidden	Jacques.
Sfax			30.30	769.7	61.9	16.6	61	S			3		3			0	0	Fair	Chauvey.
Saida			30.30	769.7	49.1	9.5	69	SSW			1		6			0	0	Fair	Grosjean.
Telmsen			30.30	769.7	46.6	8.1		SE			3		5			0	0	Fair	Colin.
Geurville			30.30	769.6	43.7	6.5	70	N			1		2			0.047	1.2	Clear	Buard.
Laghouat			30.28	769.1	53.6	12.0	76	NW			2		2			0	0	Clear	Simon.
Hinkra			30.29	769.3	57.9	14.4	69	NE			1		0			0	0	Clear	Coulon.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.70	779.8	26.2	— 3.2	98	SW			1		10			0	0	Foggy	Prof. Ivan Stozir.
Buda-Posth																			
Crasow																			I. R. Cen. M. I., Hungary
Eperies																			
Gratz			30.63	777.9	25.9	— 3.4	93	W			2		10			0	0		I. R. Observatory.
Hermannstadt			30.70	779.8	41.0	5.0	95	Calm			0		10			0	0		Julius Mikolik.
Kremsmünster	29.39	746.4	30.71	779.9	24.3	— 4.3	81	S			2		0			0.008	0.2		Andreas Rospini.
Lemberg	29.17	741.0	30.71	780.0	28.4	— 2.0	86	WNW			1		1			0	0		Prof. Reissenberger.
Syiregyhaza	29.21	742.0	30.67	779.1	23.4	— 4.8	95	Calm			0		10			0	0		Prof. C. Wagner.
Pola			30.55	776.0	33.1	0.6	94	S			1		0			0	0		Dr. T. Stanecki.
Szegedin			30.71	779.9	32.0	0.0	92	E			1		0			0	0		Habzsuda Daniel.
Trieste			30.56	776.2	45.0	7.2	86	W			1		8ks			0.013	0.32		I.R. Hydrographic Office
Vienna			30.72	780.4	22.3	— 5.4	100	SE			1		10			0	0	Solar corona	Karl Stancel.
			30.57	776.5	42.8	6.0	87	Calm			0		1			0	0		Prof. V. Farolfi.
			30.67	779.1	22.1	— 5.5	98	S			1		10			0	0	Foggy	I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.44	773.2	44.8	7.1	67	SSW			1	1	1	WSW		0	0		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.04	763.0	46.5	8.1		S	21	9.4			3			0	0	Blue sky	William Boswell.
Ardrossan			30.09	764.3	48	8.9		SSW			5		8					Misty	J. Mayes.
Armagh Observatory			30.09	764.3	50.3	10.2		SSW	18	8.0			6					*D. clouds	S. Call, for Dr. Robinson
Bidston, Liverpool Obs.			30.22	767.6	46.6	8.1		SE	18	8.0			0					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			30.10	764.5	52.6	11.4		SW			1		1					Blue sky	J. Dreyer.
Bradford			30.20	767.1	48.3	9.1		SW			1		0			0	0	Blue sky	J. McLandsborough.
Bridgetown, (Barbados)			30.03	762.7	77.4	25.2		NE			3		7					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.34	770.6	44.0	6.7		S			1		10					Overcast	H. Todd.
Cardington			30.34	770.6	45.0	7.2		SW			1		3					Blue sky	John McLaren.
Carlisle			30.18	766.6	46.8	8.2		S			2		9			0	0	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.38	771.6	48.2	9.0		SE			1							Blue sky	Capt. J. Fellowes, R. E.
Dartmoor	28.86	733.0	30.40	772.1	45.6	7.6		SW			3		6					*D. clouds	R. E. Power.
Donaghadee			30.10	764.5	45	7.2		SSE			4		5					*D. clouds	J. Mac Gowan.
Dover			30.40	772.1	43	6.1		SW			2		3					¼ clouded	J. Costello.
Eccles, (near Manchester)			30.25	768.3	47.8	8.8		SSE	2.6	1.2								Blue sky	Thomas Mackereth.
Falmouth Observatory			30.31	769.6	52.7	11.5		SSW	12	5.4			5					*D. clouds	The Staff.
Fort Napier, (Natal)	27.53	699.2	29.79	756.7	85.6	29.8		E			1		4					*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.93	760.2	88	31.1		N			1		10						
Galway, Queen's College			29.97	761.2	53	11.7		S			1		3					*D. clouds	R. G. Clare, for Prof. Currie.
Gibraltar, (Mediterranean)			30.29	769.4	58.0	14.4		SE			2		8					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.07	763.8	47.1	8.4		SSW			1		10					Overcast	Lewis Stuart.
Great Yarmouth			30.36	771.1	41	5.0		S-W			3		4					Hazy	G. T. Watson.
Greenwich Royal Obs.			30.37	771.4	47.3	8.5		SSW			1		7					*D. clouds	The Staff for G. B. Airy
Guernsey			30.36	771.1	48	8.9		SSW			1		6					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.26	768.6	48.4	9.1		WSW			1		2					Blue sky	L. J. Cr slev.
Helston			30.30	769.6	53	11.7		S			2		0			0	0	Blue sky	M. P. Moyle.
Holyhead			30.19	766.8	47	8.3		SSW			5		10					Misty	John Tilston.
Kew Observatory			30.37	771.4	46.3	7.9		S	7	3.1			5					Misty	The Staff.
Kingstown			30.12	765.0	52	11.1		SW			5		1					Blue sky	George Mitchell
Leicester Museum			30.33	770.4	42.7	5.9		SW			1		2					*D. clouds	William J. Harrison.
Malta, (Mediterranean)			30.42	772.7	59.0	15.0		SE			2		8k						Fred Travis, Pvt A.H.C.
Nairn			29.92	760.0	50	10.0		SW			2		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.20	767.1	64.3	17.9		NE			2		4					D. clouds	Surg.-Maj. Henry.
Nottingham			30.31	769.9	42.0	5.6		S			1		5c		S			D. clouds	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.29	769.4	44.7	7.1		SSW			4		3					Hazy	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.32	770.1	45	7.2		S			1		10					Overcast	J. Lucas.
Plymouth			30.32	770.1	50.1	10.1		SE			2		10					Overcast	John Merrifield.
Roche's Point																			W. Kennedy.
Saint Ann's Head			30.26	768.6	48	8.9		S			4		10					Overcast	John C. Walker.
Saint Helier, (Jersey)			30.37	771.4	48.2	9.0		SSE			3		8					¾ clouded	A. P. Amy.
Sandwick Manse (Orkneys)			29.90	759.4	47.4	8.6		S	24	10.7			5					Fine	Rev Dr. Clouston
Scarborough			30.24	768.1	42.7	5.9		S			4		6					D. clouds	F. Shaw.
Scutari Cemetery (Turkey)			30.66	778.7	45.2	7.3													Sergt. W. H. Lyne.
Sheffield			30.25	768.3	45.0	7.2		SSW			1		5			0	0	Blue sky	W. F. Cooper.
Silloth Rectory			30.16	766.1	49.0	9.4		SW			4		8			0	0	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			30.23	767.8	44.4	6.9		S			4							Hazy	The Staff.
Stornoway, Lews C. (Hebr.)			29.84	757.9	47	8.3		SSW			6		10					Overcast	John Smith.
Strathfield Turgiss			30.35	770.9	46.9	8.3		SW			1		9					*D. clouds	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.88	758.9	49	9.4		S			3		7					*D. clouds	John Trotter.
Truro, Royal Institution			30.27	768.8	55	12.8		S			4		4					*D. clouds	W. Newcombe.
Valencia Observatory			30.07	763.8	51.8	11.0		S	35	15.6			10					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.90	759.4	86.5	30.3	41	SE	11	4.9			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					46	7.8		S			6		10			0	0		
Leith, Restalrig Park			30.16	766.1	49.0	9.4		W			2	8cs		SW		0	0	Fine	Andrew Gibb.
Monach Lt-house, Hebrides			29.53	750.0	41	5.0		NNE			3	0	0			0.5	12.7		J. Youngclause.
North Unst, (Shetland Is)			29.83	757.7	47	8.3		SW			7		10					Raining	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,410 feet, or 429.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.39	772.0	35.2	1.8	82	WSW			2		10						
Faröe																			
Godthaab, (Greenland)			29.04	737.5	4.1	—15.5	100	NNE			7		0						
Stykkisholm, (Iceland)			29.15	740.4	30.6	— 0.8	94	SE			4		10						
Thorshavn, (Faröe)			29.51	749.5	47.5	8.6	84	WSW			8		10					Raining	
Vestervig			30.35	770.8	35.6	2.0	80	SW			4		2						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.43	773.0	42.8	6	82	W	.....	.....	2	.....	5ck	.....	.....	0	0	Foggy	Normal School.
Amiens	.....	.....	30.48	774.2	37.4	3.0	76	SW	.....	.....	6	.....	0	.....	.....	0	0	Clear.....	Normal School.
Avignon	.....	.....	30.52	775.1	49.1	9.5	76	N	.....	.....	1	.....	8	.....	SE	0.071	1.8	Light rain...	Normal School.
Bar-sur-Seine	.....	.....	30.50	774.7	46.2	7.9	63	S	.....	.....	1	.....	8s	.....	.....	0	0	Very cloudy	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.41	772.3	49.8	9.9	81	SSE	2.0	0.9	.....	.....	.....	.....	S	0	0	.....	Beaumette Observatory.
Beauvais	.....	.....	30.49	774.5	41.0	5	79	SSE	.....	.....	1	.....	8	.....	SSW	0	0	Very cloudy	Normal School.
Besançon	.....	.....	30.58	776.6	36.3	2.4	84	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourg en Bresse	.....	.....	30.60	777.2	33.8	1	89	SW	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Normal School.
Bourges	.....	.....	30.47	773.8	50.4	10.2	76	SSE	.....	.....	2	.....	2	.....	SSE	0	0	Slightly cl'dy	Normal School.
Brest	.....	.....	30.30	769.5	49.1	9.5	89	SSW	.....	.....	2	.....	.....	.....	SSW	0	0	Dense fog....	Naval Observatory.
Caen	.....	.....	30.36	771.1	48.2	9	63	S	.....	.....	2	.....	1	.....	NW	0	0	Clear.....	Normal School.
Chartres	.....	.....	30.45	773.4	41.4	5.2	.....	ESE	.....	.....	2	.....	2	.....	E	0	0	.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.43	772.9	57.6	14.2	60	SE	.....	.....	2	.....	8	.....	.....	0	0	Very cloudy	Puy de Dome, Obs.
Commercy	.....	.....	30.59	776.9	34.2	1.2	96	SE	.....	.....	2	.....	0	.....	.....	0	0	.....	Normal School.
Commune de Gréasque*	.....	.....	30.51	774.9	49.6	9.8	82	NE	.....	.....	1	.....	10	.....	NE	0	0	.....	.....
Grenoble	.....	.....	30.51	775.8	40.6	4.8	77	ENE	.....	.....	2	.....	2s	.....	NW	0	0	Slightly cl'dy	Normal School.
Le Mans	.....	.....	30.44	773.2	42.8	6.0	82	NE	.....	.....	3	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Long-Le-Saulnier	.....	.....	30.58	776.7	37.4	3	82	W	.....	.....	1	.....	.....	.....	.....	0	0	.....	Normal School.
Mâcon	.....	.....	30.59	776.9	32.2	0.1	.....	Calm	.....	.....	0	10	.....	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.55	775.9	37.8	3.2	86	SSW	.....	.....	1	10	.....	.....	NNE	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Orleans	.....	.....	30.54	775.8	54.7	12.6	70	E	.....	.....	1	.....	..8	.....	S	0.059	1.5	.....	Normal School.
Paris Observatory	.....	.....	30.44	773.2	44.6	7	83	SE	.....	.....	2	.....	5	.....	SE	0	0	Cloudy.....	Normal School.
Parthenay	.....	.....	30.48	774.2	39.4	4.4	80	SE	.....	.....	1	.....	8	.....	.....	0	0	Very cloudy	National Observatory
Privas	.....	....	30.38	771.6	48.2	9	78	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
La Roche-sur-Yon	.....	.....	30.55	776.0	45.1	7.7	.....	SE	.....	.....	1	.....	2	.....	SE	0	0	Slightly cl'dy	Normal School.
Rochefort, Observatory	.....	.....	30.41	772.4	50.8	10.2	70	SSE	.....	.....	2	.....	2	.....	NNW	0	0	Slightly cl'dy	Normal School.
Rouen	.....	.....	30.40	772.2	49.1	9.5	85	SSE	.....	.....	2	.....	10	.....	NE	0	0	Covered	Naval Observatory.
Saint Lo	.....	.....	30.45	773.5	43.5	6.4	74	ESE	.....	.....	2	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Tarbes	.....	.....	30.41	772.3	52.2	11.2	78	W	.....	.....	2	.....	8	.....	W	0	0	.....	Normal School.
Toulouse	29.33	744.9	30.31	769.8	50.0	10	81	SW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Villefranche	.....	.....	30.42	772.7	52.0	11.1	83	S	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Sub-Series.	.....	.....	30.66	778.7	33.8	1	79	NE	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Fort de France, Martinique	.....	.....	29.94	760.4	75.2	24	77	NE	.....	.....	2	.....	5ck ?	.....	.....	0	0	.....	L'Abbé Marchésl.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.45	773.5	51.3	14.2	84	.....	.....	.....	.....	10	.....	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	.....	.....	30.61	777.6	37.2	2.9	98	E	2.2	1	.....	10	.....	.....	.....	0.425	10.8	.....	—. Falguère.
Montsouris, Paris	25.14	638.5	30.61	777.6	37.2	2.9	98	E	2.2	1	.....	10	.....	SW	0	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.45	773.5	41.4	5.2	83	SE	.....	.....	2	10	.....	SW	0	0	0	.....	.....
Pic du Midi, (Summit) H. P.	.....	.....	30.51	774.7	54.1	12.3	93	E	3.7	1.67	.....	10	.....	SE	0	0.441	11.2	.....	Dr. Fines.
Saint Maur, (near Paris)	21.43	544.3	.....	.....	28.4	— 2.0	.....	ESE	.....	.....	2	10	.....	.....	.....	0	0	Snowy.....	M. Baylac.
Toulouse	.....	.....	30.17	773.9	41.7	5.3	76	ENE	.....	.....	1	10	.....	.....	.....	0	0	Cloudy.....	E. Renou.
Tours	.....	.....	30.33	772.8	52.7	11.4	86	SE	.....	.....	2	.....	4	.....	.....	Blank	Blank	.....	Toulouse Observatory
Versailles, (near Paris)	.....	.....	30.42	772.7	44.2	6.8	83	E	.....	.....	1	5	.....	SW	0	0	0	.....	C. Marquet.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.45	773.3	42.4	5.8	75	S	.....	.....	1	8	.....	.....	.....	0	0	Almost cov'd	Dr. A. Bérigny.
.....	.....	.....	30.39	772.0	22.6	5.2	88	NW	19.2	8.6	.....	10m	.....	.....	.....	{Blk	Blk}	.....	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.52	775.1	27.7	— 2.4	96	SW	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.52	775.1	32.9	0.5	86	S	.....	.....	1	.....	40	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.56	776.2	30.9	— 0.6	81	W	.....	.....	3	.....	0	.....	.....	0	0	.....	Dr. P. Naugebauer
Carlsruhe	.....	.....	30.62	777.7	29.1	— 1.6	88	SE	.....	.....	1	.....	5	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.59	776.9	30.2	— 1.0	72	S	.....	.....	7	.....	0	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.72	780.4	27.9	— 2.3	89	S	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Physical Society
Friedrichshafen	.....	.....	30.66	778.7	29.3	— 1.5	76	NW	.....	.....	.....	.....	10	.....	.....	0	0	Foggy	M. Wilhelm.
Hamburg	.....	.....	30.47	773.9	30.6	— 0.8	96	ESE	.....	.....	1	.....	0	.....	.....	0	0	Light fog.....	Deutsche Seewarte.
Kiel	.....	.....	30.52	775.1	32.5	0.3	90	SW	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.44	773.2	27.5	— 2.5	97	W	.....	.....	5	.....	10	.....	.....	0	0	.....	Prof. E. Luther.
Köslin	.....	.....	30.47	773.8	28.4	— 2.0	.....	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.54	775.6	34.7	1.5	67	SW	.....	.....	4	.....	0	.....	.....	0	0	.....	Prof. Bruhns.
Münster	.....	.....	30.44	773.1	46.6	8.0	69	SW	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.53	775.4	33.1	0.6	92	SW	.....	.....	1	.....	10	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.64	778.2	28.0	— 2.2	98	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.63	778.1	31.1	— 0.5	64	E	.....	.....	.....	.....	0	.....	.....	0	0	.....	Mr. Wurth.
Thorn	.....	.....	30.18	774.1	29.3	— 1.5	90	SW	.....	.....	4	.....	10	.....	.....	Inap.	Inap.	Foggy.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.52	775.2	27.5	— 2.5	92	SW	.....	.....	2	.....	2	.....	.....	0	0	Light fog....	Prof. Fiesch.
Wustrow, Naval School	.....	.....	30.54	775.8	32.0	0.0	96	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.60	777.2	56.8	13.8	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors.		Barometer. Reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Wind. Direction.	Wind. Velocity.		Wind. Force.	Clouds. Amount.		Clouds. Direction.		Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	1—10.	Up'er 1—10.	Low'r 1—10.	Upper. From—	Lower. From—	Inches.	Millimeters.		
Udine			30.53	775.5	47.1	8.4	59	Calm	0	0			0			0	0		
Padua			30.56	776.3	41.4	5.2	54	NW	1.8	0.8			5	SW		0	0		
Verona			30.56	776.3	44.6	7.0	71	E			1		5			0	0		
Bergamo			30.54	775.6	43.2	6.2	62	SE			2		1			0	0		
Milan			30.58	776.7	38.8	3.8	78	W			1		0			0	0		
Moncalieri			30.61	777.6	34.9	1.6	69	N	1.3	0.6			8	S		0	0		
Mondovi			30.61	777.4	45.7	7.6	37	W			2		8	SE		0	0		
Porto Maurizio			30.56	776.2	55.4	13.0		E			4		9			0	0		
Genoa			30.61	777.6	55.9	13.3	27	N	8.1	3.6			2	NE		0	0		
Piacenza			30.60	777.3	37.9	3.3	78	NW	2.5	1.1			6			0	0		
Bologna			30.54	775.6	43.7	6.5	30	W			1		3	E		0	0		
Florence			30.52	775.1	54.1	12.3	43	E			2		0			0	0		
Leghorn			30.49	774.5	53.1	11.2	67	ENE	6.3	2.8			10			0	0		
Siena			30.48	774.2	48.9	9.4	61	ESE	0	0			6	E		0	0		
Urbino																			
Pesaro																			
Ancona			30.61	777.6	41.7	5.4	81	W			2		10			0	0		
Grosseto			30.47	773.9	51.6	10.9	55	NW			2		9	S		0	0		
Rome			30.49	774.5	50.7	10.4	70	N	4.9	2.2			10	S		0	0		
Naples, O. U.			30.50	774.8	60.6	15.9	51	N			2		10	S		0	0		
Lecce			30.56	776.3	53.1	11.7	62	NE	12.5	5.6			6			0	0		
Cosenza			30.58	776.7	51.3	10.7	77	NW			2		10			0	0		
Riposto, (Sicily)			30.50	774.7	56.1	13.4	86	ESE			2		8	N		0	0		
Palermo			30.33	770.3	61.5	16.4	54	SE	13.0	5.8			10			0	0		
Caltanissetta			30.45	773.3	50.0	10.0	84	S			6		10			0	0		
Sub-Series.																			
Naples, S. R.			30.49	774.5	57.0	13.9	56	SW			2					0	0	Foggy	Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.46	773.7	39.6	4.2		SSW			3								
Groningen			30.39	772.0	34.7	1.5		W			2								
Helder			30.39	771.8	36.9	2.7		S			2								
Utrecht			30.41	772.3	39.0	3.9	73	SSE			1		2					Light cloudy	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.13	765.2	42.4	5.8	85	S	23.7	10.6			10			0	0		
Brönö			29.80	756.9	41.2	5.1	92	SW	18	8			10			0	0	Raining	
Christiania			30.16	766.1	34.9	1.6	96		0.4	0.2			10			0	0	Foggy	
Tromsö			29.72	755.0	28.4	— 2.0	82	W	0	0			0			0.067	1.7		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.95	760.8	61.3	16.3	91	SW	15.9	7.11	.....	.....	9	.....	.....	0.236	6.0	Raining.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.30	769.6	59.4	15.2	56	ESE	2.2	1.00	.....	.....	6	SSW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.34	770.6	60.6	15.9	71	SE	12.0	5.37	.....	.....	7	.....	.....	0.020	0.5	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.35	771.0	55.6	13.1	71	NE	6.3	2.8	.....	.....	2	.....	.....	0	0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.																			
Warsaw	.....	.....	30.51	774.9	29.7	— 1.3	86	SSE	7	3	.....	.....	4	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.37	771.3	32.2	0.1	83	W	4	2	.....	.....	7	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.09	764.2	34.2	1.2	95	W	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.86	758.4	34.3	1.3	92	W	13	6	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	29.03	752.7	39.2	4.0	80	WNW	.....	.....	.....	.....	8	.....	.....	0.053	1.35	Snowing.....	Ch. Forsten.
Kieff	.....	.....	30.39	771.7	35.6	2.0	68	WNW	11	5	.....	.....	2	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.54	775.7	36.1	2.2	76	W	4	2	.....	.....	7	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.44	773.1	29.8	— 1.2	86	NNW	7	3	.....	.....	7	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.10	764.4	26.8	— 2.9	80	SSW	9	4	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.30	769.5	7.9	—13.4	72	WSW	13	6	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.03	752.7	— 6.9	—21.6	84	ESE	22	10	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.56	725.4	30.04	762.9	31.3	— 0.4	76	NW	9	4	.....	.....	8	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	29.80	756.9	26.2	— 3.2	89	W	13	6	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.07	763.8	0.3	—17.6	78	W	7	3	.....	.....	7	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.89	733.8	30.02	762.0	— 9.4	—23.0	74	W	13	6	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.11	764.7	29.8	— 1.2	73	ESE	9	4	.....	.....	10	.....	.....	.....	.....	.....	
Kusaly	.....	.....	30.21	767.2	12.2	—11.0	82	E	4	2	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.60	726.5	30.41	772.3	29.5	— 1.4	94	SW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.34	770.5	16.0	— 8.9	81	SW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	29.97	761.2	18.3	— 7.6	77	SE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Gorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Pekking, (China)	.....	.....	30.48	774.1	18.3	— 7.6	20	NNE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	28.16	715.3	30.58	776.8	—21.2	—31.2	83	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.39	772.0	— 3.3	—19.6	68	NW	18	8	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—13.7	—25.4	.....	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 *feet*; *Ekaterinburg*, 300.4? *m.*, *or* 1,005.2? *ft.*; *Tashkend*, *m.* 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.																			
Madrid	.....	.....	30.40	772.1	49.3	9.6	77	NE	4.5	2.0	.....	.....	10	.....	.....	0	0	Misty.....	Royal Observatory.
San Fernando	.....	.....	30.34	770.5	57.6	14.2	82	Calm	0	0	.....	1	5	.....	W	0.004	0.1	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Stations.																			
Haparanda	.....	.....	29.74	755.3	27.0	— 2.8	87	NW	.....	.....	4	.....	5	.....	.....	0	0	.....	
Umea	.....	.....	30.00	761.9	40.6	4.8	78	NW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	29.91	759.6	45.3	7.4	48	W	.....	.....	2	.....	5	.....	.....	0	0	.....	
Stockholm	.....	.....	30.08	764.1	37.0	2.8	82	W	.....	.....	6	.....	2	.....	.....	0	0	.....	
Wisby	.....	.....	30.30	769.7	36.7	2.6	85	WNW	.....	.....	4	.....	0	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.11	764.9	36.7	2.6	80	WSW	11.6	5.2	.....	.....	1	WNW	.....	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.13	739.8	30.62	777.8	31.8	— 0.1	91	ENE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.91	734.2	30.63	777.9	28.2	— 2.1	92	NW	.....	.....	1	.....	5	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +12.4 mm.; Thermometer, —2.0 cent.; Relative Humidity, +14 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.68	779.3	41.9	5.6	62	NNE	10	4.5	.....	.....	4	.....	NNE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.24	768.0	57.2	14.0	.....	W	.....	.....	3	.....	10	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.62	777.7	46.2	7.9	.....	NW	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Valona	.....	.....	30.39	771.8	51.4	10.8	.....	W	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Varna	.....	.....	30.51	775.0	46.4	8.0	.....	NW	.....	.....	2	.....	0	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.32	770.1	58.1	14.5	58	NW	.....	.....	1	.....	3k	.....	NW	0	0	.....	Prof. C. V. A. Van Dyck.

NOTE.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	29.85	758.2	— 3.5	—19.7	83	SW	3.0	1.3	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.28	769.1	— 6	—21.1	.....	Calm	0	0	.....	0	0	.....	.....	0.60	15.2	Clear	W. R. Bigg.
*Chatham, N. B	.....	.....	29.87	758.7	1	—17.2	100	Calm	0	0	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	G. A. Blair.
Charlottetown P. E. Island	.....	.....	29.84	757.9	3	—16.1	81	NE	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.19	766.8	— 0.7	—18.2	91	S	.....	.....	1	.....	.....	.....	.....	0.25	6.3	Clear	James Smith, M. A.
Dalhousie, N. B	.....	.....	.....	.....	4.0	—15.6	82	NW	.....	.....	2	.....	.....	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C	.....	.....	29.69	754.1	33.1	0.6	88	N	2	0.9	.....	.....	10	.....	.....	0	0	Sleet	W. H. Bevis.
Fredericton, N. B	.....	.....	29.86	758.4	4.2	—15.4	82	N	5	2.2	.....	.....	10n	.....	.....	0.130	3.30	Light snow	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	29.43	747.5	4	—15.6	95	S	8	3.6	.....	0	..ks	.....	.....	0	0	Fair	James Stewart.
Goderich, Ontario	.....	.....	30.22	767.6	20.3	— 6.5	83	Calm	.....	.....	0	.....	10n	.....	.....	*0.40	*10.2	Snowing	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.22	767.6	13.4	—10.3	.....	SW	.....	.....	1	1cs	0	E	.....	0	0	Fair	Jam s Grant.
*Halifax, N. S.	.....	.....	29.72	754.9	23	— 5.0	92	SE	12	5.4	.....	.....	8n	.....	S	0.019	0.48	Light snow	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.28	769.1	2	—16.7	91	Calm	0	0	.....	0	0	.....	.....	0.35	8.9	Clear	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.16	766 1	4.1	—15.5	.....	Calm	0	0	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.13	765.3	5	—15.0	75	W	17	7.6	.....	0	2ks	.....	.....	0.22	5.6	Clear	C. H. McLeod, C.
*Ottawa, Ontario	.....	.....	30.23	767.8	— 4	—20.0	83	SW	4	1.8	.....	0	0	.....	.....	0.30	7.6	Clear	J. B. Laney.
*Parry Sound, Ontario	.....	.....	30.23	767.8	— 8	—22.2	83	NE	10	4.5	.....	2ck	2ks	W	W	0.4	10.2	Fair	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.24	768.1	16	— 8.9	83	NW	7	3.1	.....	8ck	0	NW	.....	0	0	Fair	H. Morgan.
Port Hastings, N. S	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Peter Grant.
*Port Stanley Ontario	.....	.....	30.24	768.1	15	— 9.4	90	NW	10	4.5	.....	0	0	.....	.....	Imap.	Imap.	Clear	M. Payne.
*Quebec, Quebec	.....	.....	30.06	763.5	2	—16.7	72	W	23	10.3	.....	0	0	.....	.....	0	0	Clear	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.76	755.9	9.0	—12.8	89	NE	13	5.8	.....	.....	10n	.....	.....	0.280	7.11	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.16	766.1	15	— 9.4	91	SE	3	1.3	.....	.....	10n	.....	S	0.28	7.1	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	30.22	767.6	16	— 8.9	97	Calm	0	0	.....	.....	10n	.....	.....	0.10	2.5	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	30.23	767.8	15.0	— 9.4	84	SW	3	1.3	.....	.....	8s	.....	.....	0.45	11.4	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	29.89	759.2	—10	—23.3	95	Calm	0	0	.....	10es	0	.....	.....	0	0	Fair	T. C. Hill.
*Toronto, Ontario	.....	.....	30.23	767.8	19	— 7.2	84	NW	2	0.9	.....	.....	10n	.....	.....	0.03	0.8	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m. *Rain-fall in past 48 hours.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.13	765.3	14	—10.0	71	NW	10	4.5	.....	0	Haze	.....	.....	0.01	0.3	Clear.....	
Alpena, Mich	.....	.....	30.12	765.0	12	—11.1	61	SW	6	2.7	.....	0	8s	.....	SW	0.03	0.8	Fair.....	
Atlantic City, N. J	.....	.....	30.16	766.1	28	— 2.2	67	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
Augusta, Ga.	.....	.....	30.17	766.3	46	7.8	100	Calm	0	0	.....	10cs	Fog	NW	.....	0.09	2.3	Fair.....	
Baltimore, Md.	.....	.....	30.20	767.1	33	0.6	65	NW	7	3.1	.....	0	Sm'e	.....	.....	0	0	Clear.....	
Barnegat, N. J	.....	.....	30.12	765.0	26	— 3.3	64	N	27	12.1	.....	0	0	.....	.....	0	0	Clear.....	
Benton, Montana	26.92	683.8	29.72	754.9	0	—17.8	100	NW	11	4.9	.....	.....	10n	.....	NW	0.08	2.0	Light snow..	
Bismarck, Dakota	27.58	700.5	29.35	745.5	0	—17.8	61	SW	2	0.9	.....	0	5s	.....	.....	0	0	Fair.....	
Boston, Mass	.....	.....	29.99	761.7	18	— 7.8	60	NW	30	13.4	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Breckenridge, Minn	.....	.....	29.45	748.0	12	—11.1	61	SE	16	7.2	.....	0	0	.....	.....	0	0	Clear.....	
Buffalo, N. Y	.....	.....	30.21	767.3	20	— 6.7	70	W	8	3.6	.....	.....	10ks	.....	W	0.04	1.0	Cloudy..	
Burlington, Vt	.....	.....	30.16	766.1	10	—12.2	68	NW	4	1.8	.....	0	2s	.....	.....	0.07	1.8	Fair.	
Cairo, Ill	.....	.....	30.13	765.3	35	1.7	80	SE	11	4.9	.....	1cs	0	.....	.....	0	0	Clear.....	
Cape Hatteras, N. C	.....	.....	30.06	763.5	44	6.7	75	NW	10	4.5	.....	1c	Haze	.....	.....	0.14	3.6	Fair.....	
Cape Henry, Va	.....	.....	30.15	765.8	42	5.6	74	N	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
Cape May, N. J	.....	.....	30.16	766.1	30	— 1.1	59	N	18	8.0	.....	0	0	.....	.....	0	0	Clear.....	
Charleston, S. C	.....	.....	30.16	766.1	55	12.8	80	W	2	0.9	.....	0	2ks	.....	W	Inap.	Inap.	Clear.....	
Cheyenne, Wyoming	23.64	600.4	29.58	751.3	23	— 5.0	72	NW	20	8.9	.....	1c	0	.....	.....	0	0	Clear.....	
Chicago, Ill	.....	.....	30.08	764.0	23	— 5.0	73	S	2	0.9	.....	2c	0	W	.....	0	0	Fair.....	
Cincinnati, Ohio	.....	.....	30.19	766 8	30	— 1.1	78	SE	3	1.3	.....	2c	Haze	.....	.....	0	0	Clear.....	
Cleveland, Ohio	.....	.....	30.23	767.8	20.7	— 6.3	81	S	5	2.2	.....	Haze	Sm'e	W	S	0	0	Fair.....	
Colorado Springs, Col	23.68	601.5	29.55	750.6	40	4.4	82	SW	16	7.2	.....	0	5s	.....	SW	0	0	Threatening	
Corsicana, Tex	.....	.....	29.96	761.0	59	15.0	94	SE	12	5.4	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.....	
Davenport, Iowa	.....	.....	30.02	762.5	23	— 5.0	86	SE	12	5.4	.....	5cs	0	S	.....	0	0	Fair.....	
Denison, Tex	.....	.....	29.90	759.4	52	11.1	93	S	1	0.4	.....	.....	Fog	.....	.....	0.02	0.5	Light rain...	
Denver, Col	24.41	620.0	29.63	752.6	22	— 5.6	45	S	1	0.4	.....	0	0	.....	.....	0	0	Clear.....	
Detroit, Mich	.....	.....	30.30	769.6	20	— 6.7	70	E	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Dodge City, Kan	27.09	688.1	29.39	746.5	36	2.2	90	S	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Dubuque, Iowa	.....	.....	29.98	761.5	21	— 6.1	85	SW	3	1.3	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.....	
Duluth, Minn	.....	.....	29.68	753.9	11	—11.7	60	NW	4	1.8	.....	2ck	0	NW	.....	0	0	Clear.....	
Eastport, Me	.....	.....	29.72	754.9	12	—11.1	100	N	27	12.1	.....	.....	10n	.....	.....	0.05	1.3	Light snow	
Erie, Pa	.....	.....	30.18	766.6	24	— 4.4	87	W	3	1.3	.....	Haze	8ks	.....	W	Inap.	Inap.	Fair.....	
Escanaba, Mich	.....	.....	30.01	762.2	6	—14.4	76	SW	4	1.8	.....	0	1s	.....	SW	0	0	Clear.....	
Fort Gibson, Indian Terr	.....	.....	29.88	758 9	46	7.8	92	SE	8	3.6	.....	.....	10s	.....	SE	0.04	1.0	Cloudy.....	
Fort Sill, Indian T	28.62	726.9	29.73	755.1	53	11.7	100	S	4	1.8	.....	.....	Fog	.....	.....	0.03	0.8	Foggy	
Fort Sully, Dakota	27.73	704.3	29.52	749.8	— 2	—18.9	84	NE	3	1.3	.....	0	0	.....	.....	0	0	Clear.....	
Galveston, Tex	.....	.....	30.06	763.5	65	18.3	94	SE	4	1.8	.....	0	5s	.....	S	0	0	Fair.....	
Grand Haven, Mich	.....	.....	30.12	765.0	17	— 8.3	83	SE	4	1.8	.....	5c	0	.....	.....	0.01	0.3	Fair.....	
Indianapolis, Ind	.....	.....	30.18	766.6	27	— 2.8	77	Calm	0	0	.....	2c	Haze	.....	.....	0	0	Fair.....	
Indianola, Tex	.....	.....	30.04	763.0	66	18.9	94	S	12	5.4	.....	0	1s	.....	.....	0	0	Clear.....	
Jacksonville, Fla	.....	.....	30.16	766.1	58	14.4	93	W	4	1.8	.....	.....	Fog	.....	W	0	0	Foggy	
Keokuk, Iowa	.....	.....	30.00	762.0	23	— 5.0	73	SE	11	4.9	.....	8c	0	SE	.....	0	0	Fair.....	
Key West, Fla	.....	.....	30.15	765.8	70.2	21.2	84	NE	10	4.5	.....	10k	0	SE	.....	0	0	Cloudy.....	
Kittyhawk, N. C	.....	.....	30.14	765.5	37	2.8	90	N	12	5.4	.....	0	2s	.....	.....	0.10	2.5	Clear.....	
Knoxville, Tenn	.....	.....	30.18	766.6	37	2.8	89	N	4	1.8	.....	.....	10ks	.....	N	0	0	Cloudy.....	
La Crosse, Wis	.....	.....	29.93	760.2	13	—10.6	62	S	4	1.8	.....	Haze	Haze	.....	.....	0	0	Hazy.....	
Leavenworth, Kan	.....	.....	29.82	757.4	37	2.8	80	S	12	5.4	.....	.....	10s	.....	.....	0	0	Threatening	
Lexington, Ky	29.07	738.4	30.24	768.1	29	— 1.7	78	E	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Long Branch, N. J	.....	.....	30.14	765.5	30	— 1.1	46	NW	24	10.7	.....	0	0	.....	.....	0	0	Clear.....	
Louisville, Ky	.....	.....	30.18	766.6	34	1.1	71	SE	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Lynchburg, Va	.....	.....	30.18	766.6	35	1.7	80	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Smoky	
Malone, N. Y	.....	.....	30.18	766.6	5	—15.0	75	SW	5	2.2	.....	0	0	.....	.....	0.25	6.3	Clear.....	
Marquette, Mich	.....	.....	29.93	760.2	9	—12.8	78	S	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Memphis, Tenn	.....	.....	30.12	765.0	48	6.1	91	Calm	0	0	.....	.....	10s	.....	.....	0.50	12.7	Cloudy.....	
Milwaukee, Wis	.....	.....	30.09	764.3	12	—11.1	61	SW	9	4.0	.....	2c	Sm'e	SE	SW	0.01	0.3	Fair.....	
Mobile, Ala	.....	.....	30.18	766.6	56	13.3	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy.....	
Montgomery, Ala	.....	.....	30.18	766.6	54	12.2	93	Calm	0	0	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy.....	
Morgantown, W. Va	.....	.....	30.24	768.1	27	— 2.8	66	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Mt. Washington, N. H	23.07	586.0	29.43	747.5	—15	—26.1	100	N	60	26.8	.....	.....	Fog	.....	.....	0.15	3.8	Foggy.....	
Nashville, Tenn	.....	.....	30.15	765.8	42	5.6	65	NW	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
New Haven, Conn	.....	.....	30.09	764.3	21	— 6.1	45	NW	20	8.9	.....	Haze	0	.....	.....	Inap.	Inap.	Clear.....	
New London, Conn	.....	.....	30.06	763.5	25	— 3.9	56	NW	16	7.2	.....	0	0	.....	.....	0.03	0.8	Clear	
New Orleans, La	.....	.....	30.14	765.5	59	15.0	100	SE	3	1.3	.....	.....	Fog	.....	.....	0	0	Foggy	
Newport, R. I	.....	.....	30.01	762.2	26	— 3.3	75	NW	18	8.0	.....	0	0	.....	.....	0.04	1.0	Clear.....	
New York, N. Y	.....	.....	30.15	765.5	24	— 4.4	61	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear.....	
Norfolk, Va	.....	.....	30.15	765.5	38	3.3	81	N	5	2.2	.....	0	Fog	.....	.....	0	0	Clear.....	
North Platte, Neb	26.66	677.2	29.32	744.7	17	— 8.3	83	Calm	0	0	.....	Haze	8s	.....	.....	0	0	Cloudy.....	
Omaha, Neb	28.03	727.2	29.73	755.1	28	— 2.2	88	S	11	4.9	.....	Haze	0	.....	.....	0	0	Hazy.....	
Oswego, N. Y	.....	.....	30.22	767.6	19.2	— 7.1	63	NW	1	0.4	.....	Haze	2ks	.....	NW	0.05	1.3	Fair.....	
Peck's Beach, N. J	.....	.....	30.20	767.1	27	— 2.8	88	N	16	7.2	.....	0	0	.....	.....	0	0	Clear.....	
Pembina, Dakota	.....	.....	29.40	746.7	3	—16.1	86	S	12	5.4	.....	5c	0	.....	.....	0	0	Fair.....	
Philadelphia, Penn	.....	.....	30.20	767.1	26	— 3.3	63	N	18	8.0	.....	0	0	.....	.....	0	0	Clear.....	
Pike's Peak, Colorado	17.24	437.9	29.44	747.8	— 3	—19.4	49	SW	.....	.....	.....	0	5s	.....	SW	0	0	Fair.....	
Pittsburgh, Penn	.....	.....	30.22	767.6	25	— 3.9	62	NW	6	2.7	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Port Huron, Mich	.....	.....	30.21	767.3	14	—10.0	81	Calm	0	0	.....	0	1s	.....	.....	0.03	0.8	Clear.....	
Portland, Me	.....	.....	29.96	761.0	19	— 7.2	69	NW	8	3.6	.....	0	Haze	.....	.....	0.09	2.3	Clear.....	
Portland, Oregon	.....	.....	29.87	758.7	30	— 1.1	89	N	1	0.4	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.....	
Punta Rassa, Fla	.....	.....	30.18	766.6	69.1	15.6	88	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Rochester, N. Y	.....	.....	30.19	766.8	23	— 5.0	86	Calm	0	0	.....	.....	10s	.....	.....	0.01	0.3	Cloudy.....	
Salt Lake City, Utah	25.43	645.9	29.76	755.9	32	0.0	69	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Sandy Hook, N. J	.....	.....	30.12	765.0	25	— 3.9	50	NW	30	13.4	.....	0	0	.....	.....	0	0	Clear.....	
San Diego, Cal	.....	.....	30.14	765.5	45	7.2	85	SE	4	1.8	.....	0	8s	.....	.....	0	0	Fair.	
San Francisco, Cal	.....	.....	30.07	763.8	46	7.8	84	E	4	1.8	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.....	
Santa Fe, N. M	23.05	585.5	29.59	751.6	34	1.1	.....	SE	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Savannah, Ga	.....	.....	30.16	766.1	58	14 4	87	NW	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Shreveport, La	.....	.....	30.10	764.5	54	12.2	93	S	4	1.8	.....	10k	0	SW	.....	0.04	1.0	Cloudy.....	
Smithville, N. C	.....	.....	30.16	766.1	42	5.6	91	Calm	0	0	.....	1cs	0	.....	.....	0	0	Fair.....	
Springfield, Mass	.....	.....	30.08	764.0	21	— 6.1	47	N	12	5.4	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
St. Louis, Mo	.....	.....	30.08	763.0	35	1.7	61	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
St. Marks, Fla	.....	.....	30.19	766.8	52	11.1	93	Calm	0	0	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.....	
St. Paul, Minn	.....	.....	29.70	754.4	16	— 8.9	83	SE	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
St. Paul's Island, Alaska	.....	.....	30.32	770.1	26	— 3.3	87	E	29	13.0	.....	2c	1k	.....	.....	0.01	0.3	.....	
Squan Beach, N. J	.....	.....	30.08	764.0	24	— 4.4	74	NW	21	9.4	.....	0	0	.....	.....	0	0	Clear.....	
Thatcher's Island, Mass	.....	.....	29.92	760.0	21	— 6.1	43	NW	40	17.9	.....	0	1k	.....	NW	0.02	0.5	Clear.....	
Toledo, Ohio	.....	.....	30.19	766.8	22	— 5.6	59	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Tucson, Arizona	27.55	699.8	29.92	760.0	45	7.2	.....	S	.....	.....	.....	0	10s	.....	.....	0	0	Cloudy.....	
Tybee Island, Ga	.....	.....	30.15	765.8	55	12.8	93	Calm	0	0	.....	8k	2s	W	.....	0	0	Cloudy.....	
Vicksburg, Miss	.....	.....	30.14	765.5	51	10.6	100	SE	11	4.9	.....	2c	Fog	W	.....	0	0	Foggy	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.79	604.3	29.27	743.4	22	— 5.6	73	SW	7	3.1	.....	2k	0	W	.....	0	0	Fair	
Washington, D. C	.....	.....	30.21	767.3	32	0.0	56	NW	8	3.6	.....	0	Haze	.....	.....	0	0	Clear	
Wilmington, N. C	.....	.....	30.15	765.8	40	4.4	100	W	4	1.8	.....	2c	Fog	NW	.....	0.05	1.3	Fair	
Wood's Holl, Mass	.....	.....	29.96	761.0	27	— 2.8	66	NW	24	10.7	.....	0	0	.....	.....	0.11	2.8	Clear	
Wytheville, Va	27.72	704.1	29.96	761.0	33	0.6	79	W	5	2.2	.....	2c	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.35	720.1	29.68	753.9	21	— 6.1	71	S	6	2.7	.....	5cs	0	W	.....	0	0	Fair	
Yuma, Arizona	.....	.....	29.06	763.5	42	5.6	.....	E	.....	.....	.....	5c	0	SW	.....	0	0	Fair	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.05	763.3	78	25.6	86	NE	5	2.2	.....	2k	8ks	.....	.....	0.10	2.5	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.04	763.0	76	24.4	81	E	.....	.....	.....	2c	0	.....	.....	0	0	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.12	765.0	68	20.0	90	Calm	0	0	.....	4k,pk	1ks	.....	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.22	767.6	73	22.8	81	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.30	769.6	76	24.4	76	E	4	1.8	.....	4ck	8cks	E	.....	0	0	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.88	758.9	73	22.8	72	NW	7.2	3.2	.....	0	2ks	.....	NE	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	29.88	758.9	62.0	16.7	91	SW	23.0	10.3	.....	.....	10n	.....	.....	0.50	12.7	Raining	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	29.54	750.3	—12.5	—24.7	76	E	1	0.4	.....	.....	10s	.....	.....	0	0	.....	I. Fortescue.
St. Johns, Newfoundland	.....	.....	29.82	757.4	6.0	—14.4	.....	W	.....	.....	.....	0	0	.....	.....	0.06	1.3	Fair, clear	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.22	691.4	30.02	762.5	66	18.9	84	N	1.0	0.4	.....	5c	5k	.....	.....	0.22	5.6	Fair	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.17	639.3	.....	.....	65.0	18.3	85	.....	0	0	.....	3cs	3s	.....	.....	0	0	Fair	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.00	762.0	81	27.2	91	E	.....	.....	3	.....	7k, ks	.....	.....	0	0	Cloudy	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.04	762.9	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.413	10.50	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Steamer Nürnberg, N. 41° 10′, W. 54° 40′	W¾S	.....	29.84	757.9	38.8	3.8	.....	NNW?	.....	.....	6?	.....	7k	.....	NW	Light sea.	NW	Light squally	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 27, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.27	768.9	57.9	14.4	78	Calm	.....	.....	0	.....	10	.....	.....	0	0	Hidden.	Charnot.
Algiers	.....	.....	30.27	768.8	56.5	13.6	93	WSW	.....	.....	1	.....	10	.....	.....	0	0	Hidden.	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.29	769.3	62.2	16.8	73	ESE	.....	.....	3	.....	8	.....	.....	0	0	Cloudy	Jacques.
Sfax	.....	.....	30.28	769.2	62.2	16.8	78	Calm	.....	.....	0	.....	5	.....	.....	0	0	Fair	Chauvey.
Saida	.....	.....	30.26	768.7	46.4	8.0	72	SSW	.....	.....	1	.....	7	.....	.....	0.197	5.0	Cloudy	Grosjean.
Telagma	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Guelma	.....	.....	30.26	768.7	46.4	8.0	72	SE	.....	.....	2	.....	10	.....	.....	0	0	Hidden.	Colin.
Souk-Ahras	.....	.....	30.29	769.4	46.8	8.2	.....	SE	.....	.....	1	.....	7	.....	.....	0.016	0.4	Cloudy	Buard.
Bône	.....	.....	30.24	768.2	38.5	3.6	77	SE	.....	.....	3	.....	2	.....	.....	0	0	Clear	Simon.
La Calle	.....	.....	30.21	767.6	55.4	13.0	77	NE	.....	.....	3	.....	2	.....	.....	0	0	Clear	Coulon.
Biskra	.....	.....	30.27	768.9	61.7	16.5	35	NNW	.....	.....	1	.....	0	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.62	777.8	24.1	— 4.4	100	NE	.....	.....	2	.....	10	.....	.....	0	0	Foggy	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	0	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.58	776.7	24.1	— 4.4	95	NE	.....	.....	0	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.58	776.7	41.0	5.0	95	Calm	.....	.....	2	.....	0	.....	.....	0.008	0.2	.....	Andreas Rospini.
Hermannstadt	29.25	742.9	30.56	776.3	24.3	— 6.5	75	SSW	.....	.....	3	.....	7	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	29.02	737.0	30.56	776.3	20.5	— 6.4	95	WNW	.....	.....	0	.....	7	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	29.14	740.1	30.60	777.3	21.9	— 5.6	96	Calm	.....	.....	4	.....	10	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.45	773.5	23.7	— 4.6	95	NNW	.....	.....	1	.....	10	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.60	777.2	23.4	— 4.8	95	W	.....	.....	1	.....	108	.....	.....	0.009	0.23	.....	I.R. Hydrographic Of'ce
Schmölln	.....	.....	30.53	775.5	40.8	8.2	81	ESE	.....	.....	2	.....	10	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.60	777.3	21.7	— 5.7	96	SE	.....	.....	0	.....	0	.....	.....	0	0	.....	Prof. V. Farolfi.
Vienna	.....	.....	30.53	775.5	44.6	7.0	74	Calm	.....	.....	0	.....	10	.....	.....	0	0	Foggy	I. R. Central Institute.
.....	.....	.....	30.58	776.6	24.8	— 4.0	98	Calm	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	30.41	772.3	46.6	8.1	83	S	.....	.....	0	.....	4	.....	.....	0	0	Foggy	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.07	763.8	46.1	7.8	.....	S	13	5.8	.....	.....	9	.....	.....	0	0	Raining	William Boswell.
Ardrossan	.....	.....	30.09	764.3	48.5	9.2	.....	S	.....	.....	6	.....	9	.....	.....	.....	.....	Overcast	J. Mayes.
Armagh Observatory	.....	.....	30.03	762.7	52.2	11.2	.....	S	23	10.3	.....	.....	8	.....	.....	.....	.....	Squally	S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	30.23	767.8	43.8	6.6	.....	SE	19	8.5	.....	.....	9	.....	.....	.....	.....	Overcast	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.99	761.7	53.6	12.0	.....	SSW	.....	.....	1	.....	4	.....	.....	.....	.....	*D. clouds	J. Dreyer.
Bradford	.....	.....	30.21	767.3	47.4	8.6	.....	S	.....	.....	1	.....	2	.....	.....	0	0	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.18	766.6	78.0	25.6	.....	NE	.....	.....	4	.....	7	.....	.....	.....	.....	*D.clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.34	770.6	44.5	6.9	.....	S	.....	.....	1	.....	10	.....	.....	.....	.....	Foggy	H. Todd.
Cardington	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John McLaren.
Carlisle	.....	.....	30.17	766.3	51.3	10.7	.....	S	.....	.....	1	.....	9	.....	.....	0	0	*D. clouds	Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.41	772.4	42.2	5.7	.....	S	.....	.....	1	.....	7	.....	.....	.....	.....	*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.76	730.5	30.29	769.4	45.0	7.2	.....	NE	.....	.....	2	.....	0	.....	.....	.....	.....	Blue sky	R. E. Power.
Donaghadee	.....	.....	30.06	763.5	48	8.9	.....	S	.....	.....	6	.....	5	.....	.....	.....	.....	*D. clouds	J. Mac Gowan.
Dover	.....	.....	30.36	771.1	45	7.2	.....	S	.....	.....	1	.....	4	.....	.....	.....	.....	½ clouded	J. Costello.
Eccles, (near Manchester)	.....	.....	30.26	768.6	44.7	7.1	.....	SSW	2.2	1.0	.....	.....	6	.....	.....	.....	.....	Hazy	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.26	768.6	47.5	8.6	.....	SSE	15	6.7	.....	.....	10	.....	.....	.....	.....	Overcast	The Staff.
Fort Napier, (Natal)	27.56	700.0	29.82	757.4	84.8	29.3	.....	NE	.....	.....	1	.....	6	.....	.....	.....	.....	D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.95	760.7	87	30.6	.....	N	.....	.....	1	.....	4	.....	.....	.....	.....	.....	.....
Galway, Queen's College	.....	.....	29.87	758.7	52	11.1	.....	S	.....	.....	6	.....	10	.....	.....	.....	.....	* clouds	B. 6, Clare, for Prof. Currey
Gibraltar, (Mediterranean)	.....	.....	30.29	769.4	57.6	14.2	.....	NE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.07	763.8	49.8	9.9	.....	S	.....	.....	3	.....	9	.....	.....	.....	.....	Threatening	Lewis Stuart.
Great Yarmouth	.....	.....	30.38	771.6	41	5.0	.....	S	.....	.....	2	.....	6	.....	.....	.....	.....	Hazy	G. T. Watson.
Greenwich Royal Obs.	.....	.....	30.34	770.6	50.2	10.1	.....	SSE	.....	.....	1	.....	9	.....	.....	.....	.....	Cloudy	The Staff for G. B. Airy
Guernsey	.....	.....	30.23	767.8	47.5	8.6	.....	SSE	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.28	769.1	46.7	8.2	.....	SW	.....	.....	1	.....	6	.....	.....	.....	.....	*D. clouds	[illegible] Crossley.
Helston	.....	.....	30.23	767.8	52	11.1	.....	S	.....	.....	4	.....	4	.....	.....	0	0	*D. clouds	M. P. Moyle.
Holyhead	.....	.....	30.17	766.3	46	7.8	.....	SSW	.....	.....	4	.....	3	.....	.....	.....	.....	Blue sky	John Tilston.
Kew Observatory	.....	.....	30.35	770.9	45.2	7.3	.....	S	3	1.3	.....	.....	7	.....	.....	.....	.....	*D. clouds	The Staff.
Kingstown	.....	.....	30.11	764.8	49	9.4	.....	SE	.....	.....	4	.....	10	.....	.....	.....	.....	Drizzling	George Mitchell
Leicester Museum	.....	.....	30.31	769.9	43.4	6.3	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.37	771.4	61.8	16.6	.....	SE	.....	.....	2	.....	6k	.....	.....	.....	.....	.....	Fred Travis, Pvt A. H. C.
Nairn	.....	.....	29.94	760.5	53	11.7	.....	SW	.....	.....	1	.....	5	.....	.....	.....	.....	½ clouded	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.34	770.6	70.4	21.3	.....	NE	.....	.....	3	.....	7	.....	.....	.....	.....	*D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	30.3	770.9	42.2	5.7	.....	S	.....	.....	3	.....	10d	.....	SSW	.....	.....	Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.32	770.1	41.0	5.0	.....	S	.....	.....	1–	.....	10	.....	.....	.....	.....	Misty	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	30.30	769.6	43	6.1	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Misty	J. Lucas.
Plymouth	.....	.....	30.27	768.8	46.3	7.9	.....	SE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	John Merrifield.
Roche's Point	.....	.....	30.05	763.3	49	9.4	.....	SSW	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast	W. Kennedy.
Saint Ann's Head	.....	.....	30.21	767.3	47	8.3	.....	SE	.....	.....	5	.....	3	.....	.....	.....	.....	*D. clouds	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.30	769.6	47.6	8.7	.....	SE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	A. P. Amy.
Sandwick Manse, (Orkneys)	.....	.....	29.95	760.7	47.1	8.4	.....	S	14	6.3	.....	.....	3	.....	.....	.....	.....	Fine	Rev. Dr. Clouston
Scarborough	.....	.....	30.28	769.1	41.1	5.1	.....	SSW	.....	.....	2	.....	10	.....	.....	.....	.....	Foggy	F. Shaw.
Scutari Cemetery, (Turkey)	.....	.....	30.52	749.8	44.8	7.1	.....	SW	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.30	769.6	44.8	7.1	.....	S	.....	.....	2	.....	9	.....	.....	0	0	Overcast	W. F. Cooper.
Sidcup Rectory	.....	.....	30.16	766.1	48.8	9.3	.....	SW	.....	.....	5	.....	10	.....	.....	0	0	Overcast	Rev. Francis Redford.
Stonyhurst Observatory	.....	.....	30.24	768.1	44.1	6.7	.....	S	.....	.....	2	.....	10	.....	.....	.....	.....	Hazy	The Staff.
Stornoway, Lewis C. (Hebr.)	.....	.....	29.87	758.7	49	9.4	.....	SSW	.....	.....	6	.....	10	.....	.....	.....	.....	Raining	John Smith.
Stratfield Turgiss	.....	.....	30.35	770.9	45.6	7.6	.....	SE	.....	.....	0–1	.....	5	.....	.....	.....	.....	D. clouds	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.91	759.7	50	10.0	.....	S	.....	.....	2	.....	7	.....	.....	.....	.....	D. clouds	John Trotter.
Truro, Royal Institution	.....	.....	30.25	768.3	49	9.4	.....	SE	.....	.....	4	.....	10	.....	.....	.....	.....	Gloomy	W. Newcombe.
Valencia Observatory	.....	.....	29.91	759.7	51.2	10.7	.....	S	45	20.1	.....	.....	10	.....	.....	.....	.....	Raining	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.93	760.2	76.6	24.8	63	WNW	21	9.4	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	46	7.8	.....	S4E	.....	.....	4	.....	6	.....	.....	0	0	.....	.....
Leith, Restalrig Park	.....	.....	30.14	765.5	50.8	10.4	.....	SW	.....	.....	2	.....	8k	.....	.....	0	0	Fine	Andrew Gibb
Monach Lt-house, Hebrides	.....	.....	29.42	747.3	42	5.6	.....	SSE	.....	.....	4	3	0	SSW	.....	0	0	.....	J. Youngehanse.
North Unst, (Shetland Is)	.....	.....	29.95	760.7	50	10.0	.....	SSW	.....	.....	4	.....	10	.....	.....	.....	.....	.....	.....

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 1. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,490 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. * Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.45	773.3	29.7	— 1.3	58	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Foggy	.....
Fanöe	.....	.....	30.45	773.4	34.3	1.3	100	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Foggy	.....
Godthaab, (Greenland)	.....	.....	29.24	742.8	9.9	—12.3	89	N	.....	.....	4	.....	10	.....	.....	.....	.....	.....	.....
Stykkisholm, (Iceland)	.....	.....	28.77	730.7	38.3	3.5	93	S	.....	.....	6	.....	10	.....	.....	.....	.....	Raining	.....
Thorshavn, (Faröe)	.....	.....	29.52	749.7	48.7	9.3	83	WSW	.....	.....	5	.....	9	.....	.....	.....	.....	.....	.....
Vestervig	.....	.....	30.36	771.1	35.8	2.1	100	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Foggy	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols: also direction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.32	770.2	42.8	6	76	S	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	30.43	773.0	41.0	5.0	84	SW	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	Normal School.
Avignon	.....	.....	30.43	773.0	52.3	11.3	63	N	.....	.....	1	.....	.....	.....	E	0	0	Light mist...	Normal School.
Bar-sur-Seine	.....	.....	30.42	772.6	50.7	10.4	64	S	... ...	.....	1	.....	2s	.....	.....	0	0	Slightly cl'dy	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.31	769.9	54.0	12.2	69	SSE	0	0	.....	.....	.....	.....	SSE	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	30.43	772.8	43.3	6.3	67	SE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Besançon	.....	.....	30.49	774.5	37.9	3.2	83	SSW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourg en Brosse	.....	.....	30.48	774.1	39.2	4	98	N	.....	.....	1	.....	10	.....	.....	0	0	Misty	Normal School.
Bourges	.....	.....	30.44	773.1	51.8	11	79	ENE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Brest	.....	.....	30.21	767.2	47.7	8.7	83	SSE	.....	.....	3	.....	10	.....	SSW	0	0	Covered	Naval Observatory.
Caen	.....	.....	30.33	770.3	45.5	7.5	83	Calm	.....	.....	0	.....	10	.....	.....	0	0	Covered	Normal School.
Chartres	.....	.....	30.39	771.9	48.4	9.1	.....	ESE	.....	.....	2	.....	2	.....	SE	0	0	.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.38	771.7	50.0	10.0	73	SE	.....	.....	2	.....	5	.....	.....	0	0	Cloudy.....	Puy de Dome, Obs.
Commercy	.....	.....	30.51	775.0	34.7	1.5	93	E	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Commune de Gréasque*	.....	.....	30.44	773.2	54.7	12.6	63	NE	.....	.....	2	.....	8	.....	NE	0.110	2.8	.....	.....
Grenoble	.....	.....	30.45	773.5	41.5	5.3	74	NE	.....	.....	2	.....	2s	.....	S	0	0	Slightly cl'dy	Normal School.
Le Mans	.....	.....	30.37	771.5	47.5	8.6	86	S	.....	.....	2	.....	2	.....	S	0	0	Slightly cl'dy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.50	774.8	37.1	2.3	96	NW	.....	.....	1	.....	10	.....	SE	0	0	Light fog.....	Normal School.
Mâcon	.....	.....	30.49	774.4	36.0	2.2	89	Calm	.....	.....	0	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.45	773.3	39.1	3.9	96	SW	.....	.....	1	.....	1	.....	NE	0	0	Clear.....	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.39	771.9	57.2	14	83	E	.....	.....	1	..c	.....	E	.....	0	0	.....	Normal School.
Orleans	.....	.....	30.43	772.8	47.5	8.6	78	SSE	.....	.....	2	.....	2	.....	S	0	0	Slightly cl'dy	Normal School.
Paris Observatory	.....	.....	30.41	772.3	44.4	6.9	69	SE	.....	.....	1	.....	0?	.....	.....	0	0	Misty ?	National Observatory.
Parthenay	.....	.....	30.33	770.3	52.7	11.5	69	SW	.....	.....	2	.....	5	.....	W	0	0	Cloudy.....	Normal School.
Privas	.....	.....	30.50	774.8	47.8	8.8	.....	SE	.....	.....	1	.....	2	.....	SE	0	0	Slightly cl'dy	Normal School.
La Roche-sur-Yon	.....	.....	30.40	772.2	52.9	11.6	73	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Rochefort, Observatory	.....	.....	30.36	771.1	53.6	12.0	76	E	.....	.....	3	.....	0	.....	.....	0	0	.....	Naval Observatory.
Rouen	.....	.....	30.37	771.5	50.0	10.0	70	ESE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Saint Lo	.....	.....	30.34	770.7	49.5	9.7	89	WSW	.....	.....	1	.....	9	.....	W	0	0	.....	Normal School.
Tarbes	.....	.....	30.17	766.4	50.0	10	61	NE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	29.37	745.9	30.4	772.2	51.8	11.0	73	SE	.....	.....	2	.....	5	.....	.....	0	0	Cloudy.....	Normal School.
Villefranche	.....	.....	30.50	774.7	41.0	5	88	NNE	.....	.....	1	.....	.....	.....	.....	0	0	Foggy	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.1	77.0	25	83	NE	.....	.....	2	.....	0?	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.39	771.8	56.8	13.8	80	W	.....	.....	1	.....	8	.....	.....	0.031	0.80	.....	Marseilles Observatory.
Mont-Louis	25.06	636.5	30.51	775.0	38.7	3.7	95	SSW	0	0	.....	.....	8	.....	.....	0.035	0.9	.....	—. Faïgnère.
Montsouris, Paris	.....	.....	30.39	771.9	47.7	8.7	61	SE	.....	.....	2	.....	0	.....	ENE	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.39	771.9	51.3	10.7	88	E	7.4	3.3	.....	.....	10	.....	.....	0.102	2.6	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.32	541.6	.....	.....	25.9	— 3.4	.....	W	.....	.....	2	.....	3	.....	.....	0	0	Fair.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.40	772.1	47.8	8.	58	S	.....	.....	1	.....	0	.....	.....	0	0	Clear	E. Renou.
Toulouse	.....	.....	30.35	771.2	54.0	12.2	56	SE	.....	.....	2	.....	2	.....	.....	0.039	1.0	.....	Toulouse Observatory
Tours	.....	.....	30.37	771.4	50.4	10.2	84	SSE	.....	.....	1	.....	3	.....	W	0	0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.38	771.6	48.6	9.2	66	S	.....	.....	1	.....	0	.....	.....	0	0	Very clear....	Dr. A. Bérigny.
Zi-Ka Wei, (near Shanghai)	.....	.....	30.50	774.6	23.5	— 4.7	81	NW	16.3	7.3	.....	.....	0	.....	.....	{ 0 / 0	{ 0 / 0	.....	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,580.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.0 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,058.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
* Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.48	774.1	27.0	— 2.8	87	SW	.....	.....	2	.....	2	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.54	775.4	32.2	0.1	91	S	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.56	776.1	26.8	— 2.9	90	N	.....	.....	2	.....	3	.....	.....	0	0	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.53	775.4	32.0	0.0	74	NE	.....	.....	3	.....	0	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.54	775.8	30.2	4.0	50	SSW	.....	.....	5	.....	1	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.64	778.3	32.9	0.5	83	E	.....	.....	1	.....	1	.....	.....	0	0	.....	Physical Society.
Friedrichshafen	.....	.....	30.53	775.5	31.6	— 0.2	79	W	.....	.....	.....	.....	3	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	30.48	774.2	39.0	3.9	82	SE	.....	.....	1	.....	0	.....	.....	0	0	.....	Deutsche Seewarte.
Kiel	.....	.....	30.52	775.1	36.1	2.3	93	SW	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.45	773.4	32.5	0.3	90	SW	.....	.....	2	.....	10	.....	.....	0.004	0.1	Snowing.....	Prof. E. Luther.
Köslin	.....	.....	30.52	775.1	29.5	— 1.4	.....	W	.....	.....	2	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.54	775.7	37.0	2.8	67	S	.....	.....	1	.....	2	.....	.....	0	0	.....	Prof. Brunns.
Münster	.....	.....	30.44	773.2	47.3	8.5	48	SE	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.57	776.5	28.6	— 1.9	90	NW	.....	.....	4	.....	10	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.57	776.5	25.7	— 3.5	100	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.55	776.0	31.6	— 0.2	68	E	.....	.....	.....	.....	0	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.50	774.6	31.8	— 0.1	87	W	.....	.....	3	.....	10	.....	.....	Inap.	Inap.	.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	30.14	773.2	31.5	— 0.3	84	NW	.....	.....	2	.....	0	.....	.....	0	0	Light fog.....	Prof. Plassch.
Wustrow, Naval School	.....	.....	30.51	775.0	33.6	0.9	84	SSE	.....	.....	1	.....	0	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.53	775.7	55.9	13.3	.....	S	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.51	774.9	44.8	7.1	48	SE	1.3	0.6			1			0	0		
Padua			30.52	775.1	40.3	4.6	73	NNE	8.7	3.9			6			0	0		
Verona			30.52	775.2	41.2	5.1	69	E			1		0			0	0		
Bergamo			30.49	774.4	41.0	5.0	63	E			1		8			0	0		
Milan			30.56	776.2	40.6	4.8	81	E			1		8			0	0		
Moncalieri			30.58	776.8	39.7	4.3	83	ESE	1.3	0.6			10	E		0	0		
Mondovi			30.56	776.3	41.7	5.8	50	NE			2		7	SE		0	0		
Porto Maurizio			30.52	775.1	57.7	14.3		E			6		4			0	0		
Genoa			30.48	774.2	55.0	12.8	39	Calm	0	0			6	N		0	0		
Piacenza			30.56	776.2	36.9	2.7	81	WNW	4.3	1.9			10			0	0	Foggy	
Bologna			30.50	774.8	42.8	6.0	30	W			1		4	E		0	0		
Florence			30.50	774.8	53.8	12.1	45	NW			1		1			0	0		
Leghorn			30.48	774.3	55.6	13.1	43	NE	4.3	1.9			10			0	0		
Siena			30.47	774.0	50.4	10.3	64	E	0	0			4	E		0	0		
Urbino																			
Pesaro																			
Ancona			30.56	776.2	45.3	7.4	71	NW			2		1			0	0		
Grosseto			30.46	773.7	55.6	13.1	74	E			2		6	S		0	0		
Rome			30.48	774.3	53.6	12.0	67	N	3.1	1.4			10	WSW		0	0		
Naples, O. U.			30.51	774.9	61.0	16.1	54	NNW			1		9			0	0		
Lecce			30.54	775.6	54.0	12.7	61	SW	6.3	2.8			4			0	0		
Cosenza			30.53	775.5	53.6	12.0	68	NW			1		0			0	0		
Riposto, (Sicily)			30.45	773.3	57.2	14.0	80	ESE			2		8	N		0	0		
Palermo			30.35	771.0	62.8	17.1	52	SE	6.9	3.1			10			0	0		
Caltanissetta			30.43	772.9	51.8	11.0	82	E			6		10			0	0		
Sub-Series.																			
Naples, S. R.			30.50	774.8	57.2	14.0	63	W			4		8	SW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.45	773.3	41.7	5.4		SSE			2								
Groningen			30.40	772.1	39.6	4.2		SW			2								
Helder			30.41	772.3	41.9	5.5		SSW			4								
Utrecht			30.41	772.3	42.1	5.6	83	SSE			1		0					Clear	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.19	766.7	45.7	7.6	77	S	17.9	8.0			8			0	0		
Brönö			30.97	761.2	42.8	6.0	85	SSW	25	11			10			0.433	11.0	Raining	
Christiania			30.30	769.6	31.3	— 0.4	100	W	0.7	0.3			10			0	0	Foggy	
Tromsö			29.65	753.1	32.7	0.4	92	W	0	0			10			0.48	12.2	Snowing	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer corrected for instrumental errors.		Barometer reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount Up'er	Clouds. Amount Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	0—10.	0—10.	From—	From—	Inches.	Millimeters.		
Angra, (Azores,)			30.33	770.4	66.5	13.6	77	N	1.6	0.73			3			0.079	2.0		Dr. J. A. N. Sampaio.
Campo Major			30.28	769.1	58.1	14.5	63	E	4.8	2.16			4	W		0	0		Dr. A. M. R. dos Santos.
Funchal, (Madeira,)			30.40	772.1	62.2	16.8	72	SE	5.6	2.24			5			0	0		Capt. D. A. da Cunha.
Lisbon			30.33	770.3	66.1	18.4	67	NE	3.8	1.7			7	NNW		0	0		The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			30.49	774.5	20.4	— 3.1	94	WNW	9	4			10						Astronomical Obs.
Wilna			30.37	771.3	30.9	— 0.6	95	WNW	4	2			10						Astronomical Obs.
Dorpat			30.37	771.3	30.9	— 0.6	95	SW	2	1			10						Physical Cabinet.
St. Petersburg			30.32	770.0	31.5	— 0.3	99	Calm	0	0			4						Central Physical Obs.
Kuopio			30.27	768.9	21.4	— 5.9	93	WSW					10			0	0		Ch. Forsten.
Kief			30.14	765.5	23.4	— 4.8	98	NW	9	4			10					Light fog	Physical Cabinet.
Nikolaiev			30.25	768.4	25.9	— 3.4	95	NNW	13	6			1						Kurdukof.
Kertch			30.28	769.0	34.3	1.3	68	WNW	7	3			4						Lagorio.
Moscow			30.19	766.7	43.9	6.6	71	N	18	8			0						Meteorological Obs.
Lugan			30.09	764.2	23.5	— 4.7	81	WNW	29	13			10			Blank	Blank		Meteorological Obs.
Archangel			29.96	761.0	30.9	— 0.6	85	WSW	22	10			10						Ogorodnikof.
Tiflis			29.86	758.5	10.0	—12.2	85	N	20	9			7						Physical Obs.
Astrakhan	28.80	731.6	30.29	769.4	33.8	1.0	53	SW	13	6			3			Blank	Blank		Sebastianof.
Kasan			30.21	767.2	5.2	—14.9	78	E	13	6			10						Physical Cabinet.
Orenburg			29.75	755.7	5.0	—15.0	91												Tschernischef.
Ekaterinburg	28.85	732.7	29.96	761.0	— 2.2	—19.0	77	SW	9	4			7						Meteorological Obs.
Nukuss			30.03	762.8	30.0	— 1.1	76	N	9	4			10						Bobrof.
Kassly			30.17	766.4	18.1	— 7.7	86	SE	4	2			10						Michelson.
Tashkend	28.30	718.7	30.03	762.8	41.2	5.1	69	NE	9	4			10						Meteorological Obs.
Barnaul			30.24	768.0	— 0.9	—18.3	77	Calm	0	0			10						Marks.
Yeniseisk			29.93	760.3	2.7	—16.3	76	SW	2	1									Usolzef.
Irkutsk																			Mossin.
Gorga																			Physical Observatory.
Peking (China)			30.42	772.7	22.3	— 5.4	35	NW	13	6			0						Meteorological Obs.
Nertchinsk	28.08	713.3	30.49	774.5	—21.1	—29.5	84	Calm	0	0			0						
Vladivostock			30.23	767.7	1.7	—18.7	65	NW	13	6			0						
Nikolaievsk, on the Amoor					—13.2	—25.1		Calm	0	0			0						

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0?. m., or 1,942.2? ft.; Gorga, 1,281.6 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			30.37	771.3	52.0	11.1	73	NE	0	0		0	8			0.004	0.1	Cloudy	Royal Observatory.
San Fernando			30.34	770.5	59.4	15.2	77	E	5.8	2.6		0	10		E	0	0		The Naval Observatory.

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda			29.90	759.5	29.5	— 1.4	96	SW			2		5			0	0		
Umea			30.09	764.3	34.9	1.6	91	Calm			0		7			0	0		
Hernosand			30.15	765.8	37.2	2.9	68	Calm			0		5			0	0		
Stockholm			30.26	768.5	35.6	2.0	85	W			2		10			0	0		
Wisby			30.39	771.9	34.5	1.4	89	NW			4		10			0	0		
Sub-Series.																			
Upsala			30.27	768.8	36.1	2.3	86	SSW	6.5	2.9			2	N	SW	0.008	0.20		Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.02	737.2	30.52	775.1	32.9	0.5	92	ESE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.81	731.8	30.53	775.5	28.4	— 2.0	90	NW	.....	.....	1	.....	3	.....	.....	0	0	Clear	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +9.9 mm.; Thermometer, +1.4 cent.; Relative Humidity, +15 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.54	775.8	43.2	6.2	74	WSW	7	3.0	.....	.....	0	.....	.....	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.24	778.0	53.6	12.0	.....	NW	.....	.....	3	.....	0	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.56	776.2	53.8	12.1	.....	N	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Valona	.....	.....	30.39	771.9	55.0	12.8	.....	W	.....	.....	1	.....	0	.....	.....	.....	.....	.....	
Varna	.....	.....	30.39	772.0	37.4	3.0	.....	N	.....	.....	3	.....	0	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.43	773.0	54.5	12.5	43	NE	.....	.....	5	.....	0	.....	.....	0	0	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	30.12	765.0	— 6.5	—21.4	80	SW	8.5	3.8	.....	.....	10s	.....	S	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.65	753.1	26	— 3.3	.....	S	13	5.8	.....	.....	10s	.....	S	0.30	7.6	Light snow	W. R. Bigg.
*Chatham, N. B	.....	.....	30.23	767.8	—10	—23.3	91	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	G. A. Blair.
Charlottetown P. E. Island	.....	.....	30.26	768.6	— 2	—18.9	64	Calm	0	0	.....	0	5ks	.....	.....	Inap.	Inap.	Fair	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.58	751.3	12.7	—10.7	85	E	.....	.....	1	.....	10n	.....	.....	0.25	6.3	Snowing	James Smith, M. A.
Dalhousie, N. B	.....	.....	30.16	766.1	— 9.4	—23.0	77	NW	.....	.....	2	10cs	.....	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B C	.....	.....	30.42	772.7	29.0	— 1.7	89	N	2	0.9	.....	.....	10	.....	.....	0	0	Cloudy	W. H. Bevis.
Fredericton, N. B	.....	.....	30.22	767.6	10.0	—12.2	95	Calm	0	0	.....	.....	10s	.....	.....	0.210	5.33	Snowing	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	29.81	757.2	— 2	—18.9	100	N	9	4.0	.....	Haze	Haze	.....	.....	0	0	Hazy	James Stewart.
Goderich, Ontario	.....	.....	29.55	750.6	35.8	2.1	91	SW	.....	.....	2	10k	0	W	.....	0.242	6.15	Cloudy	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.52	749.8	40.0	4.4	.....	W	.....	.....	2	.....	10n	.....	.....	0.52	13.2	Cloudy	Jam s Grant.
*Halifax, N. S	.....	.....	30.31	769.9	— 1	—18.3	84	SW	4	1.8	.....	.....	5ks	.....	S	0.244	6.20	Fair	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.60	751.8	32	0.0	80	S	15	6.7	.....	.....	10n	.....	SW	0.10	2.5	Sleeting	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.42	747.3	33.8	1.0	.....	SW	12	5.4	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.66	753.4	20	— 6.7	97	S	25	11.2	.....	.....	10n	.....	S	0.05	1.3	Heavy snow	G. H. McLeod, C.
*Ottawa, Ontario	.....	.....	29.59	751.6	12	—11.1	77	E	8	3.6	.....	.....	10n	.....	E	0.20	5.1	Light snow	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.43	747.5	34	1.1	95	SW	14	6.3	.....	.....	10n	.....	SW	0.07	1.8	Sleeting	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.56	760.8	42	5.6	96	S W	15	6.7	.....	.....	10n	.....	SW	0.50	12.7	Lig..t rain	H. Morgan.
Port Hastings, N. S	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. ter Grant.
*Port Stanley Ontario	.....	.....	29.62	752.3	36	2.2	96	W	8	3.6	.....	.....	Fog	.....	W	0.46	11.7	Foggy	M. Payne.
*Quebec, Quebec	.....	.....	29.84	757.9	9	—12.8	89	NE	17	7.6	.....	.....	10n	.....	NE	0	0	Cloudy	Capt. Ash, R. N.
St. John, N. B	.....	.....	30.24	768.1	3.0	—16.1	87	NE	1	0.4	.....	.....	10ks	.....	.....	0.210	5.33	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.48	748.8	36	2.2	90	SW	10	4.5	.....	.....	10n	.....	.....	0.04	1.0	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	29.60	751.8	38	3.3	87	W	5	2.2	.....	.....	8n	.....	W	0	0	Cloud	R. J. Cole.
Stratford, Ontario	.....	.....	29.53	750.0	38.4	3.6	92	SW	15	6.7	.....	.....	10n	.....	.....	0.434	11.02	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	30.23	767.8	4	—15.6	92	Calm	0	0	.....	2c	2ks	.....	.....	0	0	Fair	T. C. Hill.
*Toronto, Ontario	.....	.....	29.54	750.3	36	2.2	97	SW	4	1.8	.....	.....	10n	.....	.....	0.42	10.7	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the cooperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper.	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y			29.86	758.4	26	— 3.3	100	S	25	11.2			10n			0.04	1.0	Light snow..	
Alpena, Mich			29.41	747.0	33	0.6	79	W	6	2.7			10s		W	Inap.	Inap.	Cloudy	
Atlantic City, N. J			30.06	763.5	42	5.6	83	S	20	8.9			10s		SW	0	0	Cloudy	
Augusta, Ga			30.17	766.3	46	7.8	100	Calm	0	0		5cs	Fog	NW		0.09	2.3	Fair	
Baltimore, Md			30.20	767.1	33	0.6	05	NW	7	3.1		0	Sm'e			0	0	Clear	
Barnegat, N. J			30.12	765.0	26	— 3.3	04	N	27	12.1		0	0			0	0	Clear	
Benton, Montana	26.92	683.8	29.72	754.9	0	—17.8	100	NW	11	4.9			10n		NW	0.08	2.0	Light snow..	
Bismarck, Dakota	27.84	707.1	29.57	751.1	12	—11.1	61	NE	2	0.9			10s			0	0	Cloudy	
Boston, Mass			30.11	764.8	25	— 3.9	88	SE	15	6.7			10s			0	0	Cloudy	
Breckenridge, Minn			29.79	756.7	2	—16.7	86	W	8	3.6		0	1s			0	0	Clear	
Buffalo, N. Y			29.51	749.5	40	4.4	91	SW	18	8.0			10n		SW	0.65	16.5	Light rain...	
Burlington, Vt			29.79	756.7	21	— 6.1	100	S	22	9.8			10n			0.02	0.5	Light snow.	
Cairo, Ill			29.82	757.4	60	15.6	94	SW	12	5.4			10n		S	0.08	2.0	Light rain...	
Cape Hatteras, N. C			30.14	765.5	59	15.0	81	S	20	8.9			10s		SW	0	0	Cloudy	
Cape Henry, Va			30.16	766.1	51	10.6	76	S	12	5.4		5c	2s	SW		0	0	Fair	
Cape May, N. J			30.06	763.3	43	6.1	83	S	24	10.7			10s		S	0	0	Threatening	
Charleston, S. C			30.24	768.1	52	11.1	86	W	3	1.3		5c	Sm'e			0	0	Fair	
Cheyenne, Wyoming	23.62	599.9	29.56	750.8	9	—12.8	78	W	4	1.8		0	0			0	0	Clear	
Chicago, Ill			29.62	752.3	39	3.9	82	SW	5	2.2		2c	2s	W		0.16	4.1	Fair	
Cincinnati, Ohio			29.72	754.9	56	13.3	93	W	4	1.8			10n			0.56	14.2	Light rain...	
Cleveland, Ohio			29.60	751.8	50.1	10.1	89	S	20	8.9			10ks		SW	0.62	15.7	Cloudy	
Colorado Springs, Col	23.71	602.2	29.58	751.3	11	—11.7	20	N	4	1.8		0	0			0	0	Clear	
Corsicana, Texas			29.83	757.7	65	18.3	89	S	18	8.0		5k	0	S		0	0	Fair	
Davenport, Iowa			29.72	754.9	33	0.6	89	W	10	4.5		1c	5s	W		0.07	1.8	Fair	
Denison, Texas			29.76	755.9	66	18.9	84	S	8	3.6			10s			0.31	7.9	Cloudy	
Denver, Col	24.39	619.5	29.61	752.1	16	— 8.9	66	SW	2	0.9		0	0			0	0	Clear	
Detroit, Mich			29.55	750 6	45	7.2	84	W	12	5.4		0	8s		W	0.45	11.4	Fair	
Dodge City, Kan	27.21	691.1	29 60	751.8	22	— 5.6	72	NW	4	1.8			10s			0	0	Cloudy	
Dubuque, Iowa			29.80	756.9	29	— 1.7	78	W	8	3.6		0	0			0.11	2.8	Clear	
Duluth, Minn			29.55	750.6	28	— 2.2	77	NW	8	3.6			10s			0	0	Cloudy..	
Eastport, Me			30.16	766.1	11	—11.7	90	Calm	0	0			10s			0.02	0.5	Cloudy...	
Erie, Pa			29.55	750.6	48	8.9	92	SW	24	10.7			10ks		SW	1.16	29.5	Threatening	
Escanaba, Mich			29.48	748.8	31	— 0.6	84	SW	4	1.8			10s		SW	Inap.	Inap.	Cloudy	
Fort Gibson, Indian Terr			29.73	755.1	54	12.2	86	NE	4	1.8			10s		SW	0.20	5.1	Cloudy	
Fort Sill, Indian T	28.59	726.2	29.70	754.4	46	7.8	85	N	8	3.6			10s		S	0.07	1.8	Cloudy	
Fort Sully, Dakota	27.96	710.2	29.72	754.9	11	—11.7	79	N	5	2.2		0	2s		N	0	0	Fair	
Galveston, Texas			29.94	760.5	66	18.9	94	S	4	1.8		0	5s		S	0	0	Fair	
Grand Haven, Mich			29.61	752.1	37	2.8	90	SW	14	6.3		5cs	0	W		0.28	7.1	Fair	
Indianapolis, Ind			29.69	754.1	53	11.7	93	SW	6	2.7			10n		W	1.47	37.3	Light rain...	
Indianola, Texas			29.91	759.7	67	19.4	99	S	14	6.3		0	2s		S	0	0	Fair	
Jacksonville, Fla			30.25	768.3	51	10.6	86	W	4	1.8			Fog		SW	0	0	Foggy	
Keokuk, Iowa			29.78	755.9	35	1.7	80	W	6	2.7			10s		W	0.22	5.6	Cloudy	
Key West, Fla			30.20	767.1	70.0	21.1	65	E	6	2.7		5ck	1s	S		0	0	Fair	
Kittyhawk, N. C			30.20	767.1	52	11.1	86	SW	14	6.3			10n		SW	0.10	2.5	Light rain..	
Knoxville, Tenn			30.03	762.7	57	13.9	81	SW	18	8.0			10ks		SW	0.02	0.5	Cloudy	
La Crosse, Wis			29.69	754.1	22	— 5.6	58	NW	9	4.0		0	0			0	0	Clear	
Leavenworth, Kan			29.83	757.7	34	1.1	79	NW	2	0.9		0	2s		NW	0.08	2.0	Clear	
Lexington, Ky	28.76	730.5	29.83	757.7	58	14.4	87	S	32	14.3			1 ks		SW	0.03	1.3	Cloudy	
Long Branch, N. J			30.01	763.0	41	5.0	82	S	22	9.8			10n		SW	0.06	1.5	Light rain...	
Louisville, Ky			29.75	755.8	59	15.0	88	S	18	8.0			10s		SW	0.30	7.6	Cloudy	
Lynchburg, Va			30.08	764.0	39	3.9	81	Calm	0	0		10ck	0	W		0	0	Cloudy	
Malone, N. Y			29.55	750.6	28	— 2.2	88	S	32	14.3			10n		SW	0.20	5.1	Heavy snow	
Marquette, Mich			29.43	747.5	34	1.1	79	SW	6	2.7			10s			0	0	Cloudy	
Memphis, Tenn			29.80	759.2	62	16.7	88	S	11	4.9			10 s			0	0	Threatening	
Milwaukee, Wis			29.59	751.6	33	0.6	79	SW	20	8.9		5c	0	SW		0.09	2.3	Fair	
Mobile, Ala			30.12	765.0	64	17.8	94	S	5	2.2		0	2s		W	0.11	2.8	Fair	
Montgomery, Ala			30.16	766.1	60	15.6	91	S	3	1.3			10s		SW	0	0	Cloudy	
Morgantown, W. Va			29.77	756.1	56	13.3	87	SW	21	9.4			10s		SW	0.02	0.5	Threatening	
Mt. Washington, N. H	23.34	592.8	29.70	754.4	13	—10.6	100	SW	60	26.8			Fog			0	0	Foggy	
Nashville, Tenn			29.90	759.4	62	16.7	77	S	13	5.8		5k	0	SW		0	0	Fair	
New Haven, Conn			30.06	763.5	36	2.2	90	S	16	7.2			10n			Inap.	Inap.	Light snow..	
New London, Conn			30.02	763.0	35	1.7	70	S	20	8.9			10s		SW	0	0	Threatening	
New Orleans, La			30.05	763.3	65	18.3	89	S	8	3.6			10ks		S	0	0	Threatening	
Newport, R. I			30.12	765.0	34	1.1	79	S	24	10.7			10s			0	0	Cloudy	
New York, N. Y			30.04	763.0	34	1.1	91	SE	21	9.4			10n		E	0.12	3.0	Sleeting	
Norfolk, Va			30.15	765.8	47	8.3	85	S	9	4.0			10s		SW	0	0	Cloudy	
North Platte, Neb	26.80	680.7	29.51	749.3	15	— 9.4	82	Calm	0	0		0	0			0	0	Clear	
Omaha, Neb	28.72	729.5	29.83	757.7	24	— 4.4	87	NW	3	1.3		2c	0			0	0	Clear	
Oswego, N. Y			29.62	752.3	38	3.3	71	S	12	5.4			1 s		SW	0.17	4.3	Threatening	
Peck's Beach, N. J			30.07	763.8	42	5.6	91	S	28	12.5			10s			0	0	Cloudy	
Pembina, Dakota			29.81	757.2	3	—16.1	73	NW	12	5.4		8c	0			0	0	Cloudy	
Philadelphia, Penn			30.05	763.3	37	2.8	100	SW	15	6.7			10n		SW	0.16	4.1	Light rain	
Pike's Peak, Colorado	17.22	437.4	29.43	747.5	— 5.5	—20.8	43	W	50	22.4		0	10s			0	0	Cloudy	
Pittsburgh, Penn			29.74	755.4	50	10.0	100	SW	4	1.8			10s		SW	0.40	10.2	Light rain...	
Port Huron, Mich			29.52	749.8	42	5.6	91	SW	15	6.7		Haze	5s		SW	0.15	3.8	Cloudy	
Portland, Me			30.13	765.3	16	— 8.9	66	SW	3	1.3			10s			0	0	Cloudy..	
Portland, Oregon			29.65	753.1	33	0.6	89	N	4	1.8			1 n			0.18	4.6	Light snow	
Punta Rassa, Fla			30.23	767.8	60.0	15.6	88	E	8	3.6		Haze	Sm'e			0	0	Hazy	
Rochester, N. Y			29.53	750.0	39	3.9	81	SW	22	9.8			10n		SW	0.70	17 8	Light rain...	
Salt Lake City, Utah	25.18	639.6	29.51	749.5	31	— 0.6	79	S	4	1.8			10s			0	0	Cloudy	
Sandy Hook, N. J			30.02	762.5	36	2.2	90	S	15	6.7			10n		S	0.05	1.3	Light rain...	
San Diego, Cal			30.00	762.0	51	10.6	79	N	16	7.2		0	10ks		N	0.10	2.5	Cloudy...	
San Francisco, Cal			29.92	760.0	44	6.7	68	W	16	7.2		0	2s			0.39	9.9	Clear	
Santa Fe, N. M	23.05	585.5	29.59	751.6	20	— 6.7		NE	3	1.3		0	0			0	0	Clear	
Savannah, Ga			30.26	768.6	57	13.9	87	SE	1	0.4		10s	Sm'e	S		0	0	Smoky	
Shreveport, La			29.90	761.0	64	17 8	94	S	6	2.7		10k	0	SW		0.05	1.3	Cloudy	
Smithville, N. C			30.21	767.3	50	10.0	90	NW	3	1.3		2cs	8cs	NW	SW	0	0	Cloudy	
Springfield, Mass			30.05	763.3	25	— 3.9	74	S	4	1.8			10n			Inap.	Inap.	Light snow..	
St. Louis, Mo			29.78	756.4	54	12.2	86	W	4	1.8			10s			0 60	15.2	Cloudy	
St. Marks, Fla			30.21	767.3	59	15.0	87	SE	13	5.8			10c			0	0	Cloudy	
St. Paul, Minn			29.66	753.4	16	— 8.9	66	W	6	2.7			10s			0	0	Cloudy	
St. Paul's Island, Alaska			29.76	755.9	28	— 2.2	76	ENE	68	30.4		1	1k			0	0	.....	
Sumu Beach, N. J			29.98	761 5	38	3.3	90	S	19	8.5			10n		SW	0.07	1.8	Light rain...	
Thatcher's Island, Mass			30.10	764.5	31	— 0.6	68	SW	33	14.8			10s		W	0	0	Cloudy	
Toledo, Ohio			29.50	751.6	49	9.4	93	SW	16	7.2		0	8s		SW	0.22	5.6	Clear'ng	
Tucson, Arizona	27.43	696.7	29.81	757.2	38	3.3		S				0	0			0	0	Clear	
Tybee Island, Ga			30.25	768.3	53	11.7	93	Calm	0	0		0	Fog		SW	0	0	Foggy	
Vicksburg, Miss			30.03	762.7	64	17.8	92	SE	1	0.4			10s		S	0	0	Cloudy	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.55	598.2	29.03	737.3	21	— 6.1	67	SW	8	3.6	.....	.....	10ks	.....	W	0	0	Cloudy	
Washington, D. C.	.....	.....	30.04	763.0	37	2.8	85	S	20	8.9	.....	.....	10n	.....	SW	0.02	0.5	Light rain	
Wilmington, N. C	.....	.....	30.21	767.3	46	7.8	92	NW	1	0.4	.....	8cs	2s	W	SW	0	0	Cloudy	
Wood's Holl, Mass.	.....	.....	30.17	766.3	34	1.1	79	S	28	12.5	.....	.....	10s	.....	S	0	0	Cloudy	
Wytheville, Va.	27.68	703.1	29.85	758.2	44	6.7	84	SW	1	0.4	.....	10k	0	W	.....	0	0	Cloudy	
Yankton, Dakota	28.48	723.4	29.85	758.2	14	—10.0	72	N	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	29.95	760.7	46	7.8	.....	W	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.02	762.5	80	26.7	91	SE	10	4.5	.....	5k	2ks	NE	S	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'Ioupe, do	.....	.....	30.12	765.0	74	23.3	76	E	.....	.....	.....	0	0	.....	.....	0	0	Clear	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	30.17	766.3	71	21.7	79	ESE	0.6	0.3	.....	2fk	1k	SE	E	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I.	.....	.....	30.26	768.6	73	22.8	72	Calm	0	0	.....	2ck	2s	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.37	771.4	77	25.0	72	E	8	3.6	.....	8ck	4k	NE	.....	0	0	Fair	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.94	760.5	73	22.8	72	NE	8.0	3.6	.....	8ck	2s	ENE	.....	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.37	771.4	60.0	15.6	74	N	10.0	4.5	.....	0	10k	.....	.....	0.06	1.5	Cloudy	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. L. Clarke.
York Factory, B. A.	.....	.....	29.74	755.4	— 31	—35.0	.....	NW	24	10.7	.....	.....	6s	.....	.....	0.02	0.5	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	30.08	764.0	3.0	—16.1	.....	NE	.....	.....	.....	0	5ks	.....	.....	0	0	Fair	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I.	27.24	691.9	30.05	763.3	64	17.8	83	S	3.0	1.3	.....	2c	0	.....	.....	0	0	Clear	C. Partridge.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A.	25.19	639.9	.....	.....	66.2	19.0	80	.....	0	0	.....	1cs	6s	.....	.....	0	0	Fair	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.02	762.5	82	27.8	79	NE	.....	.....	3	.....	8ks	.....	.....	0.180	4.57	Showery	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.07	763.8	79.2	26.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.217	5.5	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.
*Steamer Nürnberg,	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.
* Observation not simultaneous.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 28, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.29	769.4	58.3	14.6	76	Calm	.....	.....	0	.....	8	.....	.....	0.945	24.0	Cloudy..	Charnot.
Algiers	.....	.....	30.24	768.0	57.2	14.0	82	NW	.....	.....	1	.....	7	.....	.....	0.063	1.6	Cloudy..	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Jacques.
Sfax	.....	.....	30.20	767.1	60.8	16.0	77	S	.....	.....	2	.....	10	.....	.....	0.035	0.9	Hidden.	Chauvey.
Saida	.....	.....	30.20	767.0	62.2	16.8	70	SSW	.....	.....	3	.....	6	.....	.....	0	0	Fair.	Grosjean.
Teffessa	.....	.....	30.24	768.1	48.2	9.0	68	WNW	.....	.....	1	.....	6	.....	.....	0.157	4.0	Fair.	Colin.
Seriville	.....	.....	30.22	767.6	48.4	9.1	.....	W	.....	.....	4	.....	10	.....	.....	0.236	6.0	Hidden.	Buard.
Laghouat	.....	.....	30.25	768.4	41.0	5.0	67	NW	.....	.....	1	.....	3	.....	.....	0.335	8.5	Fair.	Simon.
Biskra	.....	.....	30.17	766.4	51.8	11.0	77	NW	.....	.....	2	.....	2	.....	.....	0	0	Clear.	Coulon.
.....	.....	.....	30.21	767.3	55.4	13.0	58	NW	.....	.....	1	.....	0	.....	.....	0	0	Clear.	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.57	776.4	22.1	— 5.5	100	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	30.58	776.6	18.0	— 7.8	95	NE	.....	.....	1	.....	10	.....	.....	0	0	.....	I. R. Observatory.
Gperies	.....	.....	30.59	777.1	44.6	7.0	94	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.58	776.8	16.9	— 8.4	82	S	.....	.....	2	.....	10	.....	.....	0.008	0.2	.....	Andreas Rospini.
Hermannstadt	29.26	743.1	30.30	777.1	22.3	— 5.4	96	NW	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	29.04	737.7	30.30	777.1	19.4	— 7.0	94	ENE	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	29.02	737.1	30.48	774.3	23.5	— 4.7	93	SE	.....	.....	2	.....	10	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.54	775.7	22.6	— 5.2	96	E	.....	.....	1	.....	10	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.61	777.6	49.8	9.9	67	ESE	.....	.....	1	.....	10s	.....	.....	0	0	.....	I.R. Hydrographic Office
Szegedin	.....	.....	30.41	772.5	21.0	— 6.1	95	.....	.....	.....	2	.....	10	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.60	777.2	46.2	7.9	73	E	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Prof. V. Faroffi.
Vienna	.....	.....	30.44	773.2	19.4	— 7.0	98	SE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	I. R. Central Institute.
.....	.....	.....	30.56	776.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	30.32	770.1	45.5	7.5	67	S	.....	.....	0	.....	0	.....	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.14	766.5	47.0	8.3	.....	SW	16	7.2	.....	.....	5	.....	.....	0.005	0.13	.....	William Boswell.
Ardrossan	.....	.....	.....	.....	47	.....	.....	SSW	.....	.....	2	.....	7	.....	.....	.....	.....	Showery.....	J. Mayes.
Armagh Observatory	.....	.....	30.17	766.3	45.0	7.2	.....	NE	9	4.0	.....	.....	10	.....	.....	.....	.....	Gloomy.....	S. Call, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	30.22	767.6	48.9	9.4	.....	SE	17	7.6	.....	.....	0	.....	.....	.....	.....	Blu sky.....	John Hartnup.
Birr Castle, (Parsonstown).	.....	.....	30.17	766.3	46.2	7.9	.....	NNE	.....	.....	1	.....	8	.....	.....	.....	.....	*D. clouds.....	J. Dreyer.
Bradford	.....	.....	30.20	767.1	50.1	10.1	.....	S	.....	.....	0	.....	0	.....	.....	0	0	Blue sky.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.08	764.0	78.1	25.6	.....	NE	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds.....	Sergt. G. H Hunt.
Cambridge Observatory	.....	.....	30.32	770.1	47.5	8.6	.....	Calm	.....	.....	.....	.....	0	.....	.....	.....	.....	Blue sky.....	H. Todd.
Cardington	.....	.....	30.34	770.6	39.2	4.0	.....	N	.....	.....	0	.....	7	.....	.....	.....	.....	Dense fog ...	John McLaren.
Carlisle	.....	.....	30.22	767.6	50.1	10.1	.....	N	.....	.....	1	.....	4	.....	.....	0	0	*D. clouds.....	Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.34	770.4	46.2	7.9	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	Dense fog.....	Capt. J. Fellowes, R. E.
Dartmoor	28.88	733.5	30.42	772.7	47.6	8.7	.....	SE	.....	.....	2	.....	0	.....	.....	.....	.....	Blue sky.....	R. E. Power.
Donaghadee	.....	.....	30.17	766.3	47	8.3	.....	S	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast.....	J. Mac Gowan.
Dover	.....	.....	30.32	770.1	44	6.7	.....	NNE	.....	.....	1	.....	3	.....	.....	.....	.....	Foggy	J. Costello.
Eccles, (near Manchester)	.....	.....	30.25	768.3	49.4	9.7	.....	SE	0.6	0.3	.....	.....	.....	.....	.....	.....	.....	Blue sky.....	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.24	767.8	49.3	9.6	.....	ESE	10	4.5	.....	.....	2	.....	.....	.....	.....	Hazy.....	The Staff.
Fort Napier, (Natal)	27.42	696.5	29.67	753.6	88.5	31.4	.....	E	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky.....	Pvt. G. Salmon, A. H. C. [Ins.
Free Town, (Sierra Leone)	.....	.....	29.90	760.7	87	30.6	.....	N	.....	.....	1	.....	7	.....	.....	.....	.....	.....	.....
Galway, Queen's College	.....	.....	30.12	765.0	53	11.7	.....	Calm	.....	.....	0	.....	0	.....	.....	.....	.....	Blue sky.....	B. G. Clare, for Prof. Currey.
Gibraltar, (Mediterranean)	.....	.....	30.08	764.0	53.4	11.9	.....	SW	.....	.....	3	.....	10	.....	.....	.....	.....	Raining.....	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.14	765.5	47.0	8.3	.....	SSW	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	Lewis Stuart.
Great Yarmouth	.....	.....	30.34	770.6	41	5.0	.....	SW	.....	.....	1	.....	2	.....	.....	.....	.....	Hazy.....	G. T. Watson.
Greenwich Royal Obs.	.....	.....	30.32	770.1	42.6	5.9	.....	N E	.....	.....	1	.....	7	.....	.....	.....	.....	*D. clouds.....	The Staff for G. B. Airy
Guernsey	.....	.....	30.26	768.6	48.5	9.2	.....	ESE	.....	.....	6	.....	0	.....	.....	.....	.....	Blue sky.....	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.27	768.8	50.0	10.0	.....	SW	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky.....	L. J. Crossley.
Helston	.....	.....	30.20	767.1	53	11.7	.....	E	.....	.....	2	.....	2	.....	.....	0	0	*D. clouds.....	M. P. Moyle.
Holyhead	.....	.....	30.2	767.1	47	8.3	.....	S SW	.....	.....	3	.....	10	.....	.....	.....	.....	Misty.....	John Tilston.
Kew Observatory	.....	.....	30.32	770.1	40.1	4.5	.....	ESE	1	0.4	.....	.....	.....	.....	.....	.....	.....	Dense fog.....	The Staff.
Kingstown	.....	.....	30.17	766.3	49	9.4	.....	SSE	.....	.....	4	.....	6	.....	.....	.....	.....	*D. clouds.....	George Mitchell
Leicester Museum	.....	.....	30.32	770.1	42.9	6.1	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Misty.....	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.19	766.8	61.8	16.6	.....	S	.....	.....	2	.....	8k	.....	.....	.....	.....	.....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	30.11	764.8	46	7.8	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Overcast.....	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.33	770.4	72.2	22.3	.....	NE	.....	.....	4	.....	0	.....	.....	.....	.....	Blue sky.....	Surg.-Maj. Henry.
Nottingham	.....	.....	30.32	770.1	44.7	6.5	.....	SW	.....	.....	1	.....	10cs,s	.....	.....	.....	.....	Overcast.....	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.29	769.4	41.4	5.1	.....	S	.....	.....	0–1	.....	10	.....	.....	.....	.....	Dense fog...	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	30.29	769.4	44	6.1	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Foggy.....	J. Lucas.
Plymouth	.....	.....	30.4	768.1	50.9	10.5	.....	E	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky.....	John Merrifield.
Roche's Point	.....	.....	30.13	765.3	49	9.4	.....	N	.....	.....	3	.....	5	.....	.....	.....	.....	Cloudy.....	W. Kennedy.
Saint Ann's Head	.....	.....	30.2	767.6	47	8.3	.....	SE	.....	.....	2	.....	8	.....	.....	.....	.....	Misty.....	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.26	768.6	49.6	9.8	.....	E	.....	.....	2	.....	0	.....	.....	.....	.....	Blue sky.....	A. P. Amy.
Sandwick Manse(Orkneys)	.....	.....	30.00	762.3	44.8	7.1	.....	W	18	8.0	.....	.....	0	.....	.....	.....	.....	Bri ht.....	Rev Dr. Clouston
Scarborough	.....	.....	30.23	768.6	44.0	6.7	.....	SW	.....	.....	2	.....	2	.....	.....	.....	.....	Foggy.....	F. Shaw.
Scutari Cemetery(Turkey)	.....	.....	30.51	774.9	46.4	8.0	.....	NE	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds.....	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.27	768.8	52.0	11.1	.....	WSW	.....	.....	1	.....	1	.....	.....	0	0	Blue sky.....	W. F. Cooper.
Silloth Rectory	.....	.....	30.20	767.1	47.7	8.7	.....	SW	.....	.....	3	.....	8	.....	.....	0	0	*D. clouds.....	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.24	767.8	46.0	8.3	.....	S	.....	.....	0	.....	5	.....	.....	.....	.....	.....	The Staff.
Stornoway, Lews C. (Hebr).	.....	.....	30.07	763.8	44	6.7	.....	W	.....	.....	1	.....	2	.....	.....	.....	.....	Blue sky.....	John Smith.
Strathfield Turgiss	.....	.....	30.3	767.8	43.6	6.4	.....	E	.....	.....	0–1	.....	10	.....	.....	.....	.....	Foggy.....	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	30.04	763.8	48	8.9	.....	W	.....	.....	2	.....	4	.....	.....	.....	.....	*D. clouds.....	John Trotter.
Truro, Royal Institution	.....	.....	30.22	767.6	53	11.6	.....	SE	.....	.....	3	.....	8	.....	.....	.....	.....	Gloomy.....	W Newcombe.
Valencia Observatory	.....	.....	30.18	766.6	49.3	9.6	.....	NE	9	4.0	.....	.....	2	.....	.....	.....	.....	*D. clouds.....	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.92	760.0	76.1	24.5	59	WNW	15	6.7	.....	.....	3	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	46	7.8	.....	S	.....	.....	4	.....	10	.....	.....	0	0	.....	.....
Leith, Restalrig Park	.....	.....	30.19	766.8	47.3	8.5	.....	SW	.....	.....	2	.....	10s	.....	.....	0	0	Overcast.....	Andrew Gibb
Monach Lt-house, Hebrides	.....	.....	29.36	745.7	41	5.0	.....	E	.....	.....	5	3	0	E	.....	0	0	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	29.97	761.2	44	6.7	.....	W	.....	.....	6	.....	10	.....	.....	.....	.....	Raining.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 1257 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.42	772.6	34.7	1.5	98	S	.....	.....	2	.....	10	.....	.....	.....	.....	Foggy.....	
Fanöe	.....	.....	30.39	771.9	36.0	2.2	89	SSW	.....	.....	4	.....	2	.....	.....	.....	.....	.....	
Godthaab, (Greenland)	.....	.....	29.41	747.0	6.1	—14.4	78	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.20	741.7	35.4	1.9	96	S	.....	.....	7	.....	10	.....	.....	.....	.....	Raining.....	
Thorshavn, (Farõe)	.....	.....	29.86	758.4	39.7	4.3	89	W	.....	.....	5	.....	5	.....	.....	.....	.....	Rain, hail....	
Vestervig	.....	.....	30.32	770.0	38.1	3.4	90	S SW	.....	.....	4	.....	2	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols: no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.14	765.5	35.6	2	83	W	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	30.32	770.2	37.8	3.2	90	SSW	.....	.....	3	.....	5	.....	NW	0	0	Cloudy.....	Normal School.
Avignon	.....	.....	30.26	768.5	45.9	7.7	97	N	.....	.....	1	.....	.....	.....	ESE	0.439	11.15	Raining.....	Normal School.
Bar-sur-Seine	.....	.....	30.30	769.5	47.7	8.7	65	S	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.25	768.4	52.9	11.6	68	SE	2.0	0.9	.....	.....	.....	.....	S	0.012	0.3	.....	Beaumette Observatory
Beauvais	.....	.....	30.34	770.7	42.6	5.9	71	SE	.....	.....	1	.....	5	.....	ESE	0	0	Cloudy.....	Normal School.
Besançon	.....	.....	30.34	770.7	37.4	3	86	ESE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourg en Bresse	.....	.....	30.35	770.9	39.6	4.2	78	W	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourges	.....	.....	30.26	768.5	50.9	10.5	81	NE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Brest	.....	.....	30.15	765.9	54.5	12.5	69	SE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Naval Observatory.
Caen	.....	.....	30.24	768.1	51.1	10.6	84	N	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School
Chartres	.....	.....	30.28	769.1	38.1	3.4	.....	E	.....	.....	2	.....	8	.....	SE	0	0	Cloudy.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.28	769.0	51.1	10.6	84	S	.....	.....	2	.....	10	.....	.....	0.028	0.7	Covered	Puy de Dome, Obs.
Cosnercy	.....	.....	30.39	771.8	32.9	0.5	96	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Commune de Gréasque*	.....	.....	30.28	769.1	48.2	9.0	78	SE	.....	.....	4	.....	10	.....	SE	0.051	1.3	.....	.....
Grenoble	.....	.....	30.32	770.0	41.5	5.3	74	ENE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Le Mans	.....	.....	30.28	769.2	48.0	8.9	84	NE	.....	.....	3	.....	2	.....	NE	0	0	Slightly cl'dy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.33	770.4	40.6	4.8	77	NNW	.....	.....	1	.....	10	.....	.....	0	0	Light fog.....	Normal School.
Mâcon	.....	.....	30.30	769.7	33.8	1	85	SE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Mircourt	.....	.....	30.35	770.8	37.6	3.1	97	SW	.....	.....	1	.....	2	.....	NE	0	0	Slightly cl'dy	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.26	768.4	48.0	8.9	94	NE	.....	.....	2	.....	10	.....	E	1.083	27.5	Raining.....	Normal School.
Orleans	.....	.....	30.29	769.1	45.3	7.4	83	E	.....	.....	2	.....	5	.....	E	0	0	Cloudy.....	Normal School.
Paris Observatory	.....	.....	30.32	770.0	41.7	5.4	85	E	.....	.....	1	.....	10	.....	.....	0	0	Foggy	National Observatory
Parthenay	.....	.....	30.22	767.5	51.8	11	70	E	.....	.....	2	.....	5	.....	W	0	0	Cloudy.....	Normal School.
Privas	.....	.....	30.35	77 .8	41.0	5	.....	S	.....	.....	2	.....	10	.....	S	0.008	0.2	Covered	Normal School.
La Rochesur-Yon	.....	.....	30.28	769.1	52.5	11.4	69	E	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Rochefort, Observatory	.....	.....	30.24	768 0	50.5	10.3	78	SE	.....	.....	4	.....	.....	.....	.....	0	0	Foggy	Naval Observatory.
Rouen	.....	.....	30.29	769.3	46.0	7.8	72	SE	.....	.....	2	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Saint Lo	.....	.....	30.28	769.2	51.4	10 8	77	WSW	.....	.....	1	.....	2	.....	SE	0	0	.....	Normal School.
Tarbes	.....	.....	30.3 .	77 .3	53.6	12	76	SW	.....	.....	1	.....	2	.....	E	0	0	Slightly cl'dy	Normal School.
Toulouse	29.09	738.9	30.3 .	77 .3	53.6	12	76	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Covered.....	Normal School
Villefranche	.....	.....	30.22	767.6	51.8	11.0	95	SE	.....	.....	1	.....	.....	.....	.....	0	0	Foggy	Normal School.
Sub-Series.	.....	.....	30.4 .	772.7	36.5	2.5	85	SE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort de France, Martinique	.....	.....	29.97	761.4	75.6	24.2	83	NE	.....	.....	3	.....	8k, n	.....	.....	0.16	4.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.22	767.6	51.6	10.9	96	E	.....	.....	2	.....	10	.....	.....	0.244	6.20	.....	Marseilles Observatory.
Mont-Louis	24.89	632.2	30.31	770 6	34.7	1.5	76	ESE	2.5	1	.....	.....	8	.....	NE	0	0	.....	—. Faiguère.
Montsouris, Paris	.....	.....	30.3 .	769 5	41.0	5.0	72	N	.....	.....	2	.....	10	.....	ESE	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.2 .	767.2	48.7	9.3	95	NE	9.3	4.17	.....	.....	10	.....	.....	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.22	539.1	.....	.....	24.8	— 4.0	.....	E	.....	.....	3	.....	6	.....	.....	0	0	Covered	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.3 .	769.6	40.1	4.5	73	NNE	.....	.....	1	.....	10	.....	.....	0	0	Cloudy.....	E. Renou.
Toulouse	.....	.....	30.21	767.1	50.4	10.2	81	S	.....	.....	2	.....	8	.....	.....	0.008	0.2	.....	Toulouse Observatory
Tours	.....	.....	30.27	768.8	54.0	40.0	76	NE	.....	.....	1	.....	3	.....	N	0	0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.29	769.3	42.1	5.6	70	SE	.....	.....	1	.....	0	.....	.....	0.016	0.40	Light haze?.	Dr. A. Bérigny.
Zi-Ka Wei, (near Shanghai)	.....	.....	30.55	775.9	24.1	— 4.4	69	NNW	5.8	2.6	.....	..n	.....	.....	.....	1 c	0 1	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	c 0	0 1	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,580.40 meters, or 5,204.8 feet; Chaumont, 342 m., or 1,054.0 ft.; Perpignan 338 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantad) 2,436 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

* Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.32	770.0	32.9	0.5	96	NE	.....	.....	2	.....	3	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.48	774.3	39.7	— 1.3	86	SE	.....	.....	3	.....	10	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.54	775.8	21.4	— 5.9	95	SE	.....	.....	5	.....	10	.....	.....	0	0	Light fog.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.37	771.5	28.8	— 1.8	93	SE	.....	.....	2	.....	0	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	30.40	772.4	42.4	5.5	68	ESE	.....	.....	1	.....	0	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Society.
Friedrichshafen	.....	.....	30.47	774 0	38.8	3.8	83	E	.....	.....	1	.....	1	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	30.42	772.6	28.9	— 1.7	78	NW	.....	.....	.....	.....	10	.....	.....	0	0	Foggy	Deutsche Seewarte.
Kiel	.....	.....	30.43	772.9	34.5	1.4	100	SE	.....	.....	3	.....	10	.....	.....	0.004	0.1	Dense Fog .	Prof. G. Karsten
Königsberg	.....	.....	30.48	774.2	35.1	1.7	90	S E	.....	.....	1	.....	10	.....	.....	0.012	0.3	.....	Prof. E. Luther.
Köslin	.....	.....	30.52	775.1	27.5	— 2.5	100	NW	.....	.....	2	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.49	774.4	27.3	— 2.6	.....	SW	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. Bruhns.
Münster	.....	.....	30.45	773 3	31.8	— 0.1	81	ENE	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.47	773.8	47.8	8.8	72	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.55	776.0	27.7	— 2.4	89	SE	.....	.....	5	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.41	772.3	26.6	— 3.0	100	E	.....	.....	1	.....	10	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.39	771.9	33.3	0.7	55	E	.....	.....	.....	.....	0	.....	.....	0	0	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.52	775.3	27.7	— 2.4	95	SW	.....	.....	5	.....	10	.....	.....	Inap.	Inap.	.....	Prof. Fiescli.
Wusrow, Naval School	.....	.....	30.28	769.2	39.6	4.2	47	NE	.....	.....	1	.....	0	.....	.....	0	0	Foggy	E. F Schütz.
	.....	.....	30.48	774.3	34.0	1.1	100	SSW	.....	.....	3	.....	10	.....	.....	0	0	Foggy	.....

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.43	773.0	56.3	13.5	.....	S	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.41	772.5	45.0	7.2	56	N	1.3	0.6			9			0	0		
Padua			30.42	772.7	39.0	3.9	82	NW	4.9	2.2			10	E		0	0		
Verona			30.41	772.5	43.9	6.6	65	E			1		10			0	0		
Bergamo			30.39	772.0	41.0	5.0	71	SSE			2		5			0	0		
Milan			30.47	773.9	37.8	3.2	98	NW			1		9			0	0		
Moncalieri			30.48	774.2	32.2	0.1	80	NNW	1.3	0.6			6			0	0		
Mondovi			30.45	773.5	39.7	4.3	45	NW			2		10			0	0		
Porto Maurizio			30.38	771.6	59.0	15.0		NE			6		10			0	0		
Genoa			30.37	771.5	49.6	9.8	35	N	4.9	2.2			10	NE		0	0		
Piacenza			30.47	773.9	33.8	1.0	83	NW	4.3	1.9			10			0	0	Foggy	
Bologna			30.44	773.2	37.8	3.2	42	W			1		7	S		0	0		
Florence			30.37	771 3	52.2	11.2	35	NE			1		10			0	0		
Leghorn			30.34	770.6	53.1	11.7	37	ENE	8.7	3.9			10			0	0		
Siena			30 34	770.6	49.5	9.7	75	ESE	0	0			10	E		0	0		
Urbino																			
Pesaro																			
Ancona			30.44	773.1	43.5	6.4	82	NW			2		9			0	0		
Grosseto			30.30	769.6	53.4	11.9	68	NE			2		10	SW		0	0		
Rome			30.33	770.3	54.0	12.2	72	N	6.9	3.1			10	SSE		0	0		
Naples, O. U.			30.33	770.3	57.2	14.0	61	N			2		10	SSE		0	0		
Lecce			30.43	772.9	54.5	12.5	73	ENE	5.1	2.3			9			0	0		
Cosenza			30.39	772.0	51.8	11.0	83	WNW			2		10			0	0		
Riposto, (Sicily)			30.30	769.7	59.0	15.0	89	SSE			2		8	NE		0	0		
Palermo			30.16	766.1	62.7	17.6	47	ESE	16.6	7.5			10			0	0		
Caltanissetta			30.27	768.9	67.8	19.9	77	E			6		10			0	0		
Sub-Series.																			
Naples, S. R.			30.33	770.4	54.9	12.7	70	N			2			WNW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.37	771.8	41.4	5.2		SE			2								
Groningen			30.34	770.5	41.4	5.2		WSW			1								
Helder			30.34	770.7	42.1	5.6		SE			1								
Utrecht			30.32	770.2	44.6	7.0	68	SE			2		0					Clear	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.14	765.6	42.8	6.0	85	S	30.2	13.5			10			0.177	4.5		
Bröno			29.76	756.0	41.4	5.2	97	SSW	25	11			10			0	0	Raining	
Christiania			30.19	766.8	35.4	1.9	88	SSW	4.0	1.8			10			0	0	Foggy	
Tromsö			29.52	749.8	39.6	4.2	77	SSW	9	4			10			0.390	9.9	Raining	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.03	762.7	57.9	14.4	84	W	8.2	3.67	.....	.....	6	.....	.....	0.551	14.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.13	765.2	52.3	11.3	75	E	9.5	4.25	.....	.....	9	ESE	.....	0.267	6.77	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.38	771.6	62.4	16.9	87	Calm ?	0?	0?	.....	.....	10	.....	.....	0	0	Rain and fog	Capt D. A. da Cunha.
Lisbon	.....	.....	30.19	766.7	54.9	12.7	72	N	26.2	11.7	.....	.....	8	.....	.....	0.583	14.8	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.55	776.0	27.0	— 2.8	92	SE	16	7	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30 53	775.4	30.0	— 1.1	94	SW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.31	769.9	31.6	— 0.2	100	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.15	765.9	29.8	— 1.2	98	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	29.93	760.3	29.1	— 1.6	98	WSW	.....	.....	.....	.....	10	.....	.....	0	0	Snowing.	Ch. Forsten.
Kieff	.....	.....	30.58	776.7	28.4	— 2.0	84	W	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.67	779.0	31.8	— 0.1	85	N	9	4	.....	.....	4	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.39	771.7	32.0	0.0	78	N	7	3	.....	.....	2	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.30	769.5	26.1	— 3.3	82	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.46	773.6	11.8	—11.2	68	N	13	6	.....	.....	5	.....	.....	.....	.....	L't graupel.	Meteorological Obs.
Archangel	.....	.....	29.62	752.3	33.1	0.6	96	NW	29	13	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.58	725.9	30.04	762.9	37.0	2.8	61	NNW	16	7	.....	.....	10	.....	.....	Blank	Blank	.....	Physical Obs.
Astrakhan	.....	.....	30.13	765.3	15.1	— 9.1	91	N	22	10	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	29.94	760.5	7.0	—13.9	91	W	11	5	.....	.....	9	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.64	727.5	29.72	755.0	6.1	—14.4	78	W	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.31	770.6	30.9	— 0.6	90	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	
Kasaly	.....	.....	29.92	759.9	20.3	— 6.5	84	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.60	726.4	30.42	772.6	25.9	— 3.4	87	WNW	4	2	.....	.....	8	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	29.91	759.6	2.3	—16.5	80	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	29.65	753.1	3.5	—19.7	89	S	2	1	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Gorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.36	771.1	22.3	— 5.4	38	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.82	706.6	30.14	765.6	—13.4	—25.2	83	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.39	771.9	3.0	—16.1	85	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—14.1	—25.6	.....	W	2	1	.....	.....	0	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.42 m., or 1,005.22 ft.; Tashkend, m. 494.22, or 1,621.37 ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.07 m., or 1,942.27 ft.; Gorga, 1,281.07 m., or 4,202.67 ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.20	767.1	48.9	9.4	76	NE	3.8	1.7	.....	.....	10	.....	.....	0.004	0.1	Covered	Royal Observatory.
San Fernando	.....	.....	30.14	765.5	55.0	12.8	78	NW	12.3	5.5	.....	0	9	.....	NW	0.488	12.4	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.77	756.1	34.2	1.2	92	SW	.....	.....	2	.....	7	.....	.....	0	0	.....	
Umea	.....	.....	29.92	759.9	31.8	— 0.1	94	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	29.95	760.8	25.2	— 3.8	95	Calm	.....	.....	0	.....	5	.....	.....	0	0	.....	
Stockholm	.....	.....	30.13	765.4	36.0	2.2	91	SSW	.....	.....	4	.....	10	.....	.....	0	0	Foggy.....	
Wisby	.....	.....	30.37	771.4	32.0	0.0	100	WSW	.....	.....	4	.....	7	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.15	765.7	35.1	1.7	96	WSW	13.7	6.1	.....	.....	10	.....	.....	0	0	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.89	733.7	30.38	771.7	31.5	— 0.3	100	SW			1		10			0	0	Foggy	The Observatory.
Zurich	28.67	728.3	30.41	772.4	26.8	— 2.9	97	NW			1		10			0	0	Foggy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +6.4 mm.; Thermometer, —2.3 cent.; Relative Humidity, +23 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.53	775.4	43.9	6.6	67	NNE	12	5.5			7		NE	0	0		
Fao, (Persian Gulf)			30.20	767.0	51.8	11.0		NW			3		0						
Salonica			30.49	774.4	52.2	11.2		S			1		2						
Valona			30.28	769.0	54.0	12.2		W			1		5						
Varna			30.43	773.0	37.4	3.0		S			2		10						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			30.38	771.7	56.8	13.8	58	NW			1		0			0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.			30.12	765.0	— 0.5	—18.1	84	SW	3.0	1.3						0.20	5.1		Hon. J. Ferguson.
Brockville, Ontario			30.13	765.3	32	0.0		C lm	0	0			10s			0.03	0.8	Cloudy	W. R. Bigg.
*Chatham, N. B.			30.13	765.3	-- 9	--22.8	92	SW	1	0.4		10c	0	W		0.32	8.	Fair	G. A. Blair.
Charlottetown P. E. Island.			30.12	765.0	13	—10.6	94	NW	4	1.8		0	0			0.20	5.1	Clear	H. J. Cundall, C. E.
Cornwall, Ontario			30.05	763.3	32.7	0.4	92	E			1		10s			0.078	1.98	Dull	James Smith, M. A.
Dalhousie, N. B.			30.20	767.1	1.8	—16.8	67	NW			2	2cs				0	0		H. A. Johnson.
Esquimault, B. C.			30.16	766.1	25.0	— 3.9	87	N	3	1.3			10			0.21	5.3	Cloudy	W. H. Bevis.
Fredericton, N. B.			30.20	767.1	8.0	—13.3	98	Calm	0	0		7cs		W		0	0	Cloudy	Prof. Harrison.
*Fort Garry, Manitoba			30.05	763.3	—12	—24.4	100	N	20	8.9						0.242	6.15	Light snow	James Stewart.
Goderich, Ontario			29.81	757.2	35.8	2.1	82	SE			2		10n			0	0	Threate ing	H. J. Strang, M. A.
Granton, Ontario			30.01	762.2	34.0	1.1		E			2		10n			0	0	Cloudy	Jam s Gran .
*Halifax, N. S.			30.13	765.3	22	— 5.6	81	NW	5	2.2		2cs	0	N		0.2.0	6.1	Fair	F. Allison, M. A.
*Kingston, Ontario			30.12	765.0	33	0.6	93	SE	1	0.4			10s			0	0	Cloudy	S. Woods, M. A.
Little Current, Ontario			29.96	761.0	30.8	— 0.7		Calm	0	0			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.13	765.3	31	— 0.6	89	S	4	1.8			10n			0.10	2.5	Cloudy	C. H. McLeod, C.
*Ottawa, Ontario			30.13	765.3	29	— 1.7	78	E	4	1.8			10ks		E	Imap.	Imap.	Threatening	J. B. Haney.
*Parry Sound, Ontario			29.97	761.2	31	— 0.6	79	E	8	3.6		2cs	5ks	E	E	0	0	Fa r	Rev. R. Mooley.
*Port Dover, Ontario			29.93	760.2	35	1.7	95	E	9	4.0			10n		SW	0.02	0.5	Li h	H. Morgan.
Port Hastings, N. S.																			P ter Grant.
*Port Stanley Ontario			29.91	759.7	35	1.7	86	NE	9	4.0			10n		SE	0	0	Light rain	M. Payne.
*Quebec, Quebec			30.18	766.6	20	— 6.7	85	Calm	0	0			10n			0.40	10.2	Cloudy	Capt. Ash, R. N.
St. John, N. B.			30.23	767.8	21.0	— 6.1	85	Calm	0	0		7ck	0			Imap.	Imap.		G. Murdoch, C. E.
*Saugeen, Ontario			29.91	759.7	33	0.6	89	E	6	2.7			10ks			0	0	Cloudy	K. Stewart.
Stayner, Ontario			29.97	761.2	35	1.7	85	SE	3	1.3			10n			0	0	Cloudy	R. J. Cole.
Stratford, Ontario			29.91	759.7	33.6	0.9	88	E	13	5.8		0	10s			0	0	Clo dy	C. J. Macgregor, M. A.
*Sydney, C. B.			30.03	762.7	24	— 4.4	91	SW	4	1.8		2k	5ks	N		0.06	1.5	Clear	T. C. Hill.
*Toronto, Ontario			29.98	761.5	37	2.8	83	E	11	4.9			10n		E	0	0	Cloud	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.12	765.0	33	0.6	89	Calm	0	0	.....	.....	Fog	.....	.....	0.03	0.8	Foggy	
Alpena, Mich.	.....	.....	29.83	757.7	34	1.1	90	E	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Atlantic City, N. J.	.....	.....	30.08	764.0	41	5.0	100	SE	4	1.8	.....	0	Haze	.....	.....	0.12	3.0	Clear	
Augusta, Ga.	.....	.....	30.23	767.8	56	13.3	93	Calm	0	0	.....	5ck	Sm'e	W	.....	0	0	Fair	
Baltimore, Md.	.....	.....	30.08	764.0	45	7.2	84	W	2	0.9	.....	2cs	Fog	.....	.....	0.04	1.0	Foggy	
Barnegat, N. J.	.....	.....	30.08	764.0	41	5.0	91	SE	8	3.6	.....	1ck	0	.....	.....	0.29	7.4	Clear	
Benton, Montana	27.25	692.1	30.05	763.3	−17	−27.2	100	W	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Bismarck, Dakota	28.16	715.3	30.02	762.5	−10	−23.3	77	N	32	14.3	.....	.....	10s	.....	.....	0	0	Cloudy	
Boston, Mass.	.....	.....	30.16	766.1	36	2.2	100	Calm	0	0	.....	10ck	Fog	.....	.....	0.05	1.3	Foggy	
Breckenridge, Minn.	.....	.....	29.56	750.8	17	− 8.3	83	SE	12	5.4	.....	5s	0	.....	.....	Inap.	Inap.	Fair	
Buffalo, N. Y.	.....	.....	29.92	760.0	37	2.8	80	E	4	1.8	.....	.....	Fog	.....	.....	0.05	1.3	Light rain	
Burlington, Vt.	.....	.....	30.11	764.8	37	2.8	71	Calm	0	0	.....	.....	10s	.....	.....	0.03	0.8	Cloudy	
Cairo, Ill.	.....	.....	29.74	755.4	66	18.9	78	S	20	8.9	.....	.....	10n	.....	S	0.45	11.4	Light rain	
Cape Hatteras, N. C.	.....	.....	30.18	766.6	67	13.9	87	SW	8	3.6	.....	Haze	Haze	.....	.....	Inap.	Inap.	Hazy	
Cape Henry, Va.	.....	.....	30.15	765.8	59	15.0	76	SW	16	7.2	.....	0	Haze	.....	.....	0	0	Clear	
Cape May, N. J.	.....	.....	30.08	764.0	45	7.2	84	S	8	3.6	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Charleston, S. C.	.....	.....	30.24	768.1	58	14.4	87	S	2	0.9	.....	5k	0	S	.....	0	0	Fair	
Cheyenne, Wyoming	23.07	601.2	29.61	752.1	14	−10.0	83	W	16	7.2	.....	0	2s	.....	.....	0	0	Fair	
Chicago, Ill.	.....	.....	29.71	752.1	38	3.3	81	E	8	3.6	.....	.....	10n	.....	.....	0.16	4.1	Light rain	
Cincinnati, Ohio.	.....	.....	29.37	753.6	63	17.2	78	SW	20	8.9	.....	0	8s	.....	SW	1.40	35.6	Cloudy	
Cleveland, Ohio.	.....	.....	29.81	757.2	41.3	5.2	91	E	5	2.2	.....	.....	10n	.....	S	0.37	9.4	Heavy rain	
Colorado Springs, Col.	23.74	603.0	29.61	752.1	24	− 4.4	74	NW	12	5.4	.....	0	2s	.....	.....	0	0	Clear	
Corsicana, Texas.	.....	.....	29.80	756.9	69	20.6	90	S	10	4.5	.....	10k	0	S	.....	0	0	Cloudy	
Davenport, Iowa.	.....	.....	29.55	750.6	35	1.7	90	E	12	5.4	.....	.....	10s	.....	.....	0.12	3.0	Cloudy	
Denison, Texas.	.....	.....	29.76	755.9	68	20.0	79	SW	8	3.6	.....	.....	10ks	.....	.....	1.98	50.3	Cloudy	
Denver, Col.	24.48	621.8	29.70	754.4	22	− 5.6	45	NW	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Detroit, Mich.	.....	.....	29.80	756.9	36	2.2	100	E	5	2.2	.....	.....	10n	.....	.....	0.13	3.3	Heavy rain	
Dodge City, Kan.	27.12	688.8	29.46	748.3	27	− 2.8	66	W	14	6.3	.....	0	0	.....	.....	0	0	Clear	
Dubuque, Iowa.	.....	.....	29.61	752.1	34	1.1	79	E	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Duluth, Minn.	.....	.....	29.71	754.6	29	− 1.7	78	NE	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy	
Eastport, Me.	.....	.....	30.17	766.3	26	− 3.3	76	Calm	0	0	.....	8c	Haze	NW	.....	0.16	4.1	Fair	
Erie, Pa.	.....	.....	29.85	758.2	43	6.1	91	SE	12	5.4	.....	.....	10n	.....	.....	0.27	6.9	Light rain	
Escanaba, Mich.	.....	.....	29.82	757.4	28	− 2.2	88	NE	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy	
Fort Gibson, Indian Terr.	.....	.....	29.64	752.8	64	17.8	72	W	20	8.9	.....	.....	10s	.....	W	0.70	17.8	Cloudy	
Fort Sill, Indian T.	28.60	726.4	29.70	754.4	46	7.8	77	NW	4	1.8	.....	0	2s	.....	N	0	0	Clear	
Fort Sully, Dakota.	28.04	712.2	29.83	757.7	7	−13.9	77	N	36	16.1	.....	.....	10s	.....	.....	0	0	Cloudy	
Galveston, Texas.	.....	.....	29.92	760.0	67	19.4	94	SE	5	2.2	.....	0	Fog	.....	.....	0	0	Fair	
Grand Haven, Mich.	.....	.....	29.75	755.6	34	1.1	90	SE	6	2.7	.....	.....	10n	.....	.....	0	0	Light sleet	
Indianapolis, Ind.	.....	.....	29.72	754.9	48	8.9	100	Calm	0	0	.....	.....	10n	.....	.....	1.76	44.7	Light rain	
Indianola, Texas.	.....	.....	29.92	760.0	70	21.1	90	S	13	5.8	.....	5cs	5s	.....	S	0	0	Cloudy	
Jacksonville, Fla.	.....	.....	30.26	768.3	59	15.0	87	SE	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Keokuk, Iowa.	.....	.....	29.48	748.8	43	6.1	100	SE	7	3.1	.....	.....	Fog	.....	SE	0.28	7.1	Foggy	
Key West, Fla.	.....	.....	30.21	767.3	74.1	23.4	81	SE	12	5.4	.....	2ck	1s	SE	SE	Inap.	Inap.	Fair	
Kittyhawk, N. C.	.....	.....	30.22	767.6	53	11.7	93	SW	12	5.4	.....	0	Haze	.....	.....	0	0	Clear	
Knoxville, Penn.	.....	.....	30.02	762.5	63	17.2	67	S	16	7.2	.....	.....	10ks	.....	SW	Inap.	Inap.	Cloudy	
La Crosse, Wis.	.....	.....	29.62	752.3	22	− 5.6	58	NE	5	2.2	.....	5c	0	.....	.....	0	0	Fair	
Leavenworth, Kan.	.....	.....	29.40	746.7	50	10.0	78	SW	16	7.2	.....	0	0	.....	.....	0	0	Clear	
Lexington, Ky.	28.75	730.2	29.82	757.4	60	15.6	82	S	28	12.5	.....	2c	2s	SW	.....	0.44	11.2	Fair	
Long Branch, N. J.	.....	.....	30.12	765.0	41	5.0	91	NE	4	1.8	.....	10k	0	W	.....	0.14	3.6	Cloudy	
Louisville, Ky.	.....	.....	29.80	756.9	65	18.3	73	S	20	8.9	.....	.....	10s	.....	S	1.06	26.9	Cloudy	
Lynchburg, Va.	.....	.....	30.09	764.3	53	11.7	93	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Smoky	
Malone, N. Y.	.....	.....	30.08	764.0	37	2.8	80	Calm	0	0	.....	.....	10s	.....	W	0.07	1.8	Cloudy	
Marquette, Mich.	.....	.....	29.85	758.2	30	− 1.1	89	E	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Memphis, Tenn.	.....	.....	29.84	757.9	68	20.0	84	S	10	4.5	.....	.....	10ks	.....	SW	0	0	Cloudy	
Milwaukee, Wis.	.....	.....	29.73	755.1	34	1.1	95	SE	12	5.4	.....	.....	10n	.....	SE	0.09	2.3	Light rain	
Mobile, Ala.	.....	.....	30.11	764.8	67	19.4	94	S	6	2.7	.....	.....	Fog	.....	.....	0	0	Foggy	
Montgomery, Ala.	.....	.....	30.10	766.1	63	17.2	97	SE	9	4.0	.....	Haze	Haze	SE	SE	0	0	Clear	
Morgantown, W. Va.	.....	.....	29.85	758.2	64	17.8	72	S	16	7.2	.....	10c	0	SW	.....	0.67	14.5	Cloudy	
Mt. Washington, N. H.	23.70	602.0	30.06	763.5	19	− 7.2	84	NW	25	11.2	.....	8s	5s	NW	NW	0.65	1.3	Fair	
Nashville, Tenn.	.....	.....	29.88	758.2	66	18.9	78	S	12	5.4	.....	.....	10s	.....	S	0.02	0.5	Cloudy	
New Haven, Conn.	.....	.....	30.15	765.8	38	3.3	90	Calm	0	0	.....	.....	10s	.....	.....	0.30	7.6	Cloudy	
New London, Conn.	.....	.....	30.18	766.6	36	2.2	90	Calm	0	0	.....	.....	10s	.....	SW	0.23	5.8	Cloudy	
New Orleans, La.	.....	.....	30.06	763.5	63.5	17.5	94	S	4	1.8	.....	8k	Fog	S	.....	0.05	1.3	Foggy	
Newport, R. I.	.....	.....	30.16	766.1	37	2.8	90	Calm	0	0	.....	.....	Fog	.....	.....	0.28	7.1	Foggy	
New York, N. Y.	.....	.....	30.12	765.0	42	5.6	91	NE	8	3.6	.....	5ck	Fog	.....	.....	0.07	1.8	Cloudy	
Norfolk, Va.	.....	.....	30.16	766.1	55	12.8	84	SW	3	1.3	.....	0	Haze	.....	.....	0	0	Clear	
North Platte, Neb.	26.76	697.7	29.44	747.8	16	− 8.9	83	NW	8	3.6	.....	0	2s	.....	NW	0	0	Fair	
Omaha, Neb.	28.32	719.3	29.36	745.7	38	3.3	81	SE	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy	
Oswego, N. Y.	.....	.....	30.04	763.0	41	5.0	74	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Peck's Beach, N. J.	.....	.....	30.10	764.5	42	5.6	91	E	3	1.3	.....	2c	Fog	.....	.....	0.26	6.6	Fair	
Pembina, Dakota.	.....	.....	29.88	758.9	− 7	−21.7	100	NW	28	12.5	.....	.....	10s	.....	.....	0.05	1.3	Cloudy	
Philadelphia, Penn.	.....	.....	30.04	764.0	42	5.6	91	E	7	3.1	.....	5ck	Sm'e	SW	.....	0.25	6.3	Fair	
Pike's Peak, Colorado.	17.15	435.6	29.35	745.5	−12	−24.4	100	W	12	5.4	.....	.....	10n	.....	.....	0.51	13.0	Light snow	
Pittsburgh, Penn.	.....	.....	29.81	757.2	56	13.3	87	S	8	3.6	.....	2cs	5s	.....	.....	0.70	17.8	Fair	
Port Huron, Mich.	.....	.....	29.84	757.9	36	2.2	80	SE	6	2.7	.....	.....	1 8	.....	.....	0	0	Cloudy	
Portland, Me.	.....	.....	30.20	767.1	26	− 3.3	75	Calm	0	0	.....	5ck	Fog	W	.....	0.33	8.4	Foggy	
Portland, Oregon.	.....	.....	30.31	769.9	34	1.1	79	S	4	1.8	.....	.....	10s	.....	.....	0.12	3.0	Cloudy	
Punta Rassa, Fla.	.....	.....	30.25	768.3	68.1	20.1	90	SE	14	6.3	.....	8ck	2ks	SW	SE	0	0	Cloudy	
Rochester, N. Y.	.....	.....	30.00	762.0	35	1.7	80	E	9	4.0	.....	.....	1 8	.....	.....	0.10	2.5	Cloudy	
Salt Lake City, Utah	25.64	651.2	29.97	761.2	20	− 6.7	70	NW	20	8.9	.....	5s	2s	NW	.....	0.07	1.8	Fair	
Sandy Hook, N. J.	.....	.....	30.10	764.5	41	5.0	91	E	6	2.7	.....	10k	Fog	SW	.....	0.12	3.0	Cloudy	
San Diego, Cal.	.....	.....	30.10	764.5	47	8.3	92	E	8	3.6	.....	0	8s	.....	c	Inap.	1 ap.	Cloudy	
San Francisco, Cal.	.....	.....	30.21	767.3	41	5.0	65	NW	8	3.6	.....	0	0	.....	.....	0.01	0.3	Clear	
Santa Fe, N. M.	23.03	585.0	29.57	751.1	25	− 3.9	.....	NW	12	5.4	.....	0	5s	.....	.....	Inap.	Inap.	Fair	
Savannah, Ga.	.....	.....	30.24	768.1	60	15.6	88	S	4	1.8	.....	0	Sm'e	.....	.....	0	0	Smoky	
Shreveport, La.	.....	.....	29.88	758.9	69	20.6	90	S	7	3.1	.....	10k	0	SSW	.....	0	0	Cloudy	
Smithville, N. C.	.....	.....	30.25	768.3	56	13.3	93	Calm	0	0	.....	0	8ks	.....	SW	0	0	Cloudy	
Springfield, Mass.	.....	.....	30.16	766.1	31	− 0.6	78	Calm	0	0	.....	.....	10ks	.....	W	0.20	5.1	Cloudy	
St. Louis, Mo.	.....	.....	29.66	753.4	54	12.2	86	S	12	5.4	.....	.....	10s	.....	.....	1.78	45.2	Cloudy	
St. Marks, Fla.	.....	.....	30.22	767.6	57	13.9	87	SE	3	1.3	.....	2k	0	S	.....	0	0	Fair	
St. Paul, Minn.	.....	.....	29.56	750.8	21.5	− 5.8	78	NE	5	2.2	.....	10cs	0	.....	.....	0	0	Cloudy	
St. Paul's Island, Alaska.	.....	.....	29.53	749.3	27	− 2.8	88	ENE	40	17.9	.....	.....	10s	.....	.....	0.01	0.3	.....	
Squan Beach, N. J.	.....	.....	30.04	763.0	40	4.4	91	SE	5	2.2	.....	.....	10s	.....	S	0.49	12.4	Threatening	
Thatcher's Island, Mass.	.....	.....	30.17	766.3	37	2.8	80	NW	2	0.9	.....	2ck	2s	NW	NW	0.09	2.3	Clear	
Toledo, Ohio.	.....	.....	29.73	755.1	43	6.1	100	E	4	1.8	.....	.....	10n	.....	E	0.27	6.9	Heavy rain	
Tucson, Arizona.	27.56	70 .0	29.99	761.7	34	1.1	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Tybee Island, Ga.	.....	.....	30.24	768.1	61	16.1	94	SW	2	0.9	.....	0	Haze	.....	.....	0	0	Hazy	
Vicksburg, Miss.	.....	.....	29.98	761.5	69	20.6	66	S	14	6.3	.....	Haze	8cs	.....	S	0	0	Fair	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.05	610.9	29.53	750.0	0	—17.8	85	NE	2	0.9	.....	0	0	.....	.....	0.14	3.6	Clear	
Washington, D. C	.....	.....	30.06	763.5	43.5	6.4	96	Calm	0	0	.....	.....	Fog	.....	.....	0.05	1.3	Foggy	
Wilmington, N. C	.....	.....	30.23	767.8	58	14.4	93	S	5	2.2	.....	0	5s	.....	SW	0	0	Fair	
Wood's Holl, Mass	.....	.....	30.18	766.6	37	2.8	80	SE	2	0.9	.....	.....	10s	.....	.....	0.21	5.3	Cloudy	
Wytheville, Va	27.73	704.3	29.90	759.4	47	8.3	92	W	2	0.9	.....	5k	0	W	.....	0	0	Fair	
Yankton, Dakota	28.22	716.8	29.54	750.3	22	— 5.6	72	NW	28	12.5	.....	.....	10s	.....	NW	0	0	Cloudy	
Yuma, Arizona	.....	.....	30.10	764.5	42	5.6	.....	W	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.10	764.5	80	26.7	82	NE	14	6.3	.....	5ck	8s	NE	.....	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.09	764.3	76	24.4	81	E	.....	.....	.....	0	8ks	.....	.....	0	0	Fair	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	30.18	766.6	70	21.1	90	E	0.9	0.3	.....	4fk	0	E	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I.	.....	.....	30.25	768.3	77	25.0	69	SE	3	1.3	.....	2c	2s	SE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.19	774.4	75	23.9	71	ENE	7	3.1	.....	Haze	8n	.....	.....	0	0	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.94	760.5	75	23.9	69	NE	2.0	0.9	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
St. Georges, Bermudas	.....	.....	30.40	772.1	60.0	15.6	80	SW	10.0	4.5	.....	0	0	.....	.....	0	0	Clear	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. L. Clarke.
York Factory, B. A.	.....	.....	30.22	767.6	—42	—41.1	.....	SW	2	0.9	.....	0	Haze	.....	.....	0.04	1.0	Aurora	I. Fortescue.
St. Johns, Newfoundland	.....	.....	30.08	764.0	10.0	—12.2	.....	S	.....	.....	.....	5k	5s	.....	.....	0	0	Fair	John Delaney
St. John's, Porto Rico, W.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I.	27.26	692.4	30.05	763.3	63	17.2	83	E	1.0	0.4	.....	2c	0	.....	.....	.....	.....	.....	
Navassa, W. I.	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	Clear	C. Partridge.
Medellin, Colombia, S. A.	25.18	639.6	.....	.....	66.0	18.9	76	.....	0	0	.....	.....	3s	.....	.....	0.06	1.5	Fair	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30 03	762.7	80	26.7	82	E	.....	.....	3	.....	7k	.....	.....	0.060	1.52	Showery	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.01	762.2	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.157	4.00	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.
Steamer Nürnberg, N. 39° 59′, W. 63° 50′	W by S	..	Light sea.	.....	Clearing
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.1 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 ?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 29, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.37	771.4	60.1	15.6	64	Calm	.....	.....	0	.....	2	.....	.....	0.512	13.0	Clear.....	Charnot.
Algiers	.....	.....	30.29	769.3	56.1	13.4	88	NW	.....	.....	1	.....	9	.....	.....	0.131	3.4	Hidden.....	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.24	767.9	54.7	12.6	95	SW	.....	.....	2	.....	10	.....	.....	0.390	9.9	Hidden.....	Jacques.
Sfax	.....	.....	30.23	767.7	65.5	18.6	73	NE	.....	.....	3	.....	4	.....	.....	0	0	Fair.....	Chauvey.
Sadda	.....	.....	30.30	769.6	46.4	8.0	72	NNW	.....	.....	1	.....	6	.....	.....	0.157	4.0	Fair.....	Grosjean.
Tebessa	.....	.....	30.25	768.3	46.8	8.2	.....	W	.....	.....	2	.....	10	.....	.....	0.197	5.0	Hidden.....	Colin.
Gerlville	.....	.....	30.29	769.4	38.1	3.4	74	N	.....	.....	2	.....	2	.....	.....	0.031	0.8	Clear.....	Buard.
Laghouat	.....	.....	30.24	768.0	50.0	10.0	74	NW	.....	.....	3	.....	2	.....	.....	0	0	Clear.....	Simon.
Biskra	.....	.....	30.26	768.5	61.7	16.5	22	NW	.....	.....	1	.....	10	.....	.....	0	0	Hidden.....	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fal is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.52	775.2	27.1	— 2.7	98	NE	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Observatory.
Eperies	.....	.....	30.56	776.3	19.8	— 6.8	97	W	.....	.....	2	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.56	776.2	45.7	7.6	86	NW	.....	.....	1	.....	10	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	29.22	742.3	30.51	775.7	21.2	— 6.0	84	S	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	29.00	736.6	30.56	776.1	19.9	— 6.7	89	NW	.....	.....	3	.....	0	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	29.06	738.2	30.54	775.6	18.0	— 7.8	99	E	.....	.....	2	.....	10	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.18	774.2	18.0	— 7.8	94	SW	.....	.....	1	.....	8	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.56	776.3	19.8	— 6.8	94	N	.....	.....	2	.....	10	.....	.....	0	0	.....	I.R. Hydrographic Office
Szegedin	.....	.....	30.37	771.4	51.1	10.6	74	W	.....	.....	0	.....	10+	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.56	776.3	18.9	— 7.3	100	SE	.....	.....	1	.....	10	.....	.....	0	0	Solar corona	Prof. V. Farolfi.
Vienna	.....	.....	30.39	771.8	48.2	9.0	84	Calm	.....	.....	0	.....	10	.....	.....	0	0	Foggy	I. R. Central Institute.
.....	.....	.....	30.53	775.5	19.2	— 7.1	97	Calm	.....	.....	0	.....	10	.....	.....	0.020	0.5	Snow & mist	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	30.36	771.1	41.5	5.3	80	S	.....	.....	0	.....	3	.....	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cooperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.13	765.3	44.0	6.7		SSW	16	7.2			2			0.005	0.13	Blue sky	William Boswell.
Ardrossan			30.14	765.5	48	8.9		S			5		8					Overcast	J. Mayes.
Armagh Observatory			30.07	764.3	53.9	12.2		S	22	9.8			10					Squally	S. Call, for Dr. Robinson.
Bidston, Liverpool Obs.			30.23	767.8	41.0	5.0		ESE	23	10.3			1					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			30.05	763.3	49.0	9.4		SS.			1–2		10					Overcast	J. Dreyer.
Bradford			30.23	767.8	40.9	4.9					1		10			0	0	Foggy	J. McLandsborough.
Bridgetown, (Barbados)			30.04	763.0	78	25.6		NE			4		4					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.32	770.1	52.0	11.1		S			1		0					Blue sky	H. Todd.
Cardington			30.33	770.4	44.0	6.7		E			0		2					Blue sky	John McLaren.
Carlisle			30.20	767.1	44	6.7		Calm			0		0			0	0	Blue sky	Bell, for J. Cartmell.
Chatham, School M. E.			30.36	771.1	37.2	2.9		SE			1		38					Fine	Capt. J. Fellowes, R. E.
Dartmoor	28.81	731.8	30.23	767.8	47.0	8.3		SE			4		0					Blue sky	R. E. Power.
Donaghadee			30.11	764.5	47	8.3		SSW			4		10					Overcast	J. Mac Gowan.
Dover			30.35	770.9	43	6.1		SW			1		0					Haze, fog	J. Costello
Eccles, (near Manchester)			30.26	768.6	42.3	5.7		SSE					5					Hazy	Thomas Mackereth
Falmouth Observatory			30.26	768.6	47.2	8.4		SSE	16	7.2			10					Overcast	The Staff.
Fort Napier, (Natal)	27.53	799.2	29.79	756.7	69.9	21.1		E			3		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone			29.94	760.7	87	30.6		N			0		6						
Galway, Queen's College			29.92	760.0	50	10.0		S			3		10					Gloomy	B. G. Clare, for Prof. Conroy.
Gibraltar, (Mediterranean)			30.32	770.1	60.6	15.9		SW			3		1					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.11	764.8	46.3	7.9		S			3		10					Gloomy	Lewis Stuart.
Great Yarmouth			30.36	771.1	41	5.0		S			1		1					Blue sky	G. T. Watson.
Greenwich Royal Obs.			30.34	770.6	46.4	8.0		ENE			1		0					Blue sky	The Staff for G. B. Airy
Guernsey			30.29	769.4	50	10.0		ESE			1		0					Blue sky	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.30	769.6	37.0	2.8		Calm			0		10					Blue sky	L. J. Crossley.
Helston			30.24	768.1	50	10.0		SE			2		10			0	0	Foggy	M. P. Moyle.
Holyhead			30.18	766.6	47	8.3		SSW			3		5					Gloomy	John Tilston.
Kew Observatory			30.37	770.9	35.0	1.7		ESE	1	0.4								*D. clouds	The Staff.
Kingstown			30.15	765.8	49	9.4		S			5		10					Dense fog	George Mitchell
Leicester Museum			30.36	771.1	48.8	9.3					1		0					Overcast	William J. Harrison
Malta, (Mediterranean)			30.18	766.6	61.0	16.1		SE			3		6k					Blue sky	Fred Travis, Pvt. A. H. C.
Nairn			29.98	761.5	50	10.0		SW			2		5						
Nassau, (Bahamas)			30.24	768.1	71.4	21.9		SE			5		8					½ clouded	W. D. Penny.
Nottingham			30.33	770.4	40.0	4.4		S			1		7s					Raining	Surg.-Maj. Henry.
Oscott, St. Mary's College			30.30	769.6	38.5	3.6		SE			0–1		10					Foggy	L. J. Lowe, F. R. S.
Oxford, Radcliffe Obs.			30.31	769.9	43	6.1		S			1		10					Foggy	Rev. Stephen Wynter
Plymouth			30.27	768.8	49.8	9.9		SE			1		1c					Hazy	J. Lucas.
Roche's Point			30.09	764.3	49	9.4		S			6		10					Blue sky	John Merrifield.
Saint Ann's Head			30.24	768.1	44	6.7		SE			4		10					Overcast	W. Kennedy.
Saint Helier, (Jersey)			30.29	769.4	47.8	8.8		E			1		0					Misty	John C. Walker.
Sandwick Manse, Orkneys			29.97	761.2	45	7.2		S	20	8.9			0					Blue sky	A. P. Avey.
Scarborough			30.26	768.6	40.5	4.7		SW			3		1					Bright	Rev. Dr. Clouston
Scutari Cemetery, Turkey			30.49	774.4	45.0	7.2		NNE			2		1					Blue sky	F. Shaw.
Sheffield			30.30	769.6	46.9	8.3		S			1		1					*D. clouds	Sergt. W. H. Lyne.
Silloth Rectory			30.20	767.1	43.8	6.6		WSW			1		0			0	0	Blue sky	W. F. Cooper.
Stonyhurst Observatory			30.25	768.3	44.7	7.1		NE			1					0	0	Hazy	Rev. Francis Redford.
Stornoway, Lewis C. (Heb.)			29.88	758.9	48	8.9		SSW			7		10					Hazy	The Staff.
Strathfield Turgiss			30.36	771.6	39.8	4.3		E			0–1		0					Overcast	John Smith.
Streatley Vicarage																		Blue shy	Rev. Charles H. Griffith
Thurso			29.94	760.5	49	9.4		SSE			4		3						Rev. John Sutter
Truro, Royal Institution			30.24	768.1	48	8.9		SE			2		10					Hazy	John Trotter.
Valencia Observatory			29.95	760.7	49.4	9.7		S	40	17.9			10					Gloomy	W. Newcombe
Sub-Series.																		Misty	The Staff
Cape Good Hope Obs.			30.09	764.3	80.1	26.7	39	WNW	12	5.4			1						
Calf of Man, (Isle of Man)					44	6.7		SSE			4		10			0	0		The Staff, for E. J. Stone.
Leith, Restalrig Park			30.18	766.6	47.9	8.8		SW			3		4k			0	0	Fine	
Monach Lt-house, Hebrides			29.93	745.0	41	5.0		ENE			6		10			0	0		Andrew Gibb
North Unst, (Shetland Is.)			30.00	762.0	45	7.2		S			6		10						J. Youngclaus

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cooperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.42	772.6	30.9	— 0.6	100	NNE			2		10					Foggy	
Fanöe			30.45	773.4	30.0	— 1.1	100	SW			2		10					Foggy	
Godthaab, (Greenland)			29.29	743.9	13.6	—10.2	76	SW			4		10						
Stykkisholm, (Iceland)			28.83	732.2	40.8	4.9	87	S			6		8						
Thorshavn, (Faröe)			29.71	754.5	47.3	8.5	77	S			4		10						
Vestervig			30.39	771.8	33.8	1.0	100	SSW			2		10					Foggy	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols: no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.33	770.4	46.4	8	71	S	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Amiens	.....	.....	30.39	771.8	37.8	3.2	89	SW	.....	.....	3	.....	0	.....	.....	0	0	Clear	Normal School.
Avignon	.....	.....	30.35	770.9	52.2	11.2	68	N	.....	.....	1	.....	0?	.....	.....	0.232	5.9	Misty?	Normal School.
Bar-sur-Seine	.....	.....	30.36	771.2	44.6	7.0	77	SSW	.....	.....	1	.....	0	.....	.....	0	0	Clear	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.29	769.3	52.9	11.6	68	SE	2.0	0.9	.....	.....	.....	.....	.....	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	30.38	771.7	36.7	2.6	67	SSE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Besançon	.....	.....	30.41	772.3	35.6	2	86	E	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Bourg en Bresse	.....	.....	30.43	773.0	37.6	3.1	86	W	.....	.....	1	.....	.....	.....	.....	0	0	Misty	Normal School.
Bourges	.....	.....	30.39	772.0	46.8	8.2	94	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Brest	.....	.....	30.22	767.5	49.5	9.7	91	SW	.....	.....	2	.....	5cs	.....	.....	0	0	¼ covered	Naval Observatory.
Caen	.....	.....	30.29	769.4	45.5	7.5	85	NE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Chartres	.....	.....	30.37	771.3	45.7	7.6	.....	E	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.47	773.8	52.7	11.5	65	E	.....	.....	2	.....	0	.....	.....	0	0	Clear	Puy de Dome, Obs.
Commercy	.....	.....	30.43	772.9	33.6	0.9	96	ESE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Commune de Gréasque*	.....	.....	30.34	770.5	52.9	11.6	52	NE	.....	.....	2	.....	8	.....	NE	0	0	.....	.....
Grenoble	.....	.....	30.38	771.6	39.7	4.3	83	ENE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Le Mans	.....	.....	30.35	770.8	43.3	6.3	82	SE	.....	.....	3	.....	0	.....	.....	0	0	Clear	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-l.-e-Saulnier	.....	.....	30.42	772.6	39.2	4	93	N	.....	.....	1	.....	.....	.....	.....	0	0	.....	Normal School.
Mâcon	.....	.....	30.45	770.9	31.5	- 0.3	.....	Calm	.....	.....	0	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.39	771.9	39.6	4.2	89	SSW	.....	.....	1	.....	1	.....	NE	0	0	Clear	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.34	770.-	54.3	12.4	79	N	.....	.....	2	.e	.n	.....	NW	0.020	0.5	.....	Normal School.
Orleans	.....	.....	30.36	771.1	41.0	5	84	E	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Paris Observatory	.....	.....	30.38	771.7	37.4	3.0	76	SE	.....	.....	1	.....	0	.....	.....	0	0	Foggy	National Observatory
Parthenay	.....	.....	30.28	769.2	34.3	13	83	NE	.....	.....	2	.....	5	.....	SE	0	0	Cloudy	Normal School.
Privas	.....	.....	30.37	771.5	45.5	7.5	.....	NE	.....	.....	2	.....	2	.....	NE	0.150	3.8	Slightly cl'dy	Normal School.
La Roche-sur-Yon	.....	.....	30.35	771.1	49.6	9.8	86	S-	.....	.....	4	.....	0	.....	.....	0	0	Clear	Normal School.
Rochefort, Observatory	.....	.....	30.34	77 .5	54.3	12.4	73	S	.....	.....	.....	.....	2	.....	.....	0	0	¼ covered	Naval Observatory.
Rouen	.....	.....	30.-	771.-	41.9	5.-	49	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Saint Lô	.....	.....	30.28	769.2	51.1	10.6	72	WSW	.....	.....	1	.....	1	.....	E	0	0	.....	Normal School.
Tarbes	.....	.....	30.-	770.-	53.-	12	76	S-	.....	.....	1	.....	2	.....	E	0	0	Slightly cl'dy	Normal School.
Toulouse	29.24	742.-	30.-	770.3	58.-	12	76	S-	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Villefranche	.....	.....	30.37	771.3	53.2	11.8	84	SE	.....	.....	2	.....	.....	.....	.....	0	0	Foggy	Normal School.
	.....	.....	30.4-	773.3	35.4	1.9	86	SSE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.9-	761.2	75.2	24	83	NE	.....	.....	2	.....	5k	.....	.....	0.16	4.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.28	769.0	58.3	14.6	66	E	.....	.....	1	.....	8	.....	.....	0.102	2.60	.....	Marseilles Observatory.
Mont-Louis	24.99	634.7	30.-	77.-	35.2	1.8	10-	ESE	2.2	1	.....	.....	10	.....	.....	0.213	5.4	.....	—. Falguère.
Montsouris, Paris	.....	.....	30.3-	77.9	38.8	3.8	67	.....	.....	.....	2	.....	0	.....	.....	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.3-	770.-	47.-	8.7	95	NE	7.4	3.33	.....	.....	10	.....	.....	3.060	77.7	.....	Dr. Lines.
Pic du Midi, (Summit) H. P.	21.27	54-	.....	.....	18.3	- 7.6	.....	NE	.....	.....	1	.....	3	.....	.....	0	0	Fair	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.3-	770.9	39.0	3.9	69	S-	.....	.....	1	.....	0	.....	.....	0	0	Clear	E. Renou.
Toulouse	.....	.....	30.34	770.-	50.0	10.0	83	SE	.....	.....	2	.....	8	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	30.34	770.6	46.8	8.2	86	ESE	.....	.....	1	.....	0	.....	.....	0	0	Clear	C. Marquet.
Versailles, (near Paris)	.....	.....	30.35	770.9	40.3	4.6	69	SE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.59	774.7	27.-	- 2.8	78	Calm	0	0	.....	0	0	.....	.....	{ 0 0	{ 0 0	Misty	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,580.40 meters, or 5,204.8 feet: Chaumont, 342 m., or 1,090.9 ft.; Lar mont 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,346 m., or 7,702.6 feet: Parbes, 304 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

* Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.32	770.0	27.5	— 2.5	72	E	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.51	774.9	32.5	- 0.3	86	SE	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.52	775.2	20.3	— 6.5	96	SW	.....	.....	1	.....	10	.....	.....	0	0	Dense fog	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.43	773.0	27.0	— 2.8	100	S	.....	.....	2	.....	10	.....	.....	0	0	Foggy	A. Senz.
Cassel	.....	.....	30.55	775.9	29.3	- 1.5	95	E	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.51	775.7	34.3	1.3	84	E	.....	.....	1	.....	1	.....	.....	0	0	.....	Physical Society.
Friedrichshafen	.....	.....	30.47	773.8	27.5	- 2.5	82	NE	.....	.....	.....	.....	10	.....	.....	0	0	Foggy	M. Wilhelm.
Hamburg	.....	.....	30.48	774.1	28.6	- 1.9	98	S-	.....	.....	2	.....	10	.....	.....	0.008	0.2	Dense fog	Deutsche Seewarte.
Kiel	.....	.....	30.54	775.6	32.5	0.3	91	Calm	.....	.....	0	.....	10	.....	.....	0.008	0.2	.....	Prof. G. Karsten
Königsberg	.....	.....	30.44	773.1	26.6	— 3.0	95	W	.....	.....	5	.....	10	.....	.....	0	0	.....	Prof. E. Luther.
Köslin	.....	.....	30.45	773.5	31.5	- 0.3	.....	SW	.....	.....	1	.....	5	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.50	774.6	27.3	— 2.6	100	SSE	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. Brahms.
Münster	.....	.....	30.37	771.4	43.3	6.3	76	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.54	775.6	25.2	— 3.8	100	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.48	774.1	25.0	— 3.9	100	NNE	.....	.....	1	.....	0	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.43	772.8	32.9	0.5	68	E	.....	.....	.....	.....	0	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.46	773.7	25.5	— 3.6	97	SW	.....	.....	5	.....	10	.....	.....	Inap.	Inap.	Foggy	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.34	770.6	34.5	1.5	73	NE	.....	.....	2	.....	0	.....	.....	0	0	Light fog	Prof. Fieseb.
Wustrow, Naval School	.....	.....	30.50	774.7	30.4	— 0.9	100	SW	.....	.....	2	.....	10	.....	.....	0	0	Foggy	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 414.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.44	773.1	56.1	13.4	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

STATIONS.	Barometer. Corrected for instrumental errors. Inches	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches	Barometer. Reduced to sea-level. Millimeters	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—4	Clouds. Amount. Up'er 0—4	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.37	771.4	44.2	6.8	65	Calm	0	0			5			0	0		
Padua			30.39	771.9	42.1	5.6	77	SW	0.7	0.3			10	SW		0	0		
Verona			30.38	771.7	44.6	7.0	73	W			1		10			0	0		
Bergamo			30.37	771.4	42.8	6.0	64	W			2		4			0	0		
Milan			30.44	773.1	37.0	2.8	93	W			1		10			0	0		
Moncalieri			30.49	774.5	30.0	— 1.1	78	ENE	0.7	0.3			5			0	0		
Mondovi			30.45	773.5	36.7	2.6	58	WSW			2		0			0	0		
Porto Maurizio			30.39	771.9	56.5	13.6		E			4		9			0	0		
Genoa			30.33	770.4	47.7	8.7	49	NE	8.7	3.9			4	N		0	0		
Piacenza			30.43	772.9	36.0	2.2	82	NW	7.4	3.3			10			0	0	Foggy	
Bologna			30.38	771.6	37.9	3.3	37	W			1		10			0	0		
Florence			30.35	770.9	53.4	11.9	58	NE			1		0			0	0		
Leghorn			30.32	770.1	52.5	11.4	62	ESE	12.5	5.6			9			0	0		
Siena			30.34	770.7	49.8	9.9	72	E	1.3	0.6			8	SE		0	0		
Urbino																			
Pesaro																			
Ancona			30.43	772.8	41.4	5.2	71	W			2		10			0	0		
Grosseto			30.30	769.5	54.5	12.5	64	ENE			4		9	E		0	0		
Rome			30.29	769.4	56.3	13.5	61	NNE	4.9	2.2			10			0.008	0.2		
Naples, O. U.			30.31	769.9	55.9	13.3	70	NNE			4		10	S		0	0		
Lecce			30.32	770.2	56.8	13.8	77	NW	15.0	6.7			7	SW		0	0		
Cosenza			30.34	770.7	55.0	12.8	68	WNW			1		6			0.008	0.2		
Riposto, (Sicily)			30.27	768.9	59.4	15.2	93	SE			2		9	NNW		0.291	7.4		
Palermo			30.13	765.3	64.8	18.2	56	Calm	0	0			10			0	0		
Caltanissetta			30.23	767.8	52.3	11.3	88	E			6		10			0	0		
Sub-Series.																			
Naples, S. R.			30.30	769.5	53.1	11.7	81	W			4		..ks	SW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 553 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at De Bilt.

Flushing			30.40	772.2	39.9	4.4		SE			2								
Groningen			30.37	771.3	31.3	0.4		ESE			2								
Helder			30.39	771.8	38.8	3.8		E			1								
Utrecht			30.35	770.8	41.9	5.5	82	SE			2		0					Clear	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.24	768.1	43.2	6.2	82	S	14.5	6.5			8			0	0		
Brönö			30.12	765.0	39.9	4.4	84	W	18	8			9			1.587	40.3	Raining	
Christiania			30.35	770.8	31.3	— 0.4	96	E	1.6	0.7			10			0	0	Foggy	
Tromsö			29.71	754.7	35.6	2.0	64	SSW	8	3.5			10			0.181	4.6	Hailing	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—12.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.07	763.6	55.4	13.0	75	W	9.0	4.03	.....	.....	5	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.33	770.4	54.5	12.5	74	SSE	2.2	1.00	.....	.....	4	SSE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.35	770.8	62.6	17.0	82	SE	6.0	2.68	.....	.....	9	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.39	771.9	52.0	11.1	95	S	2.5	1.1	.....	.....	0	.....	.....	Blank	Blank	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.47	773.9	23.0	— 5.0	95	SW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30.41	772.3	24.6	— 4.1	95	W	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	30.41	772.3	24.6	— 4.1	95	W	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
St. Petersburg	.....	.....	30.14	765.5	34.5	1.4	93	W	9	4	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
Kuopio	.....	.....	29.82	757.3	34.7	1.5	85	WNW	20	9	.....	.....	4	.....	.....	.....	.....	.....	Central Physical Obs
Kief	.....	.....	29.74	755.3	37.6	3.1	71	NW	.....	.....	.....	.....	0	.....	.....	0.012	0.30	.....	Ch. Forsten.
Nikolaiev	.....	.....	30.41	772.3	23.7	— 4.6	95	WNW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Kertch	.....	.....	30.55	775.9	26.8	— 2.9	94	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Moscow	.....	.....	30.53	775.5	25.0	— 3.9	91	NW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Lugan	.....	.....	29.79	761.7	31.1	— 0.5	86	ESE	9	4	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.24	768.1	24.3	— 4.3	91	W	22	10	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Tiflis	.....	.....	29.25	743.0	27.0	— 2.8	96	[illegible]	13	6	.....	.....	10	.....	.....	.....	.....	Heavy snow	Ogorodnikof.
Astrakhan	28.91	734.4	30.39	771.9	37.9	3.3	53	NW	25	11	.....	.....	5	.....	.....	.....	.....	.....	Physical Obs.
Kasan	.....	.....	30.35	770.8	18.7	— 7.4	89	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Orenburg	.....	.....	29.72	754.8	24.8	— 4.0	89	SSW	7	3	.....	.....	10	.....	.....	.....	.....	Light snow.	Physical Cabinet.
Ekaterinburg	28.83	732.3	29.92	760.0	7.2	—13.8	82	W	4	2	.....	.....	10	.....	.....	.....	.....	.....	Tchernischef.
Nukuss	.....	.....	30.23	767.7	25.2	— 3.8	78	W	18	8	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs
Kasaly	.....	.....	30.01	762.0	19.4	— 7.0	86	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	
Tashkend	28.70	729.0	30.52	775.2	26.2	— 3.2	90	NE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Barnaul	.....	.....	30.00	761.9	5.5	—14.7	82	SW	7	3	.....	.....	10	.....	.....	.....	.....	Snowing	Michelson.
Yeniseisk	.....	.....	29.04	752.9	— 1.8	—18.8	89	SSW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Marks.
Gorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Peking, (China)	.....	.....	30.20	768.7	22.6	— 5.2	40	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Mossin.
Nertchinsk	27.70	703.7	30.04	763.0	—14.3	—25.7	87	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Vladivostock	.....	.....	30.31	769.9	4.8	—16.1	82	NW	2	1	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Nikolaievsk, on the Amoor	.....	.....	.....	.....	— 1.5	—18.6	83	NW	13	6	.....	.....	0	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 300.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.0? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.39	771.9	42.6	5.9	94	NE	3.8	1.7	.....	.....	10	.....	.....	0.008	0.2	Foggy	Royal Observatory.
San Fernando	.....	.....	30.38	771.7	56.5	13.6	75	NW	4.9	2.2	.....	0	6	.....	SE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.74	755.2	36.3	2.4	68	W	.....	.....	6	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.00	761.9	36.7	2.6	74	NW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	30.18	766.5	39.6	4.2	63	W	.....	.....	2	.....	5	.....	.....	0	0	.....	
Stockholm	.....	.....	30.26	768.6	37.6	3.1	78	W	.....	.....	4	.....	0	.....	.....	0	0	.....	
Wisby	.....	.....	30.35	770.9	34.2	1.2	96	NW	.....	.....	4	.....	10	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.29	769.4	39.2	4.0	73	WSW	8.3	3.7	.....	.....	0	.....	.....	0.003	0.08	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.95	735.2	30.40	772.2	30.9	— 0.6	100	SW	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.72	729.4	30.45	773.5	26.8	— 2.9	98	W	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +7.9 mm.; Thermometer, —2.6 cent.; Relative Humidity, +23 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.52	775.2	40.6	4.8	73	NNE	13	6.0	.....	.....	0	.....	.....	0	0	.....	.....
Fao, (Persian Gulf)	.....	.....	30.39	772.0	50.0	10.0	.....	NW	.....	.....	1	.....	0	.....	.....	.....	.....	.....	.....
Salonica	.....	.....	30.64	778.2	43.3	6.3	.....	S	.....	.....	1	.....	0	.....	.....	.....	.....	.....	.....
Valona	.....	.....	30.26	768.5	58.6	14.8	.....	SW	.....	.....	1	.....	5	.....	.....	.....	.....	.....	.....
Varna	.....	.....	30.39	772.0	42.8	6.0	.....	NW	.....	.....	3	.....	10	.....	.....	.....	.....	.....	.....
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.30	769.5	62.4	16.9	59	NE	.....	.....	3	.....	0	.....	.....	0	0	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.84	757.9	18.6	— 7.4	94	SE	2.0	0.9	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.57	751.1	40	4.4	.....	SW	13	5.8	.....	.....	10s	.....	SW	0.24	6.1	Cloudy	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.97	761.2	19	— 7.2	96	E	4	1.8	.....	.....	10s	.....	E	0.02	0.5	Light snow	G. A. Blair.
Charlottetown P. E. Island	.....	.....	30.09	764.3	23	— 5.0	93	SE	15	6.7	.....	.....	10s	.....	.....	0.03	0.8	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.46	748.3	46.9	8.3	93	S	.....	.....	2	.....	10n	.....	.....	0.390	9.91	Rainy	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.78	756.4	15.8	— 9.0	86	E	.....	.....	4	.....	10n	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	30.44	773.2	38.1	3.4	100	Calm	0	0	.....	.....	10	.....	.....	0.52	13.2	Rainy	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.85	758.2	24.0	— 4.4	96	SE	9	4.0	.....	.....	10n	.....	.....	0.390	9.91	Raining	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.44	773.2	34	—37.2	100	S	1	0.4	.....	0	0	.....	.....	0.100	2.54	Clear	James Stewart.
Goderich, Ontario	.....	.....	29.74	755.4	28.7	— 1.8	85	W	.....	.....	3	.....	10n	.....	.....	0.038	0.96	Cloudy	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.70	754.4	29.2	— 1.6	.....	W	.....	.....	4	.....	10n	.....	.....	0	0	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	30.01	762.2	31	— 0.6	93	SE	15	6.7	.....	.....	8n	.....	.....	0.154	3.91	Sleeting	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.54	750.3	40	4.4	96	SW	4	1.8	.....	10cs	0	.....	.....	0.29	7.4	Cloudy	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.52	749.8	17.6	— 8.0	.....	S	33	14.8	.....	.....	4s	.....	.....	0.18	4.6	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.46	748.3	39	3.9	95	S	24	10.7	.....	.....	10n	.....	.....	0.36	9.1	Cloud	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.43	747.5	41	5.0	76	S	12	5.4	.....	.....	10k8	.....	S	0.30	7.6	Cloudy	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.48	748.8	34	1.1	79	SW	29	13.0	.....	2k	5k8	W	W	0.12	3.0	Fair	Rev. R. Mooney.
*Port Dover, Ontario	.....	.....	29.68	753.9	36	2.2	70	W	21	9.4	.....	10k	0	W	.....	0.44	11.2	Fair	H. Morgan.
Port Hastings, N. S.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. ter Grant.
*Port Stanley, Ontario	.....	.....	29.76	755.9	31	— 0.6	71	W	28	12.5	.....	.....	1cn	.....	W	0.29	7.4	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	29.54	750.3	29	— 1.7	100	NE	11	4.9	.....	.....	10n	.....	NE	0.70	17.8	Lig. Cum.	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.89	759.2	29.0	— 1.7	89	E	2	0.9	.....	.....	10n	.....	.....	0.150	3.81	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.57	751.1	31	— 0.6	89	W	28	12.5	.....	.....	10n	.....	W	0.03	0.8	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	29.54	750.3	34	1.1	72	NW	23	10.3	.....	.....	10n	.....	W	0.04	1.0	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	29.71	754.6	29.3	— 1.5	.....	W	30	13.4	.....	.....	10n	.....	.....	0.121	3.08	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	30.22	767.6	20	— 6.7	91	SE	6	2.7	.....	.....	10n	.....	.....	0	0	Cloudy	T. C. Hill.
*Toronto, Ontario	.....	.....	29.59	751.6	38	3.3	88	W	14	6.3	.....	2cs	2s	W	.....	0.11	2.8	Fair	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the cooperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	29.63	752.6	41	5.0	91	S	10	4.5	.....	.....	10s	.....	SW	0.33	8.4	Cloudy.....	
Alpena, Mich	.....	.....	29.61	752.1	21	— 6.1	71	W	28	12.5	.....	0	0	.....	.....	0.14	3.6	Fair.....	
Atlantic City, N. J	.....	.....	29.84	757.9	46	7.8	92	SW	8	3.6	.....	8cs	Haze	SW	.. ..	0	0	Cloudy.....	
Augusta, Ga.	.....	.....	30.04	763.0	63	17.2	87	S	7	3.1	.....	5c-	Sm'e	W	.....	0	0	Fair.....	
Baltimore, Md.	.....	.....	29.80	756.9	60	15.6	76	SW	12	5.4	.....	8ck	Sm'e	SW	.....	0	0	Cloudy.....	
Barnegat, N. J	.....	.....	29.80	756.9	46	7.8	92	SW	20	8.9	.. ..	10k	Haze	W	.....	0	0	Cloudy.....	
Benton, Montana	27.03	686.6	29.83	757.7	31	— 0.6	67	SW	32	14.3	.....	10c	0	NE	.....	0	0	Cloudy.....	
Bismarck, Dakota	28.37	720.6	30.32	770.1	—21	—29.4	24	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Boston, Mass	.....	.....	29.82	757.4	35	1.7	100	W	4	1.8	.....	Fog	Fog	.....	.....	0.37	9.4	Foggy	
Breckenridge, Minn	.....	.....	30.51	774.9	—23	—30.6	59	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Buffalo, N. Y	.....	.....	29.64	752.8	38	3.3	71	SW	25	8.9	.....	.....	10ks	.....	SW	0.46	11.7	Cloudy.....	
Burlington, Vt.	.....	.....	29.55	750.6	44	6.7	76	S	14	6.3	.....	.....	10s	.....	.....	0.18	4.6	Cloudy.....	
Cairo, Ill.	.....	.....	30.40	772.1	25	— 3.9	63	NW	32	14.3	.....	0	1s	.....	.....	2.77	70.4	Clear.....	
Cape Hatteras, N. C	.....	.....	30.04	763.0	63	17.2	83	SW	18	8.0	.....	0	5ks	.....	SW	Inap.	Inap.	Fair.....	
Cape Henry, Va	.....	.....	29.99	761.7	64	17.8	78	SW	14	6.3	.....	5c	Haze	W	.....	0	0	Fair.....	
Cape May, N. J	.....	.....	29.85	758.2	50	10.0	86	S	16	7.2	.....	5cs	5s	W	W	0	0	Cloudy.....	
Charleston, S. C.	.....	.....	30.12	765.0	63	17.2	94	S	12	5.4	.....	1c	Sm'e	SW	.....	0	0	Fair.....	
Cheyenne, Wyoming	24.04	610.6	30.00	762.0	19	— 7.2	52	SW	20	8.9	.....	0	0	.....	.....	0	0	Clear.....	
Chicago, Ill.	.....	.....	30.15	765.8	9	-12.8	78	SW	20	8.9	.....	0	0	.....	.....	0.02	0.5	Clear.....	
Cincinnati, Ohio	.....	.....	30.05	763.3	34	1.1	61	NW	16	7.2	.....	2c	2s	SW	NW	1.59	40.4	Fair.....	
Cleveland, Ohio	.....	.....	29.85	758.2	33.7	0.9	67	SW	24	10.7	.....	.....	10ks	.....	SW	0.93	23.6	Cloudy.....	
Colorado Springs, Col	24.19	614.4	30.06	763.5	2	—16.7	44	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Corsicana, Tex	.....	.....	30.45	773.4	37	2.8	45	N	22	9.8	.....	2c	0	.....	.....	0.17	4.3	Fair.....	
Davenport, Iowa	.....	.....	30.46	773.7	1	—17.2	72	NW	28	12.5	.....	0	1s	.....	W	0.01	0.3	Clear.....	
Denison, Tex.	.....	.....	30.58	776.7	28	— 2.2	59	N	20	8.9	.....	0	0	.....	.....	0	0	Clear.....	
Denver, Col.	24.94	633.5	30.16	766.1	17	— 8.3	51	S	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Detroit, Mich	.....	.....	29.84	757.9	24	— 4.4	87	W	18	8.0	.....	0	5s,d	.....	.....	0	0	Fair.....	
Dodge City, Kan	27.81	706.4	30.37	771.4	10	—12.2	79	NW	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	
Dubuque, Iowa	.....	.....	30.42	772.7	— 2	—18.9	67	W	20	8.9	.....	0	Haze	.....	.....	0	0	Clear.....	
Duluth, Minn	.....	.....	30.33	770.4	— 9	—22.8	56	SW	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
Eastport, Me	.....	.....	29.84	757.9	32	0.0	100	SE	16	7.2	.....	.....	10s	.....	SE	0.31	7.9	Threatening	
Erie, Pa	.....	.....	29.74	755.4	38	3.3	90	W	24	10.7	.....	.....	10s	.....	W	0.80	20.3	Cloudy.....	
Escanaba, Mich	.....	.....	29.90	759.4	5	—15.0	75	NW	28	12.5	.....	.....	10s	.....	NW	0.22	5.6	Cloudy.....	
Fort Gibson, Indian Terr.	.....	.....	30.03	778.1	20	— 6.7	70	N	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
Fort Sill, Indian T.	29.36	745.7	30.59	777.0	22	— 5.6	72	N	16	7.2	.....	0	2s	.....	N	0	0	Clear.....	
Fort Sully, Dakota	28.52	724.4	30.44	773.2	— 9	—22.8	78	N	8	3.6	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Galveston, Tex.	.....	.....	30.15	765.8	60	15.6	76	N	32	14.3	.....	0	0	.....	.....	0.11	2.8	Clear.....	
Grand Haven, Mich	.....	.....	30.01	762.2	17	— 8.3	83	W	31	13.9	.....	.....	10n	.....	.....	0.11	2.8	Light snow.	
Indianapolis, Ind	.....	.....	30.21	767.3	21	— 6.1	71	NW	16	7.2	.....	.....	10n	.....	W	0.44	11.2	Light snow..	
Indianola, Tex.	.....	.....	30.21	767.3	58	14.4	69	N	36	16.1	.....	0	2s	.....	.....	0	0	Fair.....	
Jacksonville, Fla	.....	.....	30.14	765.5	65	18.3	90	SE	8	3.6	.....	8ck	0	SW	.....	0	0	Fair.....	
Keokuk, Iowa	.....	.....	30.51	774.9	4	—15.6	74	N	15	6.7	.....	0	0	.....	.....	0	0	Clear.....	
Key West, Fla	.....	.....	30.17	766.3	73.8	24.2	76	SE	10	4.5	.....	1ck	2ks	SE	SE	Inap.	Inap.	Fair.....	
Kittyhawk, N. C	.....	.....	30.05	763.3	61	16.1	94	SW	16	7.2	.....	5cs	0	Sa	.....	0	0	Fair.....	
Knoxville, Tenn	.....	.....	30.00	762.0	52	11.1	93	N	16	7.2	.....	.....	10n	.....	N	1.00	25.4	Light rain ..	
La Crosse, Wis.	.....	.....	30.42	772.7	— 6	—21.1	61	W	7	3.1	.....	0	0	.....	.....	0.09	2.3	Clear.....	
Leavenworth, Kan	.....	.....	30.64	778.2	6	—14.4	77	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Lexington, Ky.	29.40	736.6	30.14	765.5	38	3.3	62	W	20	8.9	.....	.....	10s	.....	.....	0.90	22.9	Cloudy.....	
Long Branch, N. J	.....	.....	29.78	756.4	43	6.1	92	Calm	0	0	.....	8cs	Fog	.....	.....	0.01	0.3	Cloudy	
Louisville, Ky.	.....	.....	30.18	766.6	35	1.7	70	W	16	7.2	.....	.....	10s	.....	W	2.18	55.4	Cloudy.....	
Lynchburg, Va	.....	.....	29.88	758.9	59	15.0	94	S	4	1.8	.....	.....	10n	.....	S	0.09	2.3	Light rain...	
Malone, N. Y.	.....	.....	29.42	747.3	52	11.1	87	SW	7	3.1	.....	.....	10n	.....	SW	0.24	6.1	Light rain...	
Marquette, Mich	.....	.....	29.87	758.7	5	—15.0	75	W	28	12.5	.....	.....	10s	.....	W	0.09	2.3	Cloudy.....	
Memphis, Tenn	.....	.....	30.36	771.1	36	2.2	92	NW	24	10.7	.....	0	0	.....	.....	0.28	7.1	Clear.....	
Milwaukee, Wis.	.....	.....	30.13	765.3	1	—17.2	71	W	43	19.2	.....	.....	1ks	.....	W	0.25	6.3	Cloudy.....	
Mobile, Ala.	.....	.....	30.09	764.3	62	16.7	100	N	2	0.9	.....	.....	10n	.....	NW	1.59	40.4	Light rain....	
Montgomery, Ala	.....	.....	30.09	764.3	61.5	16.4	91	SE	1	0.4	.....	.....	10s	.....	W	0.90	22.9	Cloudy.....	
Morgantown, W. Va	.....	.....	29.86	758.4	49	9.4	77	W	15	6.7	.....	.....	10n	.....	W	0.32	8.1	Light rain...	
Mt. Washington, N. H	23.39	594.1	29.75	755.6	35	1.7	100	W	65	28.0	.....	.....	Fog	.....	.....	0.48	12.2	Foggy.....	
Nashville, Tenn	.....	.....	30.20	767.1	44	6.7	75	NW	12	5.4	.....	.....	10s	.....	NW	1.11	28.2	Cloudy.....	
New Haven, Ct	.....	.....	29.78	756.4	38	3.3	100	Calm	0	0	.....	.....	Fog	.....	.....	0.05	1.3	Foggy	
New London, Conn	.....	.....	29.81	757.2	38.5	3.6	100	N	1	0.4	.....	.....	Fog	.....	.....	0.07	1.8	Foggy	
New Orleans, La	.....	.....	30.09	764.3	63	17.2	94	N	8	3.6	.....	.....	10n	.....	.....	2.13	54.1	Light rain....	
Newport, R. I.	.....	.....	29.8	756.9	39	3.9	100	SE	2	0.9	.....	.....	Fog	.....	.....	0.02	0.5	Foggy	
New York, N. Y.	.....	.....	29.79	756.7	38	3.3	100	Calm	0	0	.....	.....	Fog	.....	E	0	0	Foggy	
Norfolk, Va	.....	.....	29.98	761.5	59.5	15.3	85	SW	16	7.2	.....	5c	0	SW	.....	0	0	Fair.....	
North Platte, Neb	27.34	694.4	30.22	767.6	4	—15.6	74	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Omaha, Neb.	26.41	747.0	30.04	752.8	- 2	—18.9	100	Calm	0	0	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Oswego, N. Y.	.....	.....	29.56	750.8	52	11.1	81	SW	11	4.9	.....	.....	10s	.....	SW	1.22	31.0	Cloudy..... ..	
Peck's Beach, N. J	.....	.....	29.84	757.9	45	7.2	92	SW	20	8.9	.....	8c	2s	SW	.....	0	0	Cloudy.....	
Pembina, Dakota	.....	.....	30.15	773.4	—32	—35.7	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Philadelphia, Penn	.....	.....	29.78	756.4	49	9.4	85	SW	4	1.8	.....	10k	Fog	SW	.....	0	0	Cloudy.....	
Pike's Peak, Colorado	17.56	446.0	29.77	756.1	— 4	—24.0	46	N	32	14.3	.....	0	0	.....	.....	0	0	Clear.....	
Pittsburgh, Penn	.....	.....	29.78	756.4	48	8.9	85	W	18	8.0	.....	.....	10n	.....	.....	0.18	4.6	Light rain....	
Port Huron, Mich	.....	.....	29.76	755.9	27	— 2.8	66	W	35	15.6	.....	Haze	5s	.....	SW	0.19	4.8	Cloudy.....	
Portland, Me.	.....	.....	29.80	756.9	35	1.7	90	N	7	3.1	.....	.....	Fog	.....	.....	0.27	6.9	Foggy	
Portland, Oregon	.....	.....	29.88	758.9	43	6.1	83	SW	22	9.8	.....	.....	10n	.....	.....	0.24	6.1	Light rain...	
Punta Rassa, Fla	.....	.....	30.18	766.6	67.5	19.7	94	E	10	4.5	.....	Haze	Sm'e	SW	E	Inap.	Inap.	Hazy.....	
Rochester, N. Y	.....	.....	29.53	750.0	48	8.9	56	W	24	10.7	.....	.....	10s	.....	SW	0.96	24.4	Cloudy.....	
Salt Lake City, Utah	25.76	654.3	30.20	769.4	11	—11.7	79	NE	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	
Sandy Hook, N. J	.....	.....	29.75	755.6	38	3.3	100	E	3	1.3	.....	.....	10ks	.....	W	0	0	Cloudy.....	
San Diego, Cal.	.....	.....	30.31	769.9	42	5.6	67	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
San Francisco, Cal.	.....	.....	30.39	771.9	43	6.1	67	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Santa Fe, N. M	.....	.....	30.39	771.9	43	6.1	67	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Savannah, Ga.	23.46	695.9	30.00	762.0	8	—13.3	.....	NE	5	2.2	.....	.....	.....	.....	.....	0	0	Clear.....	
Shreveport, La	.....	.....	30.22	767.6	63	17.2	88	SW	6	2.7	.....	2c	Sm'e	.....	.....	0	0	Smoky	
Smithville, N. C.	.....	.....	30.39	771.9	44	6.7	49	N	13	5.8	.....	0	0	.....	.....	1.03	26.2	Clear.....	
Springfield, Mass	.....	.....	30.17	766.8	60	15.6	94	S	16	7.2	.....	1c	1cs	.....	SW	0	0	Fair.....	
St. Louis, Mo.	.....	.....	29.78	756.4	37	2.8	90	Calm	0	0	.....	.....	Fog	.....	.....	0.25	6.3	Foggy.....	
St. Marks, Fla	.....	.....	30.50	774.7	14	—10.0	63	NW	32	14.3	.....	0	0	.....	.....	0.04	1.0	Clear.....	
St. Paul, Minn.	.....	.....	30.11	764.8	65	18.3	94	S	9	4.0	.....	5c	2s	SW	S	0.02	0.5	Fair.....	
St. Paul's Island, Alaska	.....	.....	30.44	773.2	- 8	—13.3	77	W	6	2.7	.....	0	0	.....	.....	0.32	8.1	Clear.....	
Squan Beach, N. J	.....	.....	29.45	748.0	32	0.0	80	E	36	16.1	.....	.....	10s	.....	.....	0.09	2.3	.....	
Thatcher's Island, Mass	.....	.....	29.75	755.6	45	7.2	92	SW	10	4.5	.....	.....	10s	.....	S	0	0	Threatening	
Toledo, Ohio	.....	.....	29.80	756.9	30	2.2	100	NW	5	2.2	.....	.....	.....	.....	.....	0.23	5.8	Foggy.....	
Tucson, Arizona	.....	.....	29.89	759.2	28	— 2.2	67	W	24	10.7	.....	0	2ks	.....	W	0.11	2.8	Clear.....	
Tybee Island, Ga.	27.79	705.8	30.29	769.4	31	— 0.6	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
Vicksburg, Miss	.....	.....	30.12	765.0	60	15.6	94	S	4	1.8	.....	2c	2s	NW	SW	0	0	Fair.....	
	.....	.....	30.30	769.6	51	10.6	59	N	14	6.3	.....	5cs	5s	S	.....	2.42	61.5	Clearing.....	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.25	615.9	29.73	755.1	13	—10.6	62	NE	5	2.2	.....	1c	0	SW	.....	0	0	Clear	
Washington, D. C	.....	.....	29.81	757.2	60	15.6	76	S	16	7.2	.....	2cs	8s	W	SW	0	0	Threatening	
Wilmington, N. C	.....	.....	30.10	764.5	64	17.8	94	SW	10	4.5	.....	2cs	5s	W	SW	0	0	Cloudy	
Wood's Holl, Mass	.....	.....	29.83	757.7	40	4.4	100	S	7	3.1	.....	0	Fog	.....	.....	0.24	6.1	Foggy	
Wytheville, Va	27.60	701.0	29.71	754.9	54	12.2	86	W	8	3.8	.....	.....	10n	.....	.....	0.08	2.0	Light rain	
Yankton, Dakota	29.14	740.1	30.66	778.7	—10	—23.3	54	SW	1	0.4	.....	0	0	.....	.....	0.03	0.8	Fair	
Yuma, Arizona	.....	.....	30.35	770.9	40	4.4	.....	N	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.12	765.0	79	26.1	82	NE	7	3.1	.....	2k	10s	E	.....	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.06	763.5	74	23.3	72	E	.....	.....	.....	5cs	0	.....	.....	0	0	Clear	L. V. Bigard.
Havana, Cuba, W. I	.....	.....	30.17	766.3	69	20.6	84	Calm	0	0	.....	1k	0	E	.....	0	0	Foggy	Charles Hasselbrink
Kingston, Jamaica, W. I	.....	.....	30.27	768.8	74	23.3	72	Calm	0	0	.....	2c	2s	SE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I	.....	.....	30.35	770.9	74	23.3	81	NNE	8	3.6	.....	4ck	8kn	NE	.....	0.06	1.5	Rainy	W. S. Cameron.
Santiago de Cuba, W. I	.....	.....	29.92	760.0	71	21.7	67	Calm	0	0	.....	0	2s	.....	NE	.....	.....	Fair	Robert Mason.
St. Georges, Bermudas	.....	.....	30.40	772.1	64.5	18.1	86	S	4.0	1.8	.....	0	0	.....	.....	0	0	Clear	C. F. Allen.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A	.....	.....	30.12	765.0	—39	—39.4	.....	NW	20	8.9	.....	.....	10n	.....	.....	0	0	.....	I. Fortescue.
St. Johns, Newfoundland	.....	.....	30.44	773.2	9.0	—12.8	.....	.....	.....	.....	.....	10k	10s	.....	.....	0.03	0.8	Cloudy	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I	27.28	692.9	30.08	764.0	64	17.8	83	N	0.5	0.2	.....	8..	0	.....	.....	0	0	Fine	C. Partridge.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A	25.18	639.5	.....	.....	67.8	19.9	77	.....	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	30.02	762.5	81	27.2	74	E	.....	.....	3	.....	6k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.04	762.9	81.5	27.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—	
Steamer Nürnberg, N. 39° 01′, W. 69° 31′	WSW.	¾ W	.. ..	29.92	760.0	56.8	13.8	.....	SW?	.....	.....	4?	.....	3c	.....	W	.....	W	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

Excepting the United States and Canadian Series, the distinction between the upper and lower strata of clouds is rarely reported. In the latter case the clouds are, therefore, generally published, with the amount, in the lower cloud-column. The types of clouds, cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, are indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, as well as their combinations.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 30, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.41	772.4	58.6	14.8	67	SE			1		0			0	0	Clear	Charnot.
Algiers			30.39	771.8	56.8	13.8	82	NW			1		7			0.906	23.0	Cloudy	Peter.
La Calle																			Kuntz.
Tunis																			
Sfax			30.32	770.2	58.5	14.7	89	NE			4		10			0.087	2.2	Hidden	Jacques.
Saida			30.32	770.2	62.1	16.7	81	NE			4		5			0	0	Fair	Chauvey.
Tebessa			30.37	771.4	44.6	7.0	85	NNW			1		7			0.039	1.0	Cloudy	Grosjean.
Geriville			30.34	770.5	44.8	7.1		W			2		10			0.197	5.0	Hidden	Colin.
Laghouat			30.31	769.8	39.2	4.0	74	N			3		6			0.012	0.3	Fair	Buard.
Biskra			30.30	769.5	53.6	12.0	65	NE			4		1			0	0	Clear	Simon.
			30.34	770.5	67.3	19.6	58	NW			2		3			0	0	Fair	Coulon.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.01	777.4	26.4	— 3.1	91	Calm			0		10			0.031	0.8		Prof. Ivan Stozir.
Budа-Pesth																			I. R. Cen. M. I., Hungary
Cracow																			
Eperies			30.06	778.7	20.5	— 6.4	100	W			1		10			0	0		I. R. Observatory.
Gratz			30.57	776.5	38.1	3.4	60	Calm			0		9			0	0		Julius Mikolik.
Hermannstadt	29.32	744.7	30.04	778.2	21.2	— 6.0	83	S			2		10			0.008	0.2		Andreas Rospini.
Kremsmünster	29.03	737.3	30.56	776.1	25.9	— 3.4	82	NW			1		0			0	0		Prof. Reissenberger.
Lemberg	29.15	740.5	30.39	771.9	19.4	— 7.0	94	E			1		10			0	0		Prof. C. Wagner.
Nyiregyhaza			30.60	777.2	9.5	—12.5	92	NE			1		9			0	0		Dr. T. Stanecki.
Pola			30.60	777.1	27.3	— 2.6	92	N			1		1			0	0		Habzsuda Daniel.
Szegedin			30.44	773.2	48.2	9.0	89	WNW			1		10s			0	0		I.R. Hydrographic Of'ce
Trieste			30.60	777.3	24.6	— 4.1	98	E			1		10			0	0		Karl Stancel.
Vienna			30.44	773.2	48.2	9.0	84	Calm			0		10			0	0	Foggy	Prof. V. Farolfi.
			30.01	777.5	20.7	— 6.3	95	Calm			0		10			0.020	0.5	Foggy	I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.44	773.2	42.8	6.0	82	SSW			1		0			0	0		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cooperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.07	763.8	42.6	5.9		S	13	5.8			10			0.010	0.25	Raining	William Boswell.
Ardrossan																			J. Mayes.
Armagh Observatory			30.05	762.5	54.0	12.2		SSW	11	4.9									S. Call, for Dr. Robinson
Bidston, Liverpool Obs.			30.15	765.8	45.2	7.3		SE	21	9.4			10					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			30.04	763.0	50.8	10.4		Calm			0		1					Blue sky	J. Dreyer.
Bradford																			J. McLandsborough.
Bridgetown (Barbados)			30.01	762.0	81.4	27.4		NE			4		2					*D. clouds	Sergt. G. H Hunt.
Cambridge Observatory			30.31	769.9	44.0	6.7		S			1		10			Blank	Blank	Overcast	H. Todd.
Cardington			30.32	770.1	44.6	7.0		S			1		10					Raining	John McLaren.
Carlisle			30.10	764.5	46	7.8		S			1		10			0	0	Overcast	J. Bell, for J. Cartmell.
Chatham, School M. E.			30.37	771.4	37.2	2.9		SE			1							Blue sky	Capt. J. Fellowes, R. E.
Dartmoor	28.80	731.5	30.33	770.4	46.4	8.0		S			4		10					Raining	R. E. Power.
Donaghadee			30.01	762.2	50	10.0		S			3		10					Overcast	J. Mac Gowan.
Dover			30.38	771.6	43	6.1		S			2		6					½ clouded	J. Costello.
Eccles, (near Manchester)			30.19	766.8	44.7	7.1		SSE	5.6	2.5			10					Raining	Thomas Mackereth
Falmouth Observatory			30.23	767.8	50.6	10.3		SSW	26	11.6			10					Rain & fog	The Staff.
Fort Napier, (Natal)	27.71	703.8	29.97	761.2	69.9	21.1		E			1		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone			29.93	760.2	88	31.1		NE			0		10						[illegible]
Galway, Queen's College			29.95	760.7	52	11.1		S			4		7					*D. clouds	B. G. Clare, for Prof. Currey
Gibraltar, (Mediterranean)			30.32	770.1	68.5	14.7		E			5		9					Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.07	763.8	46.2	7.9		SW			1		10					Gloomy	Lewis Stuart.
Great Yarmouth			30.36	771.1	39	3.9		S			2		6					Foggy	G. T. Watson.
Greenwich Royal Obs.			30.34	770.6	49.2	9.6		SSE			2		10					Overcast	The Staff for G. B. Airy
Guernsey			30.33	770.4	48.5	9.2		SE			2		10					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.																			L. J. Cresswell.
Helston			30.20	767.1	52	11.1		S			6		10			0.27	6.9	Raining	M. P. Moyle.
Holyhead			30.09	764.3	48	8.9		SSW			4		10					Drizzling	John Tilston.
Kew Observatory			30.34	770.6	46.1	7.8		SSW	13	5.8			10					Raining	The Staff.
Kingstown			30.04	763.0	51	10.6		SSE			4		5					*D. clouds	George Mitchell
Leicester Museum			30.27	768.8	44.4	6.9		S			1		10					Overcast	William J. Harrison
Malta, (Mediterranean)			30.23	767.8	60.0	15.6		SE			2		8k						Fred Travis, Pvt A.H.C
Nairn			29.99	761.7	49	9.4		SSW			2		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.20	767.1	69 3	20.7		SE			2		5					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.28	769.1	43.8	6.6		SSW			2		10d		SSW			Overcast	E. J. Lowe, F. R. S
Oscott, St Mary's College			30.24	768.1	43.1	6.2		S			2		10					Raining	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.28	769.1	46	7.8		SSE			1		10					Misty	J. Lucas.
Plymouth			30.26	768.6	49.3	9.6		SW			4		10					Rain & Mist.	John Merrifield.
Roche's Point			30.05	763.4	50	10.0		WSW			2		10					Foggy	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.36	771.1	47.5	8.6		S			3		8					¾ clouded	A. P. Amy.
Sandwick Manse (Orkneys)			29.95	760.7	46.1	7.8		S	20	8.9			10					Raining	Rev. Dr. Clouston
Scarborough																			F. Shaw.
Scutari Cemetery (Turkey)			30.47	773.9	44.4	6.9		NNE			2		6					*D. clouds	Sergt. W. H. Lyne.
Sheffield			30.20	767.1	45.3	7.4		SW			3		10			0	0	Overcast	W. F. Cooper.
Silloth Rectory			30.09	764.3	48.5	9.2		SW			4		10			0.290	7.37	Overcast	Rev Francis Redford.
Stonyhurst Observatory			30.17	766.3	43.6	6.4		SW			1		10			Blank	Blank	Threatening	The Staff.
Stornoway, Lews C. (Hebr.)			29.89	759.2	49	9.4		SW			5		5					*D. clouds	John Smith.
Stratfield Turgiss			30.33	770.4	45.9	7.7		S			1		10					Overcast	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.93	760.2	46	7.8		S			2		8					Gloomy	John Trotter.
Truro, Royal Institution			30.19	766.8	52	11.1		SW			5		10					Raining	W. Newcombe
Valencia Observatory			30.00	762.0	51.3	10.7		SE	27	12.1			7					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.96	761.0	88.0	31.1	41	SE	11	4.9			0						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					45	7.2		SSE			7		10			0	0		
Leith, Restalrig Park			30.09	764.3	48.8	9.3		SW			2		10k			0	0	Cloudy	Andrew Gibb
Monach Lt-house, Hebrides			29.46	748.3	41	5.0		ENE			4		10			0	0		J. Youngclause.
North Unst, (Shetland Is)			29.92	760.0	46	8.8		S			6		10					Raining	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,430 feet, or 436.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.54	775.6	29.7	— 1.3	100	S			2		10					Foggy	
Farõe			30.50	774.6	34.9	1.6	87	S			4		1						
Godthaab, (Greenland)			28.79	731.3	7.5	—13.6	88	ENE			6		8						
Stykkisholm, (Iceland)			28.81	731.7	35.6	† 2.0	87	SE			6		5						
Thorshavn, (Farõe)			29.71	754.5	46.9	8.3	87	S			2		10						
Vestervig			30.44	773.2	37.6	3.1	81	SSE			2		0						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0 to 7.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alencon	.....	.....	30.44	773.2	44.6	7	75	SW	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Amiens	.....	.....	30.47	773.9	40.6	4.8	62	S	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	Normal School.
Avignon	.....	.....	30.47	773.9	40.6	4.8	62	NNE	.....	.....	1	.....	0?	.....	.....	0	0	Misty ?..	Normal School.
Bar-sur-Seine	.....	.....	30.44	773.1	51.3	10.7	70	SW	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.49	774.6	48.0	8.9	61	SE	0	0	.....	.....	.....	.....	S	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	30.40	772.1	54.7	12.6	72	SE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Besançon	.....	.....	30.48	774.1	40.5	4.7	84	SSE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourg en Bresse	.....	.....	30.54	775.6	34.2	1.2	78	E	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Normal School.
Bourges	.....	.....	30.53	775.5	32.0	0	97	W	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Brest	.....	.....	30.46	773.6	44.2	6.8	97	ENE	.....	.....	3	.....	10	.....	SW	0	0	Covered	Naval Observatory.
Caen	.....	.....	30.27	768.8	52.0	11.1	84	SW	.....	.....	6	.....	1	.....	SW	0	0	Clear.....	Normal School
Chartres	.....	.....	30.39	772.0	47.3	8.5	84	S	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Chaumont	.....	.....	30.46	773.6	43.2	6.2	.....	E	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Puy de Dome, Obs.
Commercy	.....	.....	30.45	773.5	49.6	9.8	72	E	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Commune de Gréasque*	.....	.....	30.56	776.1	31.1	— 0.5	96	ESE	.....	.....	1	.....	0	.....	.....	0	0	.....	.....
Grenoble	.....	.....	30.44	773.2	54.3	12.4	48	NW	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Le Mans	.....	.....	30.50	774.8	39.7	4.3	60	ENE	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	Normal School.
Loches	.....	.....	30.45	773.5	43.2	6.2	88	N	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-le-Saulnier	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	0	0	Dense fog....	Normal School.
Mâcon	.....	.....	30.56	776.2	31.6	— 0.2	93	NW	.....	.....	0	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.31	769.9	29.5	— 1.4	.....	Calm	.....	.....	1	.....	1	.....	NE	0	0	Clear.....	Normal School.
Metz	.....	.....	30.55	776.0	35.8	2.1	86	SSW	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	0	0	.....	Normal School.
Orleans	.....	.....	30.47	773.9	53.2	11.8	61	N	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Paris Observatory	.....	.....	30.45	773.4	43.5	6.4	85	SSE	.....	.....	1	.....	0	.....	.....	0	0	Foggy	National Observatory
Parthenay	.....	.....	30.47	774.0	43.0	6.1	83	SSE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Privas	.....	.....	30.35	771.0	59.0	15	78	SE	.....	.....	1	.....	2	.....	N	0	0	Slightly cl'dy	Normal School.
La Roche-sur-Yon	.....	.....	30.49	774.4	45.0	7.2	.....	N	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Rochefort, Observatory	.....	.....	30.44	773.1	47.8	8.8	94	SE	.....	.....	2	.....	2	.....	NW	0	0	¼ covered...	Naval Observatory.
Rouen	.....	.....	30.43	772.8	51.8	11.0	80	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Saint Lo	.....	.....	30.44	773.3	42.6	5.9	73	NE	.....	.....	4	.....	8	.....	SSW	0	0	.....	Normal School.
Tarbes	.....	.....	30.41	772.5	49.3	9.6	85	SSW	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	29.33	745.0	30.43	772.8	48.2	9	53	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Villefranche	.....	.....	30.49	774.5	46.8	8.2	89	SSE	.....	.....	1	.....	.....	.....	.....	0	0	Foggy	Normal School.
Sub-Series.			30.43	773.0	32.0	0	73	SE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort de France, Martinique	.....	.....	29.97	761.1	77.2	25.1	83	NE	.....	.....	2	.....	5k, n	.....	.....	0.43	11.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.40	772.1	55.8	13.2	66	NW	.....	.....	1	.....	2	.....	.....	0.024	0.60	.....	Marseilles Observatory.
Mont-Louis	25.12	638.0	30.57	776.5	40.6	4.8	81	N	2.2	1	.....	.....	0	.....	.....	0	0	.....	—. Faigière
Montsouris, Paris	.....	.....	30.46	773.6	43.2	6.2	78	S	.....	.....	1	.....	0	.....	.....	0	...	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.45	773.3	53.1	11.7	78	NE	1.9	0.83	.....	.....	0	.....	.....	0	0	.....	Dr. Bines
Pic du Midi, (Summit) H. P.	21.38	543.0	.....	.....	27.1	— 2.7	.....	E	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.47	773.9	46.4	8.0	82	SSE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	[illegible]
Toulouse	.....	.....	30.45	773.3	46.9	8.3	91	SSE	.....	.....	1	.....	0	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	30.14	77 .2	47.8	8.8	89	ESE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	C. Marqué
Versailles, (near Paris)	.....	.....	30.45	773.3	47.8	8.	78	SW	.....	.....	1	.....	0	.....	.....	0	0	Very clear....	Dr. A. Bernard
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.38	771.6	33.4	0.8	87	Calm	0	0	.....	.....	.....	10kn	.....	.....	.....	.....	H. Le Le[illegible], S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,050.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.42	772.7	24.8	— 4.0	87	E	.....	.....	3	.....	7	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	30.58	776.8	37.4	3.0	70	SE	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. Arndt.
Bresla	.....	.....	30.61	777.5	25.7	— 3.5	90	ESE	.....	.....	1	.....	0	.....	.....	0	0	.....	Dr. P. Nasemann
Carlsruhe	.....	.....	30.56	776.3	25.2	— 3.8	90	SE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	A. Senz.
Cassel	.....	.....	30.54	775.6	31.3	— 0.4	84	SE	.....	.....	2	.....	9	.....	.....	0	0	.....	Dr. H. Meier
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Gartlie
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Pressel.
Frankfort on the Main	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	0	0	.....	Physical Society
Friedrichshafen	.....	.....	30.65	778.4	32.7	0.4	73	E	.....	.....	.....	.....	10	.....	.....	0	0	Dens fog....	M. Wilhelm.
Hamburg	.....	.....	30.60	777.1	26.4	— 3.1	85	N	.....	.....	2	.....	2	.....	.....	0	0	.....	Deutsche Seewarte.
Kiel	.....	.....	30.54	775.6	31.5	1.4	94	SSE	.....	.....	0	.....	0	.....	.....	0	0	.....	Prof. G. Karsten
Königsberg	.....	.....	30.58	776.6	35.2	1.8	86	Calm	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. E. Luthe
Köslin	.....	.....	30.60	777.2	30.2	— 1.0	93	NW	.....	.....	0	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.58	776.7	30.6	— 0.8	.....	Calm	.....	.....	1	.....	5	.....	.....	0	0	Foggy	Prof. Reppin
Münster	.....	.....	30.59	777.0	27.7	— 2.4	100	ESE	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. E. Reis.
Posen	.....	.....	30.52	775.1	43.0	6.1	67	NE	.....	.....	1	.....	4	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.63	778.0	30.2	— 1.0	91	SSE	.....	.....	0	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.59	777.0	24.3	— 4.3	100	Calm	.....	.....	.....	.....	0	.....	.....	0	0	.....	Mr. Würth.
Thorn	.....	.....	30.56	776.3	29.3	— 1.5	77	E	.....	.....	3	.....	10	.....	.....	Inap.	Inap.	Foggy.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.58	776.7	27.5	— 2.5	97	NNW	.....	.....	1	.....	0	.....	.....	0	0	Light fog....	Prof. Flesch.
Wustrow, Naval School	.....	.....	30.45	773.5	32.0	0.0	90	NE	.....	.....	1	.....	10	.....	.....	0	0	Foggy.....	E. F. Schütz.
	.....	.....	30.60	777.3	30.6	— 0.8	98	SSE	.....	.....	1	.....	10	.....	.....	0	0	.....	.....

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.45	773.5	55.2	12.9	.....	SW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.43	773.0	45.9	7.7	63	E	0.7	0.3			10			0	0		
Padua			30.45	773.4	45.5	7.5	73	WSW	0.7	0.3			10			0	0		
Verona			30.44	773.1	46.4	8.0	83	W			1		10			0	0		
Bergamo			30.42	772.7	43.5	6.4	76	SE			2		0			0	0		
Milan			30.49	774.5	40.1	4.5	79	WNW			1		0			0	0		
Moncalieri			30.54	775.8	32.5	0.3	75	ENE	2.5	1.1			1			0	0		
Mondovi			30.51	774.9	39.0	3.9	58	SSW			2		0			0	0		
Porto Maurizio			30.44	773.2	52.2	11.2		E			4		9			0	0		
Genoa			30.42	772.7	49.6	9.8	48	N	8.1	3.6			4	S		0	0		
Piacenza			30.60	774.6	42.1	5.6	70	NW	18.1	8.1			10			0	0	Foggy	
Bologna			30.47	773.9	43.2	6.2	33	W			1		10			0	0		
Florence			30.45	773 3	54.0	12.2	52	E			2		10			0	0		
Leghorn			30 43	772.8	53 8	12.1	58	ENE	10.5	4.7			10			0	0		
Siena			30.40	772.1	50.7	10.4	73	ESE	0	0				S					
Urbino																			
Pesaro																0	0		
Ancona			30.48	774.2	42.4	5.8	91	W			2		10			0	0		
Grosseto				772.2	54.5	12.5	80	NE			2		9	SE		0.020	0.7		
Rome			30.39	771.9	58.3	14.6	67	E	4.9	2.2			10	SSE		0	0		
Naples, O. U			30.39	771.9	60.3	15.7	64	N			2		9	N		0	0		
Lecce			30.44	773.2	57.6	14.2	64	SE	12.5	5.6			6	N		0	C		
Cosenza			30.42	772.6	56.3	13.5	68	WNW			2		6			0	0		
Riposto, (Sicily)			30.33	770.4	59.5	15.3	87	SE			2		9	NW		0	0		
Palermo			30.24	768.2	60.4	15.8	66	NE	3.8	1.7			8			0	0		
Caltanissetta			30.31	769.9	52.5	11.4	81	E			6		8			0	0		
Sub-Series.																			
Naples, S. R			30.38	771.7	58.3	14.6	66	N			4		10			0	0	Foggy	Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.46	773.7	39.6	4.2		S			2								
Groningen			30.39	772.0	35.6	2.0		S			2								
Helder			30.40	772.1	36.5	2.5		SE			2							Clear	
Utrecht			30.41	772.4	37.4	3.0	81	SSE			2		0						

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.26	768.6	46.4	8.0	72	S	22.6	10.1		2				0.051	1.3		
Brönö			30.12	765.0	42.8	6.0	91	S	18	8		10				0	0	Raining	
Christiania			30.46	773.7	30.2	— 1.0	96	WNW	1,3	0.6		10				0	0	Foggy	
Tromsö			30.02	762.6	33.4	0.8	85	SW	4	2		10				0.398	10.1		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors.		Barometer: Reduced to sea-level.		Temperature of the air.		Relative Humidity.	Winds.			Clouds.				Rain-fall in the past 24 hours.		Weather.	Observer.
								Direction.	Velocity.		Amount		Direction.					
											Up'er	Low'r	Upper.	Lower.				
	Inches.	Millimeters.		Millimeters.	Fahrenheit.	Centigrade	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	0—10.	From—	From—	Inches.	Millimeters.		
Angra, (Azores,)			30.11	764.8	46.0	8.3	62	NW	14.7	6.58		9			0.236	6.0	Raining	Dr. J. A. N. Sampaio.
Campo Major			30.36	771.2	54.9	12.7	68	E	13.4	6.00		4			0	0		Dr. A. M. R. dos Santos.
Funchal, (Madeira,)			30.24	768.0	60.4	15.8	71	S	1.8	0.81		10			0.131	3.4		Capt. D. A. da Cunha.
Lisbon			30.39	771.8	54.1	12.3	80	E	4.9	2.2		7			0	0	Solar halo	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.																		
Warsaw			30.59	777.0	29.3	— 1.5	84	WNW	2	1		10						Astronomical Obs
Wilna			30.57	776.5	29.3	— 1.5	96	W	4	2		10						Astronomical Obs
Dorpat			30.40	772.1	27.9	— 2.3	98	W	11	5		10						Physical Cabinet.
St. Petersburg			30.22	767.6	23.7	— 4.6	89	WNW	9	4		2						Central Physical Obs
Kuopio			30.10	766.9	26.8	— 2.9	87	NW				0			0	0		Ch. Forsten.
Kief			30.45	773.5	23.2	— 4.9	98	NNW	9	4		10						Physical Cabinet.
Nikolaiev			30.50	774.8	22.5	— 5.3	83	N	13	6		10						Kurdakof.
Kertch			30.42	772.6	32.2	0.1	94	WNW	2	1		10						Lagorio.
Moscow			30.02	762.6	30.4	— 0.9	82	NNE	9	4		0						Meteorological Obs.
Lugan			30.18	766.6	23.5	— 4.7	81	WSW	18	8		10						Meteorological Obs.
Archangel			28.87	757.7	21.6	— 5.8	90	NNE	22	10		9						Ogorodnikof.
Tiflis	28.84	732.6	30.31	769.9	41.5	5.3	76	NW	18	8		1						Physical Obs.
Astrakhan			30.10	764.6	22.6	— 5.2	90	W	34	15		10						Sebastianof.
Kasan			29.48	748.9	14.2	— 9.9	87	E	9	4		10						Physical Cabinet.
Orenburg																		Tschernischef.
Ekaterinburg	28.75	730.2	29.85	758.3	.7	—17.4	86	E	9	4		2						Meteorological Obs.
Nukuss			30.18	766.6	31.6	— 0.2	92	SW	18	8		10					Snow and fog	
Kasalv			30.00	762.0	18.1	—17.7	78	SW	18	8		10						Bobrof.
Tashkend	28.85	732.8	30.70	779.7	6.4	—14.2	95	NE	4	2		0						Michelson.
Barnaul			29.99	761.8	2.3	—16.5	75	WSW	18	8		0					Snowing	Meteorological Obs.
Yeniseisk			29.53	750.0	1.2	—17.1	90	Calm	0	0		10						Marks.
Irkutsk																		Usolzef.
Oorga																		Mossin.
Peking, (China)			30.21	767.4	23.4	— 4.8	52	Calm	0	0		0						Physical Observatory.
Nertchinsk	27.87	707.9	30.22	767.5	—16.4	—26.9	88	Calm	0	0		0						Meteorological Obs.
Vladivostock			30.15	766.0	15.1	— 9.4	100	Calm	0	0		0						
Nikolaievsk, on the Amoon					— 2.0	—18.9	88	W	7	3		0						

Note.—The originals give the wind velocity in meters per second, except Kuopio by a rough unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.47 m., or 1,005.27 ft.; Tasnkend, m. 494.27, or 1,621.37 ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.07 m., or 1,942.27 ft.; Oorga, 1,281.06 m., or 4,202.67 ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			30.47	773.8	50.5	10.3	69	NE	1.6	0.7		0	0			0	0	Clear	Royal Observatory.
San Fernando			30.38	771.6	61.5	16.4	69	ESE	10.3	4.6		1	5	SW	ESE	0	0		The Naval Observatory.

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda			30.24	768.2	24.4	— 4.2	86	W			2		0			0	0	
Umea			30.25	768.3	35.8	2.1	87	Calm			0		10			0	0	
Hernosand			30.28	769.2	31.3	— 0.4	85	NW			2		10			0	0	
Stockholm			30.34	770.7	33.8	1.0	96	SW			2		10			0.008	0.2	Foggy
Wisby			30.53	775.5	29.8	— 1.2	100	WNW			6		10			0	0	
Sub-Series.																		
Upsala			30.39	771.8	35.1	0.6	88	WSW	7.8	3.5		10			W	0	0	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.05	737.8	30.54	775.8	32.0	0.0	92	NE			1		10			0	0	Foggy	The Observatory.
Zurich	28.83	732.3	30.57	776.4	26.4	— 3.1	97	W			1		10			0	0	Foggy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +10.6 mm.; Thermometer, —2.1 cent.; Relative Humidity, +16 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Constantinople			30.49	774.5	41.2	5.1	73	NE	17	7.5			4		SSW	0	0		
Fao, (Persian Gulf)			30.34	770.7	50.0	10.0		NW			3		10						
Salonica			30.48	774.3	52.7	11.5		N			1		0						
Valona			30.30	769.6	56.3	13.5		SW			1		5						
Varna			30.32	772.0	37.4	3.0		W			2		10						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.			30.40	772.1	59.5	15.3	50	N			1		0			0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Bathurst, N. B.																			Hon. J. Ferguson.
Brockville, Ontario			30.67	753.6	— 1	—18.3		Calm	0	0		0	0			0	0	Clear	W. R. Bigg.
*Chatham, N. B.			29.96	761.0	— 2	—18.9	84	W	27	12.1		0	0			0.35	8.9	Clear	G. A. Blair.
Charlottetown, P. E. Island.			29.84	757.9	12	—11.1	79	NW	23	10.3		5k	0	W		0.11	2.8	Fair	H. J. Cundall, C. E.
Cornwall, Ontario			30.60	777.2	— 1.7	—18.7	90	NW			1					Inap.	Inap.	Bright	James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Esquimault, B. C.			29.87	758.7	38.1	3.4	91	W	5	2.2			10			0.18	4.6	Cloudy	W. H. Bevis.
Fredericton, N. B.			30.15	765.8	1.1	—17.2	67	NW	28	10.3						0	0	Snowing	Prof. Harrison.
*Fort Garry, Manitoba			29.49	749.0	4	—15.6	95	W	9	4.0		0	0			0.035	0.89	Clear	James Stewart.
Goderich, Ontario			30.54	775.7	18.3	— 7.6	89	SE			2	0	3s			Inap.	Inap.	Fine	H. J. Strang, M. A.
Granton, Ontario			30.58	776.7	8.6	—13.0		SW			1	1cs	0	E		0	0	Clear	Jam s Grant.
*Halifax, N. S.			29.86	758.4	21	— 6.1	80	W	30	13.4		0	5ks		NW	0.143	3.64	Fair	F. Allison, M. A.
*Kingston, Ontario			30.67	779.0	3	—16.1	67	NW	2	0.9		0	0			0.03	0.8	Clear	S. Woods, M. A.
Little Current, Ontario			30.40	772.1	4.6	—15.2		SW	6	2.7			9s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.59	777.0	— 4	—20.0	65	W	11	4.9		0	0			0	0	Clear	C. H. McLeod, C.
*Ottawa, Ontario			30.61	777.5	— 7	—21.7	80	W	8	3.6		0	0			0	0	Clear	J. B. Haney.
*Parry Sound, Ontario			30.57	776.5	— 2	—18.9	83	E	8	3.6		5k	5ks	E	E	0.01	0.3	Cloudy	Rev. R. Mooley.
*Port Dover, Ontario			30.59	777.0	12	—11.1	84	Calm	0	0		0	0			0	0	Clear	H. Morgan.
Port Hastings, N. S.																			P. ter Grant.
*Port Stanley, Ontario			30.60	777.2	9	—12.8	87	Calm	0	0		0	0			0	0	Clear	M. Payne.
*Quebec, Quebec			30.47	773.9	— 4	—20.0	64	W	18	8.0		0	0			0.10	2.5	Clear	Capt. Ash, R. N.
St. John, N. B.			30.22	767.6	5.0	—15.0	75	W	22	9.8		1k	0			0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.49	774.4	14	—10.0	82	S	4	1.8			10n			0.10	2.5	Cloudy	K. Stewart.
Stayner, Ontario																0.01	0.3		R. J. Cole.
Stratford, Ontario			30.55	776.0	11.1	—11.6	88	SW	6	2.7		0	0			0.10	2.5	Fine	C. J. MacGregor, M. A.
*Sydney, C. B.			29.62	752.3	22	— 5.6	58	NW	27	12.1		2c	8ks		W	0.35	8.9	Clearing	T. C. Hill.
*Toronto, Ontario			30.60	777.2	14	—10.0	86	W	4	1.8		8ck	0	SW		0.02	0.5	Cloudy	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery.

Note.- The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	30.57	774.9	12	—11.1	70	NW	12	5.4	.....	0	0	.....	.....	0.12	3.0	Clear	
Alpena, Mich.	.....	.....	30.40	772.1	7	—13.9	77	S	22	9.8	.....	0	0	.....	.....	0.02	0.5	Clear	
Atlantic City, N. J.	.....	.....	30.53	775.4	24	— 4.4	48	N	16	7.2	.....	10cs	0	SW	.....	0.04	1.0	Cloudy	
Augusta, Ga.	.....	.....	30.36	771.1	39	3.9	34	NE	8	3.6	.....	0	2s	.....	.....	0.30	7.6	Clear	
Baltimore, Md.	.....	.....	30.57	776.5	27	— 2.8	64	N	7	3.1	.....	0	2ks	.....	.....	0.05	1.3	Fair	
Barnegat, N. J.	.....	.....	30.52	775.2	24	— 4.4	74	N	24	10.7	.....	10cs	0	NW	.....	0.04	1.0	Cloudy	
Benton, Montana	26.89	683.0	29.09	754.1	5	—15.0	100	NE	12	5.4	.....	.....	10s	.....	NE	0	0	Cloudy	
Bismarck, Dakota	27.82	706.6	28.50	749.3	25	— 3.9	60	W	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Boston, Mass	.....	.....	30.41	772.4	16	— 8.9	83	NW	16	7.2	.....	5cs	0	NW	.....	0.06	1.5	Fair	
Breckenridge, Minn	.....	.....	29.63	752.6	18	— 7.8	67	S	2	0.9	.....	0	2s	.....	.....	0	0	Clear	
Buffalo, N. Y.	.....	.....	30.00	777.2	13	—10.6	62	NW	4	1.8	.....	0	2ks	.....	W	0.01	0.3	Fair	
Burlington, Vt.	.....	.....	30.63	778.0	0	—17.8	60	N	18	8.0	.....	2k	0	N	.....	0	0	Fair	
Cairo, Ill.	.....	.....	30.53	775.4	22	— 5.6	72	NE	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Cape Hatteras, N. C.	.....	.....	30.30	769.6	41	5.0	83	NE	36	16.1	.....	.....	10n	.....	NE	0.44	11.2	Light rain	
Cape Henry, Va.	.....	.....	30.47	773.9	34	1.1	74	N	16	7.2	.....	8c	0	W	.....	0.31	7.9	Fair	
Cape May, N. J.	.....	.....	30.53	775.4	26	— 3.3	76	N	10	4.5	.....	8cs	0	W	.....	0.11	2.8	Fair	
Charleston, S. C.	.....	.....	30.31	769.9	44	6.7	76	NE	20	8.9	.....	.....	10s	.....	N	0.24	6.1	Cloudy	
Cheyenne, Wyoming	23.85	605.8	29.79	756.7	30	— 1.1	59	W	16	7.2	.....	0	1s	.....	.....	0	0	Clear	
Chicago, Ill.	.....	.....	30.42	772.7	16	— 8.9	66	S	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Cincinnati, Ohio	.....	.....	30.55	776.0	21	— 6.1	73	S	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Cleveland, Ohio	.....	.....	30.60	777.2	14.1	— 9.0	74	S	4	1.8	.....	Haze	5s	.....	.....	Inap.	Inap	Fair	
Colorado Springs, Col.	23.96	608.6	29.82	757.4	39	3.9	64	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear	
Corsicana, Tex.	.....	.....	30.47	773.9	27	— 2.8	66	N	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Davenport, Iowa	.....	.....	30.33	770.4	19	— 7.2	68	S	24	10.7	.....	0	0	.....	.....	0	0	Clear	
Denison, Tex.	.....	.....	30.40	772.1	29	— 1.7	67	E	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Denver, Col.	24.68	626.9	29.90	759.4	35	1.7	54	SE	3	1.3	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Detroit, Mich.	.....	.....	30.56	776.2	10	—12.2	69	S	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Dodge City, Kan.	27.41	696.2	29.85	758.2	20	— 6.7	85	SE	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Dubuque, Iowa	.....	.....	30.23	767.1	18	— 7.8	68	S	8	3.6	.....	0	0	.....	.....	0	0	Cloudy	
Duluth, Minn.	.....	.....	29.74	755.4	13	—10.6	84	SW	2	0.9	.....	.....	10s	.....	.....	0	0	Clear	
Eastport, Me.	.....	.....	30.19	766.8	3	—16.1	73	NW	30	13.4	.....	0	0	.....	.....	0.09	2.3	Clear	
Erie, Pa.	.....	.....	30.59	776.2	19	— 7.2	84	N	4	1.8	.....	Haze	8ks	.....	N	Inap.	Inap.	Fair	
Escanaba, Mich.	.....	.....	30.09	764.3	15	— 9.4	82	S	20	8.9	.....	Haze	8s	.....	S	0	0	Fair	
Fort Gibson, Indian Terr.	.....	.....	30.42	772.7	23	— 5.0	60	SE	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Fort Sill, Indian T.	29.08	738.6	30.29	769.4	22	— 5.6	60	N	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Fort Sully, Dakota	28.03	711.9	29.75	755.6	22	— 5.6	86	S	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Galveston, Tex.	.....	.....	30.42	772.7	44	6.7	42	NE	14	6.3	.....	0	0	.....	.....	0.02	0.5	Clear	
Grand Haven, Mich.	.....	.....	30.39	771.9	19	— 7.2	77	S	12	5.4	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Indianapolis, Ind.	.....	.....	30.53	775.4	18	— 7.8	84	E	4	1.8	.....	0	0	.....	.....	0	0	Fair	
Indianola, Tex.	.....	.....	30.44	773.2	44	6.7	67	N	20	8.9	.....	5ck	0	W	.....	0.42	10.7	Cloudy	
Jacksonville, Fla.	.....	.....	30.22	767.6	54	12.2	86	NE	16	7.2	.....	.....	10s	.....	N	0	0	Clear	
Keokuk, Iowa	.....	.....	30.40	772.1	20	— 6.7	55	S	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Key West, Fla.	.....	.....	30.13	765.3	74.0	23.3	84	S	3	1.3	.....	2ck	Haze	NW	NW	0	0	Cloudy	
Kittyhawk, N. C.	.....	.....	30.44	773.2	39	3.9	64	NE	40	17.9	.....	.....	10ks	.....	NE	0.32	8.1	Cloudy	
Knoxville, Tenn.	.....	.....	30.50	774.7	23	— 5.0	85	NE	16	7.2	.....	0	0	.....	.....	0.1	0.3	Clear	
La Crosse, Wis.	.....	.....	30.08	764.0	22	— 5.6	72	S	17	7.6	.....	.....	1s	.....	S	0	0	Cloudy	
Leavenworth, Kan.	.....	.....	30.29	769.1	0	6.7	85	S	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Lexington, Ky.	29.36	745.7	30.59	777.0	17	— 8.3	67	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Long Branch, N. J.	.....	.....	30.51	775.7	31	— 0.6	48	NW	26	11.6	.....	5c	0	NW	.....	0	0	Fair	
Louisville, Ky.	.....	.....	30.46	773.9	22	— 5.6	58	N	13	5.8	.....	0	0	.....	.....	0	0	Clear	
Lynchburg, Va.	.....	.....	30.56	776.2	28	— 2.2	54	N	2	0.9	.....	0	0	.....	.....	0.5	1.3	Clear	
Malone, N. Y.	.....	.....	30.52	775.2	28	— 2.2	54	N	2	0.9	.....	0	0	.....	.....	0.14	2.8	Clear	
Marquette, Mich.	.....	.....	30.02	777.7	— 2	—18.9	72	NW	8	3.6	.....	0	0	.....	.....	0	0	Fair	
Memphis, Penn.	.....	.....	30.02	762.5	6	—15.0	76	SE	20	8.9	.....	0	5s	.....	.....	0	0	Clear	
Milwaukee, Wis.	.....	.....	30.52	775.2	33	— 5.6	60	N	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Mobile, Ala.	.....	.....	30.35	770.9	11	—11.7	79	S	16	7.2	.....	.....	0	.....	.....	0	0	Clear	
Montgomery, Ala.	.....	.....	30.37	771.4	34	1.1	61	N	7	3.1	.....	0	0	.....	.....	0	0	Clear	
Morgantown, W. Va.	.....	.....	30.39	771.9	32	0.0	64	N	6	2.7	.....	0	0	.....	.....	0.04	1.0	Clear	
Mt. Washington, N. H.	23.14	587.8	29.50	749.3	—27	—32.8	100	NW	90	40.2	.....	2s	0	NW	NW	0	0	Clear	
Nashville, Tenn.	.....	.....	30.59	774.7	23	— 5.0	73	N	5	2.2	.....	0	0	.....	.....	0	0	Fair	
New Haven, Conn.	.....	.....	30.50	774.7	18	— 7.8	39	NW	8	3.6	.....	5cs	0	NW	.....	0.08	2.0	Fair	
New London, Conn.	.....	.....	30.48	774.2	20	— 6.7	70	NW	12	5.4	.....	5c	0	W	.....	0.13	3.3	Clear	
New Orleans, La.	.....	.....	30.38	771.6	41	5.0	19	NE	11	4.9	.....	0	0	.....	.....	0.13	3.3	Fair	
Newport, R. I.	.....	.....	30.44	773.2	23	— 5.0	69	NW	12	5.4	.....	2c	0	W	.....	0.01	0.3	Fair	
New York, N. Y.	.....	.....	30.53	775.4	21	— 6.1	56	NW	16	7.2	.....	5c	0	SW	NE	0.13	3.3	Fair	
Norfolk, Va.	.....	.....	30.48	774.2	33	0.6	51	NE	20	8.9	.....	5c	2s	SW	.....	0	0	Cloudy	
North Platte, Neb.	26.95	684.5	29.62	752.3	23	— 5.0	73	Calm	0	0	.....	0	0	.....	.....	0	0	Fair	
Omaha, Neb.	28.04	735.1	30.07	763.8	24	— 4.4	48	S	12	5.4	.....	2c	0	W	.....	0	0	Clear	
Oswego, N. Y.	.....	.....	30.61	777.5	12.1	—11.1	70	NW	12	5.4	.....	Haze	1s	.....	.....	Inap.	Inap.	Clear	
Peck's Beach, N. J.	.....	.....	30.57	776.5	23	— 5.0	72	N	20	8.9	.....	10cs	0	W	.....	0.06	1.5	Cloudy	
Pembina, Dakota	.....	.....	29.50	749.3	15	— 9.4	73	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Philadelphia, Penn.	.....	.....	30.55	776.0	22	— 5.6	72	NE	15	6.7	.....	5ck	0	W	.....	0.05	1.3	Fair	
Pike's Peak, Colorado	17.54	445.5	29.75	755.6	— 2	—16.7	58	W	.....	.....	.....	0	2s	.....	.....	0	0	Clear	
Pittsburgh, Penn.	.....	.....	30.62	777.7	18	— 7.8	68	NW	4	1.8	.....	.....	1s	.....	N	0	0	Cloudy	
Port Huron, Mich.	.....	.....	30.57	776.5	8	—13.3	78	SE	8	3.6	.....	0	0	.....	.....	0.02	0.5	Clear	
Portland, Me.	.....	.....	30.37	771.4	11	—11.7	69	NW	13	5.8	.....	0	1s	.....	.....	0	0	Clear	
Portland, Oregon	.....	.....	30.16	766.1	42	5.6	91	SW	12	5.4	.....	.....	10n	.....	.....	0.31	7.9	Light rain	
Punta Rassa, Fla.	.....	.....	30.13	765.3	70.6	21.4	90	S	8	3.6	.....	2ck	2ks	SW	.....	0	0	Cloudy	
Rochester, N. Y.	.....	.....	30.39	771.9	14	—10.1	82	NW	11	4.9	.....	.....	10n	.....	.....	0.03	0.8	Light snow	
Salt Lake City, Utah	25.70	652.8	30.03	762.7	29	— 1.7	67	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Sandy Hook, N. J.	.....	.....	30.51	774.9	23	— 5.0	73	NW	22	9.8	.....	5c	0	.....	.....	0.02	0.5	Fair	
San Diego, Cal.	.....	.....	30.22	767.6	42	5.6	67	E	4	1.8	.....	0	0	.....	.....	0	0	Clear	
San Francisco, Cal.	.....	.....	30.31	769.9	47	8.3	85	W	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy	
Santa Fe, N. M.	23.32	592.2	29.86	758.4	17	— 8.3	.....	NE	16	7.2	.....	0	0	.....	.....	0	0	Clear	
Savannah, Ga.	.....	.....	30.31	769.9	44	6.7	83	NE	10	4.5	.....	.....	10s	.....	NE	0.70	17.8	Cloudy	
Shreveport, La.	.....	.....	30.31	769.9	30	— 1.1	73	N	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Smithville, N. C.	.....	.....	30.51	774.9	30	— 1.1	73	N	20	8.9	.....	.....	10s	.....	N	0.27	6.9	Cloudy	
Springfield, Mass.	.....	.....	30.33	770.4	40	4.4	87	N	8	3.6	.....	2c,cs	0	W, N	.....	0.08	2.0	Clear	
St. Louis, Mo.	.....	.....	30.48	774.2	19	— 7.2	37	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
St. Marks, Fla.	.....	.....	30.50	774.7	20	— 6.7	70	S	4	1.8	.....	0	0	.....	.....	0	0	Clear	
St. Paul, Minn.	.....	.....	30.27	768.8	43	6.1	58	N	8	3.6	.....	.....	2s	.....	N	1.31	33.3	Fair	
St. Paul's Island, Alaska	.....	.....	29.81	757.2	21	— 6.1	78	S	24	10.7	.....	.....	10s	.....	S	0	0	Cloudy	
Squan Beach, N. J.	.....	.....	29.14	740.1	35	1.7	89	S	6	2.7	.....	5	2k	.....	.....	0.15	3.8	.....	
Thatcher's Island, Mass.	.....	.....	30.45	773.4	22	— 5.6	45	NW	14	6.3	.....	8c	0	.....	.....	0.11	2.8	Cloudy	
Toledo, Ohio.	.....	.....	30.42	772.7	15	— 9.4	47	NW	30	13.4	.....	0	0	.....	.....	0.06	1.5	Clear	
Tucson, Arizona.	.....	.....	30.56	776.2	18	— 7.8	68	SE	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Tybee Island, Ga.	27.72	704.1	30.18	766.6	34	1.1	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Vicksburg, Miss.	.....	.....	30.14	765.5	44	6.7	92	NE	22	9.8	.....	.....	10n	.....	NE	0.25	6.3	Light rain	
	.....	.....	30.49	774.4	20	— 6.7	59	NE	4	1.8	.....	0	Haze	.....	.....	0	0	Clear	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.00	609.6	29.48	748.8	26	— 3.3	52	SW	26	11.6	.....	2k	0	SW	.....	0	0	Fair	
Washington, D. C	.....	.....	30.59	777.0	23	— 5.0	66	NW	8	3.6	.....	0	1s	.....	W	0	0	Fair	
Wilmington, N. C	.....	.....	30.37	771.4	38	3.3	80	NE	16	7.2	.....	.....	10s	.....	NE	0.29	7.4	Cloudy	
Wood's Holl, Mass	.....	.....	30.44	773.2	23	— 5.0	60	NW	20	8.9	.....	5c	0	SW	.....	0.14	3.6	Fair	
Wytheville, Va	27.99	710.9	30.36	771.1	16	— 8.9	83	Calm	0	0	.....	0	0	.....	.....	0.07	1.8	Clear	
Yankton, Dakota	28.52	724.4	29.86	758.4	26	— 3.3	75	SW	16	7.2	.....	0	2s	.....	NW	0	0	Fair	
Yuma, Arizona	.....	.....	30.22	767.6	45	7.2	.....	N	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Sub-Series																			
Ridge own. B'h'ms, W. I.	.....	.....	30.08	764.0	79	26.1	86	NE	5	2.2	.....	0	10s	.....	.....	0	0	Fair	E. Racker.
Pointe-a-Pitre, Gd'Loupe, de	.....	.....	30.06	763.5	77	25.0	76	E	.....	.....	.....	2c	2k	.....	.....	0.22	5.6	Clear	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	30.15	765.8	71	21.7	85	Calm	0	0	.....	8ck	0	NW	.....	0	0	Fair	Charles Hasselbrink
Kingston, Jamaica, W. I.	.....	.....	30.27	768.8	73	22.8	67	Calm	0	0	.....	2ck	2s	SE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.32	770.1	75	23.9	75	E	18	8.0	.....	4ck	8kn	E	.....	0.02	0.5	Cloudy	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.90	759.4	71	21.7	75	Calm	0	0	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
St. Georges, Bermudas	.....	.....	30.27	768.8	67.0	19.4	77	S	9.0	4.0	.....	.....	10pk	.....	.....	0	0	Cloudy	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A.	.....	.....	29.96	761.0	—44	—42.2	.....	E	2	0.9	.....	.....	6s	.....	.....	0.04	1.0	.....	J. Fortescue.
St. Johns, Newfoundland	.....	.....	29.27	743.4	34.5	1.4	.....	SW	.....	.....	.....	10k	10s	.....	.....	0.15	3.8	Stormy	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I.	27.15	690.4	30.10	764.5	60	15.6	83	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	C. Partridge.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A.	25.11	637.9	.....	.....	66.0	18.9	80	.....	0	0	.....	7c	3s	.....	.....	0	0	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A	.....	.....	29.97	761.2	81	27.2	78	E	.....	.....	2	.....	7k, ks	.....	.....	0.460	11.68	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.00	762.1	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.142	29.00	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.													State of ocean.	Direction of swell from—		
Steamer Nürnberg, N. 37° 20', W. 74° 12'	SW by W, ½ W.	.....	30.24	768.1	38.8	3.8	.....	NNE?	.....	.....	6?	.....	10k	.....	NE	Rough sea.	NE	Overcast

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tueson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JANUARY 31, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean tim
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.36	771.2	60.8	16.0	69	E	.....	.....	3	.....	2	.....	.....	0	0	Clear	Charnot.
Algiers	.....	.....	30.41	772.3	57.2	14.0	89	NNE	.....	.....	1	.....	10	.....	.....	0	0	Hidden	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.35	770.8	60.6	15.9	75	NE	.....	.....	3	.....	6	.....	.....	0.039	1.0	Fair	Jacques.
Sfax	.....	.....	30.35	770.9	63.7	17.6	71	N	.....	.....	5	.....	4	.....	.....	0	0	Fair	Chauvey.
Saida	.....	.....	30.35	770.9	49.1	9.5	69	NNW	.....	.....	1	.....	6	.....	.....	0	0	Fair	Grosjean.
Tebessa	.....	.....	30.36	771.2	48.6	9.2	.....	NE	.....	.....	3	.....	10	.....	.....	0.157	4.0	Hidden	Colin.
Geriville	.....	.....	30.31	769.8	42.4	5.8	73	NNE	.....	.....	2	.....	3	.....	.....	0.098	2.5	Fair	Buard.
Laghouat	.....	.....	30.32	770.0	50.0	10.0	74	NW	.....	.....	2	.....	1	.....	.....	0	0	Clear	Simon.
Biskra	.....	.....	30.37	771.4	67.1	19.5	45	NNW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Coulon.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.04	778.2	29.3	— 1.5	90	SW	.....	.....	2	.....	10	.....	.....	0.028	0.7	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eperies	.....	.....	30.09	770.5	20.5	— 6.4	87	NE	.....	.....	1	.....	0	.....	.....	0	0	.....	I. R. Observatory.
Gratz	.....	.....	30.59	776.9	32.0	0.0	74	Calm	.....	.....	0	.....	5	.....	.....	0	0	.....	Julius Mikolik.
Hermannstadt	29.36	745.6	30.66	778.7	26.6	— 3.0	79	S	.....	.....	2	.....	10	.....	.....	0.012	0.3	.....	Andreas Rospini.
Kremsmünster	29.06	738.0	30.60	777.1	26.6	— 3.0	83	WNW	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. Reissenberger.
Lemberg	29.21	742.0	30.69	779.5	19.4	— 7.0	94	ENE	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. C. Wagner.
Nyiregyhaza	.....	.....	30.60	777.2	27.7	— 2.4	94	N	.....	.....	1	.....	7	.....	.....	0	0	.....	Dr. T. Stanecki.
Pola	.....	.....	30.62	777.8	28.4	— 2.0	92	NE	.....	.....	1	.....	5	.....	.....	0	0	.....	Habzsuda Daniel.
Szegedin	.....	.....	30.43	772.8	49.6	9.8	87	WNW	.....	.....	1	.....	10s	.....	.....	0	0	.....	I.R. Hydrographic Office
Trieste	.....	.....	30.61	777.6	30.4	— 0.9	86	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Karl Stancel.
Vienna	.....	.....	30.43	772.9	46.9	8.3	59	ENE	.....	.....	2	.....	4	.....	.....	0	0	.....	Prof. V. Farolfi.
.....	.....	.....	30.05	778.6	24.3	— 4.3	93	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	30.50	774.7	45.7	7.6	72	SW	.....	.....	1	.....	1	.....	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cooperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Station.	Barometer. Corrected for instrumental errors.		Barometer. Reduced to sea-level.		Temperature of the Air.		Relative Humidity	Wind. Direction.	Wind. Velocity.		Wind. Force	Clouds. Amount.		Clouds. Direction.		Rain-fall in the past 24 hours.		Weather.	Observer.
												Upper	Low'r	Upper.	Lower.				
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	0—10.	0—10.	From—	From—	Inches.	Millimeters.		
Aberdeen			30.06	763.5	49.4	9.7		SW	15	6.7			9			0.070	1.78	Gloomy	William Boswell.
Ardrossan			30.08	764.0	49.5	9.7		SSW			4		8					Overcast	J. Mayes.
Armagh Observatory			30.04	763.0	50.9	10.5		S	26	11.6			10					Squally	S. Call, for Dr. Robinson
Bidston, Liverpool Obs.			30.25	768.3	49.7	9.8		SE	14	6.3			10					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			30.03	762.7	50.8	10.4		S			2		10					Drizzling	J. Dreyer.
Bradford			30.20	767.1	53.7	12.1		SW			0		2			0.03	0.8	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)			30.07	763.8	79.1	26.2		NE			2		6					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.38	771.6	56.1	13.4		S			1		3					Hazy	H. Todd.
Cardington			30.40	772.1	48.0	8.9		S			1		7					Overcast	John McLaren.
Carlisle			30.16	766.1	52.1	11.2		S			2		7			0.10	2.5	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.44	773.2	52.7	11.5		SE			1		3					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.78	731.0	30.31	769.9	44.8	7.1		SW			3		10					Gloomy	R. E. Power.
Donaghadee			30.06	763.5	48	8.9		S			0		10					Overcast	J. Mac Gowan.
Dover			30.46	773.7	44	6.7		WSW			3		3					¼ clouded	J. Costello.
Eccles, (near Manchester)			30.12	765.0	51.8	11.0		SSE	2.4	1.1			8					Gloomy	Thomas Mackereth.
Falmouth Observatory			30.33	770.4	50.6	10.3		S	19	8.5			6					Overcast	The Staff.
Fort Napier, (Natal)	27.50	698.5	29.75	755.6	88.4	31.3		E			1		0					Blue sky	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	86.0	30.0		N			1		5						(tis.
Galway, Queen's College			29.94	760.5	49	9.4		S			2		10					Raining	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.35	770.9	58.0	14.4		E			6		9					Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.05	763.3	49.8	9.9		S			2		10					Threatening	Lewis Stuart.
Great Yarmouth			30.42	772.7	45	7.2		SSW			2		3					Hazy	G. T. Watson.
Greenwich Royal Obs.			30.42	772.7	53.5	11.9		S			1		3			Blank	Blank	*D. clouds	The Staff for G. B. Airy
Guernsey			30.39	771.9	49	9.4		SSW			2		0					Blue sky	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.28	769.1	53.4	11.9		W			1		5			Blank	Blank	*D. clouds	L. J. Cressley.
Helston			30.30	769.6	54	12.2		S			4		6			0.14	3.6	*D. clouds	M. P. Moyle.
Holyhead			30.18	766.6	48	8.9		SSW			5		10					Misty	John Tilston.
Kew Observatory			30.42	772.7	50.4	10.2		SSW	11	4.9			5					Hazy	The Staff.
Kingstown			30.13	765.3	52	11.1		S			5		9					Overcast	George Mitchell
Leicester Museum			30.07	763.8	51.0	10.6		SW			1		4			†2.21	†56.1	*D. clouds	William J. Harrison.
Malta, (Mediterranean)			30.26	768.6	59.8	15.4		NE			3		8k						Fred Travis, Pvt A.H.C
Nairn			29.93	760.2	55	12.8		SSW			2		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.17	766.3	69.6	20.9		SE			1		4					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.35	770.9	51.8	11.0		S			2		7k,c		SSW			*D. clouds	E. J. Lowe, F. R. S.
Oscott, St Mary's College			30.32	770.1	51.2	10.7		S			3		9					Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.35	770.9	48	8.9		SSE			1		7					*D. clouds	J. Lucas.
Plymouth			30.36	771.1	49.5	9.7		SE			2		10					Overcast	John Merrifield.
Roche's Point			30.10	764.5	50	10.0		S			6		10					Heavy rain	W. Kennedy.
Saint Ann's Head			30.27	768.8	47	8.3		S			6		8					Misty	John C. Walker.
Saint Helier, (Jersey)			30.42	772.7	47.5	8.6		SSE			2		2					¼ clouded	A. P. Amy.
Sandwick Manse (Orkneys)			29.88	758.9	50.9	10.5		S	17	7.6			2					Bright	Rev. Dr. Clouston
Scarborough			30.25	768.3	52.4	11.3		SW			2		5					*D. clouds	F. Shaw.
Scutari Cemetery (Turkey)			30.53	775.4	38.6	3.7		NE			2		10					Gloomy	Sergt. W. H. Lyne.
Sheffield			30.29	769.4	53.2	11.8		SW			3		4					Blue sky	W. F. Cooper.
Silloth Rectory			30.17	766.3	51.0	10.6		SW			5		8			0.059	1.50	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			30.26	768.6	50.9	10.5		S			2		9			0	0	Gloomy	The Staff.
Stornoway, Lewis C. (Hebr.)			29.79	756.7	50	10.0		SSW			7		10			Blank	Blank	Overcast	John Smith.
Stratfield Turgiss			30.42	772.7	52.0	11.1		SW			1		2c					Blue sky	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.85	758.2	54	12.2		SSW			4		6					*D. clouds	John Trotter.
Truro, Royal Institution			30.31	769.9	54	12.2		S			6		6					*D. clouds	W. Newcombe.
Valencia Observatory			29.99	761.7	50.0	10.0		SSW	30	13.4			10					Misty	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.90	759.4	75.0	23.9	62	SSE	24	10.7			8						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					46	7.8		SSE			7		10			0	0		
Leith, Restalrig Park			30.12	765.0	52.9	11.6		SW			4		7k			0.04	1.0	Fine, cloudy	Andrew Gibb.
Monach Lt-house, Hebrides			29.46	748.3	42	5.6		SSE			3		10			0	0		J. Youngclaus.
North Unst, (Shetland Is.)			*29.83	757.7	49	9.4		SW			0		10						

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,496 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds. †Total precipitation for month of January.

DANISH SERIES.

Furnished by the cooperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.48	774.3	32.0	0.0	92	S			2		2						
Fanöe			30.44	773.2	34.3	1.3	100	SSW			4		10					Raining	
Godthaab, (Greenland)			28.84	732.6	6.3	—14.3	100	NW			7		10					Snowing	
Stykkisholm, (Iceland)			28.82	732.0	33.8	1.0	89	SE			6		10					Raining	
Thorshavn, (Faroe)			29.57	751.0	45.3	7.4	89	SW			4		10						
Vestervig			30.53	770.4	36.0	2.2	100	S			6		10					Foggy	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. Inches.	Millimeters.	Temperature of the Air. Fahrenheit.	Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Velocity. Miles per hour.	Meters per second.	Force.	Clouds. Amount. Upper.	Lower.	Direction. Upper. From—	Lower. From—	Rain-fall in the past 24 hours. Inches.	Millimeters.	Weather.	Observer.
Alençon			30.48	774.1	46.4	8	78	S			1		0			0	0	Clear	Normal School.
Amiens			30.53	775.4	40.3	4.6	97	SW			3		0			0	0	Clear	Normal School.
Avignon			30.46	773.7	48.2	9	65	N			1		0			0	0	Very clear	Normal School.
Bar-sur-Seine			30.52	775.3	45.1	7.2	66	SW			1		0			0	0	Clear	C. Saillard.
Beaumette			30.52	775.3	45.1	7.2	66	SE	2.2	1.0					N	0	0		Beaumette Observatory
Beaumette, (near Angers)			30.45	773.3	54.7	12.6	54	SSE			1		0			0	0	Clear	Normal School.
Beauvais			30.54	775.7	41.4	5.2	78	ENE			2		10		W	0	0	Covered	Normal School.
Besançon			30.60	777.2	29.5	— 1.4		W			1		10			0	0	Foggy	Normal School.
Bourg en Bresse			30.58	776.7	29.5	— 1.4	98	NE			2		0			0	0	Clear	Normal School.
Bourges			30.52	775.1	44.6	7	94	SSE			2		8		S	0.010	0.25	Almost cov'd	Naval Observatory.
Brest			30.30	769.7	52.3	11.3	85	SW			2		0			0	0	Clear	Normal School
Caen			30.41	772.3	50.0	10	69	E			2		0			0	0	Clear	Normal School.
Chartres			30.50	774.6	49.5	9.7													Normal School.
Chaumont								NE			2		0			0	0	Clear	Puy de Dome, Obs.
Clermont			30.48	774.1	46.4	8.0	66	ESE			2		10			0	0	Covered	Normal Schoo .
Commercy			30.58	776.8	27.7	— 2.4	92	NE			2		0			0	0		
Commune de Gréasque*			30.47	773.8	54.3	12.4	55	ENE			1		10			0	0	Misty	Normal School.
Grenoble			30.14	765.6	32.0	0	100	SSE			3		0			0	0	Clear	Normal School.
Le Mans			30.49	774.4	48.9	9.4	71												
Loches								NW			1					0	0	Dense fog	Normal School.
Lons-Le-Saulnier			30.59	776.9	30.6	— 0.8	78	SE			8		10			0	0	Covered	Normal School.
Mâcon			30.54	775.7	27.0	— 2.8		SSW			1		1		NE	0	0	Clear	Normal School.
Mirecourt			30.61	777.6	30.4	— 0.9	91												
Metz								NE			2					0	0		Normal School.
Nismes			30.48	774.1	54.0	12.2	50	ESE			2		0			0	0	Clear	Normal School.
Orleans			30.49	774.5	44.6	7	74	SE			1		0			0	0	Foggy	National Observatory
Paris Observatory			30.53	775.5	41.7	5.4	92	NE			2		0			0	0	Clear	Normal School.
Parthenay			30.43	772.9	50.0	15	89	N			2		10		N	0	0	Covered	Normal School.
Privas			30.54	775.8	35.4	1.9		SE			2		5		SE	0	0	Quite cloudy	Normal School.
La Roche-sur-Yon			30.47	773.9	44.6	7.0	74	SE			3		0			0	0	Clear	Naval Observatory.
Rochefort, Observatory			30.46	773.7	53.1	11.7	72	SSE			2		0			0	0	Clear	Normal School.
Rouen			30.51	775.9	42.8	6.0	82	SSW			2		1		SE	0	0		Normal School.
Saint Lo			30.45	773.5	50.7	10.4	61	WSW			1		0			0	0	Clear	Normal School.
Tarbes	29.35	745.4	30.43	772.9	50.0	10	47	N			4		0					Clear	Normal School
Toulouse			30.47	773.8	50.0	10.0	84	NW			1					0	0	Foggy	Normal School.
Villefranche			30.59	776.9	28.4	— 2	76												
Sub-Series.																			
Fort de France, Martinique			29.93	760.2	77.0	25	79	NE			2		5k			0.20	5.		L'Abbé Marchési.
Gorée																			
Marseilles								W			1		1			0	0		Marseilles Observatory.
Mont-Louis			30.42	772.7	54.0	12.2	76	E	2.2	1			0			0	0		—, Falguère.
Montsouris, Paris	25.13	638.3	30.58	776.8	41.0	5.0	30	SE			1		1			0	0		Montsouris Observ'tory
Perpignan			30.52	775.0	45.0	7.2	74	NE	3.7	1.67			2	E	W	0	0		Dr. Fines.
Pic du Midi, (Summit) H. P.	21.37	544.4	30.45	773.5	51.1	10.6	85	E			1		0			0	0	Clear	M. Baylac.
Saint Maur, (near Paris)					28.4	— 2.0		S			1	.c	0			0	0	Clear	E. Renou.
Toulouse			30.52	775.2	45.1	7.3	68	SE			1		0			0	0		Toulouse Observatory
Tours			30.45	773.5	52.2	11.2	73	ESE			1		0			0	0	Clear	C. Marquet.
Versailles, (near Paris)			30.46	773.7	48.7	9.3	81	SW			2		0			0	0	Very clear	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.50	774.6	50.0	10.0	46	Calm	0	0			10			{ 0 0	0 0 }		H. Le Lec, S. J.
			30.30	769.6	32.4	0.2	96												

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			30.47	773.8	27.0	— 2.8	79	Calm			0		3			0	0		Prof. T. Hoh.
Berlin			30.60	777.1	36.3	2.4	71	SE			1		0			0	0		Prof. Arndt.
Breslau			30.65	778.5	28.0	— 2.2	84	SSE			3		0			0	0		Dr. P. Nangebauer
Carlsruhe			30.62	777.7	25.5	— 3.6	91	NE			2		0			0	0		A. Senz.
Cassel			30.56	776.3	39.0	3.9	69	S			1		0			0	0		Dr. H. Möller.
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society
Friedrichshafen			30.71	780.0	27.9	— 2.3	92	SE			1		2			0	0	Foggy	Physical Society
Hamburg			30.65	778 6	28.0	— 2.2	81	N					10			0	0	Foggy	M. Wilhelm.
Kiel			30.55	776.0	37.4	3.0	88	SE			2		2			0	0		Deutsche Seewar e.
Königsberg			30.56	776.2	37.2	2.9	79	SW			1		0			0	0		Prof. G. Karsten
Köslin			30.62	777.8	25.9	— 3.4	97	W			2		10			0	0		Prof. E. Luther.
Leipsic			30.59	776.9	27.3	— 2.6		SW			1		10			0.016	0.4		H. Müller.
Münster			30.61	777.4	30.2	— 1.0	96	SSW			1		9			0	0	Foggy	Prof. Brunns.
Posen			30.47	773.8	42.0	5.9	69	NE			2		0			0	0		Prof. E. Heis.
Strassburg, (in Alsace)			30.65	778.5	30.0	— 1.1	88	S			1		1			0	0		Dr. Magener.
Stuttgart			30.64	778.3	23.4	— 4.8	100	NE			1		10			0	0		Dr. Schur.
Thorn			30.63	777.9	31.3	— 0.4	81	E					0			0.008	0.2		Mr. Würth.
Treves, (Trier)			30.63	778.0	29.7	— 1.3	90	NE			4		0			Inap.	Inap.		Dr. Hasenbalg
Wustrow, Naval School			30.59	774.8	30.4	— 0.9	84	NE			1		0			0	0	Light fog	Prof. Fiesch
			30.58	776.6	34.3	1.3	77	S			1		0			0	0	Smoke-haze	E. F Schütz

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet. At Strassburg, the weather was generally foggy from the 23d to the 31st.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.40	772.2	54.9	12.7		SW										Clear	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.43	772.8	45.7	7.6	58	E	8.1	3.6			10			0	0		
Padua			30.44	773.2	45.1	7.3	73	NW	0	0			10	SE		0	0		
Verona			30.43	772.8	47.8	8.8	70	W			1		10			0	0		
Bergamo			30.42	772.6	44.6	7.0	66	S			2		0			0	0		
Milan			30.48	774.3	38.3	3.5	88	NNW			1		0			0	0		
Moncalieri			30.53	775.4	34.2	1.2	64	ENE	0.7	0.3			0			0	0		
Mondovi			30.50	774.7	40.5	4.7	55	WNW			2		0			0	0		
Porto Maurizio			30.50	774.6	50.0	10.0		SE			4		0			0	0		
Genoa			30.37	771.5	54.7	12.6	48	N	0.7	0.3			0			0	0		
Piacenza			30.48	774.3	42.3	5.7	72	N	7.4	3.3			0			0	0		
Bologna			30.46	773.6	43.2	6.2	31	W			1		10			0	0		
Florence			30.44	773.2	54.0	12.2	60	E			1		10			0	0		
Leghorn			30.42	772.7	53.6	12.0	70	ENE	6.3	2.8			10			0	0		
Siena			30.39	772.0	52.5	11.4	74	E	0	0			9	W		0	0		
Urbino																			
Pesaro																			
Ancona			30.49	774.4	43.2	6.2	82	W			2		10						
Grosseto			30.10	772.2	57.2	14.0	76	W			2		7	SW		0.169	4.3		
Rome			30.41	772.4	58.6	14.8	67	NE	0.7	0.3			4	NNW		0	0		
Naples, O. U			30.40	772.2	60.4	15.8	61	S			2		3	NW		0	0		
Lecce			30.42	772.7	54.1	12.3	86	NNE	9.8	4.4			9			0	0		
Cosenza			30.44	773.1	54.7	12.6	72	WNW			2		6	NNE		0	0		
Riposto, (Sicily)			30.34	770.5	58.3	14.6	82	ENE			2		9	SW		0.339	8.6		
Palermo			30.28	769.2	58.5	14.7	61	NE	9.8	4.4			4			0	0		
Caltanissetta			30.31	769.9	51.6	10.9	66	E			6		6			0	0		
Sub-Series.																			
Naples, S. R			30.39	771.9	56.8	13.8	57	W			2		10			0	0	Foggy	Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.52	775.3	43.0	6.1		S			2								
Groningen			30.44	773.2	38.8	3.8		S			2								
Helder			30.45	773.4	40.5	4.7		SSW			2								
Utrecht			30.48	774.2	42.6	5.9	83	S			2		5					Cloudy	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.12	765.0	43.2	6.2	97	S	23.0	10.3			10			0.335	8.5	Raining	
Brönö			29.81	757.2	47.5	8.6	60	S	18	8			9			0.256	6.5		
Christiania			30.26	768.7	34.5	1.4	98	S	4.3	1.9			10			0	0	Rain and fog	
Tromsö			29.76	756.0	39.0	3.9	78	SW	4	2			10			0.071	1.8		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. (Inches.)	Barometer: Corrected for instrumental errors. (Millimeters.)	Barometer: Reduced to sea-level. (Inches.)	Barometer: Reduced to sea-level. (Millimeters.)	Temperature of the Air. (Fahrenheit.)	Temperature of the Air. (Centigrade.)	Relative Humidity. (Per cent.)	Winds. Direction. (From—)	Winds. Velocity. (Miles per hour.)	Winds. Velocity. (Meters per second.)	Winds. Force. (0—10.)	Clouds. Amount. (Up'er —1—)	Clouds. Amount. (Low'r —10.)	Clouds. Direction. (Upper. From—)	Clouds. Direction. (Lower. From—)	Rain-fall in the past 24 hours. (Inches.)	Rain-fall in the past 24 hours. (Millimeters.)	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.35	770.8	53 4	11.9	74	NW	7.4	2.28	.....	.....	6	.....	.....	0.063	1.6	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.36	771.2	57.2	14.0	53	E	14.4	6.42	.....	.....	5	.....	.....	0	0	Solar corona	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.08	764.0	62.8	17.1	73	SSW	1.0	0.45	.....	.....	10	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.36	771.1	56.1	13.3	62	SE	9.8	4.4	.....	.....	7	SSW	.....	0	0	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.03	777.9	28.8	— 1.8	90	W	2	1	.....	.....	1	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30.58	776.6	26.4	— 3.1	96	NW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	30.42	772.7	30.0	— 1.1	97	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.28	769.2	27.0	— 2.8	100	SE	2	1	.....	.....	10	.....	.....	.....	.....	Light fog.....	Central Physical Obs
Kuopio	.....	.....	30.11	764.7	23.7	— 4.6	100	WSW	.....	.....	.....	.....	10	.....	.....	0	0	.....	Ch. Forsten.
Kieff	.....	.....	30.54	775.7	24.1	— 4.4	98	NNW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.58	776.8	24.1	— 4.4	89	N	4	2	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.52	775.1	25.5	— 3.6	93	NW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.38	771.6	23.0	— 5.0	79	NNW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.29	769.3	25.7	— 3.5	80	NNW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.27	768.9	3.2	—16.0	89	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.68	728.4	30.13	765.3	40.1	4.5	43	NNW	31	14	.....	.....	3	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.03	762.7	28.0	— 2.2	87	WNW	22	10	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.03	762.7	4.6	—15.2	91	NE	7	3	.....	.....	6	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.00	736.5	30.12	765.1	— 8.0	—22.2	79	N	18	8	.....	.....	7	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	29.95	760.8	29.3	— 1.5	94	W	13	6	.....	.....	10	.....	.....	.....	.....	.....	
Kassly	.....	.....	29.68	753.9	24.8	— 4.0	91	SW	20	9	.....	.....	10	.....	.....	.....	.....	Snow & fog.	Bobrof.
Tashkend	28.58	725.1	30.37	771.4	25.9	— 3.9	84	Calm	0	0	.....	.....	2	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.21	767.3	— 1.3	—18.5	80	NE	13	6	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.13	765.4	—25.8	—32.1	75	WNW	2	1	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.11	764.7	25.0	— 3.9	58	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.89	708.4	30.24	768.2	—18.2	—27.9	85	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.13	765.4	18.3	— 7.6	83	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	1.6	—16.9	90	NW	11	5	.....	.....	0	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 300.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.47	773.8	52.3	11.3	75	E	2.2	1.0	.....	1	0	NW	.....	0	0	Light clouds.	Royal Observatory.
San Fernando	.....	.....	30.34	770.5	60.4	15.8	69	ESE	18.6	8.3	.....	8	0	SE	.....	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.98	761.5	28.0	— 2.2	98	SSE	.....	.....	2	.....	10	.....	.....	0	0	Foggy.....	
Umea	.....	.....	30.04	763.1	27.0	— 2.8	96	SW	.....	.....	2	.....	8	.....	.....	0	0	.....	
Hernosand	.....	.....	30.10	764.5	35.6	2.0	71	Calm	.....	.....	0	.....	9	.....	.....	0	0	.....	
Stockholm	.....	.....	30.27	768.9	34.7	1.5	78	SW	.....	.....	2	.....	1	.....	.....	0	0	.....	
Wisby	.....	.....	30.47	774.0	34.9	1.6	96	WSW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Sub Series.																			
Upsala	.....	.....	30.20	769.5	33.6	0.9	82	SSW	12.3	5.5	.....	.....	1	WSW	.....	0.041	1.05	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.08	738.5	30.57	776.5	31.6	— 0.2	93	N			1		10			0	0	Foggy	The Observatory.
Zurich	28.87	733.3	30.61	777.5	25.3	— 3.7	97	W			1		10			0	0	Foggy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +11.3 mm.; Thermometer, —2.4 cent.; Relative Humidity, +17 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.53	775.5	37.4	3.0	66	NE	10	4.5			10		NE	0	0		
Fao, (Persian Gulf)			30.43	772.9	50.0	10.0		NW			3		0						
Salonica			30.52	775.2	52.0	11.0		N			1		0						
Valona			30.26	768.6	53.1	11.7		W			1		5						
Varna			30.43	773.0	37.4	3.0		NE			2		10						
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			30.28	769.0	59.7	15.4	59	N			2		0			0	0		Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.			30.40?	772.1?	—12.5	—24.7	74	Calm	0	0						0	0		Hon. J. Ferguson.
Brockville, Ontario			30.29	769.4	19	— 7.2		SW	8	3.6		5c	2s	W	N	0	0	Fair	W. R. Bigg.
*Chatham, N. B.			30.52	775.2	—11	—23.9	100	W	1	0.4		8c	0	W		0	0	Fair	G. A. Blair.
Charlottetown, P. E. Island			30.56	776.2	5	—15.0	87	S	10	4.5		0	0			0	0	Clear	H. J. Cundall, C. E.
Cornwall, Ontario			30.25	768.3	9.7	—12.4	85	NE			1		10s			0	0	Dull	James Smith, M. A.
Dalhousie, N. B.			30.43	776.9	—13.0	—25.0	74	W			2	1cs				0	0		H. A. Johnson.
Esquimault, B. C.			30.16	766.1	31.0	— 0.6	79	N	1	0.4		1cs				0	0	Clear	W. H. Bevis.
Fredericton, N. B.			30.57	776.5	—14.4	—25.8	95	Calm	0	0						0	0	Fair	Prof. Harrison.
*Fort Garry, Manitoba			30.39	771.9	—33	—36.1	100	NW	5	2.2		0	2s		NW	0	0	Fair	James Stewart.
Goderich, Ontario			30.10	764.5	23.9	— 4.5	80	SW			3	7c	3s			0	0	Cloudy	H. J. Strang, M. A.
Granton, Ontario			30.12	765.0	22.3	— 5.4		SW			1	1cs	0	E		0	0	Clear	James Grant.
*Halifax, N. S.			30.59	777.0	4	—15.6	87	E	1	0.4		0	0			0	0	Clear	F. Allison, M. A.
*Kingston, Ontario			30.29	769.4	23	— 5.0	77	S	10	4.5		2c	0			0	0	Fair	S. Woods, M. A.
Little Current, Ontario			29.91	759.6	30.8	— 0.7		S	5	2.2			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.26	768.6	15	— 9.4	70	S	16	7.2		2cs	5ks			0	0	Cloudy	C. H. McLeod, C.
*Ottawa, Ontario			30.23	767.8	3	—16.1	64	Calm	0	0		10cs	0			0	0	Cloudy	J. B. Haney.
*Parry Sound, Ontario			30.04	763.0	20	— 6.7	85	S	7	3.1		0	2ks		S	0	0	Fair	Rev. R. Mooley.
*Port Dover Ontario			30.18	766.6	28	— 2.2	88	S	14	6.3		10k	0	SW		0	0	Fair	H. Morgan.
Port Hastings, N. S.			30.55	776.0	26.1	— 3.3		Calm	0	0						0	0	Fine	Peter Grant.
*Port Stanley Ontario			30.17	766.3	27	— 2.8	92	S	12	5.4		5ck	0	S		0	0	Fair	M. Payne.
*Quebec, Quebec			30.32	770.1	4	—15.6	74	Calm	0	0		0	0			0	0	Clear	Capt. Ash, R. N.
St. John, N. B.			30.58	776.7	2.0	—16.7	72	N	1	0.4		0	0			0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.01	762.2	24	— 4.4	87	SW	3	1.3		10ks	0			0	0	Cloudy	K. Stewart.
Stayner, Ontario			30.07	763.8	25	— 3.9	69	S	6	2.7		5ck	0	NW		0	0	Fair	R. J. Cole.
Stratford, Ontario			30.14	765.5	22.5	— 5.3	79	SW	7	3.1		0	2s			0	0	Fine	C. J. MacGregor, M. A.
*Sydney, C. B.			30.62	777.7	3	—16.1	84	SW	7	3.1		0	0			0	0	Clear	T. C. Hill.
*Toronto, Ontario			30.17	766.3	28	— 2.2	73	SW	12	5.4		8cs	Haze	W	W	0	0	Cloudy	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery.

Note.- The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöpera vt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors.		Barometer. Reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Wind. Direction.	Wind. Velocity.		Wind. Force.	Clouds. Amount.		Clouds. Direction.		Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Up'er.	Low'r.	Upper. From—	Lower. From—	Inches.	Millimeters.		
Albany, N. Y.	...	...	30.43	772.9	18	−7.8	84	S	1	0.4	...	2k	Haze	S	...	0	0	Fair	
Alpena, Mich.	...	...	29.88	758.9	27	−2.8	77	SW	12	5.4	...	...	10s	...	SW	0	0	Cloudy	
Atlantic City, N. J.	...	...	30.53	775.4	24	−4.4	48	N	16	7.2	...	10cs	0	SW	...	0	0	Cloudy	
Augusta, Ga.	...	...	30.34	770.6	35	1.7	63	N	4	1.8	...	0	2s	...	NW	0	0	Fair	
Baltimore, Md.	...	...	30.44	773.2	26	−3.3	88	NE	5	2.2	...	8ck	Sm'e	E	...	0	0	Cloudy	
Barnegat, N. J.	...	...	30.41	772.4	32	0.0	79	E	16	7.2	...	...	10s	...	S	0	0	Cloudy	
Benton, Montana	27.25	692.1	30.05	763.3	−15	−26.1	100	NE	5	2.2	...	...	10s	...	...	0.10	2.5	Cloudy	
Bismarck, Dakota	28.30	720.3	30.33	770.4	−25	−31.7	53	N	12	5.4	...	...	10s	...	...	0	0	Cloudy	
Boston, Mass	...	...	30.53	775.1	12	−11.1	71	W	4	1.8	...	10k	Sm'e	SE	...	0	0	Smoky	
Breckenridge, Minn	...	...	30.16	766.1	−15	−26.1	72	N	34	15.2	...	...	10s	...	...	0	0	Cloudy	
Buffalo, N. Y.	...	...	30.17	766.7	28	−2.2	77	S	12	5.4	...	2c	0	...	...	0	0	Fair	
Burlington, Vt.	...	...	30.38	771.6	18	−7.8	63	S	20	8.9	...	2c	2s	...	...	0	0	Fair	
Cairo, Ill.	...	...	30.15	765.8	35	1.7	52	S	8	3.6	...	0	0	...	...	0	0	Clear	
Cape Hatteras, N. C.	...	...	30.13	765.3	46	7.8	85	NE	29	13.0	...	0	5s	...	NE	0.45	11.4	Fair	
Cape Henry, Va.	...	...	30.35	770.9	35	1.7	90	N	12	5.4	...	...	10s	...	...	0	0	Cloudy	
Cape May, N. J.	...	...	30.39	771.9	29	−1.7	81	N	8	3.6	...	...	10s	...	...	0	0	Cloudy	
Charleston, S. C.	...	...	30.30	769.6	38	3.3	80	N	10	4.5	...	...	10s	...	...	0.04	1.0	Cloudy	
Cheyenne, Wyoming	23.69	601.7	29.63	752.6	29	−1.7	59	SW	16	7.2	...	0	2s	...	...	0	0	Fair	
Chicago, Ill.	...	...	29.94	760.5	28	−2.2	77	S	14	6.3	...	2c	Sm'e	...	...	0	0	Fair	
Cincinnati, Ohio	...	...	30.17	766.3	28	−2.2	67	SE	5	2.2	...	0	0	...	...	0	0	Clear	
Cleveland, Ohio	...	...	30.17	766.8	22.2	−5.4	90	SE	12	5.4	...	2c	Sm'e	W	SE	0	0	Fair	
Colorado Springs, Col.	23.80	604.5	29.66	753.4	22	−5.6	58	NW	2	0.9	...	0	0	...	...	0	0	Clear	
Corsicana, Tex.	...	...	30.06	763.5	41	5.0	83	S	8	3.6	...	2c	2s	...	...	0	0	Fair	
Davenport, Iowa	...	...	29.90	759.4	29	−1.7	67	SW	4	1.8	...	0	0	...	...	0	0	Clear	
Denison, Tex.	...	...	29.91	759.7	45	7.2	54	S	16	7.2	...	0	0	...	...	0	0	Clear	
Denver, Col.	24.49	622.0	29.71	754.6	40	4.4	48	NW	10	4.5	...	0	0	...	...	0	0	Clear	
Detroit, Mich.	...	...	30.08	764.0	25	−3.9	75	SW	7	3.1	...	2cs	Sm'e	...	...	0	0	Fair	
Dodge City, Kan.	27.18	690.4	29.51	749.5	30	−1.1	68	N	7	3.1	...	0	0	...	...	0	0	Clear	
Dubuque, Iowa	...	...	29.86	758.4	28	−2.2	77	S	4	1.8	...	2cs	Haze	...	...	0	0	Fair	
Duluth, Minn.	...	...	29.98	761.5	4	−15.6	74	NE	4	1.8	...	...	10s	...	...	0	0	Cloudy	
Eastport, Me.	...	...	30.52	775.2	13	−10.6	81	SW	5	2.2	...	0	5s	...	SW	0	0	Fair	
Erie, Pa.	...	...	30.17	766.3	25	−3.9	88	S	20	8.9	...	5c	Haze	...	...	0	0	Fair	
Escanaba, Mich.	...	...	30.09	764.3	15	9.4	82	S	20	8.9	...	...	8s	...	S	0	0	Fair	
Fort Gibson, Indian Terr.	...	...	29.90	759.4	39	3.9	46	SE	11	4.9	...	0	0	...	...	0	0	Clear	
Fort Sill, Indian T.	28.61	726.7	29.75	755.6	34	1.1	61	Calm	0	0	...	0	0	...	...	0	0	Clear	
Fort Sully, Dakota	28.34	719.8	30.26	768.6	−13	−25.0	74	NW	20	8.9	...	...	10s	...	NW	0	0	Cloudy	
Galveston, Tex.	...	...	30.24	768.1	56	13.3	80	SE	4	1.8	...	0	0	...	...	0	0	Clear	
Grand Haven, Mich.	...	...	29.92	760.0	34	1.1	75	SW	21	9.4	...	5cs	0	W	...	0	0	Fair	
Indianapolis, Ind.	...	...	30.11	764.8	27	−2.8	66	S	6	2.7	...	0	0	...	...	0	0	Clear	
Indianola, Tex.	...	...	30.12	765.0	60	15.6	94	E	6	2.7	...	...	10s	...	S	0	0	Threatening	
Jacksonville, Fla.	...	...	30.25	768.3	45	7.2	45	N	8	3.6	...	...	10s	...	N	0.03	0.8	Cloudy	
Keokuk, Iowa	...	...	29.87	758.7	29	−1.7	77	SE	15	6.7	...	0	0	...	...	0	0	Clear	
Key West, Fla.	...	...	30.13	765.3	70.3	21.3	95	NE	17	7.6	...	5ck	5s,d	S	NE	0	0	Cloudy	
Kittyhawk, N. C.	...	...	30.26	768.6	42	5.6	91	NE	34	15.2	...	...	10n	...	NE	0.37	9.4	Light rain	
Knoxville, Tenn.	...	...	30.35	770.9	24	−4.4	100	E	3	1.3	...	...	Fog	...	...	0	0	Foggy	
La Crosse, Wis.	...	...	29.81	757.2	29	−1.7	78	S	6	2.7	...	10cs	Haze	S	...	0	0	Threatening	
Leavenworth, Kan.	...	...	29.84	757.9	29	−1.7	67	S	4	1.8	...	0	0	...	...	0	0	Clear	
Lexington, Ky.	2'.09	733.9	30.27	768.8	28	−2.2	78	S	16	7.2	...	0	0	...	...	0	0	Clear	
Long Branch, N. J.	...	...	30.46	773.7	31	−0.6	89	SE	10	4.5	...	...	10s	...	SE	0	0	Cloudy	
Louisville, Ky.	...	...	30.20	767.1	30	−1.1	78	SE	4	1.8	...	0	0	...	...	0	0	Clear	
Lynchburg, Va.	...	...	30.44	773.2	22	−5.6	85	Calm	0	0	...	5k	0	W	...	0	0	Fair	
Malone, N. Y.	...	...	30.20	767.1	27	−2.8	77	S	10	4.5	...	10cs	0	NW	...	0	0	Cloudy	
Marquette, Mich.	...	...	29.79	756.7	28	−2.2	88	S	4	1.8	...	...	10s	...	...	0	0	Cloudy	
Memphis, Tenn.	...	...	30.20	767.1	32	0.0	69	S	4	1.8	...	...	10s	...	SW	0	0	Cloudy	
Milwaukee, Wis.	...	...	29.89	759.2	25	−3.9	75	SW	14	6.3	...	2c	0	SE	...	0	0	Clear	
Mobile, Ala.	...	...	30.26	768.6	36	2.2	80	N	3	1.3	...	0	Sm'e	...	...	0	0	Clear	
Montgomery, Ala.	...	...	30.31	769.9	39	3.9	77	E	1	0.4	...	2c	Sm'e	...	...	0	0	Clear	
Morgantown, W. Va.	...	...	30.29	769.4	25	−3.9	74	N	1	0.4	...	0	Haze	...	...	0	0	Clear	
Mt. Washington, N. H.	23.79	604.3	30.15	765.8	9	−12.8	78	W	20	8.9	...	0	0	...	...	0	0	Clear	
Nashville, Tenn.	...	...	30.21	767.3	32	0.0	70	NE	3	1.3	...	0	0	...	...	0	0	Clear	
New Haven, Conn.	...	...	30.50	774.7	20	−6.7	52	NE	12	5.4	...	...	10s	...	...	0	0	Cloudy	
New London, Conn.	...	...	30.50	774.7	21	−6.1	78	N	8	3.6	...	...	10s	...	SE	0	0	Cloudy	
New Orleans, La.	...	...	30.21	767.3	46	7.8	69	NE	6	2.7	...	5c	Sm'e	W	...	0	0	Fair	
Newport, R. I.	...	...	30.40	772.4	27	−2.8	70	NE	4	1.8	...	...	10s	...	NE	0	0	Cloudy	
New York, N. Y.	...	...	30.40	773.7	25	−3.9	87	NE	12	5.4	...	...	Fog	...	...	0	0	Foggy	
Norfolk, Va.	...	...	30.34	770.6	34	1.1	89	NE	14	6.3	...	...	10s	...	NE	0.19	4.8	Threatening	
North Platte, Neb.	26.80	680.7	29.42	747.3	28	−2.2	65	Calm	0	0	...	0	2s	...	SW	0	0	Fair	
Omaha, Neb.	28.67	728.2	29.78	756.4	24	−4.4	75	Calm	0	0	...	2c	0	...	...	0	0	Fair	
Oswego, N. Y.	...	...	30.27	768.8	26	−3.3	74	SE	10	4.5	...	5cs	5s	...	...	0	0	Fair	
Peck's Beach, N. J.	...	...	30.42	772.7	31	−0.6	89	N	8	3.6	...	0	8s	...	...	0	0	Cloudy	
Pembina, Dakota	...	...	30.40	772.1	−28	−33.3	100	NW	12	5.4	...	5c	0	...	...	0	0	Fair	
Philadelphia, Penn.	...	...	30.45	773.4	25	−3.9	87	NE	9	4.0	...	5k	5s	NE	NE	0	0	Cloudy	
Pike's Peak, Colorado	17.40	442.0	29.61	752.1	−2	−18.9	67	SW	45	20.1	...	...	Fog	...	...	0	0	Foggy	
Pittsburgh, Penn.	...	...	30.28	769.1	23	−5.0	72	E	6	2.7	...	...	10s	...	...	0	0	Cloudy	
Port Huron, Mich.	...	...	30.09	764.3	24	−4.4	74	S	12	5.4	...	5c	2s	...	...	0	0	Cloudy	
Portland, Me.	...	...	30.53	775.4	7	−14.4	54	NW	4	1.8	...	0	0	...	...	0	0	Clear	
Portland, Oregon	...	...	30.29	769.4	41	5.0	91	NW	5	2.2	...	...	10n	...	...	0.07	1.8	Light rain	
Punta Rassa, Fla.	...	...	30.18	766.6	60.5	15.8	88	N	10	4.5	...	...	10s	...	NE	0	0	Cloudy	
Rochester, N. Y.	...	...	30.22	767.6	25	−3.9	75	S	7	3.1	...	5c	Haze	W	...	Inap.	Inap.	Fair	
Salt Lake City, Utah	25.54	648.7	29.87	758.7	35	1.7	70	N	1	0.4	...	...	10s	...	...	0.05	1.3	Cloudy	
Sandy Hook, N. J.	...	...	30.12	772.7	27	−2.8	88	NE	15	6.7	...	...	10ks	[illegible]	E	0	0	Cloudy	
San Diego, Cal.	...	...	30.10	764.5	45	7.2	75	E	4	1.8	...	...	0	...	...	0	0	Clear	
San Francisco, Cal.	...	...	30.23	768.0	45	7.2	88	N	10	4.5	...	0	10s	...	...	0.01	0.3	Cloudy	
Santa Fe, N. M.	23.17	588.5	29.71	754.6	20	−6.7	...	N	13	5.8	...	...	1s	...	...	0	0	Clear	
Savannah, Ga.	...	...	30.31	769.9	40	4.4	71	NE	5	2.2	...	0	10s	...	N	0	0	Cloudy	
Shreveport, La.	...	...	30.18	766.6	43	6.1	67	S	6	2.7	...	...	0	...	...	(	0	Cloudy	
Smithville, N. C.	...	...	30.28	769.1	35	1.7	90	N	9	4.0	...	10k	10ks	SW	N	0.05	1.3	Cloudy	
Springfield, Mass.	...	...	30.51	774.9	13	−10.6	61	Calm	0	0	...	...	10ks	...	...	0	0	Cloudy	
St. Louis, Mo.	...	...	30.03	762.7	31	−0.6	63	S	8	3.6	...	...	2s	...	...	0	0	Clear	
St. Marks, Fla.	...	...	30.25	768.3	48	8.9	85	NE	4	1.8	...	0	10s	...	NE	0	0	Cloudy	
St. Paul, Minn.	...	...	29.80	756.9	10	−12.2	75	N	7	3.1	...	...	10s	...	...	0	0	Cloudy	
St. Paul's Island, Alaska	...	...	29.43	747.5	31	−0.6	89	SW	3	1.3	...	...	2k	...	...	Inap.	Inap.	...	
Squan Beach, N. J.	...	...	30.35	770.9	33	0.6	79	E	17	7.6	...	1c	10ks	...	...	0	0	Cloudy	
Thatcher's Island, Mass.	...	...	30.53	775.2	21	−6.1	57	NW	11	4.9	...	...	10s	...	SE	0	0	Cloudy	
Toledo, Ohio	...	...	30.07	763.8	28	−2.2	77	S	10	4.5	...	...	2ks	...	S	0	0	Fair	
Tucson, Arizona	27.00	701.0	30.02	762.5	38	3.3	...	S	...	...	...	2ck	8s	SW	S	0	0	Fair	
Tybee Island, Ga.	...	...	30.31	769.9	41	5.0	91	N	18	8.0	...	0	10s	...	NE	0.04	1.0	Cloudy	
Vicksburg, Miss.	...	...	30.25	768.3	36	2.2	69	SE	5	2.2	...	2ck	0	W	...	0	0	Fair	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From —	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.91	607.3	29.39	746.5	17	— 8.3	67	NW	8	3.6	.....	.....	10ks	.....	W	0	0	Cloudy	
Washington, D. C.	.....	.....	30.45	773.4	21	— 6.1	72	N	6	2.7	.....	0	8s	.....	SE	0	0	Fair	
Wilmington, N. C.	.....	.....	30.30	769.6	34	1.1	90	N	10	4.5	.....	.....	10s	.....	NE	0.14	3.6	Cloudy	
Wood's Holl, Mass.	.....	.....	30.52	775.2	28	— 2.2	77	SE	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Wytheville, Va.	27.87	707.9	30.22	767.6	16	— 8.9	88	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.63	727.2	30.04	763.0	4	—15.6	61	N	20	8.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Yuma, Arizona	.....	.....	30.14	765.5	46	7.8	.....	N	.....	.....	.....	0	10s	.....	W	0	0	Cloudy	
Sub-Series.																			
Bridgetown, Barbados, W. I.	.....	.....	30.07	763.8	79	26.1	74	E	4	1.8	.....	5c	2s	NE	W	0	0	Fair	E. Racker.
Pointe-a-Pitre, Guadeloupe, de	.....	.....	30.03	762.7	76	24.4	86	E	.....	.....	.....	0	2k	.....	.....	0.40	10.2	Clear	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	30.14	765.5	71	21.7	75	Calm	0	0	.....	5ck	0	N	.....	0	0	Fair	Charles Hasselbrink
Kingston, Jamaica, W. I.	.....	.....	30.20	767.1	74	23.3	76	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.31	769.9	77	25.0	69	ESE	6	2.7	.....	2c	2k	E	.....	0	0	Clear	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.85	758.2	72	22.2	75	Calm	0	0	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
St. Georges, Bermudas	.....	.....	30.19	766.8	67.5	19.7	79	S	12.5	5.6	.....	8ck	0	SW	.....	Inap.	Inap.	Fair	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
York Factory, B. A.	.....	.....	29.96	761.0	—36.5	—38.1	.....	NW	18	8.0	.....	.....	10s	.....	.....	0.07	1.8	.....	J. Fortescue.
St. Johns, Newfoundland.	.....	.....	30.44	773.2	6.0	—14.4	.....	W	.....	.....	.....	0	0	.....	.....	0	0	Clear	John Delaney.
St. Joun's, Porto Rico, W.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Clifton, Jamaica, W. I.	27.20	690.9	30.00	762.0	63	17.2	84	N	2.0	0.9	.....	0	0	.....	.....	0	0	Clear	C. Partridge.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Medellin, Colombia, S. A.	25.15	638.9	.....	.....	65.0	18.3	85	.....	0	0	.....	3c	5s	.....	.....	0.46	11.7	Cloudy	Thomas Herran.
Paramaribo, D. Guiana, S. A.	.....	.....	29.99	761.7	79	26.1	91	NW	.....	.....	3	.....	10n	.....	.....	0.440	11.18	Raining	C. J. Hering.
Batavia, Dutch Guiana, S. A.	.....	.....	30.00	762.0	80.6	27.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.043	26.50	.....	Dr. H. Groot.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 1, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.24	768.0	59.5	15.3	63	Calm	.....	.....	0	.....	3	.....	.....	0	0	Fair	Charnot and Masselot.
Algiers	.....	.....	30.31	769.9	55.4	13.0	88	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear	Peter.
La Calle																			Kuntz.
Tunis	.....	.....	30.32	770.0	56.5	13.6	84	NW	.....	.....	2	.....	10	.....	.....	0.118	3.0	Hidden	Jacques.
Sfax	.....	.....	30.32	770.1	64.4	18.0	44	N	.....	.....	3	.....	3	.....	.....	0.961	24.4	Fair	Chauvey.
Saida	.....	.....	30.32	770.1	64.4	18.0	44	NE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	30.26	768.6	57.2	14.0	47	N	.....	.....	3	.....	10	.....	.....	0	0	Hidden	Colin.
Geriville	.....	.....	30.33	770.4	45.0	7.2	.....	SE	.....	.....	1	.....	2	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	30.26	768.5	48.0	8.9	56	SE	.....	.....	2	.....	1	.....	.....	0	0	Clear	Delord.
Biskra	.....	.....	30.30	769.5	55.4	13.0	77	N	.....	.....	1	.....	5	.....	.....	0.20	5.	Fair	Dubois.
	.....	.....	30.36	771.1	61.2	16.2	47		.....	.....		.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.54	775.8	29.5	— 1.4	88	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I. Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.58	776.6	23.0	— 5.0	93	NE	.....	.....	1	.....	0	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.53	775.4	29.8	— 1.2	96	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Hermannstadt	.....	.....	30.53	775.4	32.0	0.0	91	S	.....	.....	2	.....	10	.....	.....	0.094	2.4	.....	Andreas Rospini.
Kremsmünster	29.25	742.9	30.53	775.4	32.0	0.0	91	S	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. Reissenberger.
Lemberg	28.98	736.1	30.50	774.8	27.9	— 2.3	81	WNW	.....	.....	2	.....	3	.....	.....	0	0	.....	Prof. C. Wagner.
Nyiregyhaza	29.01	736.9	30.46	773.6	25.5	— 3.6	91	NE	.....	.....	1	.....	3	.....	.....	0	0	.....	Dr. T. Stanecki.
Pola	.....	.....	30.48	774.3	34.7	1.5	91	NW	.....	.....	0	.....	9	.....	.....	0	0	.....	Habzsuda Daniel.
Szegedin	.....	.....	30.57	776.4	18.0	— 7.8	94	Calm	.....	.....	2	.....	8cs	.....	.....	0.303	7.69	.....	I. R. Hydrographic Office
Trieste	.....	.....	30.32	770.2	47.7	8.7	77	WNW	.....	.....	3	.....	10	.....	.....	0	0	.....	Karl Stancel.
Vienna	.....	.....	30.58	776.8	22.6	— 5.2	.....	E	.....	.....	2	.....	6	.....	.....	0	0	Half clear.	Prof. V. Farolli.
	.....	.....	30.33	770.3	44.6	7.0	47	ESE	.....	.....	2	.....	10	.....	.....	0	0	.....	I. R. Central Institute.
	.....	.....	30.54	775.7	26.6	— 3.0	97	Calm	.....	.....	0	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	30.29	769.3	43.9	6.6	65	S	.....	.....	1	2	0	N	.....	0	0	.....	Royal Observatory.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.77	756.1	47.1	8.4	.....	S	21	9.4	.....	.....	9	.....	.....	0	0	Gloomy	William Boswell.
Ardrossan	.....	.....	29.78	756.4	49	9.4	.....	S	.....	.....	5	.....	8	.....	.....	.....	.....	Overcast	J. Mayes.
Armagh Observatory	.....	.....	29.79	756.7	48.1	8.9	.....	S	16	7.2	.....	.....	10	.....	.....	.....	.....	Raining	S. Call, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	29.96	761.0	51	10.6	.....	ESE	16	7.2	.....	.....	5	.....	.....	.....	.....	*D. clouds	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.84	757.9	45.1	7.3	.....	WNW	.....	.....	1	.....	10	.....	.....	.....	.....	Drizzling	J. Dreyer.
Bradford	.....	.....	29.92	760.0	53.1	11.7	.....	SW	.....	.....	1	.....	1	.....	.....	0	0	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	29.99	761.7	79.1	26.2	.....	NE	.....	.....	2	.....	2	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.14	765.5	46.0	7.8	.....	S	.....	.....	1	.....	10	.....	.....	Blank	Blank	Overcast	H. Todd.
Cardington	.....	.....	30.16	766.1	44.0	6.7	.....	S	.....	.....	1	.....	9	.....	.....	.....	.....	Overcast	John McLaren.
Carlisle	.....	.....	29.88	758.9	50.2	10.1	.....	S	.....	.....	3	.....	10	.....	.....	0	0	Overcast	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.18	766.6	45.2	7.3	.....	Calm	.....	.....	0	.....	.....	.....	.....	.....	.....	Blue sky	Capt. J. Fellowes, R. E.
Dartmoor	28.60	726.4	30.12	765.0	45.0	7.2	.....	S	.....	.....	4	.....	10	.....	.....	.....	.....	Rain & fog	R. E. Power.
Donaghadee	.....	.....	29.79	756.1	48	8.9	.....	S	.....	.....	5	.....	10	.....	.....	.....	.....	Squally	J. Mac Gowan.
Dover	.....	.....	30.22	767.6	43	6.1	.....	WSW	.....	.....	2	.....	5	.....	.....	.....	.....	½ clouded	J. Costello.
Eccles, (near Manchester)	.....	.....	29.98	761.5	51.4	10.8	.....	SSE	3.2	1.4	.....	.....	8	.....	.....	.....	.....	Gloomy	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.05	763.3	50.4	10.2	.....	SSW	21	9.4	.....	.....	10	.....	.....	.....	.....	Foggy	The Staff.
Fort Napier, (Natal)	23.44	769.7	29.69	754.1	81.6	27.6	.....	E	.....	.....	2	.....	1	.....	.....	.....	.....	*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone	.....	.....	29.94	760.5	85.0	29.4	.....	N	.....	.....	0	.....	5	.....	.....	.....	.....	.....	.....
Galway, Queen's College	.....	.....	29.78	756.4	48	8.9	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Gloomy	B. G. Clare, for Prof. Ellis.
Gibraltar, (Mediterranean)	.....	.....	30.20	767.1	57.0	13.9	.....	E	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.76	755.9	48.1	8.9	.....	S	.....	.....	2	.....	10	.....	.....	.....	.....	Threatening	Lewis Stuart.
Great Yarmouth	.....	.....	30.20	767.1	40	4.4	.....	S	.....	.....	3	.....	5	.....	.....	.....	.....	Misty	G. T. Watson.
Greenwich Royal Obs.	.....	.....	30.16	766.1	47.3	8.5	.....	SSE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	The Staff for G. B. Airy
Guernsey	.....	.....	30.13	765.3	47.5	8.6	.....	SSE	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.00	762.0	52.6	11.4	.....	SSW	.....	.....	2	.....	4	.....	.....	.....	.....	*D. clouds	L. J. Crossley.
Helston	.....	.....	30.05	763.3	52	11.1	.....	S	.....	.....	6	.....	10	.....	.....	0.11	2.8	Misty	M. P. Moyle.
Holyhead	.....	.....	29.91	759.7	49	9.4	.....	SSW	.....	.....	6	.....	10	.....	.....	.....	.....	Misty	John Tilston.
Kew Observatory	.....	.....	30.17	766.3	47.1	8.4	.....	S	8	3.6	.....	.....	10	.....	.....	.....	.....	Misty	The Staff.
Kingstown	.....	.....	29.84	757.9	52	11.1	.....	SSW	.....	.....	4	.....	9	.....	.....	.....	.....	Overcast	George Mitchell.
Leicester Museum	.....	.....	30.09	764.3	49.0	9.4	.....	S	.....	.....	3	.....	3	.....	.....	.....	.....	*D. clouds	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.14	765.5	58	14.4	.....	NE	.....	.....	3	.....	8k	.....	.....	.....	.....	*D. clouds	Fred Travis, Pvt A.H.C
Nairn	.....	.....	29.71	754.6	52	11.1	.....	SSW	.....	.....	1	.....	5	.....	.....	.....	.....	½ clouded	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.19	766.8	72.4	22.4	.....	SW	.....	.....	1	.....	7	.....	.....	.....	.....	*D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	30.07	763.8	51.0	10.6	.....	SSE	.....	.....	3	.....	3c,ck	.....	8	.....	.....	Blue sky	E. J. Lowe, F. R. S.
Oscott, St Mary's College	.....	.....	30.03	762.7	49.0	9.4	.....	S	.....	.....	3–4	.....	9	.....	.....	.....	.....	Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	30.10	764.5	47	8.3	.....	SSW	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	J. Lucas.
Plymouth	.....	.....	30.08	764.0	49	9.4	.....	S	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	John Merrifield.
Roche's Point, Queenst'n	.....	.....	29.88	758.9	50	10.0	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Raining	W. Kennedy.
Saint Ann's Head	.....	.....	29.99	761.7	49	9.4	.....	SSW	.....	.....	4	.....	7	.....	.....	.....	.....	*D. clouds	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.16	766.1	46.2	7.9	.....	SE	.....	.....	2	.....	5	.....	.....	.....	.....	½ clouded	A. P. Amy.
Sandwick Manse, (Orkneys)	.....	.....	29.60	751.8	49.1	9.5	.....	S	27	12.1	.....	.....	10	.....	.....	.....	.....	Overcast	Rev. Dr. Clouston
Scarborough	.....	.....	30.02	762.5	46.0	7.8	.....	S	.....	.....	4	.....	8	.....	.....	.....	.....	Overcast	F. Shaw.
Scutari Cemetery, Turkey	.....	.....	30.43	772.9	39.0	3.9	.....	ENE	.....	.....	2	.....	10	.....	.....	.....	.....	Drizzling	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.02	762.5	49.1	9.5	.....	SW	.....	.....	2	.....	2	.....	.....	0	0	Blue sky	W. F. Cooper.
Silloth Rectory	.....	.....	29.85	758.2	50.7	10.4	.....	SW	.....	.....	6	.....	5	.....	.....	0.150	3.81	*D. clouds	Rev. Francis Redford
Stonyhurst Observatory	.....	.....	29.96	761.0	49.9	9.9	.....	S	.....	.....	4	.....	10	.....	.....	.....	.....	Hazy	The Staff.
Stornoway, Lewis C. (Heb.)	.....	.....	29.54	750.3	46	7.8	.....	WNW	.....	.....	3	.....	10	.....	.....	.....	.....	Raining	John Smith.
Stratfield Turgiss	.....	.....	30.16	766.1	47.7	8.7	.....	SE	.....	.....	0–1	.....	10	.....	.....	.....	.....	Overcast	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.59	751.6	50	10.0	.....	S	.....	.....	4	.....	8	.....	.....	.....	.....	Gloomy	John Trotter.
Truro, Royal Institution	.....	.....	30.11	764.8	53	11.7	.....	SW	.....	.....	6	.....	10	.....	.....	.....	.....	Raining	W. Newcombe.
Valencia Observatory	.....	.....	29.90	759.4	47.7	8.7	.....	W	20	8.9	.....	.....	10	.....	.....	.....	.....	*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.98	761.5	74.2	23.4	44	SE	39	17.4	.....	.....	2	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	46	7.8	.....	S	.....	.....	7	.....	10	.....	.....	0.12	3.0	.....	.....
Leith, Restalrig Park	.....	.....	29.82	757.4	49.2	9.6	.....	SW	.....	.....	5	.....	10ks	.....	.....	0	0	Overcast	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.37	771.4	39.4	4.1	87	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Foggy	.....
Fanöe	.....	.....	30.34	770.7	37.2	2.9	91	SW	.....	.....	4	.....	1	.....	.....	.....	.....	.....	.....
Godthaab, (Greenland)	.....	.....	29.32	744.6	6.8	–14.0	91	NW	.....	.....	4	.....	10	.....	.....	.....	.....	.....	.....
Stykkishólm, (Iceland)	.....	.....	28.41	721.5	33.3	0.7	96	S	.....	.....	6	.....	10	.....	.....	.....	.....	.....	.....
Thorshavn, (Faroe)	.....	.....	29.30	744.1	44.8	7.1	70	SW	.....	.....	4	.....	8	.....	.....	.....	.....	Raining	.....
Vestervig	.....	.....	30.26	768.7	39.2	4.0	93	S	.....	.....	4	.....	4	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. Inches.	Millimeters.	Temperature of the air. Fahrenheit.	Centigrade.	Relative humidity. Per cent.	Winds. Direction. From—	Velocity. Miles per hour.	Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Low'r 0—10.	Direction. Upper. From—	Lower. From—	Rain-fall in the past 24 hours. Inches.	Millimeters.	Weather.	Observer.
Alençon			30.24	768.0	40.4	8	48	SW			2		10			0	0	Covered	Normal School.
Amiens			30.33	770.4	42.4	5.8	75	W			6		0			0	0	Clear	Normal School.
Avignon			30.32	770.2	43.2	6.2	73	NNE			1		0			0	0	Very clear	Normal School.
Bar-sur-Seine			30.51	774.9	44.6	7	56	S			1		0			0	0	Clear	C. Saillard.
Beaumette, (near Angers)			30.22	767.5	48.6	9.2	70	SE	0.0	0.0					NNW	0	0		Beaumette Observatory
Beauvais			30.30	769.6	39.4	4.1	70	SSE			1		8			0	0	Very cloudy	Normal School.
Besançon			30.41	772.5	28.8	− 1.8		WSW			2		10		SW	0	0	Covered	Normal School.
Bourg en Bresse			30.40	772.1	28.4	− 2	94	W			2		10n					Covered	Normal School.
Bourges			30.39	771.8	35.6	2	73	NW			3		2		NW	0	0	Slightly cl'dy	Normal School.
Brest			30.07	763.6	53.1	11.7	85	SSW			3		8		SW	Inap.	Inap.	Almost cov'd	Naval Observatory.
Caen			30.21	767.2	52.7	11.5		NW			2								Normal School.
Chartres			30.23	767.7	40.6	4.8		E			2		4		E	0	0		Normal School.
Chaumont																			Normal School.
Clermont			30.47	774.0	48.2	9.0	52	NE			2		0			0	0	Clear	Puy de Dome, Obs.
Commercy			30.44	773.2	23.5	− 4.7	95	ESE			2		10s,k		SE	0	0	Covered	Normal School.
Commune de Gréasque*			30.32	770.1	51.8	11.0	57	SE			2		8		SE	0	0		
Grenoble			30.38	771.7	33.8	1	81	ENE			1		10			0	0	Foggy	Normal School.
Le Mans			30.25	768.4	45.3	7.4	57	SE			2		0			0	0	Clear	Normal School.
Loches																			
Lons-Le-Saulnier			30.40	772.1	31.3	− 0.4	85	NW			1		10			0	0	Foggy	Normal School.
Mâcon			30.36	771.1	28.4	− 2		Calm			0		10			0	0	Covered	Normal School.
Mirecourt			30.36	771.2	27.3	− 2.6	92	SSW			1		0			0	0	Clear	Normal School.
Metz																			
Nismes			30.35	770.8	52.2	11.2	90	NE			2		0			0	0	Clear	Normal School.
Orleans			30.26	768.7	42.4	5.8	73	ESE			2		5		SE	0	0	Cloudy	Normal School.
Paris Observatory			30.30	769.5	39.4	4.1	90	S			1		5			0	0	Cloudy	National Observatory.
Parthenay			30.25	768.4	54.5	12.5	95	SW			2		5		SW	0	0	Cloudy	Normal School.
Privas			30.36	771.1	32.4	0.2		SW			2		10			0	0	Covered	Normal School.
La Roche-sur-Yon			30.27	768.8	49.3	9.6	69	SE			2		10			0	0	Covered	Normal School.
Rochefort, Observatory			30.24	768.1	51.8	11.0	70	S			3		10		N	0	0	Covered	Naval Observatory.
Rouen			30.25	768.4	42.3	5.7	81	SE			2		0			0	0	Clear	Normal School.
Saint Lo			30.21	767.2	52.5	11.4	59	SSW			2		8		SE	0	0		Normal School.
Tarbes	29.15	740.4	30.23	767.8	50.0	10	35	NE			2		0			0	0	Clear	Normal School.
Toulouse			30.38	771.7	45.1	7.3	91	SE			1		0					Clear	Normal School.
Villefranche			30.41	772.3	30.2	− 1	82	SSE			2					0	0	Foggy	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.03	760.1	77.4	25.2	83	NE			2		2k			0.08	2.		L'Abbé Marchési.
Gorée																			
Marseilles			30.32	770.0	54.7	12.6	88	SE			1		5			0	0		Marseilles Observatory.
Mont-Louis	24.97	634.1	30.40	772.1	39.7	4.3	37	N	1.9	0.83			2		N	0	0		—. Falguère.
Montsouris, Paris			30.28	769.0	41.7	5.4	72	SSE			0		8		NNW	0	0	Halo	Montsouris Observ'tory
Perpignan			30.30	769.6	47.1	8.4	78	NE	9.3	4.17			2		SE	0	0		Dr. Fines.
Pic du Midi, (Summit) H. P.	21.30	541.0			30.0	− 1.1		N			1		3					Fair	M. Baylac.
Saint Maur, (near Paris)			30.28	769.1	43.3	6.3	58	SE			1		1			0	0	Clear	E. Renou.
Toulouse			30.27	768.9	46.8	8.2	72	SE			1		0			0	0		Toulouse Observatory
Tours			30.23	767.7	44.6	7.0	71	ESE			2		3		N	0	0		C. Marquet.
Versailles, (near Paris)			30.26	768.6	43.5	6.4	53	SW			2		0			0	0	Hazy?	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.23	767.7	37.9	3.3	91	SE	1.6	0.7			10			{ 0 / 0	0 / 0 }		H. Le Lec, S.J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Stations.	Corr. Inches	Corr. Millimeters	Red. Inches	Red. Millimeters	Fahrenheit	Centigrade	Per cent.	Wind from—	Miles per hour	Meters per second	Force	Up'er	Low'r	Upper from—	Lower from—	Rain Inches	Rain Millimeters	Weather	Observer
Bamberg			30.32	770.2	27.9	− 2.3	87	SW			2		2			0	0		Prof. T. Heh.
Berlin			30.47	773.8	33.4	0.8	69	SE			1		0			0	0		Prof. Arndt.
Breslau			30.51	775.0	30.9	− 0.6	83	ESE			2		0			0	0		Dr. P. Neugebauer.
Carlsruhe			30.39	771.9	30.9	− 0.6	96	NW			3		0			0	0		A. Senz.
Cassel			30.41	772.3	38.3	3.5	75	SSW			2		0			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main			30.50	774.8	29.3	− 1.5	82	E			1		2			0	0		Physical Society.
Friedrichshafen			30.45	773.5	25.0	− 3.9	71	NE					10			0	0	Smoke-haze	M. Wilhelm.
Hamburg			30.39	772.0	37.6	3.1	84	ESE			2		2			0	0	Fine, fog	Deutsche Seewarte.
Kiel			30.45	773.3	39.4	4.1	75	SW			1		0?			0.008	0.2	Snowing ?	Prof. G. Karsten.
Königsberg			30.41	772.5	32.5	0.3	91	W			2		9			0	0		Prof. E. Luther.
Köslin			30.45	773.5	34.0	1.1		Calm			0		7			0	0		H. Müller.
Leipsic			30.45	773.4	34.2	1.2	72	S			1		0			0	0		Prof. Bruhns.
Münster			30.38	771.7	43.5	6.4	68	NE			2		0			0	0		Prof. E. Heis.
Posen			30.52	775.2	30.4	− 0.9	83	S			1		1			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.45	773.3	23.5	− 4.7	100	NE			1		10			0	0		Dr. Schur.
Stuttgart			30.41	772.4	32.0	0.0	78	NE					0			0	0		Prof. Schoder.
Thorn			30.48	774.3	32.9	0.5	86	NE			2		3			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.30	769.7	33.1	0.6	78	NE			1		0			0	0	Foggy	Prof. Frese.
Wustrow, Naval School			30.54	775.8	36.7	2.0	70	S			3		6			0	0		E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Corr. Inches	Corr. Millimeters	Red. Inches	Red. Millimeters	Fahrenheit	Centigrade	Per cent.	Wind from—	Miles per hour	Meters per second	Force	Up'er	Low'r	Upper from—	Lower from—	Rain Inches	Rain Millimeters	Weather	Observer
Athens			30.26	760.2	52.3	11.3		NE										Half clear	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. Inches.	Millimeters.	Temperature of the Air. Fahrenheit.	Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Velocity. Miles per hour.	Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Low'r 0—10.	Direction. Upper. From—	Lower. From—	Rain-fall in the past 24 hours. Inches.	Millimeters.	Weather.	Observer.
Udine			30.30	769.7	46.2	7.9	42	NE	6.3	2.8			5			0	0		
Padua			30.34	770.6	45.1	7.3	63	NE	6.3	2.8			10	S		0	0		
Vicenza			30.34	770.7	46.0	7.8	78	E	0	0			5			0	0		
Verona																			
Bergamo			30.33	770.3	42.8	6.0	73	SE			4		6			0	0		
Domodossola																			
Milan			30.40	772.2	43.7	6.5	81	NNW			1		3	NNW		0	0		
Pavia																			
Moncalieri			30.44	773.2	34.9	1.6	68	NW	3.8	1.7			9	S		0	0		
Mondovi			30.39	771.8	40.3	4.6	55	W			2		8	N		0	0		
Porto Maurizio																			
Genoa			30.32	770.2	48.6	9.2	49	N	6.3	2.8			4	S		0	0		
Piacenza			30.40	772.1	40.8	4.9	76	NW	7.4	3.3			0			0	0		
Bologna			30.38	771.6	42.3	5.7	34	W			1		7	E		0	0		
Florence			30 33	770.3	48.6	9.2	64	NE			4		10			0	0		
Leghorn																			
Siena			30.29	769.3	45.1	7.3	88	NE	0	0			10	SE		0.043	1.1	Raining	
Urbino																			
Pesaro																			
Ancona			30.35	771.0	42.8	6.0	91	WNW			4		10			0	0		
Grosseto			30.28	769.2	51.1	10.6	81	N			2		8	SE		0.130	3.3		
Rome			30.26	768.7	56.3	13.5	75	S	1.8	0.8			5	SSW		0	0		
Naples, O. U			30.27	768.8	60.4	15.8	53	S			1		9	S		0	0		
Lecce			30.28	769.1	55.8	13.2	60	NW	22.4	10.0			2	NW		0	0		
Cosenza			30.27	768.9	55.0	12.8	76	WNW			1		10			0	0		
Riposto, (Sicily)			30.23	767.7	57.9	14.4	80	E			2		8	NW		0	0		
Palermo			30.19	766.9	57.7	14.3	64	E	1.8	0.8			10			0	0		
Caltanissetta			30.30	769.6	51.1	10.6	54	NNE			2		6	WSW		0	0		
Sub-Series.																			
Naples, S. R			30.27	768.8	53.6	12.0	70	SW	0.7	0.3	2		.8	W		0	0	Dense fog	Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, not known.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.31	769.9	40.6	4.8		S			2								
Groningen			30.29	769.4	38.5	3.6		S			2								
Helder			30.26	768.6	40.5	4.7		SSE			2								
Utrecht			30.28	769.2	39.9	4.4	89	SSE			3		0					Clear	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.99	761.7	49.6	9.8	76	S	26.2	11.7			5			0.374	9.5		
Brönö			29.85	758.1	45.3	7.4	83	SSE	11	5			9			0	0		
Christiania			30.16	766.1	35.8	2.1	100		0.4	0.2			10			0	0	Misty	
Tromsö			29.64	752.9	40.6	4.8	68	S	11	5			10			0.063	1.6		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.36	771.1	55.0	12.8	68	N	8.2	3.67	.....	.....	3	.....	.....	0.055	1.4	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.23	767.8	58.3	14.6	56	ESE	4.5	2.00	.....	.....	8	ESE	.....	0	0	Solar corona	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.12	765.1	63.9	17.7	64	SE	8.0	3.58	.....	.....	10	.....	.....	0.024	0.6	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.28	769.2	54.7	12.6	78	E	2.5	1.1	.....	.....	8	S	.....	0	0	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.50	774.6	33.1	0.6	85	SSE	9	4	.....	.....	5	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.37	771.3	30.4	— 0.9	93	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.15	765.8	33.3	0.7	98	W	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.00	761.9	32.7	0.4	98	SW	7	3	.....	.....	10	.....	.....	.....	.....	Rain & snow	Central Physical Obs.
Kuopio	.....	.....	29.91	759.8	30.0	— 1.1	98	WSW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	30.44	773.2	25.9	— 3.4	95	NW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.60	777.1	25.3	— 3.7	87	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Kurdukof.
Kertch	.....	.....	30.50	774.8	28.4	— 2.0	90	WNW	2	1	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.44	773.1	10.6	—11.9	78	S	9	4	.....	.....	5	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.38	771.7	21.9	— 5.6	73	ENE	18	8	.....	.....	9	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	29.89	759.3	14.4	— 9.8	94	SSW	22	10	.....	.....	10	.....	.....	.....	.....	Heavy snow	Ogorodnikof.
Tiflis	28.82	732.0	30.30	769.6	38.1	3.4	70	N	31	14	.....	.....	7	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.40	772.1	11.8	—11.2	79	NNW	7	3	.....	.....	3	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.40	772.2	1.2	—17.1	89	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.16	740.7	30.33	770.4	—17.0	—27.2	67	NW	2	1	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.12	765.1	18.1	— 7.7	81	W	18	8	.....	.....	9	.....	.....	.....	.....	.....	
Kasaly	.....	.....	29.83	757.6	9.1	—12.7	80	SW	20	9	.....	.....	10	.....	.....	.....	.....	Fog, snow	Bobrof.
Tashkend	28.65	727.8	30.48	774.1	28.0	— 2.2	83	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	29.97	761.2	22.6	— 5.2	80	SW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.11	764.9	—34.6	—37.0	80	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	30.17	766.4	25.9	— 3.4	54	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	30.17	766.2	11.3	—11.5	82	NW	16	7	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostook	.....	.....	.....	.....	— 3.3	—19.6	81	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.29	769.4	51.4	10.8	61	E	3.0	1.33	.....	0	0	.....	.....	0	0	Clear	Royal Observatory.
San Fernando	.....	.....	30.23	767.8	58.8	14.9	70	E	17.7	7.9	.....	3	5	W	E	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.89	759.2	22.6	— 5.2	85	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	29.96	760.9	38.5	3.6	90	NW	.....	.....	2	.....	2	.....	.....	0	0	.....	
Hernosand	.....	.....	29.95	760.8	34.9	1.6	78	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Stockholm	.....	.....	30.11	764.8	39.0	3.9	93	W	.....	.....	4	.....	10	.....	.....	0.043	1.1	Foggy	
Wisby	.....	.....	30.28	769.1	36.0	2.2	96	W	.....	.....	4	.....	10	.....	.....	0.252	6.4	.....	
Sub-Series.																			
Upsala	.....	.....	30.13	765.4	36.7	2.6	97	WSW	7.2	3.2	.....	.....	10	.....	.....	0.004	0.11	Misty	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.91	734.3	30.41	772.4	29.8	— 1.2	86	NNE	.....	.....	2	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.68	728.5	30.42	772.6	26.4	— 3.1	96	NE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +7.1 mm.; Thermometer, —3.4 cent.; Relative Humidity, +10 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.44	773.1	38.1	3.4	72	ENE	16	7.0	.....	.....	10	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.39	772.0	50.0	10.0	.....	NW	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.41	772.5	54.1	12.3	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	30.12	765.0	57.6	14.2	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	30.39	772.0	33.8	1.0	.....	NE	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.11	764.9	61.0	16.1	54	N	.....	.....	1	.....	0	.....	.....	0	0	Fair	Prof. C. V. A. Van Dyck.

NOTE.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	30.15	765.8	— 4.5	-20.3	82	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.00	762.0	25	— 3.9	.....	SW	4	1.8	.....	.....	Haze	.....	SW	0	0	Hazy	W. R. Bigg.
*Chatham, N. B	.....	.....	30.16	766.1	21	— 6.1	85	SW	4	1.8	.....	2k	8ks	SW	SW	0	0	Cloudy	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	30.22	767.6	22	— 5.6	96	SE	5	2.2	.....	.....	..8	.....	.....	0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.90	759.4	18.7	— 7.4	89	SE	.....	.....	1	.....	10s	.....	.....	0	0	Dull	James Smith, M. A.
Dalhousie, N. B	.....	.....	30.19	766.8	7.6	—13.6	89	.....	.....	.....	2	.....	10n	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C	.....	.....	30.00	762.0	34.1	1.2	91	W	2	0.9	.....	.....	10	.....	.....	0.52	13.2	Rainy	W. H. Bevis.
Fredericton, N. B	.....	.....	30.21	767.3	23.0	— 4.5	81	S	1	0.4	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.55	776.0	—37	—38.3	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	James Stewart.
Goderich, Ontario	.....	.....	29.68	753.9	37.5	3.1	63	SW	.....	.....	3	10ck	.....	SW	.....	0	0	Cloudy	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.73	755.1	34.0	1.1	.....	SW	.....	.....	2	.....	10n	.....	.....	0	0	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	30.22	767.6	28	— 2.2	93	E	7	3.1	.....	.....	8n	.....	.....	0	0	Cloudy	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.98	761.5	22	— 5.6	77	SE	6	2.7	.....	8c	0	.....	.....	0	0	Fair	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.74	755.4	5.6	—14.7	.....	NE	15	6.7	.....	.....	10s	.....	.....	0.40	10.2	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.97	761.2	22	— 5.6	87	S	20	8.9	.....	5cs	5ks	W	W	0	0	Cloudy	C. H. McLeod, C.
*Ottawa, Ontario	.....	.....	29.95	760.7	19	— 7.2	70	E	8	3.6	.....	.....	10ks	.....	SW	0	0	Cloudy	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.73	755.1	30	— 1.1	95	SE	7	3.1	.....	.....	10n	.....	S	0.10	2.5	Light snow	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.79	756.7	36	2.2	71	S	10	4.5	.....	.....	10ks	.....	S	0	0	Cloudy	H. Morgan.
Port Hastings, N. S	.....	.....	29.96	761.0	27.1	— 2.7	.....	S	7	3.1	.....	.....	.....	.....	.....	0	0	Fine	Peter Grant.
*Port Stanley, Ontario	.....	.....	29.79	756.7	35	1.7	78	SE	8	3.6	.....	.....	10n	.....	SE	0	0	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	30.06	763.5	13	—10.6	81	Calm	0	0	.....	8k	0	.....	.....	0	0	Fair	Capt. Ash, R. N.
St. John, N. B	.....	.....	30.23	767.8	27.0	— 2.8	88	S	3	1.3	.....	.....	10s	.....	.....	Inap.	Inap.	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.68	753.9	35	1.7	80	S	2	0.9	.....	.....	10ks	.....	.....	0	0	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	29.72	754.9	33	0.6	71	SE	5	2.2	.....	.....	10ks	.....	W	0	0	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	29.73	755.1	34.6	1.4	73	SW	13	5.8	.....	.....	10s	.....	.....	0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	30.30	769.6	21	— 6.1	94	E	1	0.4	.....	.....	10n	.....	.....	0	0	Cloudy	T. C. Hill.
*Toronto, Ontario	.....	.....	29.81	757.2	36	2.2	78	S	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöpera . vt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.08	764.0	28	— 2.2	88	SE	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Alpena, Mich	.....	.....	29.60	751.8	30	— 1.1	100	Calm	0	0	.....	.....	10n	.....	.....	0.02	0.5	Light snow..	
Atlantic City, N. J	.....	.....	30.20	767.1	35	1.7	90	S	4	1.8	.....	.....	10s	.....	S	0	0	Cloudy.....	
Augusta, Ga.	.....	.....	30.16	766.1	36	2.2	100	E	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Baltimore, Md.	.....	.....	30.16	766.1	34	1.1	89	S	5	2.2	.....	2k	2s	SW	S	0	0	Fair.....	
Barnegat, N. J.	.....	.....	30.20	767.1	34	1.1	79	S	4	1.8	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.....	
Benton, Montana	27.50	698.5	30.30	769.6	—21	—29.4	100	SW	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Bismarck, Dakota	28.63	727.2	30.64	778.2	—28	—33.3	44	NW	2	0.9	.....	0	0	.....	.....	0.01	0.3	Clear.....	
Boston, Mass.	.....	.....	30.21	767.3	25	— 3.9	88	SW	8	3.6	.....	.....	10s	.....	.....	0	0	Threatening	
Breckenridge, Minn	.....	.....	30.57	776.5	—25	—31.7	55	NW	8	3.6	.....	8cs	2s	N	N	0	0	Cloudy.....	
Buffalo, N. Y.	.....	.....	29.76	755.9	37.5	3.1	42	S	12	5.4	.....	Haze	8ks	S	S	0	0	Cloudy.....	
Burlington, Vt.	.....	.....	30.02	762.5	24	— 4.4	74	S	12	5.4	.....	2k	5s	.....	.....	0	0	Cloudy.....	
Cairo, Ill.	.....	.....	29.65	753.1	51	10.6	59	SW	5	2.2	.....	.....	10n	S	SW	Inap.	Inap.	Light rain..	
Cape Hatteras, N. C.	.....	.....	30.13	765.3	45	7.2	100	NE	9	4.0	.....	.....	Fog	.....	.....	0.10	2.5	Foggy	
Cape Henry, Va.	.....	.....	30.19	766.8	42	5.6	91	NW	1	0.4	.....	.....	10s	.....	NW	0.03	0.8	Cloudy.....	
Cape May, N. J.	.....	.....	30.19	766.8	38	3.3	80	W	6	2.7	.....	5c	0	W	.....	0	0	Fair.....	
Charleston, S. C.	.....	.....	30.16	766.1	45	7.2	84	NE	6	2.7	.....	.....	10n	.....	NE	0.06	1.5	Light rain....	
Cheyenne, Wyoming	24.02	610.1	29.96	761.0	4	—15.6	100	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Chicago, Ill.	.....	.....	29.66	753.4	28	— 2.2	77	NW	9	4.0	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow.	
Cincinnati, Ohio	.....	.....	29.69	754.1	44	6.7	59	SW	4	1.8	.....	.....	10s	.....	SW	Inap.	Inap.	Cloudy.....	
Cleveland, Ohio	.....	.....	29.75	755.6	37.7	3.2	71	SE	11	4.9	.....	.....	10n	.....	SW	Inap.	Inap.	Light rain...	
Colorado Springs, Col.	24.15	613.4	30.02	762.5	3	—16.1	19	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Corsicana, Tex.	.....	.....	30.06	763.5	37	2.8	62	NW	25	11.2	.....	0	0	.....	.....	0	0	Clear.....	
Davenport, Iowa	.....	.....	29.88	758.9	15	— 9.4	83	NW	20	8.9	.....	.....	10n	.....	.....	0.03	0.8	Light snow.	
Denison, Tex.	.....	.....	30.19	766.8	20	— 6.7	85	NW	26	11.6	.....	0	0	.....	.....	0	0	Clear.....	
Denver, Col.	24.89	632.2	30.11	764.8	9	—12.8	36	W	4	1.8	.....	0	0	.....	.....	0.02	0.5	Clear.....	
Detroit, Mich.	.....	.....	29.04	752.8	39	3.9	63	S	10	4.5	.....	.....	10s	.....	.....	0	0	Threatening	
Dodge City, Kan.	27.67	702.8	30.26	768.6	— 1	—18.3	85	W	20	8.9	.....	0	0	.....	.....	0	0	Clear.....	
Dubuque, Iowa	.....	.....	29.92	760.0	12	—11.1	61	NW	8	3.6	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow..	
Duluth, Minn.	.....	.....	30.02	762.8	12	—11.1	61	N	30 ?	13.42	.....	0	0	.....	.....	0	0	Cloudy.....	
Eastport, Me.	.....	.....	30.30	769.6	—15	—26.1	.....	NW	32	14.3	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Erie, Pa.	.....	.....	30.18	766.6	28	— 2.2	88	NW	1	0.4	.....	0	0	.....	.....	0	0	Cloudy.....	
Escanaba, Mich.	.....	.....	29.76	755.9	39	3.9	63	W	1	0.4	.....	.....	10s	.....	.....	0	0	Threatening	
Fort Gibson, Indian Terr.	.....	.....	29.98	761.5	10	—12.2	89	S	22	9.8	.....	.....	10s	.....	.....	0	0	Threatening	
Fort Sill, Indian T.	29.14	740.1	30.23	767.8	13	—10.6	81	S	28	12.5	.....	.....	10n	.....	N	0.24	6.1	Light snow..	
Fort Sully, Dakota	28.73	729.7	30.38	771.6	12	—11.1	61	NW	36	16.1	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Galveston, Tex.	.....	.....	30.75	781.0	—23	—30.6	58	N	30 ?	13.42	.....	0	0	.....	.....	0	0	Clear.....	
Grand Haven, Mich.	.....	.....	29.94	760.5	66	18.9	94	NW	10	4.5	.....	0	0	.....	.....	0.01	0.3	Clear.....	
Indianapolis, Ind.	.....	.....	29.60	751.8	34	1.1	84	W	14	6.3	.....	.....	10s	.....	W	0.36	9.1	Cloudy.....	
Indianola, Tex.	.....	.....	29.67	753.6	43	6.1	83	SW	8	3.6	.....	.....	10s	.....	NW	Inap.	Inap.	Cloudy	
Jacksonville, Fla.	.....	.....	30.01	762.2	64	17.8	100	W	11	4.9	.....	.....	10n	.....	W	0.23	5.8	Light rain...	
Keokuk, Iowa	.....	.....	30.12	765.0	51	10.6	93	W	12	5.4	.....	.....	10s	.....	W	0.27	6.9	Cloudy.....	
Key West, Fla.	.....	.....	29.94	760.5	9	—12.8	78	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Kittyhawk, N. C.	.....	.....	30.12	765.0	71.0	21.7	95	NW	20	8.9	.....	.....	10s	.....	NW	0.02	0.5	Cloudy.....	
Knoxville, Tenn	.....	.....	30.20	767.1	42	5.6	100	E	11	4.9	.....	0	5ks	.....	E	0	0	Fair.....	
La Crosse, Wis.	.....	.....	29.99	761.7	34	1.1	90	N	14	6.3	.....	.....	10n	.....	N	0.28	7.1	Light rain...	
Leavenworth, Kan	.....	.....	29.98	761.5	10	—12.2	89	E	2	0.9	.....	.....	10ks	.....	SW	Inap.	Inap.	Cloudy.....	
Lexington, Ky.	28.09	728.7	29.80	756.9	39	3.9	82	N	12	5.4	.....	.....	10s	.....	N	0.04	1.0	Cloudy.....	
Long Branch, N. J.	.....	.....	30.20	767.1	34	1.1	79	S	28	12.5	.....	.....	10s	.....	NW	0.02	0.5	Cloudy.....	
Louisville, Ky.	.....	.....	29.72	754.9	43	6.1	83	Calm	8	3.6	.....	.....	10s	.....	SW	0.05	1.3	Light rain....	
Lynchburg, Va.	.....	.....	29.72	755.3	26	— 3.3	88	Calm	0	0	.....	.....	10n	.....	.....	0	0	Cloudy.....	
Malone, N. Y.	.....	.....	30.17	759.2	31	— 0.6	80	S	8	3.6	.....	10cs	0	NW	.....	0	0	Cloudy.....	
Marquette, Mich.	.....	.....	29.89	759.2	8	—13.3	89	NW	20	8.9	.....	.....	10n	.....	NW	0.13	3.3	Light snow..	
Memphis, Tenn.	.....	.....	30.00	762.0	49	9.4	85	S	9	4.0	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Milwaukee, Wis.	.....	.....	29.73	755.1	16	— 8.9	91	N	19	8.5	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow..	
Mobile, Ala.	.....	.....	29.77	761.2	59	15.0	100	SW	6	2.7	.....	.....	10n	.....	SW	0.05	1.3	Light rain....	
Montgomery, Ala.	.....	.....	29.97	762.2	48	8.9	92	SE	8	3.6	.....	.....	10n	.....	SW	0.17	4.3	Light rain...	
Morgantown, W. Va.	.....	.....	30.01	762.8	35	1.7	70	E	1	0.4	.....	10c	0	SW	.....	0	0	Cloudy.....	
Mt. Washington, N. H.	23.60	599.4	29.88	758.9	19	— 7.2	69	W	36	16.1	.....	0	5s	.....	.....	0	0	Fair.....	
Nashville, Tenn.	.....	.....	29.96	761.0	46	7.8	85	W	10	4.5	.....	.....	10n	.....	S	0.12	3.0	Light rain...	
New Haven, Conn	.....	.....	29.78	756.4	33	0.6	79	S	8	3.6	.....	.....	10s	.....	.....	0	0	Threatening	
New London, Conn	.....	.....	30.19	767.6	29.5	— 1.4	77	SW	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.....	
New Orleans, La	.....	.....	30.22	759.2	61.5	16.4	97	S	1	0.4	.....	.....	10n	.....	.....	0.62	15.7	Heavy rain...	
Newport, R. I.	.....	.....	29.89	767.3	28	— 2.2	77	S	6	2.7	.....	.....	10s	.....	W	0	0	Cloudy..	
New York, N. Y.	.....	.....	30.21	766.8	31	— 0.6	79	SW	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy...	
Norfolk, Va.	.....	.....	30.19	766.6	39.5	4.2	91	S	4	1.8	.....	.....	10s	.....	.....	0.04	1.0	Cloudy.....	
North Platte, Neb.	27.36	694.9	30.13	765.8	33	0.6	79	NE	4	1.8	.....	0	0	.....	.....	0 02	0.5	Clear.....	
Omaha, Neb.	29.19	741.4	30.37	771.4	—13	—25.0	74	N	4	1.8	.....	0	2s	.....	NW	Inap.	Inap.	Fair.....	
Oswego, N. Y.	.....	.....	30.43	772.9	— 9	—22.8	100	NW	24	10.7	.....	0	2s	.....	.....	0	0	Cloudy,frosty	
Peck's Beach, N. J.	.....	.....	29.92	760.0	30.5	— 0.8	73	SE	12	5.4	.....	Haze	2s	.....	.....	Inap	Inap.	Fair.....	
Pembina, Dakota	.....	.....	30.21	767.3	33	2.2	90	SE	9	4.0	.....	5c	2s	.....	.....	0	0	Clear.....	
Philadelphia, Penn.	.....	.....	30.59	777.0	—35	—37.2	100	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Pike's Peak, Colorado	17.42	442.6	30.20	767.1	32	0.0	100	S	6	2.7	.....	.....	10n	.....	S	Inap.	Inap.	Light snow.	
Pittsburgh, Penn.	.....	.....	29.62	752.3	- 8	—22.2	79	S	5	2.2	.....	0	0	.....	.....	0.05	1.3	Clear.....	
Port Huron, Mich.	.....	.....	29.86	758.4	38	3.3	63	W	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Portland, Me.	.....	.....	29.96	761.0	39	3.9	55	SE	9	4.0	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Portland, Oregon	.....	.....	30.20	767.1	21	— 6.1	86	S	9	4.0	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Punta Rassa, Fla.	.....	.....	30.20	767.1	21	— 6.1	86	NW	10	4.5	.....	.....	10s	.....	.....	0.12	3.0	Cloudy..	
Rochester, N. Y.	.....	.....	30.30	769.6	47	8.3	85	S	16	7.2	.....	.....	Fog	.....	.....	0	0	Foggy	
Salt Lake City, Utah	25.89	657.6	30.14	765.5	58	14.4	100	E	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Sandy Hook, N. J.	.....	.....	29.84	757.9	33	0.6	61	S	6	2.7	.....	.....	0	.....	.....	0.01	0.3	Clear.....	
San Diego, Cal.	.....	.....	30.22	767.6	28	— 2.2	77	E	3	1.3	.....	0	10ks	.....	SW	0	0	Cloudy.....	
San Francisco, Cal.	.....	.....	30.17	766.3	33	0.6	69	Calm	0	0	.....	.....	0	.....	.....	0	0	Clear.....	
Santa Fe, N. M.	23.28	591.6	30.11	764.8	47	8.3	85	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Savannah, Ga.	.....	.....	30.22	767.6	47	8.3	85	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Shreveport, La.	.....	.....	29.82	757.4	30	— 1.1	.....	N	20	8.9	.....	0	0	.....	.....	0	0	Cloudy.....	
Smithville, N. C.	.....	.....	30.15	765.8	46	7.8	85	NE	5	2.2	.....	5k	2s	SW	.....	0	0	Cloudy.....	
Springfield, Mass.	.....	.....	29.83	757.7	60	15.6	88	W	10	4.5	.....	0	2s	.....	SW	0.38	9.7	Fair.....	
St. Louis, Mo.	.....	.....	30.18	766.6	38	3.3	100	N	5	2.2	.....	.....	Fog	.....	.....	0	0	Foggy.....	
St. Marks, Fla	.....	.....	30.20	767.1	29	— 1.7	77	SW	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.....	
St. Paul, Minn.	.....	.....	29.77	756.1	27	— 2.8	77	N	21	8.9	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.....	
St. Paul's Island, Alaska	.....	.....	30.09	764.3	48	8.9	92	SE	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Squan Beach, N. J.	.....	.....	30.24	768.1	— 8	—22.2	77	NW	16	7.2	.....	.....	10s	.....	NW	0.22	5.6	Cloudy.....	
Thatcher's Island, Mass.	.....	.....	30.24	768.1	35	1.7	89	SSE	33	14.8	.....	.....	10k	.....	.....	Inap.	Inap.	....	
Toledo, Ohio	.....	.....	29.65	753.1	33	0.6	79	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Tucson, Arizona	.....	.....	30.12	765.0	25	— 3.9	75	NW	6	2.7	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Tybee Island, Ga.	27.68	703.1	30.21	767.3	43	6.1	66	S	8	3.6	.....	.....	10s	.....	SE	0	0	Cloudy...	
Vicksburg, Miss.	.....	.....	29.63	752.6	34	1.1	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
	.....	.....	30.27	768.8	51	10.6	79	NE	8	3.6	.....	2k	0	E	.....	0	0	Fair.....	
	.....	.....	30.11	764.8	59	15.0	100	S	7	3.1	.....	.....	10s	.....	SW	0.60	12.7	Cloudy..	
	.....	.....	29.81	757.2															

UNITED STATES SERIES.—CONTINUED.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From -	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From -	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.28	616.7	29.76	755.9	20	— 6.1	55	SW	4	1.8	.....	8c	0	NW	.....	0.01	0.3	Cloudy	
Washington, D. C	.....	.....	30.15	765.8	29	— 1.7	89	SE	4	1.8	.....	2cs	5s	W	SW	0	0	Foggy	
Wilmington, N. C	.....	.....	30.19	766.8	39	3.9	100	NE	4	1.8	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy	
Wood's Holl, Mass	.....	.....	30.21	767.3	30	— 1.1	79	NW	4	1.8	.....	.....	Fog	.....	.....	0	0	Dense fog	
Wytheville, Va	27.59	700.8	29.83	757.7	28	— 2.2	77	E	1	0.4	.....	10cs	0	W	.....	0	0	Cloudy	
Yankton, Dakota	29.12	739.6	30.66	778.7	—17	—27.2	68	NW	24	10.7	.....	0	0	.....	.....	0.05	1.3	Clear	
Yuma, Arizona	.....	.....	30.20	767.1	48	8.9	.....	NE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.08	764.0	81	27.2	78	E	12	5.4	.....	2ck	10s	S	.....	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, de	.....	.....	30.02	762.5	75	23.9	85	E	.....	.....	.....	0	2k	.....	.....	0	0	Clear	L. V. Bigard.
St. Thomas, St. T., W. I.	.....	.....	30.30	769.6	77	25.0	76	E	3	1.3	.....	3ck	8ks	E	.....	0	0	Cloudy	W. S. Cameron.
Kingston, Jamaica, W. I.	.....	.....	30.22	767.6	72	22.2	67	Calm	0	0	.....	2k	2s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I.	.....	.....	29.85	758.2	71	21.7	71	Calm	0	0	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
Havana, Cuba, W. I.	.....	.....	30.13	765.3	71	21.7	85	SE	2.4	1.1	.....	0	0	.....	.....	0	0	Clear	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.21	767.3	68.0	20.0	90	S	12.0	5.4	.....	.....	10n	.....	.....	0.10	2.5	Clearing	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	27.21	691.1	30.03	762.7	59	15.0	81	N	1.0	0.4	.....	0	0	.....	.....	0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	29.97	761.2	82	27.8	83	NE	.....	.....	4	.....	8n, ks	.....	.....	0.310	7.87	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	29.97	761.2	82.4	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A.	25.13	638.3	.....	.....	68.0	20.0	80	.....	7	3.1	.....	2c	3s	.....	.....	0	0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.45	748.0	17.0	— 8.3	.....	E	.....	.....	.....	Haze	5s	.....	.....	0	0	Fair	John Delaney.
York Factory, B. A	.....	.....	30.20	767.1	—42.5	—41.4	.....	SW	2	0.9	.....	0	Fog	.....	.....	0	0	Aurora	J. Fortescue.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Still, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 2, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:18 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean tim
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.17	766.4	62.2	16.8	58	Calm			0		1			0	0	Clear	Charnot and Masselot.
Algiers			30.28	769.1	56.8	13.8	84	Calm			0		0			0	0	Clear	Peter.
La Calle																			Kuntz.
Tunis			30.31	769.8	60.8	16.0	67	WSW			2		2			0	0	Clear	Jacques.
Sfax			30.30	769.7	62.2	16.8	64	S			1		4			0	0	Fair	Chauvey.
Saida			30.20	767.1	57.2	14.0	47	SW			2		2			0	0	Clear	Millot.
Tebessa			30.35	770.8	48.7	9.3		SE			3		6			0	0	Fair	Colin.
Geriville			30.23	767.9	47.1	8.4	61	SSE			2		2			0	0	Clear	Buard.
Laghouat			30.30	769.5	51.8	11.0	79	SE			2		1			0	0	Clear	Delord.
Biskra			30.36	771.2	62.1	16.7	49	N			1		4			0	0	Fair	Dubois.

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.48	774.1	30.0	— 1.1	90	SE			1		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow											1		0			0	0		I. R. Observatory.
Eperies			30.45	773.5	26.2	— 3.2	94	NE			0		0			0	0		Julius Mikolik.
Gratz			30.45	773.5	40.5	4.7	93	Calm			2		10			0	0		Andreas Rospini.
Hermannstadt	29.17	740.9	30.47	773.9	25.7	— 3.5	84	S			1		0			0	0		Prof. Reissenberger.
Kremsmünster	28.92	734.5	30.46	773.7	23.0	— 5.0	86	NW			1		10			0	0		Prof. C. Wagner.
Lemberg	29.00	736.5	30.45	773.4	22.3	— 5.4	96	E			1		2			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.38	771.6	25.7	— 3.5	98	SW			0		10			0	0		Habzsuda Daniel.
Pola			30.51	775.0	18.3	— 7.6	100	Calm			3		5cs			0	0		I.R. Hydrographic Office
Szegedin			30.27	768.8	46.0	7.8	81	WNW			2		10			0	0		Karl Stancel.
Trieste			30.50	774.7	21.4	— 5.9		S			1		0			0	0		Prof. V. Farolfi.
Vienna			30.26	768.7	47.3	8.5	69	ESE			0		10			0	0		I. R. Central Institute.
			30.46	773.7	23.4	— 4.8	96	Calm											

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact *moment of observation*. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.20	767.0	39.4	4.1	75	WSW			2		10			0	0		Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.80	756.9	42.2	5.7		SSW	17	7.6			2			0.070	1.78	Blue sky	William Boswell.
Ardrossan			29.91	759.7	44	6.7		WSW			6		7					*D. cloud	J. Mayes.
Armagh Observatory			30.01	762.2	43.1	6.2		SW	22	9.8			3					*D. clouds	S. Call, for Dr. Robinson
Bidston, Liverpool Obs.			30.11	764.8	46	7.8		WSW	24	10.7			2					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			30.09	764.3	46.2	7.9		WSW			2		3					*D. clouds	J. Dreyer.
Bradford			30.05	763.3	43.8	6.6		SW			2		2			0.04	0.3	*D.clouds	J. McLandsborough.
Bridgetown, (Barbados)			29.87	758.7	78.1	25.6		NE			2		5					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			30.18	766.6	50.0	10.0		W			1		1					Blue sky	H. Todd.
Cardington			30.20	767.1	43.0	6.1		W			1		1					Blue sky	John McLaren.
Carlisle			30.10	764.5	44.9	7.2		W			4		2			0.15	3.8	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.15	765.8	45.2	7.3		SE			1							Blue sky	Capt. J. Fellowes, R. E.
Dartmoor	28.82	732.0	30.36	771.1	43.0	6.1		NW			4		5					*D. clouds	R. E. Power.
Donaghadee			29.97	761.2	43	6.1		WNW			5		0					Blue sky	J. Mac Gowan.
Dover			30.20	767.1	45	7.2		NNE			3		7					Foggy	J. Costello.
Eccles, (near Manchester)			30.11	764.8	46.9	8.3		SW	5.0	2.2			4					*D. clouds	Thomas Mackereth.
Falmouth Observatory			30.31	769.9	48.0	8.9		WNW	16	7.2			2					*D. clouds	The Staff.
Fort Napier, (Natal)	27.37	695.2	29.62	752.3	86.3	30.2		NE			2		2					*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.86	758.4	85.0	29.4		N			0		5					*D. clouds	(dis.
Galway, Queen's College			29.9	761.5	47	8.3		SW			5		4					*D. clouds	B. G. Clare, for Prof. Cur
Gibraltar, (Mediterranean)			30.14	765.5	56.8	13.8		E			5		10					Overcast	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.87	758.7	42.1	5.6		SW			5		10					Squally	Lewis Stuart.
Great Yarmouth			30.14	765.5	44	6.7		W			4		4					Clear, mist	G. T. Watson.
Greenwich Royal Obs.			30.20	767.1	46.7	8.2		W			1		3			Blank	Blank	*D. clouds	The Staff for G. B. Airy
Guernsey			30.10	769.6	48.5	9.2		WNW			1		0					Blue sky	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.13	765.3	41.0	5.0		WSW			1		5			Blank	Blank	*D. clouds	L. J. Cressley.
Helston			30.29	769.4	52	11.1		W			4		4			0.9	22.9	*D. clouds	M. P. Moyle.
Holyhead			30.12	765.0	45	7.2		SW			5		2					Blue sky	John Tilston.
Kew Observatory			30.22	767.6	46.8	8.2		W	13	5.8			0					Blue sky	The Staff.
Kingstown			30.09	764.3	45	7.2		WSW			5		2					Blue sky	George Mitchell
Leicester Museum			30.19	766.8	45.8	7.7		SW			1		3					Hazy	William J. Harrison.
Malta, (Mediterranean)			30.22	767.6	59	15.0		NE			2		6k					*D. clouds	Fred Travis, Pvt A.H.C
Nairn			29.75	755.6	40	4.4		SW			1		10					Raining	W. D. Penny.
Nassau, (Bahamas)			30.15	765.8	71.6	22.0		SE			1		4					*D. clouds	Surg.-Maj. Henry.
Nottingham			30.16	766.1	47.0	8.3		WSW			3		3c		W			Blue sky	E. J. Lowe, F. R. S.
Oscott, St Mary's College			30.16	766.1	44.9	7.2		WSW			4		6					*D. clouds	Rev. Stephen Wilkinson.
Oxford, Radcliffe Obs.			30.19	766.8	46	7.8		WSW			2		4					*D. clouds	J. Lucas.
Plymouth			30.23	769.1	49	9.4		NW			2		1					Blue sky	John Merrifield.
Roche's Point			30.19	766.8	48	8.9		WSW			4		2					Fine	W. Kennedy.
Saint Ann's Head			30.22	767.6	47	8.3		W			3		3						John C. Walker.
Saint Helier, (Jersey)			30.30	769.6	49.5	9.7		NNW			3		2					¼ clouded	A. P. Amy.
Sandwick Manse (Orkneys)			29.64	752.8	40	4.4		SW	20	8.9			5					Bright	Rev. Dr. Clouston
Scarborough			30.04	763.0	44.0	6.7		WSW			4		3					Blue sky	F. Shaw.
Scutari Cemetery (Turkey)			30.31	769.9	41.4	5.2		ESE			2		9					Gloomy	Sergt. W. H. Lyne.
Sheffield			30.11	764.8	48.0	8.9		W			3		2			0.100	2.77	Blue sky	W. F. Cooper.
Silloth Rectory			30.01	762.2	46.8	8.2		NW			5		4			0	0	*D. clouds	Rev Francis Redford
Stonyhurst Observatory			30.10	764.5	42.9	6.1		SW			3		8			Blank	Blank	Threatening	The Staff.
Stornoway, Lewis (Heb.)			29.65	753.1	40	4.4		WSW			4		8					*D. clouds	John Smith.
Stratfield Turgiss			30.23	767.8	48.7	9.3		NW			1		0					Blue sky	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.51	749.5	49	4.4		SW			4		7					*D. clouds	John Trotter.
Truro, Royal Institution			30.29	769.4	52	11.1		NW			6		4					*D. clouds	W. Newcombe.
Valencia Observatory			30.23	767.8	48.9	9.4		SW	30	13.4			7					Misty	The Staff
Sub-Series.																			
Cape Good Hope Obs.			29.78	756.4	81.5	27.5	45	S	25	11.2			1						The Staff, for E. Stone.
Calf of Man, (Isle of Man)					46	7.8		SW			6		5			0.10	2.5		
Leith, Restalrig Park			29.91	759.7	44.2	6.8		SW			4		6k			0.05	1.3	Fine, cloudy	Andrew Gibb
Monach Lt-house, Hebrides																			J. Youngclaus.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,440 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.15	765.8	34.0	1.1	85	SSE			2		0						
Fenöe			30.07	763.8	34.7	1.5	87	SSW			4		8						
Godthaab, (Greenland)			29.86	758.4	1.0	—17.2	95	NW			4		8						
Skyrkjholm, (Iceland)			28.53	724.6	31.3	— 0.4	98	SE			4		8						
Thorshavn, (Faröe)			30.00	761.9	39.9	4.4	77	SSW			5		6					Rain & hail	
Vesterviig			29.97	761.2	35.2	1.8	90	S			6		6						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.29	769.4	42.8	6	37	SW			3		10			0.157	4.0	Covered	Normal School.
Amiens			30.21	767.3	39.6	4.2	83	S			3		10			0	0	Covered	Normal School.
Avignon			30.34	770.6	46.8	8.2	77	NNE			1		0			0	0	Very clear	Normal School.
Bar-sur-Seine			30.34	770.6	46.8	8.2	77	S			2	8c				0	0	Very cloudy	C. Sailliard.
Beaumette, (near Angers)			30.31	769.9	43.7	6.5	69	NNW	6.0	2.7			10		N	0.008	0.2	Raining	Beaumette Observatory
Beauvais			30.26	768.5	46.6	8.1	94	SSW			1		10			0	0	Covered	Normal School.
Besançon			30.28	769.0	40.8	4.9	87	SSW			2		0			0	0	Clear	Normal School.
Bourg en Bresse			30.41	772.3	30.2	— 1		W			2		10					Covered	Normal School.
Bourges			30.41	772.4	31.8	— 0.1	97	ENE			3		10		NE	0	0	Covered	Normal School.
Brest			30.28	769.0	41.4	5.2	88	N			3		2		N	0.030	0.75	¼ covered	Naval Observatory.
Caen			30.28	769.2	49.8	9.9	61	N											Normal School
Chartres			30.31	769.9	46.4	8		N			2		10			0	0	Covered	Normal School.
Chaumont			30.24	768.2	37.8	3.2		SSW											Normal School.
Clermont											2		0			0	0	Clear	Puy de Dome, Obs.
Commercy			30.29	769.4	50.7	10.4	54	NW			2		2cs		ESE	0	0	Slightly cl'dy	Normal School.
Commune de Gréasque*			30.30	769.5	34.0	1.1	94	ESE			2		0			0	0		
Grenoble			30.34	770.6	50.0	10.0	58	NW			1		2k			0	0	Slightly cl'dy	Normal School.
Le Mans			30.43	772.9	32.4	0.2	96	ENE			2		10			0	0	Cov ed	Normal School.
Loches			30.30	769.5	41.7	5.4	97	S											
Lons-Le-Saulnier			30.40	772.1	31.6	— 0.2	86	WNW			1					0	0	Foggy	Normal School.
Mâcon			30.37	771.4	31.6	— 0.2		Calm			0		10			0	0	Covered	Normal School.
Mirecourt			30.36	771.1	35.8	2.1	89	S			1		2			0	0	Slightly cov'd	Normal School.
Metz																			
Nismes											1		0			0	0	Clear	Normal School.
Orleans			30.35	771.0	54.5	12.5	61	NW			2		8		S	0	0	Very cloudy	Normal School.
Paris Observatory			30.26	768.6	44.6	7	80	S			2		10			0	0	Covered	National Observatory
Parthenay			30.28	769.0	39.2	4.0	83	S			2		10			0.08	2.	Covered	Normal School.
Privas			30.35	770.8	45.7	7.6	94	SW			2		10			0	0	Covered	Normal School.
La Roche-sur-Yon			30.39	772.0	36.9	2.7		SE			2		10			0	0	Covered	Normal School.
Rochefort, Observatory			30.32	770.0	46 0	7.8	97	SE			3					0	0	Misty	Naval Observatory.
Rouen			30.31	769.8	46.9	8.3	96	SE			2					0	0	Clear	Normal School.
Saint Lo			30.25	768.4	41.4	5.2	87	SE			2		0			0	0		Normal School.
Tarbes			30.31	769.8	49.6	9.8	72	NW			2		2		NW	0	0		Normal School.
Toulouse	29.21	741.9	30.31	769.9	51.8	11	80	SW			1		0			0	0	Clear	Normal School.
Villefranche			30.43	772.8	47.8	8.8	94	SE			1		0					Clear	Normal School.
			30.38	771.7	34.7	1.5	90	SW			2		0			0	0	Foggy	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.92	760.0	73.6	23.1	91	NE			2		8k			0.12	3.		L'Abbé Marchési.
Gorée																			
Marseilles											1		0			0	0		Marseilles Observatory.
Mont-Louis			30.30	769.5	54.5	12.5	76	NE					5			0	0		—. Falguère.
Montsouris, Paris	24.98	634.6	30.42	772.6	39.4	4.1	88	ESE	1.9	0.83	1		10			0	0		Montsouris Observ'tory
Perpignan			30.26	768.5	39.6	4.2	84	S					1			0	0		Dr. Fines.
Pic du Midi, (Summit) H. P.	21.32	541.5	30.33	770.3	49.8	9.9	70	NE	3.7	1.67	2		6					Fair	M. Baylac.
Saint Maur, (near Paris)					30.7	— 0.7		NW			1		10			0	0	Covered	E. Renou.
Toulouse			30.27	768.9	39.4	4.1	79	SW			3		3			0	0		Toulouse Observatory
Tours			30.31	769.9	50.2	10.1	62	SE			1		10			0	0	Raining	C. Marquet.
Versailles, (near Paris)			30.28	769.1	45.3	7.4	80	S			2		10			0.009	0.24	Covered	Dr. A. Bérigny.
Zi-Ka Wei, (near Shanghai)			30.25	768.4	41.7	5.4	84	SW											H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,686.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

* Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg																			
Berlin			30.30	769.6	25.5	— 3.6	91	SW			2		10			0	0		Prof. T. Hoh.
Breslau			30.26	768.7	37.9	3.3	70	S			1		6			0	0		Prof. Arndt.
Carlsruhe			30.35	771.0	36.1	2.3	63	SE			3		0			0	0		Dr. P. Nangelmaier
Cassel			30.37	771.3	28.8	— 1.8	88	S			1		0			0	0		A. Senz.
Cologne			30.29	769.4	33.1	0.6	78	S			6		0			0	0		Dr. H. Möhl.
Emden																			Dr. Garthe
Frankfort on the Main																			Prof. Prestel.
Friedrichshafen			30.45	773.3	26.6	— 3.0	100	SSW			1		10			0	0	Foggy	Physical Society
Hamburg			30.47	773.8	27.0	— 2.8	76	NW					10			0	0	Smoke-haze	M. Wilhelm.
Kiel			30.18	766.6	37.9	3.3	85	ESE			1		2			0	0	Fine, fog	Deutsche Seewarte.
Königsberg			30.19	766.8	37.9	3.3	77	SSW			1		3			0	0		Prof. G. Karsten
Köslin			30.32	770.2	36.5	2.5	87	SW			2		4			0	0		Prof. E. Luther.
Leipsic			30.26	768.6	35.6	2.0		S			1		0			0	0		H. Müller.
Münster			30.31	769.8	37.0	2.8	59	SSW			1		0			0	0		Prof. Bruhns.
Posen			30.20	767.0	42.3	5.7	70	S			2		4			0	0		Prof. E. Heis.
Strassburg, (in Alsace)			30.36	771.1	31.3	— 0.4	83	SE			1		0			0	0		Dr. Magener.
Stuttgart			30.39	772.0	29.1	— 1.6	90	SW			1		2			0	0		Dr. Schur.
Thorn			30.38	771.7	33.8	1.0	73	E			1		0			0	0		Prof. Schoder.
Treves, (Trier)			30.35	770.9	36.1	2.3	82	NE			0		1			0	0		Dr. Hasenbalg
Wustrow, Naval School			30.25	768.4	32.0	0.0	76	SW			4		2			0	0	Misty	Prof. Flesch.
			30.24	768.1	34.3	1.3	77	S			3		8			0	0		E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.20	767.0	52.5	11.4		NE			Strong							Clear	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.25	768.3	51.4	10.8	33	ENE	6.9	3.1			0			0	0		
Padua			30.28	769.0	46.2	7.9	45	SE	4.3	1.9			2			0	0		
Vicenza			30.27	768.9	47.7	8.7	51	S	0	0			0			0	0		
Verona																			
Bergamo			30.25	768.4	46.0	7.8	67	SE			4		0			0	0		
Domodossola																			
Milan			30.34	770.6	44.6	7.0	78	NNW			1		0			0	0		
Pavia																			
Moncalieri			30.35	771.0	39.7	4.3	65	ESE	8.	3.6			1			0	0		
Mondovi			30.35	770.9	43.7	6.5	49	SW			2		1	N		0	0		
Porto Maurizio																			
Genoa			30.27	768.9	51.8	11.0	39	NW	6.3	2.8			0			0	0		
Piacenza			30.34	770.6	46.4	8.0	68	NW	13.0	5.8			0			0	0		
Bologna			30.33	770.4	45.7	7.6	30	SW			1		4	S		0	0		
Florence			30.28	769.1	51.8	11.0	44	NE			4		0			0	0		
Leghorn			30.18	766.6	49.6	9.8	56	ENE	6.9	3.1			8			0	0		
Siena			30.24	768.2	47.1	8.4	72	ENE	0	0			6	SE		0	0		
Urbino																			
Pesaro																			
Ancona			30.32	770.0	43.9	6.6	82	NW			4		3			0	0		
Grosseto			30.26	768.5	48.0	8.9	94	N			2		9	SW		0.091	2.3		
Rome			30.24	768.1	55.8	13.2	66	W	1.3	0.6			9	SE		0	0		
Naples, O. U.			30.25	768.3	60.1	15.6	52	SSW			2		6	SW		0	0		
Lecce			30.23	767.8	53.8	12.1	71	NNW	17.4	7.8			6	N		0	0		
Cosenza			30.26	768.5	54.0	12.2	74	NW			1		7	NW		0	0		
Riposto, (Sicily)			30.21	767.3	57.2	14.0	80	SSW			2		4	NNE		0	0		
Palermo			30.18	766.6	56.3	13.5	66	NE	4.3	1.9			8			0	0		
Caltanissetta			30.22	767.6	50.4	10.2	67	SW			2		4	NE		0	0		
Sub-Series.																			
Naples, S. R.			30.24	768.1	55.4	13.0	62	N	1.3	0.6			..c	NW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.21	767.3	37.4	3.0		SW			4								
Groningen			30.09	764.2	37.4	3.0		SW			2								
Helder			30.10	764.4	38.1	3.4		SW			4								
Utrecht			30.13	765.4	38.8	3.8	92	SSW			3		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.80	757.0	39.2	4.0	93	S	9.8	4.4			10			0.748	19.0	Raining	
Brönö			29.63	752.7	41.0	5.0	84	SSW	18	8			10			0	0	Raining	
Christiania			29.97	761.2	36.5	2.5	91	S	4.0	1.8			10			0.020	0.5	Light mist	
Tromsö			29.47	748.4	45.1	7.3	68	W	11	5			10			0.008	0.2		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer corrected for instrumental errors.		Barometer reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount Up'er	Clouds. Amount Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—9	1—	0—	From—	From—	Inches.	Millimeters.		
Angra, (Azores,)			30.40	772.2	53 8	12.1	70	ENE	13.5	6.02			3			0.024	0.6		Dr. J. A. N. Sampaio.
Campo Major			30.17	766.4	57.2	14.0	47	SE	7.4	3.33			6	SSW		0	0	Solar corona	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)			30.13	765.2	59.5	15.3	56	SE	8.8	3.92			10			0	0		Capt D. A. da Cunha.
Lisbon			30.21	767.3	54.5	12.5	71	NE	8.7	3.9			3	SW		0	0		The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at *noon*, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer corrected for instrumental errors.		Barometer reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount Up'er	Clouds. Amount Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—6	1—	0—	From—	From—	Inches.	Millimeters.		
Warsaw			30.37	771.3	34.3	1.3	82	Calm	0	0			1						Astronomical Obs
Wilna			30.26	768.6	33.4	0.8	98	W	4	2			10						Astronomical Obs
Dorpat			30.19	766.9	32.7	0.4	100	W	7	3			10						Physical Cabinet.
St. Petersburg			30.10	764.5	29.5	— 1.4	98	W	7	3			10						Central Physical Obs
Kuopio			29.96	760.9	23.0	— 5.0	100	WSW	9	4			10						Ch. Forsten.
Kiefl			30.24	768.0	33.6	0.9	89	NW	11	5			10						Physical Cabinet.
Nikolaiev			30.43	773.0	26.8	— 2.9	96	SW	4	2			10						Kurdakof.
Kertch			30.41	772.5	32.0	0.0	79	SW	2	1			10						Lagorio.
Moscow			30.11	764.8	28.6	— 1.9	80	NW	9	4			10						Meteorological Obs.
Lugan			30.30	769.6	18.7	— 7.4	81	SSW	18	8			10			Blank	Blank		Meteorological Obs.
Archangel			29.83	757.6	25.2	— 3.8	95	SW	9	4			10						Ogorodnikof.
Tiflis	28.99	736.3	30.47	773.9	38.1	3.4	47	SW	4	2			6						Physical Obs.
Astrakhan			30.72	780.2	4.3	—15.4	72	Calm	0	0			2						Sobastianof.
Kasan			30.10	764.6	8.2	—16.0	90	SW	4	2			7						Physical Cabinet.
Orenburg			30.48	774.2	— 9.9	—23.3	50	Calm	0	0			0						Tschernischef.
Ekaterinburg	28.87	733.2	29.97	761.3	1.8	—16.8	73	W	13	6			10						Meteorological Obs.
Nukuss			30.49	774.5	7.2	—13.8	83	WSW	13 ?	6 ?			0						
Kasaly			30.22	767.5	— 7.6	—22.0	11	W	13	6			10						Bobrof.
Tashkend	28.73	729.7	30.56	776.2	29.1	— 1.6	82	SE	13	6			10						Michelson.
Barnaul			30.09	702.1	17.8	— 7.9	80	S	13	6			9						Meteorological Obs
Yeniseisk			29.73	755.1	— 6.7	—21.5	92	ESE	7	3			10						Marks.
Irkutsk																			Usolzef.
Oorga																			Mossin.
Peking, (China)			30.37	771.4	27.7	— 2.4	71	Calm	0	0			0						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock			30.24	768.1	14.5	— 9.7	84	NW	2	1			0						
Nikolaievsk, on the Amoor					— 2.4	—19.1	81	NW	9	4			0						

Note.—The originals give the wind velocity in meters per second, except Kuopio by an unknown scale; the amount of cloudiness by the scale 0 to 10, except Kuopio 0 to 4, without distinguishing between upper and lower clouds; the weather by the Vienna symbols, except Kuopio in general terms. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 300.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer corrected for instrumental errors.		Barometer reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount Up'er	Clouds. Amount Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—12	0—	0—	From—	From—	Inches.	Millimeters.		
Madrid			30.23	767.7	54.0	12.2	58	E	3.7	1.67		2	0	NE		0	0	Light clouds.	Royal Observatory.
San Fernando			30.15	765.9	61.7	16.5	62	ESE	10.0	8.5		2	3	SE	E	0	0		The Naval Observatory.

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer corrected for instrumental errors.		Barometer reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount Up'er	Clouds. Amount Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—6	0—	0—	From—	From—	Inches.	Millimeters.		
Haparanda			29.81	757.2	26.6	— 3.0	96	SSE			2		10			0	0	Foggy	
Umea			29.81	757.1	21.9	— 5.6	96	Calm			0		1			0	0		
Hernosand			29.83	757.7	39.0	3.9	65	Calm			0		1			0	0		
Stockholm			30.07	763.7	40.3	4.6	73	SW			2		0			0	0		
Wisby			30.22	767.6	40.3	4.6	81	WSW			6		1			0.008	0.2		
Sub-Series.																			
Upsala			30.07	763.6	37.6	3.1	84	SSW	10.5	4.7			1	WSW		0	0		Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.9 4	735.1	30.45	773.4	28.0	— 2.2	92	NNE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.6 9	728.8	30.43	772.8	27.5	— 2.5	90	W	.....	.....	1	.....	5	.....	.....	0	0	Foggy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +8.0 mm.; Thermometer, —4.6 cent.; Relative Humidity, +17 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.32	770.2	40.3	4.6	68	ENE	18	8.0	.....	.....	10	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.41	772.5	57.2	14.0	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.32	770.1	52.2	11.2	.....	N	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	30.07	763.7	53.6	12.0	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	30.43	773.0	41.0	5.0	.....	NW	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.02	762.5	70.7	21.5	49	NW	.....	.....	1	.....	4ck	.....	.....	0	0	.....	Prof. C. V. A. Van Dyck.

NOTE.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	29.04	737.6	33.7	0.9	97	S	14.2	6.3	.....	.....	10s	.....	.....	0.68	17.3	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.59	751.6	— 7	—21.7	.....	NW	10	4.5	.....	.....	10s	.....	NW	1.30	33.0	Light snow	W. R. Bigg.
*Chatham, N. B	.....	.....	29.22	742.2	35	1.7	74	SE	10	4.5	.....	.....	10s	.....	SE	0.25	6.3	Cloudy	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	29.39	746.5	33	0.6	89	SE	31	13.9	.....	.....	.....	.....	.....	0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.37	746.0	— 0.2	—17.9	100	W	.....	.....	6	.....	10n	.....	.....	0.90	22.9	Stormy	James Smith, M. A.
Dalhousie, N. B	.....	.....	29.11	739.4	28.0	— 2.2	98	E	.....	.....	9	.....	10n	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C	.....	.....	29.17	740.9	38.1	3.4	91	W	6	2.7	.....	.....	.....	.....	.....	0	0	Clear	W. H. Bevis.
Fredericton, N. B	.....	.....	29.03	737.3	35.0	1.7	95	SE	8	3.6	.....	.....	10n	.....	.....	1.135	28.83	Raining	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.38	771.6	—34	—36.7	100	S	1	0.4	.....	0	2s	.....	.....	0	0	Fair	James Stewart.
Goderich, Ontario	.....	.....	30.09	764.3	6.2	—14.3	86	NW	.....	.....	5	.....	10n	.....	.....	Inap.	Inap.	Snowing	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.02	762.5	4.6	—15.2	.....	NW	.....	.....	6	.....	10n	.....	.....	0.10	2.5	Snowing	James Grant.
*Halifax, N. S	.....	.....	29.39	746.5	35	1.7	95	S	20	8.9	.....	.....	10s	.....	.....	0.06	1.5	Heavy rain	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.62	752.3	— 4	—20.0	85	NW	12	5.4	.....	.....	10n	.....	NW	0.77	19.6	Light snow	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.2-	767.1	—21.4	—29.7	.....	W	12	5.4	.....	.....	0	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.01	736.8	27	— 2.8	94	NW	18	8.0	.....	.....	10n	.....	NW	0.85	21.6	Light snow	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.39	746.5	— 5	—20.6	82	NW	36	16.1	.....	.....	10n	.....	NW	0.55	14.0	Light snow	J. B. Laney.
*Parry Sound, Ontario	.....	.....	30.02	762.5	—15	—26.1	77	NW	13	5.8	.....	0	0	.....	.....	0.24	6.1	Clear	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.99	760.7	8	—13.3	76	NW	16	7.2	.....	.....	10n	.....	NW	0.56	14.2	Light snow	H. Morgan.
Port Hastings, N. S	.....	.....	29.60	751.8	31.9	— 0.1	.....	S	20	8.9	.....	.....	.....	.....	.....	0.48	12.2	Dull	Peter Grant.
*Port Stanley, Ontario	.....	.....	30.07	763.8	4	—15.6	95	NW	25	11.2	.....	.....	10n	.....	W	0.75	19.1	Light snow	M. Payne.
*Quebec, Quebec	.....	.....	28.95	735.3	27	— 2.8	100	N	11	4.9	.....	.....	10n	.....	N	0.10	2.5	Light snow	Capt. Ash, R. N.
St. John, N. B	.....	.....	29.04	737.6	40.0	4.4	100	SE	16	7.2	.....	.....	10n	.....	.....	1.430	36.32	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.04	763.0	— 1	—18.3	74	N	15	6.7	.....	.....	10n	.....	N	0.08	2.0	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	29.91	759.7	— 2	—18.9	100	NW	18	8.0	.....	.....	10n	.....	NW	0.20	5.1	Light snow	R. J. Cole.
Stratford, Ontario	.....	.....	30.02	762.5	4.0	—16.6	97	NW	17	7.6	.....	.....	10s	.....	.....	0.50	12.7	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	29.75	755.6	26	— 3.3	99	SE	16	7.2	.....	.....	10n	.....	.....	0	0	Threatening	T. C. Hill.
*Toronto, Ontario	.....	.....	29.89	759.2	2	—16.7	83	NW	30	13.4	.....	2k	8	N	.....	0.60	15.2	Clear	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —lb	Clouds. Amount. Up'er —lo.	Clouds. Amount. Low'r —lo.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather	Observer
Albany, N. Y.	.....	.....	29.20	741.7	17	— 8.3	83	NW	50	22.4	.....	.....	10s	.....	NW	0.26	6.6	Cloudy	
Alpena, Mich.	.....	.....	30.17	766.3	—10	—23.3	76	NW	16	7.2	.....	.....	10s	.....	NW	0.24	6.1	Cloudy	
Atlantic City, N. J.	.....	.....	29.50	749.3	28	— 2.2	67	W	35	15.6	.....	Haze	Haze	.....	.....	0.66	16.8	Hazy	
Augusta, Ga.	.....	.....	30.24	768.1	26	— 3.3	63	NW	5	2.2	.....	0	0	.....	.....	0.36	9.1	Clear	
Baltimore, Md.	.....	.....	29.73	755.1	25	— 3.9	50	NW	24	10.7	.....	2k	Haze	NW	.....	0.15	3.8	Clear	
Barnegat, N. J.	.....	.....	29.40	746.7	30	— 1.1	79	NW	48	21.5	.....	8k	0	NW	.....	0.66	16.8	Fair	
Benton, Montana	27.11	688.6	29.91	759.7	— 3	—19.4	100	NE	1	0.4	.....	.....	10s	.....	.....	0.02	0.5	Cloudy	
Bismarck, Dakota	28.14	714.7	30.04	763.0	—10	—23.3	100	S	6	2.7	.....	.....	10n	.....	.....	0.27	6.9	Light snow	
Boston, Mass.	.....	.....	29 80	731.5	33	0.6	100	NW	16	7.2	.....	10n	Fog	.....	.....	0.58	14.7	Light rain	
Breckenridge, Minn	.....	.....	30.24	768.1	—12	—24.4	75	SE	16	7.2	.....	.....	10s	.....	SE	0	0	Cloudy	
Buffalo, N. Y.	.....	.....	29.87	758.7	2.5	—16.4	86	NW	18	8.0	.....	.....	10n	.....	NW	0.25	6.3	Light snow	
Burlington, Vt.	.....	.....	28.95	735.3	35	1.7	100	Calm	0	0	.....	.....	10n	.....	.....	0.11	2.8	Heavy snow	
Cairo, Ill.	.....	.....	30.52	775.2	10	—12.2	79	NW	8	3.6	.....	0	0	.....	.....	0.25	6.3	Clear	
Cape Hatteras, N. C.	.....	.....	29.86	758.4	37	2.8	54	W	28	12.5	.....	0	0	.....	.....	0.25	6.3	Clear	
Cape Henry, Va.	.....	.....	29.39	757.7	33	0.6	65	NW	32	14.3	.....	0	0	.....	.....	0.77	19.6	Clear	
Cape May, N. J.	.....	.....	29.61	752.1	28	— 2.2	67	W	56	25.0	.....	5ck	0	W	.....	0.30	7.6	Fair	
Charleston, S. C.	.....	.....	30.18	766.6	31	— 0.6	60	W	12	5.4	.....	0	0	.....	.....	Inap.	Inap	Clear	
Cheyenne, Wyoming	23.69	601.7	29.63	752.6	31	— 0.6	48	W	28	12.5	.....	0	0	.....	.....	0	0	Clear	
Chicago, Ill.	.....	.....	30.39	771.9	— 1	—18.3	68	W	8	3.6	.....	0	0	.....	.....	0.04	1.0	Clear	
Cincinnati, Ohio	.....	.....	30.39	771.9	8	—13.3	66	NW	16	7.2	.....	0	0	.....	.....	0.66	16.8	Clear	
Cleveland, Ohio	.....	.....	30.15	765.8	9.9	—12.3	79	W	29	13.0	.....	.....	10ks	.....	W	0.27	6.9	Clearing	
Colorado Springs, Col.	23.90	607.0	29.77	756.1	25	— 3.9	38	SW	2	0.9	.....	5es	0	.....	.....	0	0	Fair	
Corsicana, Tex.	.....	.....	30.49	774.1	24	— 4.4	87	N	2	0.9	.....	5e	0	W	.....	0	0	Fair	
Davenport, Iowa	.....	.....	30.47	773.9	— 3	—19.4	83	Calm	0	0	.....	.....	10s	.....	.....	0.03	0.8	Cloudy	
Denison, Tex.	.....	.....	30.45	773.4	25	— 3.9	77	SE	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Denver, Col.	24.57	624.1	29.79	756.7	33	0.6	61	W	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Detroit, Mich.	.....	.....	30.16	766.1	7	—13.9	77	NW	16	7.2	.....	0	5s	.....	NW	0.23	5.8	Fair	
Dodge City, Kan.	27.33	[illegible].2	29.74	755.4	22	— 5.6	85	SE	17	7.6	.....	0	2s	.....	SE	0	0	Clear	
Dubuque, Iowa	.....	.....	30.45	773.4	— 4	—20.0	28	N	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy	
Duluth, Minn.	.....	.....	30.43	772.9	—21	—29.4	.....	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Eastport, Me.	.....	.....	29.90	759.0	41	5.0	100	SE	38	17.0	.....	.....	10n	.....	SE	0.27	6.9	Light rain	
Erie, Pa.	.....	.....	29.99	761.7	11	—11.7	100	NW	38	17.0	.....	.....	10n	.....	.....	0.02	0.5	Light snow	
Escanaba, Mich.	.....	.....	30.32	770.1	—11	—23.9	75	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Fort Gibson, Indian Terr.	.....	.....	30.40	772.1	14	—10.0	63	E	8	3.6	.....	5es	0	.....	.....	0	0	Fair	
Fort Sill, Indian T.	29.06	738.1	30.27	768.8	20	— 6.7	72	S	4	1.8	.....	0	2s	.....	S	0	0	Clear	
Fort Sully, Dakota	28.18	715.8	30.05	763.3	— 7	—21.7	59	NE	3	1.3	.....	0	5s	.....	NE	0	0	Fair	
Galveston, Tex.	.....	.....	30.41	772.4	36	2.2	52	N	20	8.9	.....	0	0	.....	.....	0	0	Clear	
Grand Haven, Mich.	.....	.....	30.27	768.8	6	—14.4	88	N	12	5.4	.....	.....	10n	.....	NW	0.02	0.5	Light snow	
Indianapolis, Ind.	.....	.....	30.45	773.4	0	—17.8	70	NW	13	5.8	.....	0	0	.....	.....	0.30	7.6	Clear	
Indianola, Tex.	.....	.....	30.44	773.2	34	1.1	61	N	30	13.4	.....	1c	0	.....	.....	0	0	Clear	
Jacksonville, Fla.	.....	.....	30.20	767.1	39	3.9	30	NW	10	4.5	.....	0	0	.....	.....	0.36	9.1	Clear	
Keokuk, Iowa	.....	.....	30.36	771.1	1	—17.2	71	SE	4	1.8	.....	.....	10s	.....	SE	0	0	Cloudy	
Key West, Fla.	.....	.....	30.10	764.5	72.8	22.7	85	Calm	0	0	.....	0	1ks	.....	W	0	0	Smoky	
Kittyhawk, N. C.	.....	.....	29.87	758.7	33	0.6	71	NW	34	15.2	.....	0	0	.....	.....	0.47	11.9	Clear	
Knoxville, Tenn.	.....	.....	30.47	773.9	13	—10.6	79	NW	12	5.4	.....	1k	0	NW	.....	0.75	19.1	Clear	
La Crosse, Wis.	.....	.....	30.42	772.7	— 9	—22.8	56	Calm	0	0	.....	Haze	Haze	.....	.....	0.07	1.8	Hazy	
Leavenworth, Kan.	.....	.....	30.39	771.9	5	—15.0	75	S	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Lexington, Ky.	29.23	742.4	30.48	774.2	6	—14.4	76	W	16	7.2	.....	0	0	.....	.....	0.33	8.4	Clear	
Long Branch, N. J.	.....	.....	29.33	745.0	28	— 2.2	77	W	72	32.2	.....	5c	2k	W	W	0.99	25.1	Fair	
Louisville, Ky.	.....	.....	30.47	773.9	8	—13.3	55	W	12	5.4	.....	0	0	.....	.....	0.53	13.5	Clear	
Lynchburg, Va.	.....	.....	29.96	761.0	22	— 5.6	45	NW	20	8.9	.....	0	0	.....	.....	0.39	9.9	Clear	
Malone, N. Y.	.....	.....	29.28	743.7	4	—15.6	100	W	21	9.4	.....	.....	10n	.....	.....	0.50	12.7	Heavy snow	
Marquette, Mich.	.....	.....	30.33	770.4	—12	—24.4	75	W	16	7.2	.....	0	0	.....	.....	0.07	1.8	Clear	
Memphis, Tenn.	.....	.....	30.51	774.9	18	— 7.8	52	N	3	1.3	.....	0	Cm'e	.....	.....	0.25	6.3	Clear	
Milwaukee, Wis.	.....	.....	30.44	773.2	— 9	—22.8	58	NW	9	4.0	.....	1k	0	NW	.....	0.57	14.5	Clear	
Mobile, Ala.	.....	.....	30.41	772.4	29	— 1.7	59	N	12	5.4	.....	0	0	.....	.....	1.48	37.6	Clear	
Montgomery, Ala.	.....	.....	30.43	772 9	24.6	— 4.2	74	N	12	5.4	.....	0	0	.....	.....	1.16	29.5	Clear	
Morgantown, W. Va.	.....	.....	30.16	766.1	17	— 8.3	75	W	26	11.6	.....	.....	10s	.....	W	0.46	11.7	Cloudy	
Mt. Washington, N. H.	22.63	574.8	28.99	736.3	20	— 6.7	100	N	67	29.8	.....	.....	10n	.....	N	0.48	12.2	Heavy snow	
Nashville, Tenn.	.....	.....	30.48	774.2	14	—10.0	64	NW	4	1.8	.....	0	0	.....	.....	0.49	12.4	Clear	
New Haven, Conn.	.....	.....	29.04	737.6	40	4.4	83	W	28	12.5	.....	.....	10s	.....	W	0.82	20.8	Cloudy	
New London, Conn.	.....	.....	28.98	736.1	39	3.9	90	W	22	9.8	.....	.....	10n	.....	W	0.89	22.6	Light rain	
New Orleans, La.	.....	.....	30.39	771.9	36.5	2.5	38	N	12	5.4	.....	0	Haze	.....	.....	1.58	40.1	Clear	
Newport, R. I.	.....	.....	28.92	734.6	40	4.4	91	SW	36	16.1	.....	.....	10n	.....	SW	0.84	21.3	Light rain	
New York, N. Y.	.....	.....	29.28	743.7	30	— 1.1	89	W	44	19.7	.....	.....	10n	.....	W	0.29	7.4	Light snow	
Norfolk, Va.	.....	.....	29.87	758.7	31	— 0.6	38	W	20	8.9	.....	0	0	.....	.....	0.53	13.5	Clear	
North Platte, Neb.	26.91	683.5	29.66	753.4	9	—12.8	78	Calm	0	0	.....	10es	0	SW	.....	0	0	Cloudy	
Omaha, Neb.	26.04	737.6	30.22	767.6	8	—13.3	78	S	18	8.0	.....	.....	10n	.....	.....	Inap.	Inap.	Heavy snow	
Oswego, N. Y.	.....	.....	29.59	751.6	7.1	—13.8	89	NW	24	10.7	.....	0	2s	.....	.....	0.52	13.2	Clear	
Peck's Beach, N. J.	.....	.....	29.59	751.6	29	— 1.7	89	NW	50	22.4	.....	.....	10s	.....	.....	0	0	Cloudy	
Pembina, Dakota	.....	.....	30.29	769.4	—26	—32.2	100	SE	4	1.8	.....	10k	0	W	.....	0.69	17.5	Cloudy	
Philadelphia, Penn.	.....	.....	29.58	751.3	25	— 3.9	50	NW	40	17.9	.....	2es	0	.....	.....	0	0	Fair	
Pike's Peak, Colorado	17.53	445.2	29.74	755.4	8	—13.3	33	W	52	23.2	.....	.....	10s	.....	NW	0.55	14.0	Cloudy	
Pittsburgh, Penn.	.....	.....	30.09	764.3	13	—10.6	63	NW	18	8.0	.....	0	0	.....	.....	0.57	14.5	Clear	
Port Huron, Mich.	.....	.....	30.16	766.1	1	—17.2	56	NW	16	7.2	.....	.....	Fog	.....	.....	0.24	6.1	Light rain	
Portland, Me.	.....	.....	28.77	730.7	35	1.7	100	N	8	3.6	.....	.....	8s	.....	NW	0.06	1.5	Cloudy	
Portland, Oregon	.....	.....	30.40	772.1	41	5.0	83	Calm	0	0	.....	.....	8s	.....	.....	0.11	2.8	Cloudy	
Punta Rassa, Fla.	.....	.....	30.13	765.3	64.8	18.2	73	N	16	7.2	.....	.....	10n	.....	.....	0.19	4.8	Light snow	
Rochester, N. Y.	.....	.....	29.72	754.9	5	—15.0	88	W	28	12.5	.....	.....	10n	.....	.....	0	0	Clear	
Salt Lake City, Utah	.....	.....	29.97	761.2	26	— 3.3	76	N	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Sandy Hook, N. J.	25.64	651.2	29.97	761.2	26	— 3.3	76	N	8	3.6	.....	0	0	.....	.....	0	0	Clear	
San Diego, Cal.	.....	.....	29.29	744.0	28	— 2.2	78	W	60	26.8	.....	0	8ks	.....	W	0.83	21.1	Cloudy	
San Francisco, Cal.	.....	.....	30.00	762.0	49	9.4	71	E	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Santa Fe, N. M.	.....	.....	30.09	764.3	48	8.9	92	W	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Savannah, Ga.	23.19	589.0	29.73	755.1	28	— 2.2	.....	NE	9	4.0	.....	0	5s	.....	.....	0	0	Fair	
Shreveport, La.	.....	.....	30.22	767.6	39	— 1.1	48	NW	12	5.4	.....	0	0	.....	.....	0.05	1.3	Clear	
Smithville, N. C.	.....	.....	30.52	775.2	25	— 3.9	75	NE	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Springfield, Mass.	.....	.....	30.10	764.7	33	0.6	52	NW	9	4.0	.....	0	0	.....	.....	0.03	1.5	Clear	
St. Louis, Mo.	.....	.....	29.91	759.8	35	1.7	69	NW	16	7.2	.....	.....	10 ks,ds	.....	NW	1.01	25.7	Clearing	
St. Marks, Fla.	.....	.....	30.49	774.4	7	—13.9	78	Calm	0	0	.....	0	0	.....	.....	0.30	7.6	Clear	
St. Paul, Minn.	.....	.....	30.29	769.4	33	0.6	50	N	12	5.4	.....	0	0	.....	.....	0.19	4.8	Clear	
St. Paul's Island, Alaska	.....	.....	30.36	771.1	—13	—25.0	71	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Squan Beach, N. J.	.....	.....	29.82	757.4	33	0.6	89	E	25	11.2	.....	10es	8	.....	.....	0.09	2.3	.....	
Thatcher's Island, Mass.	.....	.....	29.33	745.0	26	— 3.3	76	W	32	14.3	.....	2ek	5s	W	NW	0.35	8.9	Cloudy	
Toledo, Ohio	.....	.....	28.75	730.2	40	4.4	91	W	23	10.3	.....	.....	10s	.....	NW	0.7	17.8	Cloudy	
Tucson, Arizona	.....	.....	30.22	767.6	8	—13.3	79	W	8	3.6	.....	2k	0	W	.....	0.20	5.1	Clear	
Tybee Island, Ga.	27.55	699.8	30.14	765.5	51	10.6	.....	S	.....	.....	.....	0	10s	.....	S	0	0	Cloudy	
Vicksburg, Miss.	.....	.....	30.20	767.1	21	— 6.1	79	W	16	7.2	.....	0	0	.....	.....	0.04	1.0	Clear	
	.....	.....	30.53	775.4	26	— 3.3	77	NE	12	0.9	.....	0	0	.....	.....	0	0	Clear	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From —	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From —	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.04	610.6	29.52	749.8	28	— 2.2	67	W	15	6.7	.....	1c	0	W	.....	0	0	Clear	
Washington, D. C	.....	.....	29.80	756.9	24	— 4.4	48	NW	24	10.7	.....	0	0	.....	.....	0.19	4.8	Clear	
Wilmington, N. C	.....	.....	30.09	764.3	32	0.0	49	NW	24	10.7	.....	0	0	.....	.....	0.13	3.3	Clear	
Wood's Holl, Mass	.....	.....	28.93	734.8	41	5.0	91	SW	24	10.7	.....	.....	10s	.....	SW	0.48	12.2	Cloudy	
Wytheville, Va	27.69	703.3	30.03	762.7	11	—11.7	79	NW	10	4.5	.....	0	0	.....	.....	0.27	6.9	Clear	
Yankton, Dakota	28.72	729.5	30.15	765.8	2	—16.7	72	SE	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy	
Yuma, Arizona	.....	.....	29.98	761.5	55	12.8	.....	NW	.....	.....	.....	0	5ks	.....	.....	Inap.	Inap.	Fair	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.04	763.0	79	26.1	82	NE	7	3.1	.....	0	5ks	.....	SE	0.08	2.0	Fair	E. Racker.
Pointe-a-Pitre, G'dloupe, d	.....	.....	30.00	762.0	75	23.9	76	E	.....	.....	.....	0	2k	.....	.....	0	0	Clear	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.28	769.1	77	25.0	72	E	.....	.....	.....	2c	2k	E	.....	0	0	Clear	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.26	768.6	75	23.9	76	Calm	0	0	.....	2c	2s	SE	SE	0.03	0.8	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.86	758.4	73	22.8	72	Calm	0	0	.....	4k	0	.....	.....	.....	.....	Fair	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.13	765.3	69	20.6	84	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	Charles Hasselbrink.
St. Georges, Bermudas	.....	.....	30.06	763.5	68.5	20.3	87	SW	16.0	7.2	.....	0	0	.....	.....	0.66	16.8	Cloudless	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.24	691.9	30.06	763.5	62	16.7	83	N	2.0	0.9	.....	5c	2k	.....	.....	0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	29.93	760.2	82	27.8	87	E	.....	.....	4	.....	8ks	.....	.....	0.035	0.89	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.00	761.9	79.7	26.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.039	1.00	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.18	639.5	.....	.....	68.9	20.5	80	.....	4	1.8	.....	5c	4s	.....	.....	0	0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	30.16	766.1	25.0	— 3.9	.....	NE	.....	.....	.....	Fog	Fog	.....	.....	0	0	Foggy	John Delaney.
York Factory, B. A	.....	.....	29.95	760.7	—33	—36.1	.....	SW	4	1.8	.....	.....	2s	SW	.....	0	0	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.30 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 3, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:48 P. M. GREENWICH mean time.
0:58 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.16	766.0	63.7	17.6	34	NNE			1		2			0	0	Clear	Charnot and Masselot.
Algiers			30.23	767.8	58.6	14.8	84	E			1		1			0	0	Clear	Peter.
La Calle																			Kunta.
Tunis			30.30	769.6	56.1	13.4	60	NW			4		6			0	0	Fair	Jacques.
Sfax			30.32	770.0	61.5	16.4	46	N			1		4			0	0	Fair	Chauvey.
Saida			30.19	766.8	59.0	15.0	30	SSE			2		1			0	0	Clear	Millot.
Tebessa			30.35	771.0	49.6	9.8		NE			2		2			0	0	Clear	Colin.
Geryville			30.24	768.1	47.3	8.5	64	SE			3		2			0	0	Clear	Buard.
Laghouat			30.30	769.6	53.6	12.0	76	NW			2		2			0	0	Clear	Delord.
Biskra			30.37	771.5	57.7	14.3	29	N			1		0			0	0	Clear	Dubois.

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.47	774.0	27.7	— 2.4	96	Calm			0		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow																			
Eperies			30.44	773.2	25.2	— 3.8	91	W			1		1			0	0		I. R. Observatory.
Gratz			30.44	773.2	43.3	6.3	98	Calm			0		10			0	0		Julius Mikolik.
Hermannstadt	29.18	741.1	30.48	774.3	23.0	— 5.0	88	S			2		10			0	0		Andreas Rospini.
Kremsmünster	28.86	733.0	30.39	771.8	27.1	— 2.7	87	WNW			1		0			0	0		Prof. Reissenberger.
Lemberg	29.02	737.0	30.47	773.9	23.4	— 4.8	95	Calm			0		10			0	0		Prof. C. Wagner.
Nyiregyhaza			30.30	769.6	34.5	1.4	98	SW			1		0			0	0		Dr. T. Stanecki.
Pola			30.48	774.2	16.9	— 8.4	100	Calm			0		10			0	0		Habzsuda Daniel.
Szegedin			30.25	768.9	52.7	11.5	36	NE			4		0			0	0		I.R. Hydrographic Office
Trieste			30.49	774.5	21.2	— 6.0		Calm			0					0	0		Karl Stancel.
Vienna			30.28	769.2	48.2	9.0	52	ENE			1		0			0	0		Prof. V. Farolfi.
			30.45	773.5	25.7	— 3.5	91	NE			1		10			0	0		I. R. Central Institute.

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.37	771.5	35.1	1.7	100	S			2		10			0.010	0.25	Light fog	Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cooperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.65	753.1	40.0	4.4	.....	SW	27	12.1	.....	.....	2	.....	.....	0.075	1.91	Blue sky	William Boswell.
Ardrossan	.....	.....	29.86	758.4	40	4.4	.....	WSW	.....	.....	6	.....	7	.....	.....	.....	.....	Showery	J. Mayes.
Armagh Observatory	.....	.....	30.02	762.5	42.0	5.6	.....	WSW	18	8.0	.....	.....	10	.....	.....	.....	.....	Raining	S. Call, for Dr. Robinson
Bidston, Liverpool Obs	.....	.....	30.05	763.3	46.3	7.9	.....	WSW	41	18.3	.....	.....	7	.....	.....	.....	.....	*D. clouds	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.13	765.3	45.5	7.5	.....	WSW	.....	.....	3	.....	8	.....	.....	.....	.....	*D. clouds	J. Dreyer.
Bradford	.....	.....	29.98	761.5	44.9	7.2	.....	SW	.....	.....	4	.....	8	.....	.....	0.05	1.3	.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	29.88	758.9	75.1	23.9	.....	NE	.....	.....	2	.....	7	.....	.....	.....	.....	Overcast	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.22	767.6	46.0	7.8	.....	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	H. Todd.
Cardington	.....	.....	30.24	768.1	46.0	7.8	.....	SW	.....	.....	3	.....	3	.....	.....	.....	.....	Blue sky	John McLaren.
Carlisle	.....	.....	29.91	759.7	41.5	5.3	.....	W	.....	.....	8	.....	8	.....	.....	0.05	1.3	.....	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.28	769.1	46.7	8.2	.....	E	.....	.....	1	.....	4	.....	.....	.....	.....	*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.80	731.5	30.34	770.6	42.0	5.6	.....	W	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast	R. E. Power.
Donaghadee	.....	.....	29.95	760.7	42	5.6	.....	WNW	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast	J. Mac Gowan.
Dover	.....	.....	30.32	770.1	43	6.1	.....	WSW	.....	.....	3	.....	7	.....	.....	.....	.....	¾ clouded	J. Costello.
Eccles, (near Manchester	.....	.....	30.06	763.5	47.9	8.8	.....	SW	5.4	2.4	.....	.....	8	.....	.....	.....	.....	Showery	Thomas Mackereth
Falmouth Observatory	.....	.....	30.35	770.9	48.7	9.3	.....	WSW	21	9.4	.....	.....	8	.....	.....	.....	.....	Overcast	The Staff.
Fort Napier, (Natal)	27.35	694.7	29.61	752.1	90.0	32.2	.....	SE	.....	.....	2	.....	3	.....	.....	.....	.....	*D. clouds	Pvt G. Salmon, A. H. C.
Free Town, (Sierra Leone	.....	.....	29.87	758.7	86	30.0	.....	NE	.....	.....	1	.....	8	.....	.....	.....	.....	*D. clouds	ftis.
Galway, (Queen's College	.....	.....	30.06	763.5	48	8.9	.....	NW	.....	.....	2	.....	6	.....	.....	.....	.....	*D. clouds	B.G. Clare, for Prof. Cur.
Gibraltar, (Mediterranean	.....	.....	30.14	765.5	57.9	14.4	.....	E	.....	.....	6	.....	10	.....	.....	.....	.....	Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.77	756.1	39.9	4.4	.....	SSW	.....	.....	4	.....	9	.....	.....	.....	.....	Squally	Lewis Stuart.
Great Yarmouth	.....	.....	30.20	767.1	44	6.7	.....	SW	.....	.....	4	.....	4	.....	.....	.....	.....	*D. clouds	G. T. Watson.
Greenwich Royal Obs	.....	.....	30.27	768.8	48.1	8.9	.....	SSW	.....	.....	4	.....	9	.....	.....	.....	.....	Covered	The Staff for G. B. Airy
Guernsey	.....	.....	30.38	771.6	47	8.3	.....	SSW	.....	.....	2	.....	3	.....	.....	.....	.....	*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs	.....	.....	30.05	763.3	44.2	6.8	.....	WSW	.....	.....	2	.....	9	.....	.....	Blank	Blank	Threatening	L. J. Crossley.
Helston	.....	.....	30.33	770.4	52	11.1	.....	SW	.....	.....	4	.....	4k	.....	.....	0	0	*D. clouds	M. P. Moyle.
Holyhead	.....	.....	30.08	764.0	46	7.8	.....	WSW	.....	.....	5	.....	10	.....	.....	.....	.....	Raining	John Tilston.
Kew Observatory	.....	.....	30.28	769.1	46.6	8.1	.....	SW	22	9.8	.....	.....	10	.....	.....	.....	.....	Overcast	The Staff.
Kingstown	.....	.....	30.09	764.3	46	7.8	.....	W	.....	.....	5	.....	7	.....	.....	.....	.....	*D. clouds	George Mitchell
Leicester Museum	.....	.....	30.18	766.6	45.7	7.6	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.14	765.5	57.2	14.0	.....	NW	.....	.....	2	.....	4k	.....	.....	.....	.....	*D. clouds	Fred Travis, Pvt A.H.C
Nairn	.....	.....	29.61	752.1	37	2.8	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	W. D. Penny.
Nassau, (Bahamas	.....	.....	30.19	766.8	72.6	22.6	.....	NE	.....	.....	4	.....	7	.....	.....	.....	.....	*D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	30.12	765.0	44.0	6.7	.....	SW	.....	.....	6	.....	10n	.....	SW	.....	.....	*D. clouds	E. J. Lowe, F. R. S.
Oscott, St Mary's College	.....	.....	30.14	765.5	46.1	7.8	.....	SW	.....	.....	6	.....	5	.....	.....	.....	.....	*D. clouds	Rev. Stephen Whitty.
Oxford, Radcliffe Obs	.....	.....	30.21	767.3	48	8.9	.....	WSW	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	J. Lucas.
Plymouth	.....	.....	30.33	770.4	48.4	9.1	.....	WSW	.....	.....	3	.....	7	.....	.....	.....	.....	*D. clouds	John Merrifield.
Roche's Point	.....	.....	30.23	767.8	47	8.3	.....	W	.....	.....	4	.....	5	.....	.....	Blank	Blank	Cloudy	W. Kennedy.
Saint Ann's Head	.....	.....	30.21	767.3	48	8.9	.....	W	.....	.....	5	.....	2	.....	.....	.....	.....	*D. clouds	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.40	772.1	46.0	7.8	.....	SSW	.....	.....	4	.....	2	.....	.....	.....	.....	¼ clouded	A. P. Amy.
Sandwick Manse (Orkneys)	.....	.....	29.50	749.3	38	3.3	.....	SW	28	12.5	.....	.....	6	.....	.....	.....	.....	Sleet, showers	Rev. Dr. Clouston
Scarborough	.....	.....	29.98	761.5	44.6	7.0	.....	WSW	.....	.....	5	.....	8	.....	.....	.....	.....	*D. clouds	F. Shaw.
Scutari Cemetery (Turkey	.....	.....	30.25	768.3	43.2	6.2	.....	NE	.....	.....	2	.....	9	.....	.....	Blank	Blank	*D. clouds	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.06	763.5	46.4	8.0	.....	WSW	.....	.....	5	.....	5	.....	.....	0	0	*D. clouds	W. F. Cooper.
Siloth Rectory	.....	.....	29.90	759.4	40.3	4.6	89	NW	.....	.....	4	.....	5	.....	.....	0.055	1.40	*D. clouds	Rev Francis Redford
Stonyhurst Observatory	.....	.....	30.02	762.5	44.7	7.1	.....	SW	.....	.....	5	.....	10	.....	.....	Blank	Blank	Threatening	The Staff.
Stornoway, Lews C. (Heb.)	.....	.....	29.54	750.3	34	1.1	.....	W	.....	.....	6	.....	10	.....	.....	.....	.....	Snowing	John Smith.
Stratfield Turgiss	.....	.....	30.26	768.6	46.9	8.3	.....	SW	.....	.....	1-2	.....	6	.....	.....	.....	.....	*D. clouds	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.45	748.0	38	3.3	.....	SSW	.....	.....	4	.....	8	.....	.....	.....	.....	Gloomy	John Trotter.
Truro, Royal Institution	.....	.....	30.32	770.1	52	11.1	.....	W	.....	.....	4	.....	6	.....	.....	.....	.....	*D. clouds	W. Newcombe.
Valencia Observatory	.....	.....	30.25	768.3	48.0	8.9	.....	W	28	12.5	.....	.....	4	.....	.....	.....	.....	Hazy	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.93	760.2	75.8	24.3	54	S	26	11.6	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	45	7.2	.....	W	.....	.....	7	.....	6	.....	.....	0	0	.....	Andrew Gibb.
Leith, Restalrig Park	.....	.....	29.81	757.2	43.6	6.4	.....	W	.....	.....	4	.....	10s	.....	.....	0.46	11.7	Stormy	J. Youngclause.
Monach Lt-house, Hebrides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,490 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cooperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.19	766.9	33.6	0.9	90	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Misty	.....
Fanöe	.....	.....	30.13	765.4	35.2	1.8	100	SW	.....	.....	6	.....	10	.....	.....	.....	.....	.....	.....
Godthaab, (Greenland)	.....	.....	28.98	736.2	11.1	—11.6	100	ENE	.....	.....	7	.....	10	.....	.....	.....	.....	.....	.....
Stykkisholm, (Iceland)	.....	.....	29.39	746.4	26.4	— 3.1	96	E	.....	.....	4	.....	5	.....	.....	.....	.....	.....	.....
Thorshavn, (Faröe)	.....	.....	29.45	748.1	38.7	3.7	69	WNW	.....	.....	5	.....	6	.....	.....	.....	.....	Snow & rain	.....
Vestervig	.....	.....	29.97	761.2	37.0	2.8	96	SSW	.....	.....	6	.....	10	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the air. Fahrenheit.	Temperature of the air. Centigrade.	Relative humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.43	772.8	44.6	7	93	NE			2		10			0	0	Covered	Normal School.
Amiens			30.38	771.6	32.7	0.4	88	S			6		5		S	0	0	Cloudy	Normal School.
Avignon			30.33	770.4	49.1	9.5	61	N			1		0			0	0	Very clear	Normal School.
Bar-sur-Seine			30.37	771.5	45.0	7.2	78	WSW			2	2c				0	0	Slightly cl'dy	C. Saillard.
Beaumette, (near Angers)			30.42	772.7	34.3	1.3	100	N	6.3	2.8						0	0	Foggy	Beaumette Observatory
Beauvais			30.44	773.2	32.5	0.3	96	SSE			1		10			0.012	0.30	Covered	Normal School.
Besançon			30.41	772.5	37.0	2.8	80	SW			2		2		SW	0	0	Slightly cl'dy	Normal School.
Bourg en Bresse			30.44	773.1	31.5	− 0.3	98	W			2		10					Covered	Normal School.
Bourges			29.99	761.7	32.2	0.1	83	ENE			3		10		ENE	0	0	Covered	Normal School.
Brest			30.34	770.6	49.8	9.9	86	S			1		0			0	0	Clear	Naval Observatory.
Caen			30.42	772.6	41.0	5		N											Normal School
Chartres			30.38	771.6	30.4	− 0.0		N			2		10			0.047	1.2	Covered	Normal School.
Chaumont																			Normal School.
Clermont			30.33	770.4	50.0	10.0	62	NW			2		0			0	0	Clear	Puy de Dome, Obs.
Commercy			30.41	772.5	37.6	3.1	93	SE			2		2n,s		SE	0	0	Slightly cl'dy	Normal School.
Commune de Gréasque*			30.34	770.7	56.1	13.4	30	NW			2		0			0	0		
Grenoble			30.38	771.7	39.2	4	75	ENE			1		2k		SW	0	0	Slightly cl'dy	Normal School.
Le Mans			30.45	773.3	32.5	0.3	96	N			2		10			0	0	Covered	Normal School.
Loches																			
Lons-Le-Saulnier			30.43	772.9	32.9	0.5	92	NW			1					0	0	Foggy	Normal School.
Mâcon			30.40	772.2	31.8	− 0.1		SE			1		10			0	0	Covered	Normal School.
Mirecourt			30.33	770.4	36.7	2.6	86	N			1		2		S	0	0	Slightly cl'dy	Normal School.
Metz																			
Nismes			30.36	771.2	56.7	13.7	51	NE			1		0			0	0	Clear	Normal School.
Orleans			30.36	771.2	39.2	4	93	N			2		8		N	0.150	3.8	Very cloudy	Normal School.
Paris Observatory			30.43	773.0	31.5	− 0.3	96	NW			1					0.118	3.01	Foggy	National Observatory
Parthenay			30.47	773.8	40.3	4.6	93	NE			2		10			0.04	1.	Covered	Normal School.
Privas			30.39	771.9	41.2	5.1		N			1		0			0	0	Clear	Normal School.
La Roche-sur-Yon			30.40	772.2	46.4	8.0	67	NE			4		2		N	0	0	Slightly cl'dy	Normal School.
Rochefort, Observatory			30.36	771.1	49.5	9.7	85	NE			3		10		SW	0	0	Covered	Naval Observatory.
Rouen			30.44	773.2	32.7	0.4	93	WSW			2		10			0	0	Covered	Normal School.
Saint Lo			30.44	773.2	37.0	2.8	97	NW			1		10		NW	0	0		Normal School.
Tarbes	29.26	743.1	30.3[illegible]	771.0	53.6	12	63	S			2		10		E	0	0	Covered	Normal School.
Toulouse			30.45	773.4	47.5	8.6	83	SW			1		0					Clear	Normal School.
Villefranche			30.42	772.6	33.1	0.6	90	NW			1					0	0	Foggy	Normal School.
SUB-SERIES.																			
Fort de France, Martinique			29.93	760.1	77.0	25	77	NE			2		2k			0.28	7.		L'Abbé Marchési.
Gorée																			
Marseilles			30.29	769.4	53.8	12.1	71	WNW			1		0			0	0	Misty	Marseilles Observatory.
Mont-Louis	25.00	635.1	30.43	773.0	41.7	5.4	52	WSW	7.4	3.33			2		WSW	0	0		[illegible] Falguère.
Montsouris, Paris			30.42	772.6	31.1	− 0.5	100	NW			1		10			0.091	2.4	Foggy	Montsouris Observ'tory
Perpignan			30.32	770.1	40.1	9.5	75	E	3.7	1.67			6	SE	NE	0	0		Dr. Fines.
Pic du Midi, (Summit) H. P.	21.33	541.7			3[illegible].2	− 1.0		N			1		7					Fair	M. Baylac.
Saint Maur, (near Paris)			30.42	772.6	32.0	0.0	100	N			1		10			0.108	2.7	Fog & mist	[illegible] Renou.
Toulouse			30.30	769.7	47.5	8.6	81	E			1		7			0	0		Toulouse Observatory
Tours			30.37	771.4	43.3	6.3	88	N			1		10		N	0.047	1.2		C. Marquet.
Versailles, (near Paris)			30.39	771.9	32.7	0.4	100	NW			1		10			0.094	2.39	Dense fog	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.38	771.6	37.4	3.0	83	NNE	4.7	2.1		10ck	0	W		Bl'k 0.035	Bl'k 0.9	Lunar corona	H. Le Lec, S. J.

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Stations.	Corrected Inches	Corrected Millimeters	Sea-level Inches	Sea-level Millimeters	Fahrenheit	Centigrade	Humidity Per cent.	Wind From—	Miles per hour	Meters per second	Force	Clouds Upper	Clouds Lower	Cloud dir. Upper	Cloud dir. Lower	Rain Inches	Rain Millimeters	Weather	Observer
Bamberg			30.31	769.9	27.3	− 2.6	87	SW			2		4			0	0		Prof. T. Hoh.
Berlin			30.40	772.2	34.5	1.4	86	SW			2		10			0	0		Prof. Arndt.
Breslau			30.14	773.2	32.5	0.3	93	NW			3		10			0	0		Dr. P. [illegible]
Carlsruhe			30.41	772.3	33.8	1.0	77	[illegible]			1		9			0	0	Misty	A. Senz.
Cassel			30.28	769.0	32.7	0.4	88	SW			5		10			0	0		Dr. H. Möh[illegible]
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main			30.50	774.8	32.0	0.0	92	E			1		10			0.008	0.2	Foggy	Physical Society.
Friedrichshafen			30.16	773.6	27.9	− 2.3	83	E					10			0	0	Foggy	M. Wilhelm.
Hamburg			30.14	770.7	34.9	1.6	96	SW			4		10			0.012	0.3		Deutsche Seewarte.
Kiel			30.31	769.8	34.7	1.5	88	SW			2		10			0	0		Prof. G. Karsten.
Königsberg			30.30	769.7	32.2	0.1	98	W			2		10			0	0		Prof. E. Luth[illegible]
Köslin			30.34	770.6	30.6	− 0.8		SW			2		10			0	0	Foggy	H. Müller.
Leipsic			30.44	773.2	34.3	1.3	91	SW			1		10			0.028	0.7		Prof. Bruhns.
Münster			30.37	771.4	35.6	2.0	91	S			2		10			0.075	1.9	Snowing	Prof. E. Heis.
Posen			30.40	772.2	34.9	1.6	77	WSW			1		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.44	773.2	30.4	− 0.9	94	Calm			0		9			0	0		Dr. Schur.
Stuttgart			30.41	772.3	34.3	1.3	68	N					5			0	0		Prof. Schoder.
Thorn			30.34	770.6	32.7	0.4	93	SW			3		10			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.32	770.2	35.6	2.0	93	NW			2		10			0.071	1.8		Prof. Fiesen.
Wustrow, Naval School			30.34	770.7	33.8	1.0	98	SW			6		10			0	0	Misty	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Corrected Inches	Corrected Millimeters	Sea-level Inches	Sea-level Millimeters	Fahrenheit	Centigrade	Humidity Per cent.	Wind From—	Miles per hour	Meters per second	Force	Clouds Upper	Clouds Lower	Cloud dir. Upper	Cloud dir. Lower	Rain Inches	Rain Millimeters	Weather
Athens			30.21	767.4	50.5	10.3		NE										Half clear.

NOTE.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer—Corrected for instrumental errors. Inches.	Barometer—Corrected for instrumental errors. Millimeters.	Barometer—Reduced to sea-level. Inches.	Barometer—Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.27	768.9	49.6	9.8	38	E	5.6	2.5			0			0	0		
Padua			30.[illegible]	769.3	49.6	9.8	40	NNE	4.9	2.2			0			0	0		
Vicenza			30.28	769.0	48.9	9.4	62	E	1.3	0.6			0			0	0		
Verona																			
Bergamo			30.28	769.0	46.4	8.0	54	ENE			2		1			0	0		
Domodossola																			
Milan			30.34	770.6	43.7	6.5	81	ENE			1		0			0	0		
Pavia																			
Moncalieri			30.36	771.1	34.9	1.6	68	N	0.7	0.3			0			0	0		
Mondovi			30.34	770.5	43.[illegible]	6.4	42	NW			2		0			0	0		
Porto Maurizio																			
Genoa			30.28	769.1	54.0	12.2	60	SW	1.3	0.6			0			0	0		
Piacenza			30.32	770.2	43.5	6.4	68	WNW	1.3	0.6			0			0	0		
Bologna			30.34	770.6	47.7	8.7	27	W			1		2	SE		0	0		
Florence			30.28	769.1	56.3	13.5	30	NW			2		0			0	0		
Leghorn			30.28	769.1	52.5	11.4	57	NW	1.8	0.8			0			0	0		
Siena			30.26	768.6	49.3	9.6	56	ENE	0	0			0			0	0		
Urbino																			
Pesaro																			
Ancona			30.28	769.0	45.3	7.4	74	NW			6		1						
Grosseto			30.25	768.3	54.5	12.5	21	NE			4		0			0	0		
Rome			30.24	768.1	54.5	12.5	54	N	2.5	1.1			0			0	0		
Naples, O. U.			30.24	768.0	55.8	13.2	44	NE			4		1	NE		0	0		
Lecce			30.22	767.6	53.1	11.7	65	WNW	12.5	5.6			5	N		0	0		
Cosenza			30.24	768.2	53.2	11.8	78	WNW			1		9			0	0		
Riposto, (Sicily)			30.19	766.8	50.0	10.0	90	N			2		10	W		0.307	7.8		
Palermo			30.17	766.3	51.[illegible]	10.8	73	NE	5.6	2.5			10			0.004	0.1	Light rain	
Caltanissetta			30.17	766.3	46.0	7.8	83	N			2		10	S		0.492	12.5	Raining	
Sub-Series.																			
Naples, S. R.			30.24	768.1	54.1	12.3	51	NE			2					0	0		Prof. F. Brioschi.

Note. The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 550 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			30.38	771.7	36.7	2.6		SSW			4								
Groningen			30.23	767.9	33.4	0.8		S			3								
Helder			30.25	768.4	38.8	3.8		SSW			5								
Utrecht			30.32	770.0	32.7	0.4	94	SSW			3		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.57	751.1	49.1	9.5	84	S	11.6	5.2			8			0.047	1.2		
Brönö			29.28	743.6	38.1	3.4	66	SSW	20	9			9			0.748	19.0		
Christiania			29.71	754.5	41.5	5.3	76	SSW	7.8	3.5			7			0.079	2.0		
Tromsö			29.01	736.9	35.6	2.0	87	NE	7	3			10			0.678	17.1	Raining	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.42	772.7	55.9	13.3	80	ENE	10.6	4.75	.....	.....	2	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.21	767.4	53.2	11.8	56	ESE	10.4	4.66	.....	.....	9	ESE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.10	764.5	57.6	14.2	76	Calm	0	0	.....	.....	10	.....	.....	0.346	8.8	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.22	767.5	51.6	10.9	72	NNE	21.0	9.4	.....	.....	8	.....	.....	0	0	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Warsaw	.....	.....	30.33	770.4	31.5	— 0.3	90	WSW	13	6	.....	.....	6	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.26	768.6	36.1	2.3	91	SW	4	2	.....	.....	8	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.12	765.1	32.9	0.5	92	W	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.97	761.1	35.8	2.1	87	WSW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs.
Knopio	.....	.....	29.63	752.6	30.4	— 0.9	92	ESE	13	6	.....	.....	10	.....	.....	.....	.....	Snowing.	Ch. Forsten.
Kieff	.....	.....	30.28	769.1	32.4	0.2	98	N	2	1	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.31	769.9	35.8	2.1	80	SSW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.28	769.2	35.4	1.9	90	Calm	0	0	.....	.....	10	.....	.....	.....	.....	Foggy.....	Lagorio.
Moscow	.....	.....	30.22	767.5	30.4	— 0.9	80	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.23	767.8	26.8	— 2.9	76	S	4	2	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.62	752.4	26.6	— 3.0	96	W	13	6	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.81	734.4	30.39	772.0	36.7	2.6	69	SSE	4	2	.....	.....	1	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.61	777.4	22.6	— 5.2	88	SSE	4	2	.....	.....	8	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.03	762.7	23.4	— 4.8	93	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.74	729.9	29.83	757.7	5.0	—15.0	79	W	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.72	780.4	17.2	— 8.2	76	SSE	4	2	.....	.....	0	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.62	777.7	— 1.7	—18.7	47	SW	4	2	.....	.....	0	.....	.....	.....	.....	.....	
Tashkend	29.18	774.1	31.12	790.4	8.2	—13.2	88	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Barnaul	.....	.....	30.19	766.7	— 1.5	—18.6	71	SW	4	2	.....	.....	1	.....	.....	.....	.....	.....	Michelson.
Yeniseisk	.....	.....	29.64	752.8	11.5	—11.4	89	S	4	2	.....	.....	10	.....	.....	.....	.....	Snowing.....	Meteorological Obs.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Marks.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Peking, (China)	.....	.....	30.43	773.0	25.9	— 3.4	54	SE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Mossin.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Observatory.
Vladivostock	.....	.....	30.31	769.8	12.9	—10.6	66	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—14.6	—25.9	100	NW	7	3	.....	.....	0	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Madrid	.....	.....	30.34	770.5	46.2	7.9	67	NE	13.4	6.00	.....	.....	10	.....	.....	0	0	Covered	Royal Observatory.
San Fernando	.....	.....	30.16	766.0	61.0	16.1	63	E	22.8	10.2	.....	2	6	E	E	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Haparanda	.....	.....	29.32	744.8	29.5	— 1.4	90	SSE	.....	.....	4	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	29.48	748.8	30.0	— 1.1	94	SW	.....	.....	6	.....	1	.....	.....	0	0	.....	
Hernosand	.....	.....	29.49	749.1	38.8	3.8	90	SW	.....	.....	2	.....	2	.....	.....	0	0	.....	
Stockholm	.....	.....	29.80	759.3	38.1	3.4	73	SSW	.....	.....	4	.....	7	.....	.....	0	0	.....	
Wisby	.....	.....	30.14	765.5	35.6	2.0	82	WSW	.....	.....	4	.....	0	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	29.87	758.7	37.0	2.8	81	SW	19.7	8.8	.....	.....	10	.....	WSW	0.004	0.10	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the last 24 hours. Inches.	Rain-fall in the last 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.94	735.0	30.44	773.1	30.2	— 1.0	100	NNE	.....	.....	0	.....	10	.....	.....	0	0	Foggy	The Observatory.
Zurich	28.71	729.3	30.45	773.5	25.7	— 3.5	90	W	.....	.....	1	.....	7	.....	.....	0	0	Foggy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +8.0 mm.; Thermometer, —3.5 cent.; Relative Humidity, +25 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.24	768.0	40.3	4.6	74	NE	19	8.5	.....	.....	7	.....	NE	Blank	Blank	.....	
Fao, (Persian Gulf)	.....	.....	30.34	770.5	55.4	13.0	.....	SE	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.29	769.4	48.4	9.1	.....	W	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	30.07	763.8	52.3	11.3	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	30.22	767.5	39.2	4.0	.....	NE	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.93	760.1	61.0	16.1	70	W	.....	.....	3	.....	10n	.....	SW	0	0	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.90	759.4	— 6.5	—21.4	80	NW	9.7	4.3	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.55	776.0	—16	—26.7	.....	Calm	0	0	.....	0	2s	.....	W	0.20	5.1	Fair	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.92	760.0	— 5	—20.6	81	W	21	9.4	.....	0	0	.....	.....	0.41	10.4	Clear	G. A. Blair.
Charlottetown P. E. Island.	.....	.....	29.85	758.2	1	—17.2	77	NW	26	11.6	.....	0	0	.....	.....	0.17	4.3	Clear	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.44	773.2	—15.5	—26.4	100	S	.....	.....	1	.....	1s	.....	.....	0	0	Bright	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.97	761.2	— 8.4	—22.4	78	W	.....	.....	3	.....	2ks	.....	.....	0.24	6.1	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	30.24	768.1	39.1	3.9	92	NE	2	0.9	.....	.....	10	.....	.....	0.65	16.5	Cloudy	W. H. Bevis.
Fredericton, N. B.	.....	.....	30.19	766.8	— 5.9	—21.1	58	NW	17	7.6	.....	.....	.....	.....	.....	0.423	10.76	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.27	768.8	— 28	—32.2	100	NW	1	0.4	.....	0	0	.....	.....	0	0	Clear	James Stewart.
Goderich, Ontario	.....	.....	30.28	769.1	11.1	—11.6	88	NW	.....	.....	3	.....	10n	.....	.....	0	0	Cloudy	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.31	769.9	6.6	—14.1	.....	SW	.....	.....	1	.....	10n	.....	.....	0.30	7.6	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	30.08	764.0	5	—15.0	87	NW	20	8.9	.....	0	0	.....	.....	0.60	15.2	Clear	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.51	774.9	—12	—24.4	75	SE	1	0.4	.....	10cs	Sm'e	.....	.....	0.02	0.5	Cloudy	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.12	765.0	10.6	—11.9	.....	S	3	1.3	.....	.....	10s	.....	.....	0.30	7.6	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.49	774.4	—11	—23.9	95	W	18	5.8	.....	0	0	.....	.....	0.10	2.5	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.48	774.2	—20	—28.9	93	Calm	0	0	.....	0	2s	.....	.....	0	0	Clear	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.27	768.8	0	—17.8	85	SE	17	7.6	.....	2k	5ks	SW	SW	0	0	Fair	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.35	770.9	12	—11.1	84	SW	15	6.7	.....	10k	0	S	.....	0.10	2.5	Cloudy	H. Morgan.
Port Hastings, N. S.	.....	.....	29.79	756.7	9.0	—12.8	.....	NW	30	13.4	.....	.....	.....	.....	.....	0	0	Squally	Peter Grant.
*Port Stanley, Ontario	.....	.....	30.32	770.1	13	—10.6	81	SE	8	3.6	.....	.....	10n	.....	Sk.	0	0	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	30.38	771.6	—15	—26.1	77	SW	12	5.4	.....	0?	0?	.....	.....	0.80	20.3	Cloudy?	Capt. Ash, R. N.
St. John, N. B.	.....	.....	30.28	769.1	— 2.0	—18.9	50	W	15	6.7	.....	.....	.....	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.20	767.1	9	—12.8	80	S	7	3.1	.....	.....	10ks	.....	.....	0.10	2.5	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	30.25	768.3	10	—12.2	66	S	8	3.6	.....	5ck	2n	.....	S	Inap.	Inap.	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	30.30	769.6	8.6	—13.0	91	SW	7	3.1	.....	.....	10s	.....	.....	0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.57	751.1	7	—13.9	100	W	36	16.1	.....	.....	10n	.....	.....	0.73	18.5	Light snow	T. C. Hill.
*Toronto, Ontario	.....	.....	30.34	770.6	9	—12.8	78	S	11	4.9	.....	.....	10n	.....	SW	0	0	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour	Wind. Velocity. Meters per second.	Wind. Force. —lb	Clouds. Amount. Up'er —.	Clouds. Amount. Low'r —.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.51	774.9	-- 2	—18.9	83	Calm	0	0	.....	2k	Haze	W	.....	Inap.	Inap.	Fair.	
Alpena, Mich.	.....	.....	30.12	765.0	10	—12.2	79	SW	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy.	
Atlantic City, N. J.	.....	.....	30.56	776.2	15	— 9.4	47	NW	3	1.3	.....	10cs	0	W	.....	0	0	Cloudy.	
Augusta, Ga.	.....	.....	30.37	771.4	34	1.1	89	E	5	2.2	.....	.....	10s	.....	S	0	0	Cloudy.	
Baltimore, Md.	.....	.....	30.56	776.2	17	— 8.3	51	NE	4	1.8	.....	2cs	2s	SW	.....	0	0	Fair.	
Barnegat, N. J.	.....	.....	30.54	775.7	14	—10.0	62	NW	11	4.9	.....	5cs	0	.....	.....	0	0	Fair.	
Benton, Montana	27.57	700.3	30.37	771.4	—10	—23.3	100	SW	2	0.9	.....	.....	10s	.....	.....	0.05	1.3	Cloudy.	
Bismarck, Dakota	28.03	727.2	30.57	776.5	—17	—27.2	37	N	18	8.0	.....	0	0	.....	.....	0	0	Clear.	
Boston, Mass	.....	.....	30.50	774.7	2.5	—16.4	59	SW	15	6.7	.....	0	0	.....	.....	0	0	Clear.	
Breckenridge, Minn	.....	.....	30.32	770.1	—10	—23.3	78	W	16	7.2	.....	.....	10s	.....	NW	0	0	Cloudy.	
Buffalo, N. Y.	.....	.....	30.35	770.9	10	—12.2	69	S	11	4.9	.....	0	5s	.....	.....	0	0	Fair.	
Burlington, Vt.	.....	.....	30.40	774.4	—11	—23.9	52	E	5	2.2	.....	0	0	.....	.....	0.03	0.8	Clear.	
Cairo, Ill.	.....	.....	30.14	765.5	26	— 3.3	100	S	8	3.6	.....	.....	10n	.....	.....	0.15	3.8	Heavy snow	
Cape Hatteras, N. C.	.....	.....	30.40	772.1	39	3.9	63	NE	22	9.8	.....	.....	10s	.....	NE	0	0	Cloudy.	
Cape Henry, Va	.....	.....	30.54	775.7	29	— 1.7	72	NE	15	6.7	.....	5c	0	W	.....	0	0	Fair.	
Cape May, N. J.	.....	.....	30.57	776.5	17	— 8.3	67	NE	0	2.7	.....	0	2s	.....	W	0	0	Fair.	
Charleston, S. C.	.....	.....	30.37	771.4	39	3.9	47	NE	14	6.3	.....	5k	5s	SW	SW	0	0	Cloudy.	
Cheyenne, Wyoming	24.00	609.6	29.94	760.5	18	— 7.8	67	NW	24	10.7	.....	.....	10s	.....	.....	0	0	Cloudy.	
Chicago, Ill.	.....	.....	30.13	765.3	19	— 7.2	69	S	5	2.2	.....	.....	10s	.....	.....	0	0	Threatening	
Cincinnati, Ohio	.....	.....	30.20	767.1	21	— 6.1	71	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Cleveland, Ohio	.....	.....	30.32	770 1	10.3	—12.1	87	SE	13	5.8	.....	.....	10s	.....	.....	0.10	2.5	Cloudy.	
Colorado Springs, Col.	24.06	611.1	29.93	760.2	14	—10.0	82	NE	12	5.4	.....	.....	10ks	.....	SW	0.13	3.3	Cloudy.	
Corsicana, Texas	.....	.....	29.93	760.2	44	6.7	92	SE	8	3.6	.....	.....	10s	.....	.....	0.04	1.0	Cloudy.	
Davenport, Iowa	.....	.....	30.12	765.0	19	— 7.2	84	E	8	3.6	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow.	
Denison, Texas	.....	.....	29.83	757.7	39	3.9	81	SE	15	6.7	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.	
Denver, Col.	24.84	630.9	30.06	763.5	17	— 8.3	51	Calm	0	0	.....	0	0	.....	.....	0.03	0.8	Clear.	
Detroit, Mich	.....	.....	30.26	768.6	13	—10.6	62	S	8	3.6	.....	.....	10s	.....	.....	0.01	0.3	Cloudy.	
Dodge City, Kan	27.37	695.2	29.78	756.4	23	— 5.0	86	NW	24	10.7	.....	.....	10s	.....	.....	0	0	Cloudy.	
Dubuque, Iowa	.....	.....	30.14	765.5	18	— 7.8	84	S	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Duluth, Minn	.....	.....	30.17	766.3	— 4	—20.0	64	W	12	5.4	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.	
Eastport, Me.	.....	.....	30.26	768.6	— 2	—18.9	67	NW	14	6.3	.....	0	0	.....	.....	1.65	41.9	Clear.	
Erie, Pa.	.....	.....	30.32	770.1	10	—12.2	89	SE	20	8.9	.....	Haze	Haze	.....	.....	Inap.	Inap.	Hazy	
Escanaba, Mich	.....	.....	30.12	765.0	— 1	—18.3	84	Calm	0	0	.....	0	8s	.....	.....	0	0	Fair.	
Fort Gibson, Indian Terr.	.....	.....	29.91	759.7	32	0.0	89	E	10	4.5	.....	.....	10n	.....	.....	0.02	0.5	Light snow.	
Fort Sill, Indian T.	28.67	728.2	29.81	757.2	32	0.0	79	N	8	3.6	.....	0	2s	.....	N	0	0	Clear.	
Fort Sully, Dakota	28.62	727.0	30.52	775.2	— 2	—18.9	84	NW	32	14.3	.....	0	8s	.....	NW	0	0	Cloudy.	
Galveston, Texas	.....	.....	30.02	762.5	59	15.0	88	S	4	1.8	.....	0	5s	.....	S	0	0	Fair.	
Grand Haven, Mich.	.....	.....	30.14	765.5	13	—10.6	90	S	14	6.3	.....	.....	10n	.....	.....	0.06	1.5	Light snow.	
Indianapolis, Ind.	.....	.....	30.18	766.6	20	6.7	70	SE	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.	
Indianola, Texas	.....	.....	30.04	763.5	51	10.6	100	N	6	2.7	.....	.....	10n	.....	.....	0.07	1.8	Light rain	
Jacksonville, Fla.	.....	.....	30.21	767.3	44	6.7	75	NE	3	1.3	.....	5k	0	SE	.....	0	0	Fair.	
Keokuk, Iowa	.....	.....	30.06	763.5	20	— 6.7	70	SE	4	1.8	.....	.....	10s	.....	SE	0	0	Cloudy.	
Key West, Fla.	.....	.....	30.12	765.0	71.1	21.7	90	E	13	5.8	.....	.....	8ks	.....	E	0	0	Cloudy.	
Kittyhawk, N. C.	.....	.....	30.52	775.2	34	1.1	62	E	18	8.0	.....	5k	0	SW	.....	0	0	Fair.	
Knoxville, Tenn	.....	.....	30.26	768.6	24	— 4.4	74	E	8	3.6	.....	10cs	0	SW	.....	0	0	Cloudy.	
La Crosse, Wis.	.....	.....	30.12	765.0	15	— 9.4	83	S	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Leavenworth, Kan	.....	.....	30.02	762.5	29	— 1.7	89	S	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Lexington, Ky.	29.07	738.4	30.27	768.8	17	-- 8.3	69	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Long Branch, N. J.	.....	.....	30.57	776.5	16	— 8.9	66	NW	5	2.2	.....	10c	0	.....	.....	0	0	Cloudy.	
Louisville, Ky.	.....	.....	30.21	767.3	24	— 4.4	61	SE	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy	
Lynchburg, Va.	.....	.....	30.57	776.5	20	— 6.7	62	E	2	0.9	.....	10k	0	W	.....	0	0	Cloudy.	
Malone, N. Y.	.....	.....	30.49	774 4	— 9	—22.8	78	SE	7	3.1	.....	0	0	.....	.....	0.29	5.1	Clear.	
Marquette, Mich	.....	.....	30.12	765.0	— 1	—18.3	68	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Memphis, Tenn	.....	.....	30.15	765 8	12	—11.1	80	SW	7	3.1	.....	.....	10s	.....	.....	0	0	Cloudy.	
Milwaukee, Wis.	.....	.....	30.19	766.8	33	0.6	61	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Mobile, Ala.	.....	.....	30.22	767.6	38	3.3	63	NE	7	3.1	.....	.....	10s	.....	SW	0	0	Cloudy.	
Montgomery, Ala.	.....	.....	30.31	769.9	32	0.0	64	E	3	1.3	.....	5ck	Sm'e	W	.....	0	0	Fair.	
Morgantown, W. Va.	.....	.....	30.33	770.4	22	— 5.6	78	SW	2	0.9	.....	.....	10s	.....	SW	Inap.	Inap.	Cloudy.	
Mt. Washington, N. H.	23.37	593.6	29.73	755.1	- 25	—31.7	0	NW	58	25.9	.....	0	0	.....	.....	0.23	5.8	Clear.	
Nashville, Tenn.	.....	.....	30.23	767.8	31	— 0.6	68	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
New Haven, Conn	.....	.....	30.53	775.4	11	—11.7	61	NW	4	1.8	.....	Haze	0	.....	.....	0	0	Clear.	
New London, Conn	.....	.....	30.54	775.7	10	—12.2	49	NW	7	3.1	.....	0	0	.....	.....	0.11	2.8	Clear.	
New Orleans, La.	.....	.....	30.18	766.6	43.5	6.4	63	E	10	4.5	.....	10k	0	SW	.....	0	0	Cloudy.	
Newport, R. I.	.....	.....	30.54	775.7	9	—12.8	78	W	11	4.9	.....	0	0	.....	.....	0.03	0.8	Clear.	
New York, N. Y.	.....	.....	30.56	776.2	12	—11.1	61	NW	7	3.1	.....	2c	0	NW	.....	0	0	Clear.	
Norfolk, Va.	.....	.....	30.53	775.4	26	— 3.3	63	NE	6	2.7	.....	2c	Haze	W	.....	0	0	Fair.	
North Platte, Neb.	27.16	689.8	29.96	761.0	9	—12.8	78	W	3	1.3	.....	0	2s	.....	.....	Inap.	Inap.	Clear.	
Omaha, Neb.	29.04	737.6	30.22	767.6	11	—11.7	90	N	18	8.0	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.	
Oswego, N. Y.	.....	.....	30.46	773.7	1	—17.2	87	SE	5	2.2	.....	.....	10s	.....	W	0.36	9.1	Cloudy.	
Peck's Beach, N. J.	.....	.....	30.59	777.0	14	—10.0	81	N	4	1.8	.....	5cs	5s	.....	.....	0	0	Cloudy.	
Pembina, Dakota	.....	.....	30.29	769.4	-22	—30.0	100	W	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Philadelphia, Penn	.....	.....	30.60	777.2	16	— 8.9	49	NW	4	1.8	.....	8ck	Sm'e	W	.....	0	0	Cloudy.	
Pike's Peak, Colorado	17.36	440.9	29.57	751.1	—14	—25.6	45	W	44	19.7	.....	0	1ks	.....	.....	0.04	1.0	Clear.	
Pittsburgh, Penn.	.....	.....	30.37	771.4	14	—10.0	63	E	4	1.8	.....	.....	10s	.....	E	0.03	0.8	Cloudy.	
Port Huron, Mich.	.....	.....	30.24	768.1	12	—11.1	80	S	13	5.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Portland, Me.	.....	.....	30.45	773.4	— 3	—19.4	66	W	9	4.0	.....	0	0	.....	.....	0.06	1.5	Clear.	
Portland, Oregon	.....	.....	30.44	773.2	41	5.0	84	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Punta Rassa, Fla.	.....	.....	30.16	766.1	55	12.8	87	NE	12	5.4	.....	8ck	2ks	SE	.....	0	0	Cloudy.	
Rochester, N. Y.	.....	.....	30.40	772.1	8	—13.3	78	S	5	2.2	.....	.....	10s	.....	SW	0.03	0.8	Cloudy.	
Salt Lake City, Utah	25.85	656.6	30.18	766.6	24	— 4.4	61	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Sandy Hook, N. J.	.....	.....	30.52	775.2	18	—10.6	44	NW	.....	.....	.....	.....	10ks	.....	NW	0	0	Cloudy.	
San Diego, Cal.	.....	.....	30.14	765.5	46	7.8	92	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
San Francisco, Cal.	.....	.....	30.15	765.8	51	10.6	52	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Santa Fe, N. M.	.....	.....	29.70	754.4	18	— 7.8	.....	NE	6	7.2	.....	0	0	.....	.....	0	0	Clear.	
Savannah, Ga.	23.16	588.2	30.30	7 9.6	39	3.9	63	NE	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Shreveport, La.	.....	.....	30.06	763.5	37.	2.8	90	SE	4	1.8	.....	5k	0	SE	.....	0	0	Fair.	
Smithville, N. C.	.....	.....	30.42	772.7	31	— 0.6	69	N	10	4.5	.....	.....	10n	.....	.....	0.14	3.6	Heavy rain.	
Springfield, Mass	.....	.....	30. 3	771.4	8	-14.3	54	Calm	0	0	.....	1c	2ks	W	SE	0	0	Fair.	
St. Louis, Mo.	.....	.....	30.08	764.0	25	— 3.9	87	S	8	3.6	.....	8cs	0	.....	.....	0	0	Fair.	
St. Marks, Fla	.....	.....	30.24	768.1	34	0.6	79	N	4	1.8	.....	.....	10n	.....	.....	0.03	0.8	Light snow.	
St. Paul, Minn.	.....	.....	30.20	767.1	- 7	—21.7	78	NW	6	2.7	.....	5k	5s	S	.....	0	0	Cloudy.	
St. Paul's Island, Alaska	.....	.....	29.80	756.4	17	— 8.3	83	NNE	12	5.4	.....	0	2s	.....	.....	0	0	Clear.	
Sudan Beach, N. J.	.....	.....	30.50	774.7	12	—11 1	61	NW	2	0.9	.....	2c	1k	.....	.....	0.02	0.5	.....	
Thatcher's Island, Mass.	.....	.....	30.47	773.9	4	—15.6	48	NW	18	8.0	.....	5cs	2s	W	.....	0	0	Fair.	
Toledo, Ohio	.....	.....	30.24	768.1	15	— 9.4	65	SE	3	1.3	.....	0	0	.....	.....	0	0	Clear.	
Tucson, Arizona.	.....	.....	30.28	769.1	49	4.4	.....	SW	.....	.....	.....	.....	10s	.....	S	0	0	Cloudy.	
Tybee Island, Ga.	27.69	703.3	30.28	769.1	46	7.8	77	NW	26	11.6	.....	0	0	.....	.....	0	0	Clear.	
Vicksburg, Miss.	.....	.....	30.28	769.1	46	7.8	77	NW	26	11.6	.....	2c	2s	NW	NE	0	0	Fair.	
	.....	.....	30.17	766.3	36	2.2	62	SE	12	5.4	.....	.....	10s	.....	SW	0	0	Cloudy.	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From —	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From —	Clouds. Direction. Lower. From —	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.29	617.0	29.77	756.1	19	— 7.2	53	SW	13	5.8	.....	1c	0	NW	.....	Inap.	Inap.	Clear	
Washington, D. C	.....	.....	30.57	776.5	15	— 9.4	44	NE	2	0.9	.....	5ck	2s	W	.....	0	0	Cloudy	
Wilmington, N. C	.....	.....	30.44	773.2	29	— 1.7	67	NE	7	3.1	.....	1cs	0	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	30.52	775.2	12	—11.1	61	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va	27.92	709.2	30.25	768.3	21	— 6.1	85	E	5	2.2	.....	10cs	0	W	.....	0	0	Cloudy	
Yankton, Dakota	28.96	735.6	30.42	772.7	— 2	—18.9	67	NW	16	7.2	.....	0	5s	.....	NW	0	0	Fair	
Yuma, Arizona	.....	.....	30.09	764.3	46	7.8	.....	E	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, Barbados, W. I	.....	.....	30.03	762.7	78	25.6	82	NE	9	4.0	.....	2k	5ks	N	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, Guadeloupe, do	.....	.....	30.01	762.2	75	23.9	81	E	.....	.....	.....	5k	2ks	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.29	769.4	76	24.4	67	E	7	3.1	.....	2c	2k	E	.....	0.10	2.5	Fair	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.23	767.8	73	22.8	76	Calm	0	0	.....	8c	8s	.....	NE	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.86	758.4	74	23.3	72	NE	4.8	2.1	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.15	765.8	72	22.2	81	SE	2.4	1.1	.....	0	0	.....	.....	0	0	Clear	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.38	771.6	60.5	15.8	74	NE	11.0	4.9	.....	.....	10k	.....	.....	0.17	4.3	Cloudy	C. F. Allen.
St. John's, Porto Rico, W.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.24	691.9	30.06	763.5	61	16.1	88	Calm	0	0	.....	.....	10k	.....	.....	0	0	Sl't drizzle	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	29.95	760.7	82	27.8	75	NNE	.....	.....	4	.....	5k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	29.79	756.7	81.5	27.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.18	639.6	.....	.....	67.1	19.5	77	.....	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.16	740.7	27.0	— 2.8	.....	SW	.....	.....	.....	.....	10n	.....	.....	0.60	15.2	Light snow	John Delaney.
York Factory, B. A	.....	.....	29.89	759.2	—45	—42.8	.....	NW	19	8.5	.....	.....	Fog	.....	.....	0	0	Dense fog	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,180 (?) ft., or 1,579.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, .87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 4, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:58 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.02	762.5	60.4	15.8	68	Calm			0		3			0	0	Fair	Charnot and Masselot.
Algiers			30.00	762.1	61.9	16.6	81	N			1		3			0	0	Fair	Peter.
La Calle																			
Tunis																			Kuntz.
Sfax			30.07	763.8	58.6	14.8	70	NE			3		0			0	0	Clear	Jacques.
Saida			30.13	765.2	60.8	16.0	58	SW			4		2			0	0	Clear	Chauvey.
Tebessa			30.10	764.5	62.6	17.0	26	SW			3		2			0	0	Clear	Millot.
Geriville			30.17	766.4	49.5	9.7		SE			3		0			0	0	Clear	Colin.
Laghouat			30.15	765.8	50.0	10.0	58	SE			2		2			0	0	Clear	Buard.
Biskra			30.16	766.0	51.8	11.0	75	SW			2		1			0	0	Clear	Delord.
			30.22	767.6	60.8	16.0	50	N			1		2			0	0	Clear	Dubois.

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			30.11	764.8	24.6	— 4.1	95	Calm			0		10			0	0		Prof. Ivan Stozir.
Buda-Festh																			I. R. Cen. M. I., Hungary
Cracow																			I. R. Observatory.
Eperies			30.05	763.2	17.4	— 8.1	97	W			2		10			0	0		Julius Mikolik.
Gratz			30.16	766.0	46.0	7.8	100	S			1		10			0.045	1.15		Andreas Rospini.
Hermannstadt	28.82	731.9	30.11	764.8	21.0	— 6.1	88	S			2		10			0	0		Prof. Reissenberger.
Kremsmünster	28.58	725.9	30.10	764.4	25.3	— 3.7	89	WNW			1		6			0	0		Prof. C. Wagner.
Lemberg	28.62	726.8	30.05	763.3	21.6	— 5.8	95	E			1		10			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.95	760.8	33.6	0.9	94	S			1		0			0	0		Habzsuda Daniel.
Pola			30.17	766.4	18.3	— 7.6	100	Calm			0		10			0	0		I.R. Hydrographic Office
Szegedin			30.01	762.2	47.8	8.8	63	SE			2		9cs			0	0		Karl Stancel.
Trieste			30.15	765.8	21.4	— 5.9	100	Calm			0					0	0		Prof. V. Farolfi.
Vienna			30.00	762.1	48.2	9.0	76	NW			1		5			0.409	10.4		I. R. Central Institute.
			30.09	764.3	19.9	— 6.7	96	SSE			2		10			0	0		

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels			29.83	757.6	38.8	3.8	79	WSW			3		10			0.063	1.60		Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cooperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.00	762.0	37.4	3.0		WNW	25	11.2			2			0	0	Blue sky	William Boswell.
Ardrossan			30.12	765.0	43	6.1		NNW			4		1					Blue sky	J. Mayes.
Armagh Observatory			30.20	767.1	41.6	5.3		NW	13	5.8			4					*D. clouds	S. Call, for Dr. Robinson
Bidston, Liverpool Obs			30.05	763.3	40.8	4.9		NW	28	12.5			2					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			30.24	768.1	43.4	6.3		NW			1		9					*D. clouds	J. Dreyer.
Bradford			29.96	761.0	39.9	4.4		NW			2		1			0.47	11.9	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)			29.93	760.2	81.0	27.2		NE			4		4					*D.clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.97	761.2	43.2	6.2		NNW			2		1			Blank	Blank	*D. clouds	H. Todd.
Cardington			29.99	761.7	41.0	5.0		NW			2		1					Blue sky	John McLaren.
Carlisle			30.07	763.8	41.5	5.3		NW			2		3			0.15	3.8	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.			29.97	761.2	40.2	4.6		NW			1		9					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.65	727.7	30.21	767.3	38.4	3.6		N			5		7					*D. clouds	R. E. Power.
Donaghadee			30.12	765.0	42	5.6		NW			5		8					*D. clouds	J. Mac Gowan.
Dover			30.02	760.0	40	4.4		NW			5		4					Squally	J. Costello.
Eccles, (near Manchester)			30.02	762.5	42.7	5.9		NW	4.2	1.9			5					*D. clouds	Thomas Mackereth.
Falmouth Observatory			30.18	766.6	45.7	7.6		NW	31	13.9			9					Showery	The Staff.
Fort Napier, (Natal)	27.51	698.7	29.76	755.9	69.7	20.9		E			1		10					Drizzling	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone			29.83	757.7	85	29.4		N			1		7					*D. clouds	(tis.
Galway, Queen's College			30.18	766.6	53	11.7		NW			2		2					*D. clouds	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.08	764.0	57.3	14.1		E			6		10					Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			30.08	764.0	40.4	4.7		NW			1		2					Fine	Lewis Stuart.
Great Yarmouth			29.89	759.2	36	2.2		NW			5		7					Raining	G. T. Watson.
Greenwich Royal Obs			29.97	761.2	40.7	4.8		NW			4		4			Blank	Blank	*D. clouds	The Staff for G. B. Airy
Guernsey			30.08	764.0	46	7.8		WNW			5		5					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.04	763.0	38.6	3.7		NW			1		6			Blank	Blank	*D. clouds	L. J. Cressley.
Helston			30.18	766.6	48	8.9		NW			6		0			0.9	22.9	*D. clouds	M. P. Moyle.
Holyhead			30.09	764.3	44	6.7		NNW			6		4					*D. clouds	John Tilston.
Kew Observatory			29.99	761.7	41.7	5.4		NNW	21	9.4			5					*D. clouds	The Staff.
Kingstown			30.16	766.1	45	7.2		NW			6		2					Blue sky	George Mitchell
Leicester Museum			30.02	762.5	41.0	5.0		N			1		8					Hazy	William J. Harrison.
Malta, (Mediterranean)			30.18	766.6	58.8	14.9		NE			2		8k					*D. clouds	Fred Travis, Pvt A.H.C
Nairn			30.05	763.3	38	3.3		NW			2		6					½ clouded	W. D. Penny.
Nassau, (Bahamas			30.24	768.1	73.4	23.0		NE			4		8			Blank	Blank	*D. clouds	Surg.-Maj. Henry.
Nottingham			30.01	762.2	40.1	4.5		NNW			4		3k		N	Blank	Blank	Blue sky	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			30.01	762.2	39.9	4.4		N			3		9					Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			29.99	761.7	41	5.0		NNW			2		7					*D. clouds	J. Lucas.
Plymouth			30.13	765.3	46.8	8.2		NW			5		7					*D. clouds	John Merrifield.
Roche's Point			30.25	768.3	47	8.3		NW			4		5					Cloudy	W. Kennedy.
Saint Ann's Head			30.15	765.8	44	6.7		NW			3		5					*D. clouds	John C. Walker.
Saint Helier, (Jersey			30.07	763.8	47.0	8.3		NNE			5		5					½ clouded	A. P. Amy.
Sandwick Manse, (Orkneys)			29.51	749.5	39.1	3.9		NNW	30	13.4			5					Snow-show'rs	Rev. Dr. Clouston
Scarborough			29.94	760.5	40.0	4.4		N			5		3					Blue sky	F. Shaw.
Scutari Cemetery, (Turkey			30.07	763.8	42.6	5.9		NE			2		7					*D. clouds	Sergt. W. H. Lyne.
Sheffield			30.00	762.0	40.6	4.8		NNW			2		7			0.403	10.24	*D. clouds	W. F. Cooper.
Silloth Rectory			30.07	763.8	40.3	4.6		NW			2		4			0	0	*D. clouds	Rev Francis Redford
Stonyhurst Observatory			30.04	763.0	39.3	4.1		NW			1		3			Blank	Blank		The Staff.
Stornoway, Lews C. (Heb.)			30.11	764.8	38	3.3		NNW			1		10					Overcast	John Smith.
Stratfield Turgiss			30.02	762.5	42.7	5.9		NW			1–2		6					*D. clouds	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			30.01	762.2	40	4.4		N			5		7					Showery	John Trotter.
Truro, Royal Institution			30.18	766.6	48	8.9		NW			7		6					*D. clouds	W. Newcombe.
Valencia Observatory			30.33	770.4	47.5	8.6		NNW	14	6.3			10					Showery	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.89	759.2	76.2	24.6	51	SSW	14	63.			10						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					47	8.3		NW			7		3			0	0		
Leith, Restalrig Park			30.10	764.5	41.2	5.1		NW			2					0.39	9.9	Fine, frosty	Andrew Gibb.
Monach Lt-house, Hebrides																			J. Youngclaus.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.70	754.3	33.1	0.6	92	SE			2		10					Snowing	
Fanöe			29.69	754.2	37.2	2.9	93	W			4		9						
Godthaab, (Greenland)			28.69	728.6	28.0	— 2.2	98	SSW			4		10					Snowing	
Stykkisholm, (Iceland)			29.87	758.6	34.0	1.1	92	SE			6		8						
Thorshavn, (Faröe)			30.11	764.9	34.7	1.5	72	NW			2		6						
Vestervig			29.62	752.3	37.4	3.0	93	NNW			4		8						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.46	773.6	42.8	6	71	NE	.....	.....	2	.....	10	.....	.....	0.220	5.6	Covered	Normal School.
Amiens	.....	.....	30.01	762.3	41.4	5.2	75	S	.....	.....	6	.....	5	.....	S	0.079	2.0	Cloudy.....	Normal School.
Avignon	.....	.....	30.07	763.8	48.9	9.4	56	N	.....	.....	1	.....	..8	.....	W	0	0	....	Normal School.
Bar-sur-Seine	.....	.....	29.98	761.6	34.0	1.1	95	SW	.....	.....	2	.....	10	.....	.....	0	0	Snowing.....	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.03	762.7	46.8	8.2	59	W	23.7	10.6	.....	.....	.....	.....	.....	0.039	1.0	.....	Beaumette Observatory
Beauvais	.....	.....	29.97	761.3	38.5	3.6	87	NW	.....	.....	3	.....	8	.....	NNW	0.080	0.75	Very cloudy	Normal School.
Besançon	.....	.....	30.07	763.7	36.7	2.6	86	SW	.....	.....	4	.....	8	.....	S	0	0	Very cloudy	Normal School.
Bourg en Bresse	.....	.....	30.09	764.3	36.3	2.4	97	NW	.....	.....	2	.....	2n	.....	SE	.....	.....	Slightly cl'dy	Normal School.
Bourges	.....	.....	30.02	762.5	39.2	4	87	NE	.....	.....	2	.....	10	.....	NE	0	0	Covered	Normal School.
Brest	.....	.....	30.12	765.1	44.4	6.9	79	N	.....	.....	3	.....	10n	.....	N	0.030	0.75	Covered	Naval Observatory.
Caen	.....	.....	30.00	762.0	43.7	6.5	.....	NW	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	Normal School
Chartres	.....	.....	30.21	767.4	34.9	1.6	.....	NW	.....	.....	3	.....	9	.....	W	0	0	....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	Normal School.
Clermont	.....	.....	30.08	764.1	45.7	7.6	53	W	.....	.....	3	.....	5	.....	W	0	0	Cloudy.....	Puy de Dome, Obs.
Commercy	.....	.....	30.37	771.5	34.0	1.1	92	WSW	.....	.....	2	.....	10n	.....	WSW	0	0	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.08	764.0	50.4	10.2	49	NW	.....	.....	4	.....	8	.....	NW	0	0	....	.....
Grenoble	.....	.....	30.02	762.6	41.9	5.5	97	ENE	.....	.....	1	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Le Mans	.....	.....	30.06	763.4	41.0	5	94	N	.....	.....	4	.....	8	.....	N	0.138	3.5	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....
Lons-Le-Saulnier	.....	.....	30.09	764.2	37.4	3	93	SE	.....	.....	2	.....	10	.....	W	0.106	2.7	Covered	Normal School.
Mâcon	.....	.....	30.13	765.3	31.1	— 0.5	.....	Calm	.....	.....	0	.....	5	.....	E	0.02?	0.6	....	Normal School.
Mirecourt	.....	.....	30.08	760.3	35.1	1.7	85	N	.....	.....	2	.....	10	.....	E	0	0	Cove ed	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....
Nismes	.....	.....	30.13	765.2	49.6	9.8	88	SW	.....	.....	1	.....	10	.....	NE	0	0	Covered	Normal School.
Orleans	.....	.....	30.02	762.4	39.9	4.4	93	WSW	.....	.....	3	.....	8	.....	WSW	0.031	0.8	....	Normal School.
Paris Observatory	.....	.....	29.97	761.1	35.8	2.1	95	WNW	.....	.....	2	.....	10	.....	.....	0.021	0.53	Snow & rain.	National Observatory
Parthenay	.....	.....	30.20	767.1	36.7	2.6	89	W	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30.09	764.2	46 0	7.8	.....	SW	.....	.....	2	.....	8	.....	.....	0	0	Very cloudy	Normal School.
La Roche-sur-Yon	.....	.....	30.16	766.0	43.0	6.1	94	SE	.....	.....	4	.....	8	.....	NE	0.016	0.4	....	Normal School.
Rochefort, Observatory	.....	.....	30.18	766.6	43.5	6.4	94	SW	.....	.....	3	.....	10	.....	NE	0	0	Covered	Naval Observatory.
Rouen	.....	.....	30.01	762.3	43.2	6.2	62	NW	.....	.....	2	.....	5	.....	NW	0.106	2.7	Cloudy.....	Normal School.
Saint Lo	.....	.....	30.07	763.6	43.5	6.4	94	NW	.....	.....	4	.....	8	.....	NE	0.098	2.5	....	Normal School.
Tarbes	29.14	740.1	30.25	768.4	53.6	12	83	N	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Toulouse	.....	.....	30.30	769.7	42.6	5.9	88	W	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School
Villefranche	.....	.....	30.33	770.3	30.2	— 1	80	SE	.....	.....	1	.....	.....	.....	.....	0	0	Foggy	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.95	760.8	77.0	25	77	NE	.....	.....	3	.....	2k	.....	.....	0.08	2.	.....	L'Abbé Marchésl.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....
Marseilles	.....	.....	30.03	762.7	51.6	10.9	84	WSW	.....	.....	2	.....	10	.....	.....	0	0	....	Marseilles Observatory.
Mont-Louis	24.82	630.5	30.24	768.0	37.2	2.9	81	NNE	9.3	4.17	.....	.....	7	.....	WSW	0	0	....	—. Faïguère
Montsouris, Paris	.....	.....	29.95	760.8	35.8	2.1	98	WNW	.....	.....	3	.....	10	.....	WNW	0.087	2.2	Rain & snow	Montsouris Observ'tory
Perpignan	.....	.....	30.09	764.3	51.6	10.9	62	N	14.9	6.66	.....	.....	9	.....	W	0	0	....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.16	537.6	.....	.....	25.7	— 3.5	.....	W	.....	.....	4	.....	8	.....	.....	.....	.....	Cloudy..	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.95	760.8	35.8	2.1	94	NW	.....	.....	2	.....	10	.....	.....	0	0	Very cloudy	E. Renou.
Toulouse	.....	.....	30.21	767.2	40.6	4.8	93	NW	.....	.....	2	.....	10	.....	.....	0	0	....	Toulouse Observatory
Tours	.....	.....	30.06	763.5	42.1	5.6	91	WNW	.....	.....	4	.....	10	.....	W	0.039	1.0	....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.95	760.7	36.7	2.6	96	NW	.....	.....	1	.....	10	.....	.....	0.118	2.99	Rain & snow	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.85	758.3	29.8	— 1.2	92	SW	.....	.....	2	.....	10	.....	.....	0	0	....	Prof. T. Hoh.
Berlin	.....	.....	29.82	757.5	38.3	3.5	71	S	.....	.....	2	.....	5	.....	.....	0	0	....	Prof. Arndt
Breslau	.....	.....	29.94	760.5	30.4	— 0.9	79	SE	.....	.....	5	.....	3	.....	.....	0	0	....	Dr. P. Nangenauer
Carlsruhe	.....	.....	29.91	759.6	36.0	2.2	84	SW	.....	.....	3	.....	10	.....	.....	0	0	Snowlug.....	A. Senz.
Cassel	.....	.....	29.99	754.0	34.7	1.5	84	SSW	.....	.....	5	.....	10	.....	.....	0.024	0.6	Snowing.....	Dr. H. Möll.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.94	760.4	33.8	1.0	98	SW	.....	.....	1	.....	10	.....	.....	Inap.	Inap.	Snow & mist	Physical Society
Friedrichshafen	.....	.....	30.02	762.6	33.4	0.8	75	SW	.....	.....	.....	.....	8	.....	.....	0.004	0.1	Light snow.	M. Wilhelm.
Hamburg	.....	.....	29.74	755.4	33.4	0.8	90	SW	.....	.....	4	.....	10	.....	.....	0.028	0.7	Snowing.....	Deutsche Seewarte.
Kiel	.....	.....	29.74	755.3	34.7	1.5	88	SW	.....	.....	2	.....	10	.....	.....	0.091	2.3	Snowing.....	Prof. G. Karsten
Königsberg	.....	.....	29.89	759.3	32.2	0.1	94	S	.....	.....	2	.....	9	.....	.....	0	0	....	Prof. E. Luther.
Köslin	.....	.....	29.82	757.4	32.0	0.0	.....	S	.....	.....	2	.....	10	.....	.....	0	0	....	H. Müller.
Leipsic	.....	.....	29.87	758.7	37.6	3.1	74	SW	.....	.....	3	.....	8	.....	.....	0	0	....	Prof. Brühns.
Münster	.....	.....	29.76	755.8	34.9	1.6	98	SE	.....	.....	2	.....	10	.....	.....	0.236	6.0	Snowing.....	Prof. E. Heis.
Posen	.....	.....	29.66	753.3	31.5	— 0.3	100	S	.....	.....	1	.....	10	.....	.....	0	0	....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.95	760.7	36.9	2.7	88	SW	.....	.....	2	.....	10	.....	.....	0.299	7.6	Rain & snow	Dr. Schur.
Stuttgart	.....	.....	29.97	761.1	39.2	4.0	97	W	.....	.....	.....	.....	2	.....	.....	0.024	0.6	....	Prof. Schoder.
Thorn	.....	.....	29.90	759.5	31.3	— 0.4	97	W	.....	.....	4	.....	10	.....	.....	0	0	....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	29.82	757.4	34.3	1.3	96	W	.....	.....	5	.....	10	.....	.....	0.185	4.7	....	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.78	756.3	33.1	0.6	88	SSW	.....	.....	5	.....	10	.....	.....	0	0	....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.10	764.5	50.0	10.0	.....	W	.....	.....	.....	.....	.....	.....	.....	.....	.....	Very cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....

NOTE.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.97	761.2	45.1	7.3	54	SE	1.3	0.6			2			0	0		
Padua			29.98	761.4	45.1	7.3	51	E	1.3	0.6			9	SW		0	0		
Vicenza			30.02	762.4	45.3	7.4	53	SE	0	0			1			0	0		
Verona																			
Bergamo			29.93	760.3	45.3	7.4	52	E			2		1			0	0		
Domodossola																			
Milan			29.98	761.5	42.1	5.6	86	WSW			1		5			0	0		
Pavia																			
Moncalieri			30.01	762.2	34.7	1.5	71	WSW	1.8	0.8			3	E		0	0		
Mondovi			29.99	761.8	40.3	4.6	47	NW			2		1	W		0	0		
Porto Maurizio																			
Genoa			29.95	760.8	52.7	11.5	63	SE	8.1	3.6			8	S		0	0		
Piacenza			29.99	761.8	43.0	6.1	59	NW	3.8	1.7			2			0	0		
Bologna			30.03	762.8	45.5	7.5	31	NW			1		2	E		0	0		
Florence			30.06	763.5	47.8	8.8	74	NW			2		10	NW		0	0		
Leghorn			30.03	762.8	50.2	10.1	64	WSW	6.3	2.8			8			0	0		
Siena			30.05	763.3	48.2	9.0	68	WSW	0	0			5	W		0	0		
Urbino																			
Pesaro																			
Ancona			30.02	762.6	47.5	8.6	65	ESE			4		6			0	0		
Grosseto			30.06	763.5	51.6	10.9	68	NW			2		7	N		0	0		
Rome			30.09	764.2	53.8	12.1	47	SW	1.8	0.8			4	SW		0	0		
Naples, O. U.			30.11	764.7	58.8	14.9	59	SW			4		4	WSW		0	0		
Lecce			30.11	764.7	52.3	11.3	72	W	3.8	1.7			3	W		0	0		
Cosenza			30.15	765.8	55.8	13.2	64	SSW			2		7			0	0		
Riposto, (Sicily)			30.14	765.4	55.4	13.0	81	S			2		6	E		0	0		
Palermo			30.10	764.5	58.3	14.6	56	WSW	6.9	3.1			2			0	0		
Caltanissetta			30.17	766.4	48.4	9.1	89	WNW			2		6	SE		0	0		
Sub-Series.																			
Naples, S. R.			30.09	764.3	54.5	12.5	71	WNW	1.8	0.8			..ok	W		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.87	758.6	38.5	3.6		NW			4								
Groningen			29.66	753.4	36.3	2.4		WNW			1								
Helder			29.76	755.8	37.4	3.0		WNW			4								
Utrecht			29.74	755.4	38.8	3.8	96	W			2		10						Overcast.

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.68	753.9	35.2	1.8	96	Calm	0	0			10			0.031	0.8		
Brönö			29.51	749.5	34.2	1.2	96	SE	7	3			9			0	0		
Christiania			29.58	751.4	37.0	2.8	74		0.2	0.1			1			0.016	0.4		
Tromsö			29.36	745.8	33.1	0.6	94	NE	0	0			10			0.177	4.5		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.40	772.3	55.8	13.2	77	NE	3.2	1.45	.....	.....	4	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.11	764.7	59.0	15.0	51	E	4.3	1.92	.....	.....	2	.....	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.10	764.6	62.8	17.1	60	N	4.8	2.13	.....	.....	2	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.15	765.7	52.9	11.6	65	NE	8.7	3.9	.....	.....	5	WNW	.....	0	0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.05	760.8	30.6	— 0.8	88	SE		8	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30.00	762.1	29.7	— 1.3	97	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	29.95	760.6	27.9	— 2.3	88	SW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.88	758.9	29.1	— 1.6	90	WSW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	29.57	751.0	32.2	0.1	90	SW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	30.11	764.9	29.3	— 1.5	98	SE	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.18	766.6	28.6	— 1.9	86	ENE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.15	765.7	35.8	2.1	87	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.13	765.2	33.8	1.0	85	SSW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.23	767.7	24.4	— 4.2	89	E	13	6	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.52	749.7	32.0	0.0	89	SW	20	13	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.76	730.5	30.24	768.1	38.1	3.4	52	E	9	4	.....	.....	6	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.47	774.0	30.9	— 0.6	83	SE	7	3	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.04	763.0	28.9	— 1.7	98	WNW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	30.46	773.6	14.9	— 9.5	87	S	2	1	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.08	738.7	30.20	767.1	— 4.4	—20.2	77	SE	11	5	.....	.....	10	.....	.....	.....	.....	Snowing	Meteorological Obs
Nukuss	.....	.....	30.53	775.5	24.1	— 4.4	63	E	9	4	.....	.....	0	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.52	775.3	4.6	—15.2	45	S	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	.....	.....	30.83	783.0	19.8	— 6.8	78	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	28.96	735.5	29.96	761.0	3.4	—15.9	81	SW	20	9	.....	.....	4	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	29.74	755.4	5.4	—14.8	82	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usoltzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.35	771.0	27.9	— 2.3	59	Calm	0	0	.....	.....	2	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.42	772.7	10.2	—12.1	85	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—10.1	—23.4	83	NW	13	6	.....	.....	0	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 491.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.16	766.1	49.6	9.8	68	NE	3.0	1.33	.....	0	9	.....	.....	0.008	0.2	Almost cov'd	Royal Observatory.
San Fernando	.....	.....	30.10	764.4	61.9	16.6	64	E	9.6	4.3	.....	1	5	.....	E	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.35	745.6	21.9	— 5.6	96	SE	.....	.....	2	.....	5	.....	.....	0	0	.....	
Umea	.....	.....	29.45	748.0	18.3	— 7.6	95	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	29.43	747.4	32.4	0.2	92	W	.....	.....	2	.....	9	.....	.....	0.024	0.6	.....	
Stockholm	.....	.....	29.61	752.2	35.6	2.0	78	SSW	.....	.....	4	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	29.79	756.7	32.4	0.2	96	WSW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	29.63	752.6	35.6	2.0	81	SW	13.2	5.9	.....	.....	10	.....	WSW	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.56	725.4	30.04	763.0	37.9	3.3	88	S	.....	.....	1	.....	9	.....	.....	0	0	Covered	The Observatory.
Zurich	28.31	719.1	30.05	763.3	31.8	— 0.1	96	W	.....	.....	1	.....	10	.....	.....	0	0	Covered	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.5 mm.; Thermometer, +0.7 cent.; Relative Humidity, +13 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.11	764.7	40.6	4.8	73	NE	17	7.5	.....	.....	8	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.24	768.0	57.2	14.0	.....	SE	.....	.....	4	.....	.....	.....	.....	.....	.....	Raining.....	
Salonica	.....	.....	30.09	764.3	50.5	10.3	.....	NE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.95	760.8	56.1	13.4	.....	SW	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	30.04	763.0	37.4	3.0	.....	NW	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.02	762.5	64.0	17.8	59	SW	.....	.....	1	.....	1k	.....	SW	0	0	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.93	760.2	4.5	—15.3	90	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.05	763.3	18	— 7.8	.....	W	4	1.8	.....	.....	10s	.....	W	0.30	7.6	Cloudy.....	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.98	761.5	8	—13.3	89	E	1	0.4	.....	.....	10s	.....	.....	0.08	2.0	Light snow.	G. A. Blair.
Charlottetown, P. E. Island.	.....	.....	30.10	764.5	18	— 7.8	95	SE	11	4.9	.....	.....	..n	.....	.....	0.10	2.5	Light snow.	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.93	760.2	19.2	— 7.1	81	NW	.....	.....	3	.....	10n	.....	.....	0.75	19.1	Stormy.....	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.93	760.2	3.3	—15.9	100	SE	.....	.....	2	.....	10n	.....	.....	0.10	2.5	Snowing.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.14	3.6	.....	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.95	760.7	11.3	—11.5	94	Calm	0	0	.....	.....	10n	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.52	775.2	—40	—40.0	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	James Stewart.
Goderich, Ontario	.....	.....	30.25	768.3	11.7	—11.3	78	NW	.....	.....	3	10k	.....	SW	.....	*0.04	*1.0	Fine.....	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.22	767.6	7.6	—13.6	.....	NW	.....	.....	1	2cs	.....	SE	.....	0.30	7.6	Clear.....	James Grant.
*Halifax, N. S.	.....	.....	30.11	764.8	29	— 1.7	94	S	15	6.7	.....	.....	10n	.....	.....	0.03	0.8	Heavy snow	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.18	766.6	— 5.4	—20.8	.....	SW	19	8.5	.....	.....	0	.....	.....	0	0	.....	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.09	764.3	17	— 8.3	88	W	3	1.3	.....	10ck	0	W	.....	0.26	6.6	Clearing.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.92	760.0	8	—13.3	91	W	20	8.9	.....	.....	10n	.....	.....	*0.37	9.4	Light snow..	C. H. McLeod, C.
*Ottawa, Ontario	.....	.....	30.03	762.7	4	—15.6	72	SW	7	3.1	.....	5k	2n	SW	SW	0.20	5.1	Clearing.....	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.14	765.5	0	—17.8	88	W	8	3.6	.....	0	2ks	.....	W	0.39	9.9	Fair.....	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.16	766.1	15	— 9.4	89	NW	12	5.4	.....	10k	0	W	.....	0.30	7.6	Fair.....	H. Morgan.
Port Hastings, N. S.	.....	.....	30.18	766.6	25.9	— 3.4	.....	SE	15	6.7	.....	.....	.....	.....	.....	0.63	16.0	Stormy.....	Peter Grant.
*Port Stanley, Ontario	.....	.....	30.22	767.6	14	—10.0	85	NW	12	5.4	.....	.....	10n	.....	W	0.47	11.9	Cloudy.....	M. Payne.
*Quebec, Quebec	.....	.....	29.89	759.2	0	—17.8	85	N	5	2.2	.....	.....	10n	.....	N	0.80	20.3	Light snow..	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.97	761.2	29.0	— 1.7	100	S	16	7.2	.....	.....	10n	.....	.....	0.690	17.53	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.16	766.1	11	—11.7	80	NW	12	5.4	.....	.....	10s	.....	.....	0.33	8.4	Cloudy.....	K. Stewart.
Stayner, Ontario	.....	.....	30.15	765.8	11	—11.7	77	NW	13	5.8	.....	8k	0	NW	.....	0.16	4.1	Cloudy.....	R. J. Cole.
Stratford, Ontario	.....	.....	30.22	767.6	6.8	—14.0	91	NW	10	4.5	.....	7ck	.....	NW	.....	0.25	8.9	Fair.....	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	30.31	769.9	13	—10.6	94	Calm	0	0	.....	.....	10n	.....	.....	0.02	0.5	Light snow..	T. C. Hill.
*Toronto, Ontario	.....	.....	30.16	766.1	10	—12.2	83	N	5	2.2	.....	0	0	.....	.....	0.55	14.0	Clear.....	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.- The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m. *Rain-fall in 48 hours.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.00	762.0	22	— 3.6	100	Calm	0	0	.....	.....	10n	.....	.....	0.25	6.3	Light snow..	
Alpena, Mich.	.....	.....	30.24	768.1	— 5	—20.6	63	NW	9	4.0	.....	0	0	.....	.....	Inap.	Inap	Clear.....	
Atlantic City, N. J.	.....	.....	30.0	764.0	29	— 1.7	100	NW	9	4.0	.....	.....	10n	.....	.....	0.70	17.8	Light snow	
Augusta, Ga.	.....	.....	30.15	765.8	39	3.9	91	N	9	4.0	.....	.....	10n	.....	.....	0.05	1.3	Light rain....	
Baltimore, Md.	.....	.....	30.16	766.1	29	— 1.7	89	SW	3	1.3	.....	.....	10n	.....	.....	0.27	6.9	Light snow..	
Barnegat, N. J.	.....	.....	30.07	763.8	28	— 2.2	100	NW	14	6.3	.....	.....	10n	.....	.....	1.04	26.4	Heavy snow	
Benton, Montana	26.99	685.5	29.79	756.7	0	—17.7	100	NE	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Bismarck, Dakota	28.32	719.3	30.19	766.8	— 8	—22.2	100	E	4	1.8	.....	.....	10n	.....	.....	0.08	2.0	Light snow	
Boston, Mass	.....	.....	29.93	760.2	21	— 4.4	100	W	10	4.5	.....	.....	10n	.....	.....	0.17	4.3	Light snow..	
Breckenridge, Minn	.....	.....	30.42	772.7	—14	—25.6	73	SE	4	1.8	.....	8cs	0	S	.....	0	0	Cloudy.....	
Buffalo, N. Y.	.....	.....	30.11	764.8	20	— 6.7	70	W	20	8.9	.....	1k	5s	W	SW	0.15	3.8	Fair.	
Burlington, Vt.	.....	.....	29.93	760.2	23	— 5.0	73	S	7	3.1	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Cairo, Ill.	.....	.....	30.57	776.5	14	—10.0	64	N	12	5.4	.....	0	0	.....	.....	0.21	5.3	Clear.....	
Cape Hatteras, N. C.	.....	.....	30.05	763.3	46	7.8	92	NW	10	4.5	.....	.....	10s	.....	.....	0.58	14.7	Cloudy.....	
Cape Henry, Va.	.....	.....	30.15	765.8	37	2.8	90	W	14	6.3	.....	.....	10n	.....	NW	0.72	18.3	Light rain....	
Cape May, N. J.	.....	.....	30.10	764.5	30	— 1.1	89	NW	8	3.6	.....	.....	10n	.....	.....	0.52	13.2	Heavy snow	
Charleston, S. C.	.....	.....	30.11	764.8	47	8.3	70	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Cheyenne, Wyoming	24.00	609.6	29.94	760.5	32	0.0	61	SW	16	7.2	.....	2ck	0	.....	.....	0	0	Fair.....	
Chicago, Ill.	.....	.....	30.47	773.9	1	—17.2	71	W	7	3.1	.....	0	0	.....	.....	0.08	2.0	Clear.....	
Cincinnati, Ohio	.....	.....	30.36	771.1	21	— 6.1	71	W	6	2.7	.....	.....	10s	.....	.....	0.32	8.1	Cloudy.....	
Cleveland, Ohio	.....	.....	30.28	769.1	17.2	— 8.2	84	W	20	8.9	.....	0	5ks	.....	W	0.24	6.1	Clearing.....	
Colorado Springs, Col.	24.15	613.4	30.02	762.5	20	— 6.7	56	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Corsicana, Tex.	.....	.....	30.56	776.2	26	— 3.3	76	N	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Davenport, Iowa	.....	.....	30.58	776.7	— 4	—20.0	82	W	8	3.6	.....	7cs	0	NW	.....	0.10	2.5	Fair.....	
Denison, Tex.	.....	.....	30.53	775.4	24	— 4.4	87	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Denver, Col.	24.84	630.9	30.00	763.5	31	— 0.6	58	W	6	2.7	.....	5cs	0	.....	.....	0	0	Fair.....	
Detroit, Mich	.....	.....	30.27	768.8	12	—11.1	61	W	6	2.7	.....	0	2s	.....	W	0.30	7.6	Fair.....	
Dodge City, Kan.	27.60	701.0	30.08	764.0	18	— 7.8	84	SE	8	3.6	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Dubuque, Iowa	.....	.....	30.55	776.0	— 4	—20.0	64	NW	4	1.8	.....	2cs	0	.....	.....	0	0	Fair.....	
Duluth, Minn.	.....	.....	30.50	774.7	18	—27.8	.....	W	10	4.5	.....	0	0	.....	.....	0	0	Clear.....	
Eastport, Me.	.....	.....	29.92	760.0	32	0.0	100	S	14	6.3	.....	.....	10n	.....	.....	0.10	2.5	Heavy snow	
Erie, Pa.	.....	.....	30.17	766.3	21	— 6.1	86	W	20	8.9	.....	.....	10ks	.....	W	0.28	7.1	Cloudy.....	
Escanaba, Mich	.....	.....	30.48	774.2	—11	—23.9	75	W	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Fort Gibson, Indian Terr.	.....	.....	30.57	776.5	18	— 7.8	52	NE	2	0.9	.....	0	0	.....	.....	0.03	0.8	Clear.....	
Fort Sill, Indian T.	29.27	743.4	30.47	773.9	29	— 1.7	67	S	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	
Fort Sully, Dakota	28.30	718.8	30.16	766.1	— 1	—18.3	84	E	16	7.2	.....	0	8s	.....	E	0	0	Cloudy.....	
Galveston, Tex.	.....	.....	30.14	773.2	42	5.6	48	N	29	13.0	.....	0	0	.....	.....	0.05	1.3	Clear.....	
Grand Haven, Mich.	.....	.....	30.34	770.6	11	—11.7	79	NW	21	9.4	.....	.....	10s	.....	NW	0.02	0.5	Cloudy.... ..	
Indianapolis, Ind.	.....	.....	30.47	773.9	7	—13.9	77	NW	4	1.8	.....	0	0	.....	.....	0.26	6.6	Clear...	
Indianola, Tex.	.....	.....	30.53	775.4	38	3.3	71	N	26	11.6	.....	5es	0	SW	.....	0.12	3.0	Fair.....	
Jacksonville, Fla.	.....	.....	30.10	764.5	59	15.0	94	NE	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Keokuk, Iowa	.....	.....	30.57	776.5	1	—17.2	71	N	5	2.2	.....	0	0	.....	.....	0.03	0.8	Clear.....	
Key West, Fla.	.....	.....	30.16	766.1	73.8	23.2	81	?	4	1.8	.....	2ck	2ks	.....	S	0.04	1.0	Fair.....	
Kittyhawk, N. C.	.....	.....	30.12	765.0	38	3.3	100	NW	8	3.6	.....	.....	10s	.....	NW	0.21	5.3	Cloudy.....	
Knoxville, Tenn	.....	.....	30.30	769.6	29	— 1.7	100	NE	8	3.6	.....	.....	10n	.....	.....	0.56	14.2	Light snow..	
La Crosse, Wis.	.....	.....	30.40	772.1	— 8	—22.2	58	NW	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Leavenworth, Kan	.....	.....	30.56	776.2	7	—13.9	79	S	6	2.7	.....	0	0	.....	.....	0.02	0.5	Clear.....	
Lexington, Ky.	29.24	742.7	30.45	773.4	17	— 8.3	84	NW	8	3.6	.....	.....	10s	.....	.....	0.11	2.8	Cloudy.....	
Long Branch, N. J.	.....	.....	30.05	763.3	29	— 1.7	89	NW	14	6.3	.....	.....	10n	.....	.....	0.78	19.8	Heavy snow	
Louisville, Ky.	.....	.....	30.43	772.9	21	— 6.1	71	W	10	4.5	.....	.....	10s	.....	NW	0.52	13.2	Cloudy.....	
Lynchburg, Va.	.....	.....	30.15	765.8	30	— 1.1	89	SW	2	0.9	.....	.....	10n	.....	SW	0.16	4.1	Light snow..	
Malone, N. Y.	.....	.....	29.92	760.0	21	— 6.1	85	W	10	4.5	.....	.....	10n	.....	W	0.25	6.3	Heavy snow	
Marquette, Mich	.....	.....	30.38	771.6	—12	—24.4	75	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Memphis, Tenn	.....	.....	30.52	775.2	28	— 2.2	88	NW	10	4.5	.....	.....	10ks	.....	NW	0.40	10.2	Cloudy.....	
Milwaukee, Wis.	.....	.....	30.50	774.7	— 7	—21.7	59	W	16	7.2	.....	0	0	.....	.....	0	0	Clear.....	
Mobile, Ala.	.....	.....	30.28	769.1	41	5.0	83	N	18	8.0	.....	.....	10s	.....	NW	0.34	8.6	Cloudy.....	
Montgomery, Ala.	.....	.....	30.26	768.6	41.5	5.3	87	NW	15	6.7	.....	.....	10n	.....	NW	0.30	7.6	Light rain....	
Morgantown, W. Va.	.....	.....	30.27	768.8	28	— 2.2	77	W	13	5.8	.....	2c	8s	W	W	0.51	13.0	Cloudy.	
Mt. Washington, N. H.	23.51	597.1	29.57	751.1	2	—16.7	100	W	40	17.9	.....	.....	Fog	.....	.....	0	0	Foggy	
Nashville, Tenn.	.....	.....	30.42	772.7	28	— 2.2	89	N	4	1.8	.....	.....	10s	.....	.....	0.60	15.2	Cloudy.....	
New Haven, Conn	.....	.....	29.98	761.5	39	— 1.1	100	NW	4	1.8	.....	.....	10n	.....	.....	0.51	13.0	Light snow..	
New London, Conn	.....	.....	29.98	761.5	32	0.0	89	W	5	2.2	.....	.....	10n	.....	.....	0.60	15.2	Light snow.	
New Orleans, La	.....	.....	30.32	770.1	42	5.6	58	N	24	10.7	.....	.....	10ks	.....	N	0.93	23.6	Cloudy.....	
Newport, R. I.	.....	.....	29.94	760.5	34	1.1	79	W	3	1.3	.....	.....	10n	.....	.....	0.77	19.6	Heavy snow	
New York, N. Y.	.....	.....	30.03	762.7	25	— 3.9	88	W	5	2.2	.....	.....	10n	.....	.....	0.75	19.1	Heavy snow	
Norfolk, Va.	.....	.....	30.15	765.8	37	2.8	85	W	5	2.2	.....	.....	10n	.....	.....	0.31	7.9	Light rain....	
North Platte, Neb.	27.11	688.6	29.87	758.7	14	—10.0	82	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair.....	
Omaha, Neb.	29.24	742.7	30.45	773.4	2	—16.7	100	SE	6	2.7	.....	2c	0	.....	.....	0	0	Fair.....	
Oswego, N. Y.	.....	.....	30.04	763.0	23.5	— 4.7	94	NW	16	7.2	.....	.....	10n	.....	.....	Inap.	Inap.	Heavy snow	
Peck's Beach, N. J.	.....	.....	30.10	764.5	30	— 1.1	89	NW	12	5.4	.....	.....	10n	.....	.....	1.10	27.9	Heavy snow	
Pembina, Dakota	.....	.....	30.46	773.7	—42	—41.1	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Philadelphia, Penn.	.....	.....	30.12	765.0	25	— 3.9	100	W	6	2.7	.....	.....	10n	.....	.....	0.52	13.2	Heavy snow	
Pike's Peak, Colorado	17.09	449.3	29.91	759.4	8	—13.3	33	N	42	18.8	.....	0	0	.....	.....	0	0	Clear.....	
Pittsburgh, Penn	.....	.....	30.26	768.6	25	— 3.9	75	W	6	2.7	.....	.....	10s	.....	.....	0.10	2.5	Cloudy.....	
Port Huron, Mich.	.....	.....	30.24	768.1	13	—10.6	81	W	6	2.7	.....	.....	10s	.....	W	0.15	3.8	Cloudy.....	
Portland, Me.	.....	.....	29.92	760.0	21	— 6.1	86	NW	2	0.9	.....	.....	10n	.....	.....	0.84	21.3	Light snow	
Portland, Oregon	.....	.....	29.97	761.2	43	8.9	85	SW	18	8.0	.....	.....	10n	.....	.....	0.24	6.1	Light rain...	
Punta Rassa, Fla.	.....	.....	30.16	766.1	55	12.8	87	NE	12	5.4	.....	8ck	2ks	SE	.....	0	0	Cloudy.....	
Rochester, N. Y.	.....	.....	30.40	772.1	8	—13.3	73	S	5	2.2	.....	.....	10s	.....	SW	0.03	0.8	Cloudy.....	
Salt Lake City, Utah	25.80	655.3	30.13	765.3	25	— 3.9	75	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Sandy Hook, N. J.	.....	.....	30.02	762.5	26	— 3.3	100	NW	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
San Diego, Cal.	.....	.....	30.17	766.3	45	7.2	100	NE	4	1.8	.....	.....	10n	.....	NW	1.00	25.4	Heavy snow	
San Francisco, Cal.	.....	.....	30.15	765.8	47	8.3	85	NW	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Santa Fe, N. M.	23.38	593.8	29.92	760.0	19	— 7.2	.....	N	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Savannah, Ga.	.....	.....	30.10	764.5	47	8.3	85	NE	2	0.9	.....	.....	0	.....	.....	0	0	Clear.....	
Shreveport, La.	.....	.....	30.52	775.2	34	1.1	79	N	8	3.6	.....	0	10s	.....	.....	0	0	Threatening	
Smithville, N. C.	.....	.....	30.12	765.0	44	5.6	91	NW	4	1.8	.....	.....	0	.....	.....	0.31	7.9	Clear.....	
Springfield, Mass	.....	.....	29.97	761.2	25	— 3.9	74	Calm	0	0	.....	.....	10s	.....	SW	0	0	Cloudy.....	
St. Louis, Mo.	.....	.....	30.00	777.2	6	—14.4	77	NW	4	1.8	.....	0	10n	.....	.....	0.58	14.7	Light snow	
St. Marks, Fla.	.....	.....	30.06	763.5	58	14.4	93	SE	4	1.8	.....	5ck	0	.....	.....	0.33	8.4	Clear.....	
St. Paul, Minn.	.....	.....	30.48	774.2	—13	—25.0	71	Calm	0	0	.....	0s	Fog	SW	.....	0	0	Foggy.....	
St. Paul's Island, Alaska	.....	.....	29.97	761.2	19	— 7.2	84	NE	1	0.4	.....	1c	0	.....	.....	0	0	Clear.....	
Squan Beach, N. J.	.....	.....	30.09	764.3	25	— 3.9	100	SW	12	5.4	.....	.....	2k	SSW	.....	.....	.....	.....	
Thatcher's Island, Mass.	.....	.....	29.90	759.4	27	— 2.8	88	NW	13	5.8	.....	.....	10n	.....	SW	0.07	1.8	Light snow	
Toledo, Ohio	.....	.....	30.28	769.1	20	— 6.7	70	SW	8	3.6	.....	8k	0	SW	.....	0.27	6.9	Snowing.....	
Tucson, Arizona	27.65	702.3	30.24	768.1	49	9.4	.....	S	.....	.....	.....	0	0	.....	.....	0.26	6.6	Fair.....	
Tybee Island, Ga.	.....	.....	30.07	763.8	49	9.4	100	SE	1	0.4	.....	.....	Fog	.....	SE	0	0	Clear.....	
Vicksburg, Miss.	.....	.....	30.48	774.2	34	1.1	69	NE	10	4.5	.....	.....	10ks	.....	NW	0	0	Foggy	
																0.48	12.2	Cloudy.....	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.16	613.6	29.64	752.8	34	1.1	61	SW	13	5.8	.....	10cs	0	W	.....	0	0	Cloudy	
Washington, D. C	.....	.....	30.18	766.6	26.5	— 3.1	94	Calm	0	0	.....	.....	10n	.....	.....	0.48	12.2	Light snow..	
Wilmington, N. C	.....	.....	30.12	765.0	40	4.4	91	N	3	1.3	.....	.....	10n	.....	.....	0.02	0.5	Light rain...	
Wood's Holl, Mass	.....	.....	29.92	760.0	33	0.6	89	NW	8	3.6	.....	.....	10n	.....	.....	0.54	13.7	Light snow.	
Wytheville, Va	27.74	704.6	29.99	761.7	30	— 1.1	89	NW	5	2.2	.....	10k	0	W	.....	0.09	2.3	Cloudy	
Yankton, Dakota	28.93	734.8	30.40	772.1	— 3	—19.4	66	SE	12	5.4	.....	2cs	0	NW	.....	0	0	Fair	
Yuma, Arizona	.....	.....	30.18	766.6	50	10.0	.....	NE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.09	764.3	78	25.6	82	NE	6	2.7	.....	2k	5ks	N	NE	0.90	22.9	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, d	.....	.....	30.05	763.3	75	23.9	76	E	.....	.....	.....	2c	5c	.....	.....	0.46	11.7	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.33	770.4	76	24.4	67	E	7	3.1	.....	2c	8ckn	E	.....	0.13	3.3	Cloudy	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.25	768.3	72	22.2	75	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.90	759.4	72	22.2	71	Calm	0	0	.....	8ck	0	N	.....	.....	.....	Fair	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.18	766.6	72	22.2	81	SE	1.2	0.5	.....	0	0	.....	.....	0	0	Clear	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.43	772.9	64.5	18.1	84	SE	13.0	5.8	.....	0	8k	.....	.....	0	0	Fair	C. F. Allen.
St. John's, Porto Rico, W.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.26	692.4	30.07	763.8	65	18.2	84	S	1.0	0.4	.....	0	0	.....	.....	0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.00	762.0	81	27.2	78	NNE	.....	.....	4	.....	5k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.05	763.3	82.0	27.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.19	639.7	.....	.....	67.1	19.5	84	.....	0	0	.....	5c	4s	.....	.....	0.13	3.3	Cloudy	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.45	748.0	17.0	— 8.3	.....	SE	.....	.....	.....	10k	10s	.....	.....	0	0	Cloudy	John Delaney.
York Factory, B. A	.....	.....	30.07	763.8	—49	—45.0	.....	SW	4	1.8	.....	.....	Fog	.....	.....	0	0	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS

TAKEN SIMULTANEOUSLY ON FEBRUARY 5, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean tim .
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.93	760.3	61.3	16.3	64	Calm			0		1			0	0	Clear	Charnot and Masselot.
Algiers			29.91	759.6	59.0	15.0	61	W			3		4			0.142	3.6	Fair	Peter.
La Calle																			Kuntz.
Tunis			29.80	757.0	64.8	18.2	49	W			4		7			0	0	Cloudy	Jacques.
Sfax			29.87	758.7	61.9	16.6	55	S			4		1			0	0	Clear	Chauvey.
Saïda			29.98	761.6	61.7	16.5	38	SSE			1		0			0	0	Clear	Millot.
Tebessa			29.93	760.3	50.2	10.1		S			4		3			0	0	Fair	Colin.
Geriville			30.00	761.9	55.0	12.8	52	NW			2		2			0	0	Clear	Buard.
Laghouat			29.99	761.8	55.4	13.0	66	SW			2		2			0	0	Clear	Delord.
Biskra			29.98	761.4	61.2	16.2	49	NE			1		2			0	0	Clear	Dubois.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.01	762.2	27.7	— 2.4	94	NE			2		10			0.843	21.4	Snowing	Prof. Ivan Stosir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.74	755.4	19.8	— 6.8	97	NE			2		7			0	0		I. R. Observatory.
Speries			29.82	757.4	43.2	6.2	90	Calm			0		10			0	0		Julius Mikolik.
Gratz	28.38	720.9	29.06	753.3	21.6	— 5.9	80	WNW			2		10			0.071	1.8		Andreas Rospini.
Hermannstadt	28.32	719.4	29.83	757.6	25.5	— 3.6	91	NW			2		0			0	0	Foggy	Prof. Reissenberger.
Kremsmünster	28.22	716.8	29.03	752.6	23.7	— 4.6	95	Calm			0		10			0.386	9.8		Prof. C. Wagner.
Lemberg			29.74	755.4	34.2	1.2	98	S			2		7			0	0		Dr. T. Stanecki.
Ny regyhaza			29.84	757.8	19.4	— 7.0	83	E			1		10			0	0		Habzsuda Daniel.
Pola			29.41	747.0	45.9	7.7	90	SSW			2		10ks			0.162	4.13		I.R. Hydrographic Office
Szegedin			29.74	755.5	21.9	— 5.6	100	S			3		6			0.030	0.75		Karl Stancel.
Trieste			29.43	747.4	42.8	6.0	96	NW			1		10			0.866	22.0	Rainy	Prof. V. Farolfi.
Vienna			29.69	754.1	19.6	— 6.9	97	SSE			2		10			0.185	4.7	Snowing	I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.69	754.0	37.0	2.8	89	N			1		10			0.209	5.30		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cooperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Millimeters.	Barometer. Reduced to sea-level. Inches.	Millimeters.	Temperature of the Air. Fahrenheit	Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Velocity. Miles per hour.	Meters per second.	Force 0—10.	Clouds. Amount. Upper 0—10.	Lower 0—10.	Direction. Upper. From—	Lower. From—	Rain-fall in the past 24 hours. Inches.	Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.07	763.8	40.9	4.9	.....	NNW	19	8.5	.....	.....	4	.....	.....	0.190	4.83	Blue sky.....	William Boswell.
Ardrossan	.....	.....	30.16	766.1	39	3.9	.....	NNE	.....	.....	2	.....	0	.....	.....	.....	.....	Blue sky.....	J. Mayes.
Armagh Observatory	.....	.....	30.21	767.3	38.0	3.3	.....	N	7	3.1	.....	.....	0	.....	.....	.....	.....	Blue sky.....	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	30.06	763.5	39	3.9	.....	NW	18	8.0	.....	.....	1	.....	.....	.....	.....	Blue sky.....	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.18	766.6	40.8	4.9	.....	NE	.....	.....	1	.....	3	.....	.....	.....	.....	*D. clouds....	J. Dreyer.
Bradford	.....	.....	30.04	763.0	38.9	3.8	.....	NW	.....	.....	2	.....	9	.....	.....	0.01	0.3	Gloomy.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.09	764.3	77.0	25.0	.....	NE	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds....	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.90	759.4	38.9	3.8	.....	N	.....	.....	3	.....	10	.....	.....	.....	.....	Snowing.....	H. Todd.
Cardington	.....	.....	29.93	760.2	39.0	3.9	.....	N	.....	.....	3	.....	4	.....	.....	Blank	Blank	*D. clouds....	John McLaren.
Carlisle	.....	.....	30.05	763.3	38.2	3.4	.....	NW	.....	.....	2	.....	7	.....	.....	0	0	*D. clouds....	T. Bell, for J. Cartmell
Chatham, School M. E.	.....	.....	29.93	760.2	36.2	2.3	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	Blue sky.....	Capt. J. Fellowes, R. E.
Dartmoor	28.54	724.9	30.11	764.8	34.0	1.1	.....	N	.....	.....	4	.....	0	.....	.....	.....	.....	Blue sky.....	R. E. Power.
Donaghadee	.....	.....	30.14	765.5	42	5.6	.....	NNE	.....	.....	3	.....	0	.....	.....	.....	.....	Blue sky.....	J. Mac Gowan.
Dover	.....	.....	29.79	756.7	39	3.9	.....	N	.....	.....	5	.....	7	.....	.....	.....	.....	Snow & hail.	J. Costello.
Eccles, (near Manchester)	.....	.....	30.03	762.7	40.7	4.8	.....	WNW	5.8	2.6	.....	.....	5	.....	.....	.....	.....	*D. clouds....	Thomas Mackereth
Falmouth Observatory	.....	.....	30.08	764.0	41.6	5.3	.....	NNW	20	8.9	.....	.....	2	.....	.....	.....	.....	*D. clouds....	The Staff.
Fort Napier, (Natal)	27.30	693.4	29.56	750.8	84.6	29.2	.....	NW	.....	.....	4	.....	2	.....	.....	.....	.....	*D. clouds....	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone	.....	.....	29.86	758.4	85	29.4	.....	NE	.....	.....	0	.....	7	.....	.....	.....	.....	*D. clouds....	[tis
Galway, Queen's College	.....	.....	30.12	765.0	51	10.6	.....	E	.....	.....	1	.....	3	.....	.....	.....	.....	*D. clouds....	R. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean	.....	.....	29.96	761.0	63.0	17.2	.....	SW	.....	.....	4	.....	0	.....	.....	.....	.....	Blue sky.....	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.12	765.0	37.1	2.8	.....	W	.....	.....	1	.....	1	.....	.....	.....	.....	Fine.....	Lewis Stuart.
Great Yarmouth	.....	.....	29.82	757.4	39	3.9	.....	NNW	.....	.....	5	.....	6	.....	.....	.....	.....	Squally.....	G. T. Watson.
Greenwich Royal Obs.	.....	.....	29.91	759.7	37.9	3.3	.....	NNW	.....	.....	4	.....	10	.....	.....	Blank	Blank	Overcast.....	The Staff for G. B. Airy
Guernsey	.....	.....	30.00	762.0	40.5	4.7	.....	NNW	.....	.....	4	.....	3	.....	.....	.....	.....	*D. clouds....	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.03	762.7	37.0	2.8	.....	NW	.....	.....	1	.....	8	.....	.....	.....	.....	*D. clouds....	L. J. Crossley.
Helston	.....	.....	30.08	764.0	45	7.2	.....	N	.....	.....	2	.....	2k	.....	.....	0.8	20.3	*D. clouds....	M. P. Moyle.
Holyhead	.....	.....	30.09	764.3	40	4.4	.....	N	.....	.....	4	.....	3	.....	.....	.....	.....	Blue sky.....	John Tilston.
Kew Observatory	.....	.....	29.92	760.0	39.0	3.9	.....	NNW	22	9.8	.....	.....	10	.....	.....	.....	.....	Overcast.....	The Staff.
Kingstown	.....	.....	30.17	766.3	40	4.4	.....	N	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds....	George Mitchell
Leicester Museum	.....	.....	29.99	761.7	39.0	3.9	.....	N	.....	.....	3	.....	7	.....	.....	.....	.....	*D. clouds....	William J. Harrison.
Malta, (Mediterranean)	.....	.....	29.86	758.4	58.0	14.4	.....	SW	.....	.....	2	.....	6k	.....	.....	.....	.....	*D. clouds....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.33	770.4	73.2	22.9	.....	SE	.....	.....	3	.....	8	.....	.....	.....	.....	*F. clouds....	Surg.-Maj. Henry.
Nottingham	.....	.....	29.98	761.5	39.0	3.9	.....	NW	.....	.....	3	.....	7e,k	.....	NNW	Blank	Blank	*D. clouds....	E. J. Lowe, F. R. S.
Oscott, St Mary's College	.....	.....	30.02	762.5	37.6	3.1	.....	N	.....	.....	2	.....	9	.....	.....	.....	.....	*D. clouds....	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	29.96	761.0	39	3.9	.....	N	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast.....	J. Lucas.
Plymouth	.....	.....	30.05	763.3	41.3	5.2	.....	N	.....	.....	4	.....	0	.....	.....	.....	.....	Blue sky.....	John Merrifield.
Roche's Point	.....	.....	30.17	766.3	41	5.0	.....	NNE	.....	.....	2	.....	5	.....	.....	.....	.....	Cloudy.....	W. Kennedy.
Saint Ann's Head	.....	.....	30.10	764.5	41	5.0	.....	NNE	.....	.....	4	.....	3	.....	.....	.....	.....	*D. clouds....	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.95	760.7	42.0	5.6	.....	NE	.....	.....	5	.....	8	.....	.....	.....	.....	¾ clouded...	A. P. Amy.
Sandwick Manse (Orkneys)	.....	.....	30.18	766.6	43	6.1	.....	NNE	20	8.9	.....	.....	1	.....	.....	.....	.....	Fine.....	Rev. Dr. Clouston
Scarborough	.....	.....	29.90	759.4	38.9	3.8	.....	N	.....	.....	6	.....	7	.....	.....	Blank	Blank	*D. clouds....	F. Shaw.
Scutari Cemetery (Turkey	.....	.....	29.98	761.5	44.8	7.1	.....	SW	.....	.....	1	.....	1	.....	.....	.....	.....	Blue sky.....	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.00	762.0	39.0	3.9	.....	N	.....	.....	4	.....	8	.....	.....	0	0	Overcast.....	W. F. Cooper.
Silloth Rectory	.....	.....	30.08	764.0	42.7	5.9	63	N	.....	.....	3	.....	4	.....	.....	0	0	*D. clouds....	Rev Francis Redford
Stonyhurst Observatory	.....	.....	30.03	762.7	38.0	3.3	.....	NW	.....	.....	3	.....	5	.....	.....	.....	.....	.....	The Staff.
Stornoway, Lews C. (Heb.)	.....	.....	30.22	767.6	39	3.9	.....	NE	.....	.....	1	.....	5	.....	.....	.....	.....	*D. clouds....	John Smith.
Strathfield Turgiss	.....	.....	29.98	761.5	38.2	3.4	.....	N	.....	.....	1-2	.....	10	.....	.....	.....	.....	Snowing.....	Rev. Charles H. Grim b
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	30.15	765.8	45	7.2	.....	NNE	.....	.....	3	.....	5	.....	.....	.....	.....	.....	.....
Truro, Royal Institution	.....	.....	30.08	764.0	45	7.2	.....	N	.....	.....	6	.....	3	.....	.....	.....	.....	*D. clouds....	John Trotter.
Valencia Observatory	.....	.....	30.18	766.6	44.3	6.8	.....	E	5	2.2	.....	.....	10	.....	.....	.....	.....	*D. clouds....	W. Newcombe.
Sub-Series.																		Drizzling.. ..	The Staff.
Cape Good Hope Obs.	.....	.....	29.93	760.2	82.1	27.8	39	SE	9	4.0	.....	.....	1	.....	.....	.....	.....	.....	Th. Staff, for E. J. Stone.
Calf of Man, (Isle of Man	.....	.....	.....	.....	46	7.8	.....	NNW	.....	.....	4	.....	2	.....	.....	0	0	.....	.....
Leith, Restalrig Park	.....	.....	30.11	764.8	41.0	5.0	.....	NW	.....	.....	2	.....	10s	.....	.....	0	0	Overcast.....	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	30.08	764.0	41	5.0	.....	E	.....	.....	4	.....	0	.....	.....	0	0	.....	J. Youngclaus.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,490 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cooperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.74	755.5	32.7	0.4	92	ENE	.....	.....	2	.....	10	.....	.....	.....	.....	.....	.....
Fanöe	.....	.....	29.76	756.0	33.4	0.8	90	NNE	.....	.....	6	.....	10	.....	.....	.....	.....	Rain & snow	.....
Godthaab, (Greenland)	.....	.....	29.32	744.6	12.9	—10.6	.....	NE	.....	.....	4	.....	8	.....	.....	.....	.....	.....	.....
Stykkisholm, (Iceland)	.....	.....	29.65	753.1	35.4	1.9	96	SW	.....	.....	4	.....	10	.....	.....	.....	.....	.....	.....
Thorshavn, (Faröe)	.....	.....	30.10	764.4	35.8	2.1	78	SW	.....	.....	2	.....	7	.....	.....	.....	.....	.....	.....
Vestervig	.....	.....	29.83	757.7	34.2	1.2	92	ENE	.....	.....	6	.....	10	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.88	758.9	42.8	.....	88	N	.....	.....	1	.....	10	.....	.....	0.244	6.2	Covered	Normal School.
Amiens	.....	.....	29.80	756.9	40.3	4.6	71	SSW	.....	.....	6	.....	8	.....	SW	0.071	1.8	Very cloudy	Normal School.
Avignon	.....	.....	29.71	754.7	43.2	6.2	49	N	.....	.....	3	.....	2n	.....	N	0	0	.....	Normal School.
Bar-sur-Seine	.....	.....	29.74	755.5	33.4	0.8	86	NNE	.....	.....	1	.....	10	.....	.....	0.331	8.4	Covered	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.90	759.5	38.3	3.5	69	W	10.5	4.7	.....	.....	.....	.....	N	0.035	0.9	.....	Beaumette Observatory
Beauvais	.....	.....	29.81	757.2	37.4	3.0	73	N	.....	.....	3	.....	8	.....	N	0.089	2.25	Very cloudy	Normal School.
Besançon	.....	.....	29.76	756.0	35.6	2	93	NE	.....	.....	2	.....	10	.....	.....	0.189	4.8	Covered.....	Normal School.
Bourg en Bresse	.....	.....	29.76	756.0	33.8	1	93	NW	.....	.....	2	2c	.....	S	.....	.....	.....	Slightly cl'dy	Normal School.
Bourges	.....	.....	29.79	756.6	37.8	3.2	78	NW	.....	.....	2	.....	10	.....	NW	0.177	4.5	Covered.....	Normal School.
Brest	.....	.....	29.97	761.1	43.0	6.1	61	NNE	.....	.....	3	.....	5k	.....	N	0.010	0.25	½ covered....	Naval Observatory.
Caen	.....	.....	29.86	758.5	40.1	4.5	.....	NW	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School
Chartres	.....	.....	29.76	755.9	35.2	1.8	.....	N	.....	.....	4	.....	9	.....	NW	0	0	.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.84	757.9	33.4	0.8	86	W	.....	.....	3	.....	10	.....	N	0.008	0.2	Covered.....	Puy de Dome, Obs.
Commercy	.....	.....	29.68	753.8	33.1	0.6	92	NW	.....	.....	2	.....	10n	.....	NW	0	0	Covered.....	Normal School.
Commune de Gréasque*	.....	.....	29.64	752.8	38.5	3.6	41	NW	.....	.....	6	.....	2	.....	NW	0	0	.....	
Grenoble	.....	.....	29.74	755.3	32.0	0	100	N	.....	.....	1	.....	10	.....	.....	†0.059	†1.50	Covered	Normal School.
Le Mans	.....	.....	29.88	759.0	37.2	2.9	72	N	.....	.....	4	.....	8	.....	N	0	0	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lons-Le-Saulnier	.....	.....	29.75	755.6	36.9	2.7	96	NW	.....	.....	1	.....	10	.....	.....	0	0	Snowing.....	Normal School.
Mâcon	.....	.....	29.74	755.5	34.3	1.3	79	WNW	.....	.....	4	.....	10	.....	.....	0.008	0.2	Covered	Normal School.
Mirecourt	.....	.....	29.67	753.7	35.1	1.7	85	W	.....	.....	4	.....	10	.....	SE	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Nismes	.....	.....	29.71	754.5	43.3	6.3	64	NW	.....	.....	6	.....	0	.....	.....	0	0	Clear.....	Normal School.
Orleans	.....	.....	29.82	757.4	36.0	2.2	85	N	.....	.....	3	.....	10	.....	N	0	0	Covered .	Normal School.
Paris Observatory	.....	.....	29.79	756.7	36.1	2.3	79	NW	.....	.....	2	.....	10	.....	NW	0.081	2.07	Covered	National Observatory
Parthenay	.....	.....	29.96	760.9	30.2	4	97	N	.....	.....	2	.....	5	.....	E	0	0	Cloudy.....	Normal School.
Privas	.....	.....	29.74	755.5	36.9	2.7	.....	NW	.....	.....	4	.....	8	.....	.....	0	0	Very cloudy	Normal School.
La Roche-sur-Yon	.....	.....	30.00	761.9	39.6	4.2	97	WNW	.....	.....	2	.....	8	.....	SE	0.024	0.6	Very cloudy	Normal School.
Rochefort, Observatory	.....	.....	29.94	760.5	44.4	6.9	67	N	.....	.....	4	.....	8	.....	S	0	0	¾ Covered..	Naval Observatory.
Rouen	.....	.....	29.92	757.5	37.9	3.3	82	NW	.....	.....	2	.....	2	.....	N	0.142	3.6	Slightly cl'dy	Normal School.
Saint Lô	.....	.....	29.93	760.3	39.6	4.2	80	NE	.....	.....	3	.....	10	.....	N	0.043	1.1	.....	Normal School.
Tarbes	.....	.....	29.96	761.0	48.2	9	87	N	.....	.....	4	.....	8	.....	SW	0.32	8.	Very clouuy	Normal School.
Toulouse	28.84	732.5	30.01	762.3	41.2	5.1	84	NW	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Villefranche	.....	.....	29.89	759.1	35.8	2.1	91	NW	.....	.....	2	.....	5	.....	.....	0	0	Cloudy.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.1	77.0	25	91	NE	.....	.....	2	.....	5k, n	.....	.....	0.16	4.	....	L'Abbé Marchesi.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Marseilles	.....	.....	29.66	753.4	42.3	5.7	62	NW	.....	.....	6	.....	3	.....	.....	0	0	....	Marseilles Observatory.
Mont-Louis	24.45	621.1	29.88	758.9	24.1	— 4.4	82	NNW	7.4	3.33	.....	.....	10	.....	.....	0.028	0.7	.....	—. Faigière
Montsouris, Paris	.....	.....	29.78	756.4	37.0	2.8	83	NNW	.....	.....	4	.....	10	.....	NNW	0.047	1.2	.....	Montsouris Observ'tory
Perpignan	.....	.....	29.79	756.7	40.6	4.8	65	NW	14.9	6.66	.....	.....	9	.....	W	0.083	2.1	.....	Dr. Fines.
Pic du Midi, (Summit) H.P.‡	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.78	756.4	36.7	2.6	77	NW	.....	.....	2	.....	10	.....	.....	0.205	5.2	Light snow..	[illegible]
Toulouse	.....	.....	29.85	758.2	39.2	4.0	84	WNW	.....	.....	2	.....	8	.....	.....	0.067	1.7	.....	Toulouse Observatory
Tours	.....	.....	29.87	758.7	36.5	2.5	83	NNW	.....	.....	3	.....	7	.....	N	0.181	4.6	.....	C. Marques.
Versailles, (near Paris)	.....	.....	29.78	756.4	37.0	2.8	75	NW	.....	.....	1	.....	10	.....	.....	0.006	0.14	Snow & hail.	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	H. Le Lee, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Apparently includes some snow. ‡Summit inaccessible; weather snowy; snow-fall at the Plantade 600 millimeters, or 23.6 inches.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.50	749.2	33.4	0.8	89	W	.....	.....	3	.....	10	.....	.....	0.079	2.0	....	Prof. T. Hoh.
Berlin	.....	.....	29.65	753.2	34.0	1.1	76	S	.....	.....	2	.....	10	.....	.....	0.028	0.7	....	Prof. Arndt.
Breslau	.....	.....	29.68	753.8	27.3	— 2.6	82	ESE	.....	.....	3	.....	10	.....	.....	0	0	Snowing.....	Dr. P. Nasse[illegible]
Carlsruhe	.....	.....	29.59	751.6	33.8	1.0	89	S	.....	.....	1	.....	10	.....	.....	0.331	8.4	.....	A. Senz.
Cassel	.....	.....	29.47	748.5	35.8	2.1	85	N	.....	.....	2	.....	9	.....	.....	0.098	2.5	Snowing.....	Dr. H. Möll[illegible]
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.69	754.0	36.3	2.4	86	SSW	.....	.....	1	.....	4	.....	.....	0.114	2.9	.....	Physical Soci[illegible]y
Friedrichshafen	.....	.....	29.66	753.3	32.5	0.3	58	W	.....	.....	.....	.....	9	.....	.....	0.047	1.2	Snowing.....	M. Wilhelm.
Hamburg	.....	.....	29.66	753.3	34.2	1.2	89	E	.....	.....	1	.....	8	.....	.....	0.201	5.1	Cloudy.....	Deutsche Seewarte.
Kiel	.....	.....	29.71	754.7	34.7	1.5	88	NE	.....	.....	1	.....	10	.....	.....	0.130	3.3	Snowing.....	Prof. G. Karsten.
Königsberg	.....	.....	29.80	756.8	27.5	— 2.5	89	SE	.....	.....	2	.....	9	.....	.....	0	0	.....	Prof. E. Luth[illegible]
Köslin	.....	.....	29.71	754.5	31.8	— 0.1	.....	E	.....	.....	1	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	29.63	752.6	32.7	0.4	89	ENE	.....	.....	1	.....	10	.....	.....	0.047	1.2	Snowing.....	Prof. Brühns.
Münster	.....	.....	29.69	754.2	37.9	3.3	97	NW	.....	.....	2	.....	10	.....	.....	0.043	1.1	Snowing.....	Prof. E. Heis.
Posen	.....	.....	29.72	755.0	30.0	— 1.1	85	S	.....	.....	1	.....	10	.....	.....	0.079	2.0	Snowing.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.64	752.9	34.3	1.3	91	Calm	.....	.....	0	.....	10	.....	.....	0.071	1.8	.....	Dr. Schur.
Stuttgart	.....	.....	29.62	752.4	37.4	3.0	54	W	.....	.....	.....	.....	8	.....	.....	0.118	3.0	.....	Prof. Schoder.
Thorn	.....	.....	29.72	754.8	27.7	— 2.4	87	NE	.....	.....	4	.....	5	.....	.....	0.071	1.8	Snowing.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	29.58	751.3	36.9	2.7	68	NW	.....	.....	3	.....	10	.....	.....	0.035	0.9	.....	Prof. Fresch.
Wustrow, Naval School	.....	.....	29.73	755.2	32.0	0.0	100	ESE	.....	.....	3	.....	10	.....	.....	0.075	1.9	Foggy &.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.98	761.5	54.3	12.4	.....	S	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	29.41	747.0	38.1	3.4	76	NE	9.4	4.2	.....	.....	10	.....	.....	0.055	1.4	.....	
Padua	.....	.....	29.36	745.8	43.0	6.1	86	SW	1.8	0.8	.....	.....	10	SW	.....	0	0	.....	
Vicenza	.....	.....	29.39	746.4	41.0	5.0	90	W	1.8	0.8	.....	.....	9	.....	.....	0	0	.....	
Verona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bergamo	.....	.....	29.36	745.8	37.4	3.0	93	SE	.....	.....	4	.....	10	.....	.....	0	0	.....	
Domodossola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Milan	.....	.....	29.38	746.3	40.6	4.8	89	ENE	.....	.....	1	.....	10	NNE	.....	0	0	.....	
Pavia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Moncalieri	.....	.....	29.49	749.0	36.1	2.3	70	NNE	0.7	0.3	.....	.....	9	W	.....	0	0	.....	
Mondovi	.....	.....	29.49	749.1	38.7	3.7	38	NW	.....	.....	2	.....	9	.....	.....	0	0	.....	
Porto Maurizio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Genoa	.....	.....	29.42	747.2	45.5	7.5	32	N	4.3	1.9	.....	.....	8	NW	.....	0	0	.....	
Piacenza	.....	.....	29.40	746.7	41.4	5.2	61	NW	20.6	9.2	.....	.....	10	.....	.....	0	0	.....	
Bologna	.....	.....	29.61	752.2	39.7	4.3	40	W	.....	.....	1	.....	5	S	.....	0	0	.....	
Florence	.....	.....	29.46	748.3	49.6	9.8	37	SW	.....	.....	6	.....	10	SW	.....	0	0	.....	
Leghorn	.....	.....	29.46	748.2	49.1	9.5	21	WSW	23.7	10.6	.....	.....	7	.....	.....	0	0	.....	
Siena	.....	.....	29.47	748.4	46.8	8.2	62	WSW	6.9	3.1	.....	.....	9	W	.....	0	0	.....	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ancona	.....	.....	29.47	748.5	47.8	8.8	71	SSW	.....	.....	6	.....	10	.....	.....	0	0	Light rain	
Grosseto	.....	.....	29.47	748.6	53.1	11.7	50	NW	.....	.....	6	.....	7	SW	.....	0.016	0.4	.....	
Rome	.....	.....	29.59	751.5	53.6	12.0	62	SSW	9.8	4.4	.....	.....	9	SW	.....	0	0	.....	
Naples, O. U	.....	.....	29.68	753.9	55.0	12.8	75	SW	.....	.....	8	.....	10	SW	.....	0.209	5.3	.....	
Lecce	.....	.....	29.78	756.5	56.1	13.4	68	SSE	18.6	8.3	.....	.....	9	S	.....	0	0	.....	
Cosenza	.....	.....	29.76	755.9	56.5	13.6	67	SE	.....	.....	6	.....	8	.....	.....	0	0	.....	
Riposto, (Sicily)	.....	.....	29.78	756.5	56.5	13.6	75	WSW	.....	.....	2	.....	8	N	.....	0	0	.....	
Palermo	.....	.....	29.67	753.5	59.4	15.2	55	SW	23.0	10.3	.....	.....	10	.....	.....	0	0	.....	
Caltanissetta	.....	.....	29.78	756.3	52.0	11.1	83	SSW	.....	.....	.....	.....	10	NNE	.....	0	0	.....	
Sub-Series.																			
Naples, S. R	.....	.....	29.65	753.0	53.2	11.8	81	WNW	13.0	5.8	.....	.....	..k	SW	.....	0.106	2.7	.....	Prof. F. Brioschi.

Note. The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	29.76	755.9	39.2	4.0	.....	NE	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	29.63	752.6	34.2	1.2	.....	N	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	29.72	755.0	37.2	2.9	.....	N	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	29.65	753.2	35.2	1.8	96	N	.....	.....	4	.....	8	.....	.....	.....	.....	Very cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	29.99	761.8	38.5	3.6	51	Calm	0	0	.....	.....	0	.....	.....	0	0	.....	
Brönö	.....	.....	30.08	764.0	34.5	1.4	93	Calm	0	0	.....	.....	5	.....	.....	0	0	.....	
Christiania	.....	.....	30.00	762.0	36.3	2.4	57	NNE	14.3	6.4	.....	.....	0	.....	.....	0	0	.....	
Tromsö	.....	.....	29.92	760.0	30.6	— 0.8	92	SW	7	3	.....	.....	10	.....	.....	0.130	3.3	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors.		Barometer: Reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds.			Clouds.				Rain-fall in the past 24 hours.		Weather.	Observer.
								Direction.	Velocity.		Force.	Amount		Direction.					
												Upper.	Lower.	Upper.	Lower.				
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	—10.	—10.	From—	From—	Inches.	Millimeters.		
Angra, (Azores,)			30.35	770.8	54.9	12.7	86	NE	6.5	2.92			5			0	0		Dr. J. A. N. Sampaio.
Campo Major			29.94	760.5	56.5	13.6	39	NW	8.0	3.58			2			0	0		Dr. A. M. R. dos Santos.
Funchal, (Madeira,)			30.04	763.1	60.1	15.6	76	N	9.6	4.31			10			0.043	1.1	Raining	Capt D. A. da Cunha.
Lisbon			30.01	762.2	54.5	12.5	55	NNE	8.7	3.9			0			0	0		The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw				29.73	755.2	27.3	— 2.6	89	SE	4	2			3						Astronomical Obs.
Wilna				29.84	758.0	33.6	0.9	90	Calm	0	0			10						Astronomical Obs.
Dorpat				29.96	760.9	27.0	— 2.8	91	ESE	4	2			10						Physical Cabinet.
St. Petersburg				29.94	760.4	25.0	— 3.9	93	SW	2	1			10						Central Physical Obs.
Kuopio				29.89	759.1	26.1	— 3.3	98	WNW	13	6			10						Ch. Forsten.
Kief				29.93	760.2	28.9	— 1.7	82	SE	4	2			10						Physical Cabinet.
Nikolaiev				30.01	762.2	34.0	1.1	90	SSE	4	2			10						Kurdakof.
Kertch				30.06	763.5	39.9	4.4	71	E	2	1			5						Lagorio.
Moscow				30.11	764.9	27.1	— 2.7	85	S	9	4			10						Meteorological Obs.
Lugan				30.10	764.4	28.0	— 2.2	83	SE	18	8			6						Meteorological Obs.
Archangel				29.62	752.3	30.6	— 0.8	88	SW	29	13			10						Ogorodnikof.
Tiflis	28.67	728.2	30.13	765.3	41.4	5.2	38	N	4	2			2							Physical Obs.
Astrakhan				30.38	771.6	22.3	— 5.4	73	E NE	7	3			0						Sebastianof.
Kasan				30.10	764.4	27.7	— 2.4	96	WSW	4	2			10					Light snow	Physical Cabinet.
Orenburg						18.1	— 7.7	83	W	2	1			10						Tschernischef.
Ekaterinburg	29.13	739.8	30.21	767.2	19.8	— 6.8	84	S	4	2			10							Meteorological Obs.
Nukuss			30.30	769.7	26.8	— 2.2	64	NE	9	4			9							
Kasaly			30.38	771.6	7.5	—13.6		S	4	2			0							Bobrof.
Tashkend	28.67	728.1	30.50	774.6	24.1	— 4.4	81	Calm	0	0			10							Michelson.
Barnaul			30.48	774.3	—20.0	—28.9	76	Calm	0	0			10							Meteorological Obs.
Yeniseisk			29.97	761.1	— 6.2	—21.2	80	SSW	2	1			0							Marks.
Irkutsk																				Usolzef.
Oorga																				Mossin.
Peking, (China)			30.21	767.2	27.1	— 2.7	62	Calm	0	0			9							Physical Observatory.
Nertchinsk																				Meteorological Obs.
Vladivostock																				
Nikolaievsk, on the Amoor			30.40	772.1	20.3	— 6.5	90	Calm	0	0			7							
					—17.3	—27.4	100	Calm	0	0			0							

NOTE.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			29.94	760.4	47.3	8.5	49	SE	3.0	1.33		1	1	NE		0	0	Light clouds.	Royal Observatory.
San Fernando			29.97	761.3	58.8	14.9	79	WSW	0.0	0.0		0	4		E	0	0		The Naval Observatory.

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda			29.97	761.2	15.1	— 9.4	81	SE			2		0			0	0		
Umea			29.99	761.8	19.9	— 6.7	95	Calm			0		0			0	0		
Hernosand			30.03	762.7	23.7	— 4.6	93	NE			2		1			0.055	1.4		
Stockholm			29.86	758.4	32.2	0.1	96	N			4		10			0	0		
Wisby			29.87	758.8	32.7	0.4	92	SE			2		10			0	0		
Sub-Series.																			
Upsala			29.95	760.6	29.7	— 1.3	91	N	10.1	4.5			10			0	0		Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force.	Clouds. Amount. Up'er —to	Clouds. Amount. Low'r —to	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.23	717.1	29.72	754.9	33.6	0.9	77	S	.....	.....	1	.....	9	.....	.....	0	0	Covered	The Observatory.
Zurich	27.98	710.7	29.70	754.3	32.2	0.1	78	SW	.....	.....	1	.....	10	.....	.....	0.091	2.3	Covered	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —0.8 mm.; Thermometer, —1.7 cent.; Relative Humidity, +2 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds, the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	29.99	761.7	43.2	6.2	67	SW	7	3.0	.....	.....	0	.....	.....	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.26	768.6	.....	.....	.....	SE	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.94	760.4	51.1	10.6	.....	NE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.71	754.5	56.5	13.6	.....	S	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.84	758.0	42.8	6.0	.....	W	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.05	763.2	58.5	14.7	70	SW	.....	.....	2	.....	8n	.....	SW	0	0	Rainy	Prof. C. V. A. Van Dyck.

NOTE.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	30.71	780.0	—15.5	—26.4	70	NW	8.0	3.6	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.95	786.1	—22	—30.0	.....	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	W. R. Bigg.
*Chatham, N. B.	.....	.....	30.66	778.7	—16	—26.7	100	NW	12	5.4	.....	8c	0	NW	.....	0.15	3.8	Fair	G. A. Blair.
Charlottetown P. E. Island.	.....	.....	30.59	777.0	— 9	—22.8	69	NW	16	7.2	.....	0	0	.....	.....	0.45	11.4	Clear	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.86	783.8	—15.0	—26.1	100	NW	.....	.....	1	.....	.....	.....	.....	0	0	Bright	James Smith, M. A.
Dalhousie, N. B.	.....	.....	30.63	778.0	—17.7	—27.6	67	NW	.....	.....	5	.....	10n	.....	.....	0.20	5.1	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.68	753.8	40.1	4.5	92	SW	4	1.8	.....	.....	10	.....	.....	0	0	Cloudy	W. H. Bevis.
Fredericton, N. B.	.....	.....	30.78	781.8	—14.9	—26.1	94	NW	8	3.6	.....	.....	.....	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	29.71	754.6	— 2	—18.9	97	S	8	3.6	.....	.....	..n	S	S	0.200	5.08	Light snow	James Stewart.
Goderich, Ontario	.....	.....	30.72	780.3	11.0	—11.7	72	W	.....	.....	2	10ck	.....	SW	.....	0	0	Fine	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.74	780.8	0.7	—17.4	.....	SE	.....	.....	1	1cs	.....	W	.....	Inap.	Inap.	Clear	James Grant.
*Halifax, N. S.	.....	.....	30.55	776.0	3	—16.1	66	N	20	8.9	.....	0	2ks	.....	N	0.41	10.4	Fair	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.95	786.1	—12	—24.4	75	N	1	0.4	.....	0	0	.....	.....	0	0	Clear	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.66	778.7	3.6	—15.8	.....	S	6	2.7	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.92	785.4	—14	—25.6	78	SE	4	1.8	.....	0	0	.....	.....	0.01	0.3	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.90	784.8	—24	—31.1	74	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	C. H. McLeod, C. E.
*Parry Sound, Ontario	.....	.....	30.76	781.3	— 3	—19.4	82	SE	10	4.5	.....	0	2ks	.....	SE	0	0	Fair	J. B. Haney.
*Port Dover, Ontario	.....	.....	30.86	783.8	— 1	—18.3	94	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	Rev. R. Mooley.
Port Hastings, N. S.	.....	.....	30.50	774.7	1.2	—17.1	.....	NW	25	11.2	.....	.....	.....	.....	.....	0	0	Fine	H. Morgan.
*Port Stanley Ontario	.....	.....	30.72	780.3	14	—10.0	82	SE	12	5.4	.....	0	0	.....	.....	0	0	Clear	Peter Grant.
*Quebec, Quebec	.....	.....	30.79	782.1	—17	—27.2	70	W	10	4.5	.....	0	0	.....	.....	0	0	Clear	M. Payne.
St. John, N. B.	.....	.....	30.82	782.8	—12.0	—24.4	50	W	8	3.6	.....	.....	.....	.....	.....	0	0	Clear	Capt. Ash, R. N.
*Saugeen, Ontario	.....	.....	30.66	778.7	5	—15.0	77	SW	6	2.7	.....	.....	10n	.....	.....	0	0	.....	G. Murdoch, C. E.
Stayner, Ontario	.....	.....	30.77	781.5	— 2	—18.9	84	NW	5	2.2	.....	2ck	0	NW	.....	0	0	Cloudy	K. Stewart.
Stratford, Ontario	.....	.....	30.76	781.3	— 0.1	—17.8	97	S	2	0.9	.....	.....	.....	.....	.....	0	0	Fair	R. J. Cole.
*Sydney, C. B.	.....	.....	30.41	772.4	— 1	—18.3	75	NW	16	7.2	.....	2k	2ks	NW	NW	0.89	22.6	Fine	C. J. MacGregor, M. A.
*Toronto, Ontario	.....	.....	30.78	781.8	0	—17.8	91	N	6	2.7	.....	8k	5ks	W	S	0	0	Clear	T. C. Hill.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Cloudy	Magnetic Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.- The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.86	783.8	0	—17.8	69	Calm	0	0	.....	0	Haze	.....	.....	Inap.	Inap.	Clear.	
Alpena, Mich.	.....	.....	30.57	776.5	9	—12.8	78	S	18	8.0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Atlantic City, N. J.	.....	.....	30.84	783.3	13	—10.6	81	N	6	2.7	.....	0	0	.....	.....	0.03	0.8	Clear.	
Augusta, Ga.	.....	.....	30.68	779.3	31	— 0.6	74	NE	6	2.7	.....	0	0	.....	.....	0.20	5.1	Clear.	
Baltimore, Md.	.....	.....	30.87	784 1	18	— 7.8	68	NW	1	0.4	.....	0	Sm'e	.....	.....	0.01	0.3	Smoky	
Barnegat, N. J.	.....	.....	30.84	783.3	14	—10.0	82	N	13	5.8	.....	0	0	.....	.....	0.05	1.3	Clear.	
Benton, Montana	26.95	684.5	29.75	755.6	5	—15.0	100	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Bismarck, Dakota	27.98	710.7	29.77	756.1	3	—16.1	58	NE	7	3.1	.....	.....	10ks	.....	N	0.10	2.5	Cloudy.	
Boston, Mass.	.....	.....	30.87	784.1	4	—15.6	74	NW	12	5.4	.....	0	0	.....	.....	0.02	0.5	Clear.	
Breckenridge, Minn	.....	.....	29.64	7. 2.8	16	— 8.9	83	SE	20	8.9	.....	.....	10s	.....	SE	Inap.	Inap.	Cloudy.	
Buffalo, N. Y.	.....	.....	30.80	782.3	2.5	—16.4	72	E	4	1.8	.....	0	1s	.....	.....	0	0	Clear.	
Burlington, Vt.	.....	.....	30.94	785.9	— 6	—21.1	61	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Cairo, Ill.	.....	.....	30.63	778.0	20	— 6.7	69	SE	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Cape Hatteras, N. C.	.....	.....	30.62	777.7	40	4.4	63	NE	26	11.6	.....	0	5s	.....	NE	0.37	9.4	Fair.	
Cape Henry, Va	.....	.....	30.81	782.6	27	— 2.8	64	NE	20	8.9	.....	0	0	.....	.....	0.78	19.8	Clear.	
Cape May, N. J.	.....	.....	30.83	783.1	14	—10.0	82	N	6	2.7	.....	0	0	.....	.....	0.16	4.1	Clear.	
Charleston, S. C.	.....	.....	30.64	778.2	35	1.7	70	NE	16	7.2	.....	0	0	.....	.....	0.23	5.8	Clear.	
Cheyenne, Wyoming	23.79	604.3	29.73	755.1	25	— 3.9	48	NW	1	0.4	.....	5c	0	.....	.....	0	0	Fair.	
Chicago, Ill.	.....	.....	30.48	774.2	15	— 9.4	65	S	12	5.4	.....	2c	Sm'e	.....	.....	0	0	Fair.	
Cincinnati, Ohio	.....	.....	30.70	779 8	12	—11.1	61	SE	4	1.8	.....	0	Sm'e	.....	.....	0	0	Clear.	
Cleveland, Ohio	.....	.....	30.77	781.5	4.2	—15.4	92	SE	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Colorado Springs, Col.	23.89	606.8	29.76	755.9	35	1.7	54	NE	4	1.8	.....	0	5s	.....	NE	0	0	Fair.	
Corsicana, Tex.	.....	.....	30.48	774.2	31	— 0.6	79	E	4	1.8	.....	5c	0	SW	.....	0	0	Fair.	
Davenport, Iowa	.....	.....	30.36	771.1	19	— 7.2	53	SW	16	7.2	.....	5cs	0	.....	.....	0	0	Fair.	
Denison, Tex.	.....	.....	30.42	772.7	34	1.1	61	SE	4	1.8	.....	0	2s	.....	.....	0	0	Clear.	
Denver, Col.	24.58	624.3	29.80	756.9	36	2.2	38	Calm	0	0	.....	5cs	0	SE	.....	0	0	Fair.	
Detroit, Mich.	.....	.....	30.69	779.5	10	—12.2	79	S	5	2.2	.....	0	2ks	.....	S	0	0	Fair.	
Dodge City, Kan.	27.37	695.2	29.74	755.4	30	— 1.1	78	SE	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	30.28	769.1	17	— 8.3	67	S	3	1.3	.....	5cs	0	.....	.....	0	0	Fair.	
Duluth, Minn.	.....	.....	29.95	760.7	10	—12.2	79	E	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Eastport, Me.	.....	.....	30.76	781.3	— 8	—22.2	56	NW	17	7.6	.....	0	8s	.....	NW	0.65	16.5	Fair.	
Erie, Pa.	.....	.....	30.74	780.8	8	—13.3	89	S	14	6.3	.....	0	Haze	.....	.....	0	0	Clear.	
Escanaba, Mich.	.....	.....	30.34	770.6	8	—13.3	78	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Fort Gibson, Indian Terr.	.....	.....	30.40	772.1	32	0.0	79	SE	11	4.9	.....	0	0	.....	.....	0	0	Clear.	
Fort Sill, Indian T.	29.05	737.9	30.24	768.1	28	— 2.2	59	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Fort Sully, Dakota	27.95	709.9	29.72	754.9	7	—13.9	88	E	2	0.9	.....	0	2s	.....	E	0	0	Fair.	
Galveston, Tex.	.....	.....	30.45	773.4	45	7.2	60	NE	16	7.2	.....	0	5s	.....	NE	0	0	Fair.	
Grand Haven, Mich.	.....	.....	30.54	775.7	10	—12.2	89	SE	11	4.9	.....	5cs	0	W	.....	Inap.	Inap.	Fair.	
Indianapolis, Ind.	.....	.....	30.65	778.5	11	—11.7	79	SE	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Indianola, Tex.	.....	.....	30.45	773.4	45	7.2	68	NE	17	7.6	.....	5cs	0	SW	.....	0	0	Fair.	
Jacksonville, Fla.	.....	.....	30.47	773.9	51	10.6	86	NE	16	7.2	.....	.....	10s	.....	NE	0.06	1.5	Cloudy.	
Keokuk, Iowa	.....	.....	30.36	771.1	20	— 6.7	70	S	3	1.3	.....	0	0	.....	.....	0	0	Clear.	
Key West, Fla.	.....	.....	30.28	769.1	72.6	22.6	85	NE	13	5.8	.....	1k	1ks	NE	.....	0	0	Clear.	
Kittyhawk, N. C.	.....	.....	30.75	781.0	36	2.2	70	N	30	13.4	.....	10k	0	NE	.....	0.68	17.3	Cloudy.	
Knoxville, Tenn	.....	.....	30.75	781.0	12	—11.1	100	NE	2	0.9	.....	0	Fog	.....	.....	Inap.	Inap.	Foggy.	
La Crosse, Wis.	.....	.....	30.13	765.3	18	— 7.8	100	S	11	4.9	.....	.....	10n	.....	S	0.13	3.3	Light snow.	
Leavenworth, Kan.	.....	.....	30.22	767.6	32	0.0	79	S	14	6.3	.....	0	0	.....	.....	0	0	Clear.	
Lexington, Ky.	29.50	749.3	30.77	781.5	9	—12.8	57	E	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Long Branch, N. J.	.....	.....	30.85	783.6	17	— 8.3	35	NW	15	6.7	.....	1k	0	NW	.....	0.08	2.0	Clear.	
Louisville, Ky.	.....	.....	30.69	779.5	13	—12.6	81	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Lynchburg, Va.	.....	.....	30.88	784.3	20	— 6.7	84	S	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Malone, N. Y.	.....	.....	30.93	785.1	—12	—24.4	75	Calm	0	0	.....	0	0	.....	.....	0.10	2.5	Clear.	
Marquette, Mich	.....	.....	30.40	772.1	5	—15.0	75	SE	12	5.4	.....	.....	10s	.....	S	0	0	Cloudy.	
Memphis, Tenn	.....	.....	30.61	777.5	22	— 5.6	72	NE	3	1.3	.....	0	Sm'e	.....	NE	0	0	Smoky	
Milwaukee, Wis.	.....	.....	30.4	773.2	5	—15.0	75	S	9	4.0	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.	
Mobile, Ala.	.....	.....	30.52	775.2	34	1.1	79	NE	10	4.5	.....	.....	10s	.....	NE	0	0	Cloudy.	
Montgomery, Ala.	.....	.....	30.60	777.2	32	0.0	85	N	5	2.2	.....	8c	Haze	SW	.....	0.01	0.3	Fair.	
Morgantown, W. Va.	.....	.....	30.88	784.3	6	—14.4	87	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Mt. Washington, N. H.	23.62	599.9	29.98	761.5	—25.5	—31.9	54	N	78	34.8	.....	0	0	.....	.....	0	0	Clear.	
Nashville, Tenn.	.....	.....	30.68	779.3	11	—11 7	79	Calm	0	0	.....	0	Fog	.....	.....	0	0	Foggy	
New Haven, Conn.	.....	.....	30.91	785.1	11	—11.7	79	N	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
New London, Conn.	.....	.....	30.99	784.8	12	—11.1	49	NW	4	1.8	.....	0	0	.....	.....	0.06	1.5	Clear.	
New Orleans, La.	.....	.....	30.49	774.4	37.5	3.1	58	NE	11	4.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Newport, R. I.	.....	.....	30.87	784.1	12	—11.1	61	N	10	4.5	.....	0	0	.....	.....	0.02	0.5	Clear.	
New York, N. Y.	.....	.....	30.88	784.3	14	—1 .0	63	NE	14	6.3	.....	0	0	.....	.....	0.54	13.7	Clear.	
Norfolk, Va.	.....	.....	30.82	782.8	25	— 3.9	75	NE	14	6.3	.....	0	0	.....	.....	0.43	10.9	Clear.	
North Platte, Neb.	26.86	682.2	29.51	749.5	25	— 3.9	75	Calm	0	0	.....	2cs	5s	W	W	0	0	Fair.	
Omaha, Neb.	28.86	733.0	29.96	761.0	32	0.0	79	S	15	6.7	.....	0	0	.....	.....	0	0	Clear.	
Oswego, N. Y.	.....	.....	30.86	783.8	13	—10.6	61	SE	6	2.7	.....	.....	10s	.....	NW	0.26	6.6	Cloudy.	
Peck's Beach, N. J.	.....	.....	30.86	783.8	13	—10.6	81	N	4	1.8	.....	0	0	.....	.....	0.04	1.0	Clear.	
Pembina, Dakota	.....	.....	29.64	752.8	5	—15.0	75	S	12	5.4	.....	Haze	2s	.....	.....	0	0	Fair.	
Philadelphia, Penn.	.....	.....	30.88	784.3	15	— 9.4	65	NE	11	4.9	.....	0	0	.....	.....	0.36	9.1	Clear.	
Pike's Peak, Colorado	17.51	444.7	29.72	754.9	5	—15.0	50	W	54	24.1	.....	2cs	0	.....	.....	0	0	Fair.	
Pittsburgh, Penn.	.....	.....	30.76	781.3	9	—12.8	70	NE	4	1.8	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.	
Port Huron, Mich.	.....	.....	30.71	780.3	10	—12.2	79	SE	8	3.6	.....	0	1s	.....	.....	0	0	Clear.	
Portland, Me.	.....	.....	30.93	783.1	2	—16.7	72	NE	9	4.0	.....	0	0	.....	.....	0.03	0.8	Clear.	
Portland, Oregon	.....	.....	29.93	760.2	43	6.1	83	SW	6	2.7	.....	.....	10n	.....	.....	0.60	15.2	Heavy rain.	
Punta Rassa, Fla.	.....	.....	30.43	770.4	61.1	16.2	88	NE	22	9.8	.....	.....	10ks	.....	NE	0	0	Cloudy.	
Rochester, N. Y.	.....	.....	30.82	782.8	5	—15.0	70	S	5	2.2	.....	Haze	Sm'e	.....	.....	0.02	0.5	Fair.	
Salt Lake City, Utah	25.47	646.9	29.80	756.9	37	2.8	45	N	20	8.9	.....	0	0	.....	.....	0	0	Clear.	
Sandy Hook, N. J.	.....	.....	30.85	783.6	15	— 9.4	47	NE	.....	.....	.....	2k	0	NE	.....	0.11	2.8	Clear.	
San Diego, Cal.	.....	.....	30.10	764.5	50	10.0	100	E	14	6.3	.....	.....	10s	.....	E	0	0	Cloudy.	
San Francisco, Cal.	.....	.....	30.19	766.8	47	8.3	73	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Santa Fe, N. M.	23.26	590.8	29.80	756.9	25	— 3.9	62	E	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Savannah, Ga.	.....	.....	30.90	777.2	39	3.9	70	NE	12	5.4	.....	.....	10s	.....	NE	0	0	Cloudy.	
Shreveport, La.	.....	.....	30.55	776.0	34	1.1	71	S	3	1.3	.....	2cs	0	SW	.....	0	0	Fair.	
Smithville, N. C.	.....	.....	30.68	779.3	30	— 1.1	67	NE	15	6.7	.....	0	0	.....	.....	0.70	17.8	Clear.	
Springfield, Mass.	.....	.....	30.88	784.3	1	—17.2	68	Calm	0	0	.....	0	Sm'e	.....	.....	0.01	0.3	Fair.	
St. Louis, Mo.	.....	.....	30.54	775.7	19	— 7.2	69	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
St. Marks, Fla.	.....	.....	30.48	774.2	54	12.2	84	NE	12	5.4	.....	.....	10s	.....	NE	0.04	1.0	Cloudy.	
St. Paul, Minn.	.....	.....	29.90	758.4	13	—10.6	71	SE	19	8.5	.....	8cs	0	W	.....	0.05	1.3	Fair.	
St. Paul's Island, Alaska	.....	.....	30.00	762.0	14	—10.0	81	NE	1	0.4	.....	c	2k	.....	.....	Inap.	Inap.	.....	
Squan Beach, N. J.	.....	.....	30.77	781.5	4	—15.6	74	NW	4	1.8	.....	0	Haze	.....	.....	0.04	1.0	Clear.	
Thatcher's Island, Mass.	.....	.....	30.89	782.3	0	—12.8	57	NW	22	9.8	.....	0	0	.....	.....	0	0	Clear.	
Toledo, Ohio	.....	.....	30.68	779.3	13	—10.6	62	S	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Tucson, Arizona	27.62	701.5	30.21	767.3	50	10.0	.....	SE	.....	.....	.....	2c	0	.....	.....	0	0	Clear.	
Tybee Island, Ga.	.....	.....	30.50	777.0	41	5.0	83	NE	35	15.6	.....	8k	2s	E	NE	0.86	21.8	Cloudy.	
Vicksburg, Miss.	.....	.....	30.49	774.4	29	— 1.7	67	NE	2	0.9	.....	8cs	0	W	.....	0	0	Fair.	

UNITED STATES SERIES.—CONTINUED.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From —	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From —	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	23.93	607.8	29.41	747.0	26	— 3.3	65	SW	8	3.6	.....	2c	0	W	.....	0.07	1.8	Fair	
Washington, D. C	.....	.....	30.89	784.6	10.5	—11.9	69	Calm	0	0	.....	0	Sm'e	.....	.....	0.01	0.3	Smoky	
Wilmington, N. C	.....	.....	30.71	780.0	29	— 1.7	78	NE	14	6.3	.....	0	Haze	.....	.....	0.35	8.9	Clear	
Wood's Holl, Mass	.....	.....	30.86	783.8	12	—11.1	61	NW	13	5.8	.....	0	0	.....	.....	0.16	4.1	Clear	
Wytheville, Va	28.22	716.8	30.66	778.7	10	—12.2	79	Calm	0	0	.....	0	Sm'e	.....	.....	0.07	1.8	Clear, frost	
Yankton, Dakota	28.49	723.6	29.81	757.2	32	0.0	69	SW	14	6.3	.....	2c	0	W	.....	0	0	Fair	
Yuma, Arizona	.....	.....	30.00	762.0	44	6.7	.....	E	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.10	764.5	78	25.6	95	SE	9	4.0	.....	5k	10ks	SE	.....	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, d	.....	.....	30.10	764.5	73	22.8	85	E	.....	.....	.....	5c	5k	.....	.....	0.26	6.6	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.38	771.6	73	22.8	75	ENE	7	3.1	.....	2cs	8kn	E	.....	0.10	2.5	Cloudy	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.30	769.6	73	22.8	76	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.96	761.0	73	22.8	76	N	9.6	4.3	.....	0	2ks	.....	NE	.....	.....	Fair	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.26	768.6	72	22.2	85	Calm	0	0	.....	2k	0	E	.....	0	0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.39	771.9	68.0	20.0	92	SW	10.0	4.5	.....	8c	1d	SW	.....	0	0	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.30	693.4	30.11	764.5	62	16.7	78	NNE	1.0	0.4	.....	2c	0	NNE	.....	0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.03	762.7	79	26.1	82	E	.....	.....	3	.....	7ks	.....	.....	0.160	4.06	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.05	763.2	78.8	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.138	3.50	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.22	640.5	.....	.....	64.4	18.0	81	.....	0	0	.....	0	2s	.....	.....	0	0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.99	761.7	13.0	—10.6	.....	W	.....	.....	.....	10k	10s	.....	.....	0.50	12.7	Fair	John Delaney.
York Factory, B. A	.....	.....	29.78	756.4	—26	—32.2	.....	S	3	1.3	.....	1c	0	S	.....	0.01	0.3	Aurora	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS

TAKEN SIMULTANEOUSLY ON FEBRUARY 6, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	29.88	759.0	60.8	16.0	64	Calm	.....	.....	0	.....	5	.....	.....	0	0	Fair	Charnot and Masselot.
Algiers	.....	.....	29.91	759.7	51.8	11.0	80	NNW	.....	.....	1	.....	10	.....	.....	0.031	0.8	Hidden	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	29.85	758.1	56.1	13.4	69	W	.....	.....	4	.....	6	.....	.....	0.169	4.3	Fair	Jacques.
Sfax	.....	.....	29.86	758.5	64.4	18.0	59	N	.....	.....	1	.....	5	.....	.....	0	0	Fair	Chauvey.
Saida	.....	.....	29.94	760.4	57.2	14.0	47	NW	.....	.....	2	.....	1	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	29.89	759.2	55.9	13.3	.....	SW	.....	.....	4	.....	3	.....	.....	0	0	Fair	Colin.
Geriville	.....	.....	29.93	760.3	54.5	12.5	46	WSW	.....	.....	2	.....	2	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	29.95	760.8	60.8	16.0	59	SW	.....	.....	4	.....	3	.....	.....	0	0	Fair	Delord.
Biskra	.....	.....	29.91	759.8	61.5	16.4	38	NNW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Dubois.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	29.56	750.9	29.7	— 1.3	88	SW	.....	.....	1	.....	7	.....	.....	0.406	10.3	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	29.55	750.5	29.8	— 1.2	94	ENE	.....	.....	3	.....	10	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	29.60	751.8	33.1	0.6	96	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	28.32	719.3	29.58	751.2	27.7	— 2.4	82	SSE	.....	.....	2	.....	5	.....	.....	0.630	16.0	.....	Andreas Rospini.
Hermannstadt	28.16	715.2	29.59	751.6	43.5	6.4	44	SSE	.....	.....	4	.....	4	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.15	714.9	29.53	750.1	30.2	— 1.0	80	WSW	.....	.....	2	.....	5	.....	.....	0.146	3.7	.....	Prof. C. Wagner.
Lemberg	.....	.....	29.69	754.2	27.0	— 2.8	96	N	.....	.....	3	.....	10	.....	.....	0	0	.....	Dr. T. Stanecki.
Styiregyhaza	.....	.....	29.63	752.5	32.7	0.4	92	E	.....	.....	2	.....	10	.....	.....	0.035	0.90	.....	Habzsuda Daniel.
Pola	.....	.....	29.47	748.4	43.5	6.4	71	WNW	.....	.....	1	.....	9ks	.....	.....	0.100	2.55	.....	I.R. Hydrographic Office
Szegedin	.....	.....	29.58	751.2	32.9	0.5	100	Calm	.....	.....	0	.....	10	.....	.....	0.433	11.00	.....	Karl Stancel.
Trieste	.....	.....	29.46	748.3	39.2	4.0	77	ENE	.....	.....	1	.....	5	.....	.....	0.063	1.6	.....	Prof. V. Faroffi.
Vienna	.....	.....	29.57	751.1	25.7	— 3.5	86	Calm	.....	.....	0	.....	0	.....	.....	0.524	13.3	.....	I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	29.67	753.6	33.1	0.6	90	N	.....	.....	0	.....	10	.....	.....	0.177	4.50	Light snow.	Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cooperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.19	766.8	40.2	4.6	.....	NW	7	3.1	.....	.....	6	.....	.....	0.060	1.52	*D. clouds	William Boswell.
Ardrossan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Mayes.
Armagh Observatory	.....	.....	30.22	767.6	35.9	2.2	.....	N	2	0.9	.....	.....	.....	.....	.....	.....	.....	.....	S. Call, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	30.09	764.3	40	4.4	.....	N	13	5.8	.....	.....	5	.....	.....	.....	.....	*D clouds	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.18	766.6	38.5	3.6	.....	NNE	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky	J. Dreyer.
Bradford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.08	764.0	80.0	26.7	.....	NE	.....	.....	4	.....	4	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.92	760.0	37.0	2.8	.....	N	.....	.....	3	.....	10	.....	.....	.....	.....	Snowing	H. Todd.
Cardington	.....	.....	29.94	760.5	35.0	1.7	.....	N	.....	.....	3	.....	10	.....	.....	Blank	Blank	Overcast	John McLaren.
Carlisle	.....	.....	30.13	765.3	39.7	4.3	.....	N	.....	.....	2	.....	8	.....	.....	0	0	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	29.87	758.7	37.0	2.8	.....	NNE	.....	.....	1	.....	.....	.....	.....	.....	.....	Snowing	Capt. J. Fellowes, R. E.
Dartmoor	28.53	724.6	30.10	764.5	33.2	0.7	.....	NE	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds	R. E. Power.
Donaghadee	.....	.....	30.13	765.3	41	5.0	.....	NNE	.....	.....	4	.....	0	.....	.....	.....	.....	Blue sky	J. Mac Gowan.
Dover	.....	.....	29.80	756.9	34	1.1	.....	NE	.....	.....	5	.....	9	.....	.....	.....	.....	Snow, hail	J. Costello.
Eccles, (near Manchester)	.....	.....	30.05	763.3	40.8	4.9	.....	E	4.4	2.0	.....	.....	8	.....	.....	.....	.....	*D. clouds	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.03	762.7	40.2	4.7	.....	N	27	12.1	.....	.....	2	.....	.....	.....	.....	*D. clouds	The Staff.
Fort Napier, (Natal)	27.54	699.5	29.89	759.2	73.5	23.1	.....	SE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.95	760.7	81	27.2	.....	W	.....	.....	4	.....	8	.....	.....	.....	.....	*D. clouds	tia.
Galway, Queen's College	.....	.....	30.12	765.0	33	0.6	.....	E	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)	.....	.....	29.86	758.4	60.5	15.8	.....	SW	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.18	766.6	39.0	3.9	.....	WSW	.....	.....	2	.....	6	.....	.....	.....	.....	Fine	Lewis Stuart.
Great Yarmouth	.....	.....	29.86	758.4	35	1.7	.....	NE	.....	.....	6	.....	8	.....	.....	.....	.....	Snowing	G. T. Watson.
Greenwich Royal Obs.	.....	.....	29.89	759.2	37.5	3.1	.....	N	.....	.....	4	.....	10	.....	.....	Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey	.....	.....	29.91	759.7	37	2.8	.....	NNE	.....	.....	4	.....	8	.....	.....	.....	.....	Hailing	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.08	764.0	37.1	2.8	.....	NNE	.....	.....	2	.....	8	.....	.....	Blank	Blank	*D. clouds	L. J. Cressley.
Helston	.....	.....	30.01	762.2	44	6.7	.....	N	.....	.....	4	.....	0	.....	.....	0	0	Blue sky	M. P. Moyle.
Holyhead	.....	.....	30.11	764.8	41	5.0	.....	NNE	.....	.....	4	.....	1	.....	.....	.....	.....	Blue sky	John Tilston.
Kew Observatory	.....	.....	29.90	759.4	37.5	3.1	.....	N	22	9.8	.....	.....	10	.....	.....	.....	.....	Snowing	The Staff.
Kingstown	.....	.....	30.16	766.1	42	5.6	.....	NNW	.....	.....	4	.....	4	.....	.....	.....	.....	*D.clouds	George Mitchell
Leicester Museum	.....	.....	30.01	762.2	37.2	2.9	.....	NE	.....	.....	1	.....	8	.....	.....	.....	.....	*D. clouds	William J. Harrison.
Malta, (Mediterranean)	.....	.....	29.89	759.2	60.8	16.0	.....	SW	.....	.....	1	.....	0	.....	.....	.....	.....	.....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	30.18	766.6	37	2.8	.....	Calm	.....	.....	0	.....	2	.....	.....	.....	.....	¼ clouded	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.36	771.1	71.2	21.8	.....	E	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast	Surg.-Maj. Henry.
Nottingham	.....	.....	30.01	762.2	36.7	2.6	.....	N	.....	.....	5	.....	9k,d	.....	.....	NNE	Blank	Blank	Overcast	E. J. Lowe, F. R. S.
Oscott, St Mary's College	.....	.....	30.01	762.2	37.2	2.9	.....	NNE	.....	.....	3-4	.....	9	.....	.....	.....	.....	Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	29.94	760.5	38	3.3	.....	N	.....	.....	3	.....	9	.....	.....	Blank	Blank	Overcast	J. Lucas.
Plymouth	.....	.....	30.00	762.0	40.5	4.7	.....	N	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds	John Merrifield.
Roche's Point	.....	.....	30.14	765.5	40	4.4	.....	NE	.....	.....	2	.....	2	.....	.....	.....	.....	Fine	W. Kennedy.
Saint Ann's Head	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.87	758.7	39.8	4.3	.....	NE	.....	.....	5	.....	10	.....	.....	.....	.....	Raining	A. P. Amy.
Sandwick Manse (Orkneys)	.....	.....	30.21	767.3	37.8	3.2	.....	NE	2	0.9	.....	.....	4	.....	.....	.....	.....	Fine	Rev. Dr. Clouston
Scarborough	.....	.....	.....	.....	.....	.....	.....	ENE	.....	.....	6	.....	10	.....	.....	.....	.....	Hailing	F. Shaw.
Scutari Cemetery (Turkey)	.....	.....	29.92	760.0	56.2	13.4	.....	SSE	.....	.....	1	.....	1	.....	.....	.....	.....	Blue sky	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.03	762.7	39.0	3.9	.....	NE	.....	.....	3	.....	7	.....	.....	0.082	2.08	Overcast	W. F. Cooper.
Silloth Rectory	.....	.....	30.14	765.5	41.7	5.4	77	NE	.....	.....	1	.....	0	.....	.....	0	0	Blue sky	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.09	764.3	37.2	2.9	.....	N	.....	.....	1	.....	6	.....	.....	Blank	Blank	.....	The Staff.
Stornoway, Lewis C. (Hebr.)	.....	.....	30.17	766.3	38	3.3	.....	SW	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky	John Smith.
Stratfield Turgiss	.....	.....	29.93	760.2	37.7	3.2	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	30.18	766.6	44	6.7	.....	Calm	.....	.....	0	.....	7	.....	.....	.....	.....	*D. clouds	John Trotter.
Truro, Royal Institution	.....	.....	30.03	762.7	43	6.1	.....	N	.....	.....	4	.....	4	.....	.....	.....	.....	*D. clouds	W. Newcombe.
Valencia Observatory	.....	.....	30.15	765.8	42.3	5.7	.....	ESE	8	3.6	.....	.....	2	.....	.....	.....	.....	*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	30.00	762.0	79.2	26.2	46	S	23	10.3	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	45	7.2	.....	NE	.....	.....	3	.....	0	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	30.19	766.8	41.0	5.0	.....	NE	.....	.....	2	.....	5k	.....	.....	0	0	Fine, cloudy	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	30.17	766.3	42	5.6	.....	S	.....	.....	3	0	0	.....	.....	0	0	.....	J. Youngclause.
North Unst (Shetland Is.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. *Except in a few cases and the sub-series*, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at *Aberdeen at 10 a. m.*, local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cooperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.89	759.3	32.0	0.0	83	ENE	.....	.....	6	.....	10	.....	.....	.....	.....	.....	
Fanöe	.....	.....	29.95	760.7	31.8	— 0.1	90	ENE	.....	.....	6	.....	10	.....	.....	.....	.....	.....	
Godthaab, (Greenland)	.....	.....	28.49	723.7	17.6	— 8.0	80	WNW	.....	.....	2	.....	2	.....	.....	.....	.....	Foggy	
Stykkisholm, (Iceland)	.....	.....	29.52	749.8	37.2	2.9	96	SE	.....	.....	6	.....	10	.....	.....	.....	.....	Raining	
Thorshavn, (Faröe)	.....	.....	30.08	764.1	43.2	6.2	91	SW	.....	.....	4	.....	7	.....	.....	.....	.....	.....	
Vestervig	.....	.....	30.03	762.8	31.3	— 0.4	89	NE	.....	.....	6	.....	10	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 1—10.	Clouds. Amount. Upper 1—10.	Clouds. Amount. Lower 1—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather	Observer.
Alençon	.....	.....	29.81	757.2	42.8	6	78	NE	.....	.....	1	.....	5n,k	.....	NE	0.063	1.6	Cloudy	Normal School.
Amiens	.....	.....	29.75	755.6	38.8	3.8	80	SW	.....	.....	6	.....	10	.....	.....	0.051	1.3	Covered	Normal School.
Avignon	.....	.....	29.70	754.3	45.9	7.7	34	NNW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Bar-sur-Seine	.....	.....	29.70	754.4	34.7	1.5	74	N	.....	.....	1	.....	8	.....	.....	0.047	1.2	Very cloudy	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.78	756.4	37.2	2.9	64	NE	17.7	7.9	.....	.....	.....	.....	N	0.094	2.4	.....	Beaumette Observatory
Beauvais	.....	.....	29.78	756.3	34.9	1.6	76	NNE	.....	.....	2	.....	8	.....	NNE	0.098	2.50	Very cloudy	Normal School.
Besançon	.....	.....	29.71	754.6	33.4	0.8	.....	NE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Bourg en Bresse	.....	.....	29.74	755.2	34.9	1.6	87	W	.....	.....	1	.....	2kn	.....	S	.....	.....	Slightly cl'dy	Normal School.
Bourges	.....	.....	29.70	754.3	37.6	3.1	78	WNW	.....	.....	2	.....	10	.....	NW	0.16	4.	Covered	Normal School.
Brest	.....	.....	29.89	759.2	39.7	4.3	70	NE	.....	.....	3	.....	10	.....	NE	0.030	0.75	Raining	Naval Observatory.
Caen	.....	.....	29.82	757.4	33.8	1	.....	N	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School
Chartres	.....	.....	29.73	755.1	32.5	0.3	.....	N	.....	.....	3	.....	10	.....	.....	0	0	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.77	756.1	33.1	0.6	86	W	.....	.....	3	.....	10	.....	.....	0.087	2.2	Covered	Puy de Dome, Obs.
Commercy	.....	.....	29.70	754.4	31.5	— 0.3	93	NW	.....	.....	4	.....	10n	.....	NW	0	0	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.07	763.8	36.7	2.6	55	NW	.....	.....	6	.....	8	.....	NW	0	0	.....	.....
Grenoble	.....	.....	29.76	755.8	31.6	— 0.2	86	NW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Le Mans	.....	.....	30.04	762.4	34.3	1.3	81	N	.....	.....	4	.....	2	.....	N	0.131	3.4	Slightly cl'dy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	29.71	754.7	36.0	2.2	85	SW	.....	.....	1	.....	5	.....	W	0.425	10.8	Cloudy	Normal School.
Mâcon	.....	.....	29.67	753.5	35.2	1.8	87	NW	.....	.....	2	.....	5	.....	E	0.020	0.5	Cloudy	Normal School.
Mirecourt	.....	.....	29.65	753.1	33.8	1	88	W	.....	.....	2	.....	10	.....	SE	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	29.73	755.1	43.5	6.4	27	NW	.....	.....	2	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Orleans	.....	.....	29.72	754.8	34.2	1.2	85	N	.....	.....	3	.....	8	.....	N	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	29.74	755.5	33.1	0.6	84	N	.....	.....	2	.....	.....	.....	.....	0.049	1.24	Foggy	National Observatory
Parthenay	.....	.....	29.87	758.8	38.5	3.6	97	NE	.....	.....	2	.....	5	.....	N	0	0	Cloudy	Normal School.
Privas	.....	.....	30.15	765.7	34.0	1.1	.....	SE	.....	.....	4	.....	10	.....	.....	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	29.83	757.7	39.9	4.4	90	N	.....	.....	4	.....	5	.....	SE	0	0	Cloudy	Normal School.
Rochefort, Observatory	.....	.....	29.82	757.5	44.6	7.0	71	NW	.....	.....	4	.....	8	.....	SE	0	0	¾ covered	Naval Observatory.
Rouen	.....	.....	29.80	756.8	38.8	3.8	65	NW	.....	.....	2	.....	0	.....	.....	0.126	3.2	Clear	Normal School.
Saint Lo	.....	.....	29.87	758.7	37.4	3	90	N	.....	.....	2	.....	10	.....	N	0.04	1.	.....	Normal School
Tarbes	.....	.....	29.93	760.1	50.0	10	49	W	.....	.....	1	.....	10	.....	E	0	0	Covered	Normal School.
Toulouse	.....	.....	29.96	761.0	40.6	4.8	73	W	.....	.....	2	.....	0	.....	.....	.....	.....	Clear	Normal School
Villefranche	.....	.....	29.78	756.5	29.3	— 1.5	93	SSE	.....	.....	2	.....	10	.....	.....	0.031	0.80	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	30.01	762.2	75.6	24.2	75	NE	.....	.....	3	.....	5k	.....	.....	0.43	11.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	29.71	754.5	42.4	5.8	70	NW	.....	.....	5	.....	5	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.45	621.1	29.88	758.9	24.8	— 4.0	57	SW	13.0	5.83	.....	.....	0	.....	.....	0.213	5.4	.....	—. Falguere
Montsouris, Paris	.....	.....	29.73	755.1	32.9	0.5	89	N	.....	.....	3	.....	10	.....	N	0.106	2.7	.....	Montsouris Observ'tory
Perpignan	.....	.....	29.82	757.4	41.9	5.5	45	NW	22.4	10.00	.....	.....	3	.....	NW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H.P†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.73	755.2	33.4	0.8	83	NNW	.....	.....	2	.....	10	.....	.....	0.043	1.1	Snowing	E. Renou.
Toulouse	.....	.....	29.85	758.2	39.6	4.2	58	WNW	.....	.....	3	.....	8	.....	.....	0.008	0.2	.....	Toulouse Observatory
Tours	.....	.....	29.76	756.0	35.6	2.0	84	N	.....	.....	3	.....	10	.....	NNE	0.063	1.6	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.72	754.9	34.2	1.2	85	NE	.....	.....	3	.....	10	.....	.....	0.009	0.22	Snow & hail.	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.20	767.0	32.9	0.5	92	NW	4.0	1.8	.....	0	0	.....	.....	{ 0 / 0	{ 0 / 0	Vapor	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,06[illegible] ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Summit inaccessible; weather snowy; snow-fall on the Plantade 560 millimeters, or 22.0 inches.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.45	748.0	26.2	— 3.2	98	NW	.....	.....	4	.....	10	.....	.....	0.315	8.0	Snowing	Prof. T. Hoh.
Berlin	.....	.....	29.56	750.8	32.9	0.5	90	E	.....	.....	4	.....	10	.....	.....	0.302	9.2	Snowing	Prof. Arndt.
Breslau	.....	.....	29.56	750.8	26.8	— 2.9	100	ESE	.....	.....	3	.....	10	.....	.....	0.701	17.8	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	29.54	750.4	31.1	— 0.5	95	S	.....	.....	3	.....	10	.....	.....	0	0	Snowing	A. Senz.
Cassel	.....	.....	29.51	749.5	31.1	— 0.5	87	N	.....	.....	2	.....	10	.....	.....	0.130	3.3	Snowing	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.63	752.6	32.9	0.5	98	N	.....	.....	1	.....	10	.....	.....	0.083	2.1	Snowing	Physical Society
Friedrichshafen	.....	.....	29.62	752.3	31.5	— 0.3	59	W	.....	.....	.....	.....	7	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	29.69	754.1	32.5	0.2	87	NE	.....	.....	8	.....	10	.....	.....	0.087	2.2	Snowing	Deutsche Seewarte.
Kiel	.....	.....	29.83	757.6	33.8	1.0	78	NE	.....	.....	5	.....	10	.....	.....	0.067	1.7	Snowing	Prof. G. Karsten.
Königsberg	.....	.....	29.91	759.6	30.6	— 0.8	81	NE	.....	.....	5	.....	9	.....	.....	0	0	.....	Prof. E. Luther.
Koslin	.....	.....	29.74	755.4	41.0	5.0	.....	ENE	.....	.....	4	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	29.52	749.7	26.4	— 3.1	98	NE	.....	.....	1	.....	10	.....	.....	0	0	Snowing	Prof. Bruhns.
Münster	.....	.....	29.63	752.7	37.4	3.0	78	NW	.....	.....	2	.....	10	.....	.....	0.114	2.9	Snowing	Prof. E. Heis.
Posen	.....	.....	29.63	752.5	33.4	0.8	85	E	.....	.....	8	.....	10	.....	.....	0.106	2.7	Snowing	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.63	752.6	35.8	2.1	85	Calm	.....	.....	0	.....	10	.....	.....	0.390	9.9	.....	Dr. Schur.
Stuttgart	.....	.....	29.58	751.4	34.3	1.3	73	W	.....	.....	.....	.....	9	.....	.....	0.024	0.6	.....	Prof. Schoder.
Thorn	.....	.....	29.69	754.2	32.2	0.1	93	ESE	.....	.....	5	.....	10	.....	.....	0	0	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	29.58	751.4	35.2	1.8	71	NW	.....	.....	4	.....	10	.....	.....	0.039	1.0	Misty	Prof. Fiesch.
Wustrow, Naval School	.....	.....	29.79	756.6	33.1	0.6	95	NE	.....	.....	6	.....	10	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.90	759.5	58.1	14.5	.....	S	.....	.....	.....	.....	.....	.....	.....	.....	.....	Covered	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.47	748.6	35.4	1.9	71	E	4.3	1.9			10			0.055	1.4		
Padua			29.47	748.4	35.4	1.9	89	N	9.4	4.2			9	N		0	0		
Vicenza			29.49	749.1	37.8	3.2	83	E	0	0			10			0	0		
Verona																			
Bergamo			29.46	748.2	37.8	3.2	69	SE			4		2			0	0		
Domodossola																			
Milan			29.48	748.9	33.6	0.9	88	NE			1		0			0	0		
Pavia																			
Moncalieri			29.55	750.6	35.8	2.1	56	SSE	1.3	0.6			1			0	0		
Mondovi			29.54	750.4	35.6	2.0	50	NE			2		0			0	0		
Porto Maurizio																			
Genoa			29.49	749.1	49.1	9.5	8	NW	3.1	1.4			2	N		0	0		
Piacenza			29.50	749.3	32.7	0.4	79	SE	0	0			6	W		0	0		
Bologna			30.50	749.3	39.7	4.3	37	NW			6		3	E		0	0		
Florence			29.54	750.2	43.3	6.3	59	NW			2		8			0	0		
Leghorn			29.48	748.7	46.6	8.1	51	SSE	6.3	2.8			9			0	0		
Siena			29.50	749.3	42.4	5.8	68	WSW	0	0			7	W		0.091	2.3	Snowing	
Urbino																			
Pesaro																			
Ancona			29.49	749.1	42.1	5.6	70	SSE			4		10			0	0		
Grosseto			29.53	750.0	33.6	0.9	100	N			2		8	S		0.043	1.1	Sleeting	t.....
Rome			29.57	751.0	46.0	7.8	57	SSW	11.2	5.0			4	W		Blank	Blank		
Naples, O. U			29.62	752.4	46.6	8.1	65	WSW			6		9	SSW		0.240	6.1		
Lecce			29.69	754.1	57.2	14.0	55	SSW	18.6	8.3			8	SW		0	0		
Cosenza			29.71	754.7	53.2	11.8	78	SW			8		10			0.024	0.6		
Riposto, (Sicily)			29.73	755.2	67.7	14.3	72	N			2		7	S		0	0		
Palermo			29.68	753.8	55.8	13.2	53	WSW	16.8	7.5			9			0	0		
Caltanissetta			29.80	756.8	47.7	8.7	89	SW			6		10	NE		0.110	2.8		
Sub-Series.																			
Naples, S. R			29.63	752.6	45.2	7.6	79	SW	17.4	7.8			..k	SW		0.268	6.8	Light rain	Prof. F. Brioschi.

Note. The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.76	755.8	35.6	2.0		NE			5								
Groningen			29.68	753.9	32.9	0.5		NNE			5								
Helder			29.76	755.9	33.6	0.9		NNE			5								
Utrecht			29.66	753.4	32.4	0.2	96	NNE			5		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.17	766.3	32.7	0.4	74	Calm	0	0			0			0	0		
Brönö			30.23	767.7	31.3	— 0.4		Calm	0	0			1			0	0		
Christiania			30.26	768.5	32.2	0.1	62	N	6.0	2.7			7			0	0		
Tromsö			29.86	758.5	33.6	0.9	61	SSW	20	9			10			0.146	3.7		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.09	764.3	52.5	11.4	85	Calm	0	0	.....	.....	6	.....	.....	0.131	3.4	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.91	759.8	52 5	11.4	40	N	7.8	3.50	.....	.....	1	.....	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	29.97	761.3	62.6	17.0	62	NE	4.2	1.89	.....	.....	3	.....	.....	0.118	3.0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	29.96	760.9	54.5	12.5	56	NNE	16.1	7.2	.....	.....	1	N	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.71	754.7	30.9	— 0.6	92	E	27	12	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	29.97	761.2	28.9	— 1.7	87	SE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	30.21	767.2	25.5	— 3.6	91	ENE	7	3	.....	.....	9	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.22	767.6	20.1	— 6.6	95	N	2	1	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	30.28	769.1	11.7	—11.3	97	NW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	29.97	761.2	31.3	— 0.4	94	ESE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.04	763.0	37.8	3.2	90	SE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Kurdukof.
Kertch	.....	.....	30.09	764.3	50.2	10.1	73	Calm	0	0	.....	.....	2	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.23	767.8	24.3	— 4.3	81	SSW	9	4	.....	.....	6	.....	.....	.....	.....	.....	Meteorological Obs.
Logan	.....	.....	30.09	764.3	16.9	— 8.4	94	SE	9	4	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	30.11	764.9	24.8	— 4.0	91	NNW	22	10	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.68	728.4	30.12	765.1	44.8	7.1	60	N	4	2	.....	.....	2	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.35	770.9	23.2	— 4.9	76	NNE	9	4	.....	.....	2	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.21	767.3	18.9	— 7.3	95	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	30.44	773.1	18.5	— 7.5	83	W	2	1	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.98	736.1	30.04	763.0	20.5	— 6.4	90	WSW	20	9	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.28	769.2	29.7	— 1.3	59	NE	9	4	.....	.....	1	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.41	772.5	0.1	—17.7	46	N	4	2	.....	.....	2	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.70	729.0	30.49	774.5	30.0	2.2	62	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	29.52	775.1	—17.9	—27.7	75	Calm	0	0	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.32	770.0	—19.5	—28.6	81	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.07	762.8	27.0	— 2.8	74	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	29.84	758.0	34.2	1.2	87	SE	2	1	.....	.....	10	.....	.....	Blank	Blank	.....	.....
Nikolaievsk, on the Amoor	.....	.....	.....	.....	—10.1	—28.4	100	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 304.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.0? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.91	759.8	45.1	7.3	53	NE	3.0	1.33	.....	0	4	.....	.....	0	0	Cloudy.....	Royal Observatory.
San Fernando	.....	.....	29.90	759.5	55.8	13.2	84	NW	6.5	2.9	.....	0	5	.....	NW	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.30	769.6	6.4	—14.2	92	SE	.....	.....	2	.....	10	.....	.....	0	0	Foggy.....	
Umea	.....	.....	30.32	770.1	10.4	—12.0	78	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	30.34	770.5	13.3	—10.4	93	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Stockholm	.....	.....	30.10	766.1	30.2	— 1.0	88	NNE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	30.15	765.8	29.5	— 1.4	88	E	.....	.....	6	.....	5	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.28	769.2	26.4	— 3.1	98	N	7.8	3.5	.....	.....	10	.....	NE	0	0	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.22	716.8	29.72	754.9	30.9	— 0.6	93	S	.....	.....	1	.....	9	.....	.....	0.150	3.8	Snowing.....	The Observatory.
Zurich	27.97	710.4	29.69	754.2	29.7	— 1.3	86	W	.....	.....	1	.....	8	.....	.....	0.031	0.8	Snowing.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —10.0 mm.; Thermometer, —0.3 cent.; Relative Humidity, +19 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds, the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.																			
Constantinople	.....	.....	29.95	760.6	52.5	11.4	53	S	9	4.0	.....	.....	3	.....	WSW	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.24	768.0	57.2	14.0	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.80	757.0	58.8	14.9	.....	NE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.62	752.4	58.3	14.6	.....	S	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.96	761.0	48.2	9.0	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.13	765.4	67.0	13.9	66	SW	.....	.....	1	.....	10n	.....	SW	0.50	12.7	Rainy.....	Prof. C. V. A. Van Dyck.

NOTE.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.																			
Bathurst, N. B.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.49	774.4	17	— 8.3	.....	S	8	3.6	.....	2c	0	W	.....	0	0	Fair.....	W. R. Bigg.
*Chatham, N. B.	.....	.....	30.61	777.5	2	—16.7	85	SW	12	5.4	.....	8k	0	SW	.....	0	0	Fair.....	G. A. Blair.
Charlottetown, P. E. Island.	.....	.....	30.73	780.5	0	—17.8	100	S	15	6.7	.....	.....	10s	.....	.....	0	0	Cloudy.....	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.48	774.2	— 6.2	—21.2	89	NE	.....	.....	1	1c	.....	.....	.....	0	0	Bright.....	James Smith, M. A.
Dalhousie, N. B.	.....	.....	.....	.....	.....	.....	.....	NW	.....	.....	2	.....	10n	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.98	761.5	37.1	2.8	100	Calm	0	0	.....	8cs	.....	.....	.....	0	0	Cloudy.....	W. H. Bevis.
Fredericton, N. B.	.....	.....	30.68	779.3	2.1	—16.6	83	Calm	0	0	.....	.....	5ks	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.17	766.3	— 6	—21.1	96	Calm	0	0	.....	Haze	..ks	.....	.....	0.100	2.54	Fair.....	James Stewart.
Goderich, Ontario	.....	.....	30.21	767.3	30.6	— 0.8	95	SW	.....	.....	2	6k	4s	SW	.....	0	0	Pleasant.....	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.30	769.6	25.2	— 3.8	.....	SE	.....	.....	1	4cs	.....	N	.....	0	0	Clear.....	James Grant.
*Halifax, N. S.	.....	.....	30.83	783.1	9	—12.8	91	SW	14	6.3	.....	.....	10n	.....	S	Inap.	Inap.	Light snow.	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.51	774.9	20	— 6.7	95	S	20	8.9	.....	8c	0	.....	.....	0	0	Fair.....	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.05	763.3	29.8	— 1.2	.....	S	4	1.8	.....	.....	9s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.49	774.4	10	—12.2	79	SE	5	2.2	.....	0	0	.....	.....	0	0	Clear.....	C. H. McLeod, C.
*Ottawa, Ontario	.....	.....	30.43	772.9	— 9	—22.8	87	N	6	2.7	.....	5cs	0	N	.....	0	0	Fair.....	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.23	767.8	21	— 6.1	78	S	8	3.6	.....	0	2ks	.....	S	0	0	Fair.....	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.36	771.1	28	— 2.2	77	S	14	6.3	.....	10cs	0	SW	.....	0	0	Fair.....	H. Morgan.
Port Hastings, N. S.	.....	.....	30.83	783.1	6.0	—14.4	.....	NW	7	3.1	.....	.....	.....	.....	.....	0	0	Fine.....	Peter Grant.
*Port Stanley, Ontario	.....	.....	30.36	771.1	23	— 5.0	90	SE	4	1.8	.....	2ck	0	S	.....	0	0	Clear.....	M. Payne.
*Quebec, Quebec	.....	.....	30.53	775.4	0	—17.8	85	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	Capt. Ash, R. N.
St. John, N. B.	.....	.....	30.69	779.5	20.0	— 6.7	78	SW	17	7.6	.....	.....	10n	.....	.....	0.050	1.27	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.15	765.8	33	0.6	89	SW	13	5.8	.....	.....	8ks	.....	.....	0	0	Cloudy.....	K. Stewart.
Stayner, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. J. Cole.
Stratford, Ontario	.....	.....	30.28	769.1	28.7	— 1.8	85	SW	15	6.7	.....	.....	10s	.....	.....	0	0	Cloudy.....	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	30.83	783.1	— 3	—19.4	86	SW	16	7.2	.....	8cs	0	.....	.....	0	0	Fair.....	T. C. Hill.
*Toronto, Ontario	.....	.....	30.34	770.6	31	— 0.6	87	S	18	8.0	.....	2cs	8s	W	W	0	0	Cloudy.....	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —b	Clouds. Amount. Up'r	Clouds. Amount. Low'r	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observa.
Albany, N. Y.	.....	.....	30.68	779.3	22	— 5.6	85	S	0	2.7	.....	5k	0	S	.....	0	0	Fair.	
Alpena, Mich.	.....	.....	30.05	765.3	25	— 3.9	75	S	12	5.4	.....	.....	10s	.....	S	0	0	Cloudy.	
Atlantic City, N. J.	.....	.....	30.74	780.8	36	2.2	90	SE	12	5.4	.....	2cs	2s	W	SW	0	0	Fair.	
Augusta, Ga.	.....	.....	30.58	776.7	38	3.3	95	NE	2	0.9	.....	.....	10n	.....	N	0.17	4.3	Light rain.	
Baltimore, Md.	.....	.....	30.77	781.5	24	— 4.4	74	E	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Barnegat, N. J.	.....	.....	30.75	781.0	35	1.7	80	SE	7	3.1	.....	8k	0	W	.....	0	0	Cloudy.	
Benton, Montana	.....	.....	30.40	772.5	0	—17.8	100	N	2	0.9	.....	10c	0	.....	.....	0	0	Cloudy.	
Bismarck, Dakota	27.30	693.4	30.40	772.5	0	—17.8	69	NW	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Boston, Mass.	28.28	718.3	30.11	764.8	0	—17.8	69	NW	2	0.9	.....	.....	10s	.....	.....	0	6	Cloudy.	
Breckenridge, Minn.	.....	.....	30.80	782.3	16	— 8.9	83	S	9	4.0	.....	5cs	Haze	S	.....	0	0	Fair.	
Buffalo, N. Y.	.....	.....	30.12	765.0	— 7	—21.7	80	NW	18	8.0	.....	0	0	.....	.....	0	0	Clear.	
Burlington, Vt.	.....	.....	30.36	771.1	31	— 0.6	89	SW	12	5.4	.....	1c	5s	.....	.....	0	0	Fair.	
Cairo, Ill.	.....	.....	30.59	777.0	18	— 7.8	68	S	19	8.5	.....	0	2s	.....	.....	0	0	Fair.	
Cape Hatteras, N. C.	.....	.....	30.33	770.4	42	5.6	74	S	9	4.0	.....	5ck	2s	S	S	0	0	Fair.	
Cape Henry, Va.	.....	.....	30.56	776.2	54	12.2	79	SE	7	3.1	.....	0	5ks	.....	SW	0.02	0.5	Fair.	
Cape May, N. J.	.....	.....	30.69	779.5	45	7.2	88	Calm	0	0	.....	Haze	Haze	.....	.....	0	0	Hazy.	
Charleston, S. C.	.....	.....	30.73	780.5	39	3.9	91	SE	5	2.2	.....	5k	0	W	.....	0	0	Fair.	
Cheyenne, Wyoming	24.00	609.6	30.53	775.4	46	7.8	85	N	11	4.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Chicago, Ill.	.....	.....	29.94	760.5	17	— 8.3	67	W	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Cincinnati, Ohio.	.....	.....	30.07	763.8	32	0.0	69	S	18	8.0	.....	5cs	0	SW	.....	0	0	Fair.	
Cleveland, Ohio.	.....	.....	30.34	770.6	33	0.2	70	S	11	4.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Colorado Springs, Col.	24.06	611.1	30.35	770.9	33.6	0.9	49	SE	12	5.4	.....	.....	10s	.....	SW	0	0	Threatening	
Corsicana, Tex.	.....	.....	29.93	760.2	20	— 6.7	56	N	4	1.8	.....	2cs	0	.....	.....	0	0	Clear.	
Davenport, Iowa.	.....	.....	30.28	769.1	46	7.8	76	SE	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.	
Denison, Tex.	.....	.....	30.00	762.0	33	0.6	69	SW	20	8.9	.....	5cs	0	W	.....	0	0	Fair.	
Denver, Col.	.....	.....	30.16	766.1	47	8.3	85	S	12	5.4	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.	
Detroit, Mich.	24.76	628.9	29.98	761.5	22	— 5.6	45	S	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Dodge City, Kan.	.....	.....	30.20	767.6	31	— 0.6	68	SW	10	4.5	.....	5cs	5s	SW	SW	0	0	Cloudy.	
Dubuque, Iowa.	27.50	698.5	29.89	759.2	30	— 1.1	68	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Duluth, Minn.	.....	.....	29.97	761.2	31	— 0.6	79	S	8	3.6	.....	0	5s	.....	.....	0	0	Fair.	
Eastport, Me.	.....	.....	29.90	759.4	26	— 3.3	76	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Erie, Pa.	.....	.....	30.08	779.3	25	— 3.9	88	SW	19	8.5	.....	0	5s	.....	SW	0	0	Fair.	
Escanaba, Mich.	.....	.....	30.36	771.1	30	— 1.1	84	S	24	10.7	.....	7ck	Haze	SW	.....	0	0	Fair.	
Fort Gibson, Indian Terr.	.....	.....	29.90	759.4	21	— 6.1	87	S	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Fort Sill, Indian T.	28.93	734.8	30.14	765.5	42	5.6	74	SE	12	5.4	.....	0	5ks	.....	S	0	0	Fair.	
Fort Sully, Dakota.	28.20	716.6	30.03	764.3	34	1.1	61	SW	8	3.6	.....	0	2s	.....	SW	0	0	Clear.	
Galveston, Tex.	.....	.....	30.08	764.0	13	—10.6	81	E	6	2.7	.....	.....	10s	.....	E	Inap.	Inap.	Cloudy.	
Grand Haven, Mich.	.....	.....	30.29	769.4	58	14.4	94	E	5	2.2	.....	2k	Fog	SW	.....	0	0	Fair.	
Indianapolis, Ind.	.....	.....	30.07	763.8	39	3.9	72	S	10	8.5	.....	2cs	5s	SW	SW	0	0	Cloudy.	
Indianola, Tex.	.....	.....	30.24	768.1	34	1.1	69	SE	10	4.5	.....	0	5s	.....	SW	0	0	Fair.	
Jacksonville, Fla.	.....	.....	30.33	769.6	52	11.1	97	NW	6	2.7	.....	2ck	2s	SW	.....	0.01	1.0	Fair.	
Keokuk, Iowa.	.....	.....	30.42	772.7	57	13.9	87	NW	4	1.8	.....	.....	10s	.....	.....	1.51	38.4	Cloudy.	
Key West, Fla.	.....	.....	30.01	762.2	35	1.7	63	S	12	5.4	.....	5c	0	S	.....	0	0	Fair.	
Kittyhawk, N. C.	.....	.....	30.31	769.9	71.0	23.9	72	E	13	5.8	.....	5ck	2ks	S	E	0	0	Fair.	
Knoxville, Tenn.	.....	.....	30.65	778.5	47	8.3	92	SE	12	5.4	.....	5k	Haze	.....	.....	0	0	Fair.	
La Crosse, Wis.	.....	.....	30.53	775.4	34	0.6	89	SW	10	4.5	.....	.....	10s	.....	SW	0	0	Cloudy.	
Leavenworth, Kan.	.....	.....	29.87	758.7	33	0.6	69	S	13	4.5	.....	Haze	Haze	.....	.....	Inap.	Inap.	Hazy.	
Lexington, [illegible]	.....	.....	29.91	759.7	35	1.7	70	S	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Long Branch, N. J.	29.26	743.2	30.43	772.9	34	1.1	79	SE	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Louisville, Ky.	.....	.....	30.76	781.3	28	— 2.2	76	Calm	0	0	.....	0	8ks	.....	SW	0	0	Cloudy.	
Lynchburg, Va.	.....	.....	30.33	770.9	37	2.8	81	S	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy.	
Malone, N. Y.	.....	.....	30.74	780.8	29	— 1.7	80	NW	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Marquette, Mich.	.....	.....	30.41	772.4	28	— 2.2	67	S	14	6.3	.....	0	0	.....	.....	0	0	Clear.	
Memphis, Tenn.	.....	.....	29.83	757.7	29	— 1.7	89	SW	20	8.9	.....	.....	8s	.....	S	0	0	Cloudy.	
Milwaukee, Wis.	.....	.....	30.37	771.4	42	5.6	83	SE	6	2.7	.....	.....	10ks	.....	SW	0	0	Cloudy.	
Mobile, Ala.	.....	.....	30.02	762.5	31	— 0.6	79	SW	12	5.4	.....	8c	0	.....	.....	0	0	Fair.	
Montgomery, Ala.	.....	.....	30.43	772.9	47	8.3	92	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Morgantown, W. Va.	.....	.....	30.52	775.2	43	6.1	92	E	8	3.6	.....	.....	10s	.....	E	0.01	0.3	Cloudy.	
Mt. Washington, N. H.	23.98	609.1	30.48	774.2	34	1.1	79	SW	1	0.4	.....	.....	10s	.....	SW	0	0	Cloudy.	
Nashville, Tenn.	.....	.....	30.34	770.6	15	— 9.4	82	NW	34	15.2	.....	0	0	.....	.....	0	0	Clear.	
New Haven, Conn.	.....	.....	30.40	772.1	40	4.4	82	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
New London, Conn.	.....	.....	30.77	781.5	18	— 7.8	67	N	4	1.8	.....	0	Fog	.....	.....	0	0	Clear.	
New Orleans, La.	.....	.....	30.81	782.6	17	— 8.3	62	N	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Newport, R. I.	.....	.....	30.33	771.1	52	11.1	93	E	12	5.4	.....	.....	Fog	.....	.....	0	0	Foggy	
New York, N. Y.	.....	.....	30.82	782.8	24	— 5.0	73	Calm	0	0	.....	0	5ks	.....	SW	0	0	Fair.	
Norfolk, Va.	.....	.....	30.79	782.1	20	— 6.7	68	NW	4	1.8	.....	0	Fog	.....	.....	0	0	Clear.	
North Platte, Neb.	.....	.....	30.70	779.8	39	3.9	91	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Omaha, Neb.	27.04	686.8	29.71	754.6	27	— 2.8	53	W	6	2.7	.....	Haze	8s	.....	W	0	0	Cloudy.	
Oswego, N. Y.	28.81	731.8	29.91	759.7	30	— 1.1	78	NW	10	4.5	.....	2cs	0	.....	.....	0	0	Clear.	
Peck's Beach, N. J.	.....	.....	30.18	774.2	24	— 4.4	69	SE	16	7.2	.....	Haze	0	NW	.....	0	0	Cloudy.	
Pembina, Dakota.	.....	.....	30.76	781.3	35	1.7	80	E	12	5.4	.....	0	8ks	.....	W	0	0	Cloudy.	
Philadelphia, Penn.	.....	.....	30.24	768.1	—16	—26.7	100	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Pike's Peak, Colorado.	17.51	444.7	30.77	781.5	18	— 7.8	84	NE	9	4.0	.....	10k	Sm'e	SW	.....	0	0	Cloudy.	
Pittsburgh, Penn.	.....	.....	29.72	754.9	— 1	—18.3	85	SW	44	19.7	.....	10s	0	.....	.....	0	0	Clear.	
Port Huron, Mich.	.....	.....	30.54	775.7	25	— 3.9	88	E	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Portland, Me.	.....	.....	30.22	767.6	32	0.0	90	S	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.	
Portland, Oregon.	.....	.....	30.77	781.5	12	—11.1	80	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Punta Rassa, Fla.	.....	.....	30.15	765.8	40	4.4	91	S	5	2.2	.....	.....	10s	.....	.....	0.12	3.0	Cloudy.	
Rochester, N. Y.	.....	.....	30.36	771.1	67.5	19.7	90	NE	7	3.1	.....	Haze	Sm'e	E	NE	0	0	Hazy.	
Salt Lake City, Utah	25.68	652.3	30.42	772.7	27	— 2.8	88	S	12	5.4	.....	5c	2s	W	S	0	0	Fair.	
Sandy Hook, N. J.	.....	.....	30.01	762.2	29	— 1.7	59	E	4	1.8	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.	
San Diego, Cal.	.....	.....	30.77	781.5	26	— 3.3	64	NE	.....	.....	.....	8ck	0	W	.....	0	0	Cloudy.	
San Francisco, Cal.	.....	.....	30.10	764.5	52	11.1	79	S	8	3.6	.....	.....	10s	.....	S	0	0	Cloudy.	
Santa Fe, N. M.	.....	.....	30.13	765.3	46	7.8	84	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Savannah, Ga.	23.24	590.8	29.85	758.9	25	— 3.9	38	E	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Shreveport, La.	.....	.....	30.51	774.9	49	9.4	93	NE	5	2.2	.....	.....	10n	.....	NE	0.02	0.5	Light rain.	
Smithville, N. C.	.....	.....	30.38	771.6	53	6.1	79	SE	2	0.9	.....	10k	0	SW	.....	0	0	Cloudy.	
Springfield, Mass.	.....	.....	30.60	777.2	42	5.6	91	N	11	4.9	.....	.....	10ks	.....	N	0	0	Cloudy.	
St. Louis, Mo.	.....	.....	30.79	782.1	6	—14.4	76	Calm	0	0	.....	1ck	2s	SW	.....	0	0	Fair.	
St. Marks, Fla.	.....	.....	30.15	765.8	40	4.4	63	S	16	7.2	.....	0	5s	.....	.....	0	0	Fair.	
St. Paul, Minn.	.....	.....	30.45	773.4	49	9.4	85	N	8	3.6	.....	.....	10s	.....	N	0	0	Cloudy.	
St. Paul's Island, Alaska.	.....	.....	29.78	756.4	26	— 3.3	82	SW	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy.	
Swan Beach, N. J.	.....	.....	29.95	760.7	22	— 5.6	86	E	35	15.6	.....	.....	10k	.....	.....	Inap.	Inap.	.....	
Thatcher's Island, Mass.	.....	.....	30.67	779.0	22	— 5.6	85	NE	1	0.4	.....	2cs	5s	.....	SW	0	0	Cloudy.	
Toledo, Ohio.	.....	.....	30.82	782.8	20	— 6.7	70	W	15	6.7	.....	0	2s	.....	S	0	0	Clear.	
Tucson, Arizona.	.....	.....	30.22	767.6	35	1.7	61	S	10	4.5	.....	.....	10ks	.....	S	0	0	Cloudy.	
Tybee Island, Ga.	27.05	702.3	30.24	768.1	41	5.0	.....	SE	.....	.....	.....	0	0	.....	.....	0	0	Clear.	
Vicksburg, Miss.	.....	.....	30.49	774.4	49	9.4	93	N	10	4.5	.....	.....	10n	.....	N	0.05	1.3	Light rain.	
	.....	.....	30.43	772.9	46	7.8	85	SE	4	1.8	.....	8ck	2ks	SW	.....	0	0	Cloudy.	

UNITED STATES SERIES.—CONTINUED.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From -	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From -	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.14	613.1	29.62	752.3	20	— 6.7	55	SW	12	5.4	.....	8ck	0	N	.....	0	0	Cloudy.....	
Washington, D. C	.....	.....	30.77	781.5	22	— 5.6	79	N	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Wilmington, N. C	.....	.....	30.62	777.7	40	4.4	83	N	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Wood's Holl, Mass	.....	.....	30.84	783.3	26	— 3.3	64	N	5	2.2	.....	0	8s	.....	S	0	0	Fair.....	
Wytheville, Va	28.18	715.8	30.52	775.2	26	— 3.3	88	E	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Yankton, Dakota	28.75	730.2	30.14	765.5	13	—10.6	71	NW	10	4.5	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Yuma, Arizona	.....	.....	29.99	761.7	43	6.1	.....	E	.....	.....	.....	Haze	0	.....	.....	0	0	Hazy.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
SUB-SERIES																			
Bridgetown, B'b'dos, W. I	.....	.....	30.14	765.5	77	25.0	90	SE	10	4.5	.....	2ck	5s	W	NE	0.10	2.5	Fair.....	E. Racker.
Pointe-a-Pitre, G'd'loupe, d	.....	.....	30.13	765.3	75	23.9	76	NE	.....	.....	.....	0	2k	.....	.....	0.11	2.8	Clear.....	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.39	771.9	75	23.9	76	E	16	7.2	.....	4cs	8kn	E	.....	0	0	Cloudy.....	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.33	770.4	73	22.8	76	Calm	0	0	.....	2c	2s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	30.00	762.0	73	22.8	76	NE	9.6	4.3	.....	0	2ks	.....	ENE	.....	.....	Fair.....	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.31	769.9	74	23.3	81	E	3.6	1.6	.....	10c	0	.....	.....	0	0	Fair.....	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.71	780.0	62.0	16.7	69	E	30.0	13.4	.....	0	10k	.....	.....	0.04	1.0	Cloudy.....	C. F. Allen.
St. John's, Porto Rico, W.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.26	692.4	30.07	763.8	64	17.8	83	NE	2.0	0.9	.....	0	0	.....	.....	0	0	Fine.....	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.02	762.5	81	27.2	70	NE	.....	.....	3	.....	6k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.07	763.8	79.7	26.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.21	640.3	.....	.....	67.6	19.8	80	.....	0	0	.....	0	3s	.....	.....	0	0	Fair.....	Thomas Herran.
St. Johns, Newfoundland	.....	.....	30.29	769.4	— 6.0	—21.1	.....	W	.....	.....	.....	0	0	.....	.....	Inap.	Inap.	Fair.....	John Delaney.
York Factory, B. A	.....	.....	29.93	760.2	—38	—38.9	.....	SW	2	0.9	.....	1c	0	S	.....	0.01	0.3	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—
}	.....	.....	.....	.....
}	.....	.....	.....	.....
}	.....	.....	.....	.....
.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,802 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS

TAKEN SIMULTANEOUSLY ON FEBRUARY 7, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.96	761.0	60.3	15.7	62	N			1		5			0	0	Fair	Charnot and Masselot.
Algiers			29.97	761.2	55.8	13.2	64	Calm			0		8			0.020	0.5	Cloudy	Peter.
La Calle																			Kuntz.
Tunis			29.91	759.7	55.4	13.0	62	W			3		6			0.102	2.6	Fair	Jacques.
Sfax			29.92	760.0	57.9	14.4	75	N			3		6			0	0	Fair	Chauvey.
Saida			30.10	764.4	53.6	12.0	43	WNW			1		6			0	0	Fair	Millot.
Tebessa			29.95	760.6	48.0	8.9		S			3		4			0	0	Fair	Colin.
Geriville			29.98	761.5	52.2	11.2	68	SSE			1		5			0	0	Fair	Buard.
Laghouat			29.99	761.8	60.8	16.0	69	SW			2		3			0	0	Fair	Delord.
Biskra			29.98	761.4	60.8	16.0	41	NNW			1		3			0	0	Fair	Dubois.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			29.70	754.3	33.3	0.7	77	SE			1		6			0.500	12.7		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.54	750.4	30.9	4.4	80	ENE			2		6			0.094	2.4		I. R. Observatory.
Eperies			29.68	753.8	32.0	0.0	96	S			4		10			0.157	4.00	Foggy	Julius Mikolik.
Gratz			29.65	753.1	32.2	0.1	80	S			2		0			0.091	2.3		Andreas Rospini.
Hermannstadt	28.51	721.5	29.69	754.1	37.8	3.2	90	SSW			3		5			0.061	1.55		Prof. Reissenberger
Kremsmünster	28.24	717.2	29.69	754.0	27.7	— 2.4	75	W			2		10			0	0		Prof. C. Wagner.
Lemberg	28.28	718.4	29.66	753.4	34.9	1.6	98	SE			2		10			0.209	5.3		Dr. T. Stanecki.
Nyiregyhaza			29.74	755.5	30.9	— 0.6	100	SW			2		10			0	0		Habzsuda Daniel.
Pola			29.67	753.6	42.8	6.0	72	WSW			1		9cks			0	0		I.R. Hydrographic Office
Szegedin			29.72	755.0	27.9	— 2.3	92	SW			2		6			0	0		Karl Stancel.
Trieste			29.67	753.7	40.3	4.7	73	Calm			0		1			0	0		Prof. V. Faroffi.
Vienna			29.62	752.4	30.2	— 1.0	82	WSW			3		10			0.213	5.4	Snowing	I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.76	755.9	28.0	— 2.2	87	E			2	0	1			0.144	3.65		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cooperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.22	767.6	37.0	2.8	.....	NW	2	0.9	.....	.....	6	.....	.....	0.020	0.51	*D. c'ou'ds	William Boswell.
Ardrossan	.....	.....	30.19	766.8	38	3.3	.....	NE	.....	.....	1	.....	8	.....	.....	.....	.....	Snowing...	J. Mayes.
Armagh Observatory	.....	.....	30.18	766.6	37.1	2.8	.....	NNE	7	3.1	.....	.....	9	.....	.....	.....	.....	Gloomy	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	30.06	763.5	36.8	2.7	.....	NE	15	6.7	.....	.....	10	.....	.....	.....	.....	Overcast	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.13	765.3	38.3	3.5	.....	NNE	.....	.....	1	.....	9	.....	.....	.....	.....	*D. clouds	J. Dreyer.
Bradford	.....	.....	30.02	762.5	36.6	2.6	.....	NE	.....	.....	3	.....	9	.....	.....	0.06	1.5	Gloomy	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.03	762.7	78.1	25.6	.....	NE	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.94	760.5	37.6	3.1	.....	NE	.....	.....	3	.....	10	.....	.....	.....	.....	Hailing	H. Todd.
Cardington	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Blank	Blank	.....	John McLaren.
Carlisle	.....	.....	30.15	765.8	37.1	2.8	.....	E	.....	.....	3	.....	10	.....	.....	Blank	Blank	Overcast	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	29.89	759.2	33.7	0.9	.....	NE	.....	.....	1	.....	.....	.....	.....	.....	.....	Snowing	Capt. J. Fellowes, R. E.
Dartmoor	28.46	722.9	30.05	763.3	31.0	— 0.5	.....	NE	.....	.....	5	.....	10	.....	.....	.....	.....	Threatening	R. E. Power.
Donaghadee	.....	.....	30.14	765.5	40	4.4	.....	ENE	.....	.....	4	.....	8	.....	.....	.....	.....	*D. clouds	J. Mac Gowan.
Dover	.....	.....	29.81	757.2	35	1.7	.....	NE	.....	.....	5	.....	8	.....	.....	.....	.....	Snowing	J. Costello.
Eccles, (near Manchester)	.....	.....	30.05	763.3	37.7	3.2	.....	NE	4.4	2.0	.....	.....	10	.....	.....	.....	.....	Gloomy	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.02	762.5	39.0	3.9	.....	NNE	16	7.2	.....	.....	10	.....	.....	.....	.....	Overcast	The Staff.
Fort Napier, (Natal)	27.72	704.1	29.98	761.5	74.3	23.5	.....	E	.....	.....	1	.....	9	.....	.....	.....	.....	Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone	.....	.....	29.94	760.5	85	29.4	.....	E	.....	.....	3	.....	5	.....	.....	.....	.....	.....	Hts.
Galway, Queen's College	.....	.....	30.09	764.3	37	2.8	.....	NE	.....	.....	1	.....	9	.....	.....	.....	.....	*D. clouds	B. G. Clare, for Prof. Currey.
Gibraltar, (Mediterranean)	.....	.....	29.87	758.7	62.0	16.7	.....	W	.....	.....	4	.....	4	.....	.....	.....	.....	*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.16	766.1	36.5	2.5	.....	NE	.....	.....	1	.....	9	.....	.....	.....	.....	*D. clouds	Lewis Stuart.
Great Yarmouth	.....	.....	29.92	760.0	35	1.7	.....	ENE	.....	.....	6	.....	8	.....	.....	.....	.....	Snowing	G. T. Watson.
Greenwich Royal Obs.	.....	.....	29.90	759.4	36.5	2.5	.....	NNE	.....	.....	5	.....	10	.....	.....	Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey	.....	.....	29.90	759.4	37.5	3.1	.....	NNE	.....	.....	4	.....	8	.....	.....	.....	.....	Snow & hail	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.09	764.3	35.2	1.8	.....	NNE	.....	.....	2	.....	10	.....	.....	Blank	Blank	*D. clouds	L. J. Cressley.
Helston	.....	.....	30.01	762.2	40	4.4	.....	NE	.....	.....	2	.....	10	.....	.....	0	0	Gloomy	M. P. Moyle.
Holyhead	.....	.....	30.07	763.8	40	4.4	.....	ENE	.....	.....	4	.....	10	.....	.....	Blank	Blank	Overcast	John Tilston.
Kew Observatory	.....	.....	29.91	759.7	37.0	2.8	.....	NE	26	11.6	.....	.....	8	.....	.....	.....	.....	*D. clouds	The Staff.
Kingstown	.....	.....	30.12	765.0	39	3.9	.....	NNE	.....	.....	4	.....	4	.....	.....	.....	.....	*D. clouds	George Mitchell
Leicester Museum	.....	.....	30.02	762.5	35.2	1.8	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	William J. Harrison.
Malta, (Mediterranean)	.....	.....	29.76	755.9	57	13.9	.....	NE	.....	.....	1	.....	6k	.....	.....	.....	.....	*D. clouds	Fred Travis, Pvt A.H.C
Nairn	.....	.....	30.21	767.3	35	1.7	.....	Calm	.....	.....	0	.....	5	.....	.....	.....	.....	½ clouded	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.29	769.4	75.1	23.9	.....	E	.....	.....	4	.....	6	.....	.....	.....	.....	*D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	30.03	762.7	35.0	1.7	.....	NNE	.....	.....	5	.....	10d	.....	NE	Blank	Blank	Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.01	762.2	33.8	1.0	.....	NNE	.....	.....	3	.....	10	.....	.....	.....	.....	Snowing	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	29.94	760.5	36	2.2	.....	NNE	.....	.....	1	.....	10	.....	.....	.....	.....	Gloomy	J. Lucas.
Plymouth	.....	.....	30.00	762.0	37.1	2.8	.....	NE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	John Merrifield.
Roche's Point	.....	.....	30.11	764.8	44	6.7	.....	NE	.....	.....	3	.....	5	.....	.....	.....	.....	Cloudy	W. Kennedy.
Saint Ann's Head	.....	.....	30.06	763.5	38	3.3	.....	NE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.88	758.9	38.8	3.8	.....	NE	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast	A. P. Amy.
Sandwick Manse (Orkneys)	.....	.....	30.24	768.1	37.5	3.1	.....	SE	2	0.9	.....	.....	9	.....	.....	.....	.....	Fine	Rev. Dr. Clouston
Scarborough	.....	.....	30.07	763.8	36.4	2.4	.....	ENE	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast	F. Shaw.
Scutari Cemetery (Turkey)	.....	.....	29.86	758.4	55.0	12.8	.....	S	.....	.....	1	.....	3	.....	.....	.....	.....	*D. clouds	Sergt. W. H. Lyne.
Sheffield	.....	.....	30.05	763.3	36.5	2.5	.....	NE	.....	.....	3	.....	10	.....	.....	0	0	Overcast	W. F. Cooper.
Silloth Rectory	.....	.....	30.10	764.5	37.6	3.1	68	E	.....	.....	2	.....	6	.....	.....	0	0	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.06	763.5	37.1	2.8	.....	NE	.....	.....	2	.....	10	.....	.....	Blank	Blank	Gloomy	The Staff.
Stornoway, Lews C. (Heb.)	.....	.....	30.20	767.1	38	3.3	.....	Calm	.....	.....	0	.....	8	.....	.....	.....	.....	*D. clouds	John Smith.
Stratfield Turgiss	.....	.....	29.94	760.5	36.4	2.4	.....	NE	.....	.....	1-2	.....	10	.....	.....	.....	.....	Overcast	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	30.19	766.8	40	4.4	.....	Calm	.....	.....	0	.....	7	.....	.....	.....	.....	*D. clouds	John Trotter.
Truro, Royal Institution	.....	.....	30.00	762.0	40	4.4	.....	NE	.....	.....	4	.....	7	.....	.....	.....	.....	Gloomy	W. Newcombe.
Valencia Observatory	.....	.....	30.10	764.5	41.6	5.3	.....	E	11	4.9	.....	.....	2	.....	.....	.....	.....	*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.97	761.2	93.0	32.9	30	SE	17	7.6	.....	.....	0	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	44	6.7	.....	E	.....	.....	3	.....	2	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	30.19	766.8	37.3	2.9	.....	E	.....	.....	2	.....	10k	.....	.....	0.02	0.5	Cloudy	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	30.18	766.6	41	5.0	.....	SE	.....	.....	4	3	5	.....	.....	0	0	.....	J. Youngclause.
North Unst, (Shetland Is.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.97	761.1	30.0	— 1.1	76	E	.....	.....	6	.....	10	.....	.....	.....	.....	.....	
Fanöe	.....	.....	30.02	762.5	31.1	— 0.5	94	ENE	.....	.....	6	.....	8	.....	.....	.....	.....	Snowing	
Godthaab, (Greenland)	.....	.....	29.50	749.4	6.1	—14.4	.....	ENE	.....	.....	2	.....	10	.....	.....	.....	.....	Snowing	
Stykkisholm, (Iceland)	.....	.....	29.60	751.9	34.0	1.1	98	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Raining	
Thorshavn, (Faröe)	.....	.....	30.19	766.9	44.8	7.1	83	SSW	.....	.....	2	.....	10	.....	.....	.....	.....	.....	
Vestervig	.....	.....	30.09	764.2	28.6	— 1.9	82	NE	.....	.....	6	.....	10	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors.		Barometer. Reduced to sea-level.		Temperature of the air.		Relative humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount. Upper.	Clouds. Amount. Lower.	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	0—10.	0—10.	From—	From—	Inches.	Millimeters.		
Alençon			29.79	756.6	41.0	5	85	NE			1		10			0.039	1.0	Covered	Normal School.
Amiens			29.72	754.9	36.0	2.2	61	SW			3		5		W	0.110	2.8	Cloudy	Normal School.
Avignon			29.80	757.0	40.3	4.6	74	SW			1		10			0	0	Covered	Normal School.
Bar-sur-Seine			29.43	747.5	35.1	1.7	86	N			2		10			0.287	7.3	Snowing	C. Saillard.
Beaumette, (near Angers)			29.60	757.0	39.0	3.9	66	NW	16.1	7.2			10		N	0.024	0.6	Rain & snow	Beaumette Observatory
Beauvais			29.75	755.7	32.2	0.1	97	NNE			3		0			0.030	0.75	Clear	Normal School.
Besançon			29.70	754.4	33.8	1		S			2		10			0	0	Covered	Normal School.
Bourg en Bresse			29.71	754.6	33.3	0.7	92	S			2		10					Snowing	Normal School.
Bourges			29.68	753.8	33.8	1	100	W			2		10		W	0	0	Covered	Normal School.
Brest			29.89	759.3	38.3	3.5	80	NNE			3		10		NNE	0.010	0.25	Raining	Naval Observatory.
Caen			29.78	756.5	37.[illegible]	3													Normal School
Chartres			29.80	757.0	27.9	−2.3		N			3		0			0	0	Clear	Normal School.
Chaumont																			Normal School.
Clermont			29.87	758.8	30.2	−1.0	82	W			3		10			0.079	2.0	Covered	Puy de Dome, Obs.
Commercy			29.68	753.8	31.1	−0.5	96	E			2		5n,s		E	0	0	Cloudy	Normal School.
Commune de Gréasque*			29.78	756.4	36.3	2.4	55	NW			4		8		NW	0	0		
Grenoble			29.78	755.3	32.0	0	82	SSW			2		10			0	0	Covered	Normal School.
Le Mans			29.79	756.7	36.5	2.5	82	N			4		8		N	0.055	1.4	Very cloudy	Normal School.
Loches																			
Lons-Le-Saulnier			29.[illegible]	754.1	35.8	2.1	93	SSW			6		10			0	0	Snowing	Normal School.
Mâcon			29.67	753.5	34.3	1.3	94	SSE			2		10			0.189	4.8	Covered	Normal School.
Mirecourt			29.62	752.4	20.7	−0.7	96	W			2		10		SE	0	0	Covered	Normal School.
Metz																			
Nismes			29.82	757.5	49.6	9.8	63	NW			2		2		NW	0	0	Slightly cl'dy	Normal School.
Orleans			29.68	753.9	33.8	1	85	N			3		8		N	0	0	Very cloudy	Normal School.
Paris Observatory			29.72	754.8	29.8	−1.2	96	N			4		10			0.029?	0.73?	Covered	National Observatory
Parthenay			29.88	759.0	34.0	2.2	96	NW			4		5		N	0	0	Cloudy	Normal School.
Privas			29.65	753.2	35.1	1.7		NE			2		10			0	0	Covered	Normal School.
La Roche-sur-Yon			29.89	759.3	37.8	3.2	93	NW			2		5		SE	0	0	Cloudy	Normal School.
Rochefort, Observatory			29.88	759.0	41.2	5.1	80	NW			3		10		SE	0	0	Covered	Naval Observatory.
Rouen			29.75	755.6	36.3	2.4	75	NNE			2		0			0.047	1.2	Clear	Normal School.
Saint Lo			29.8[illegible]	759.1	38.8	3.8	70	N			1		10		NW	0.295	7.5		Normal School.
Tarbes	28.86	733.0	29.98	761.5	48.2	9	76	SW			2		10		NE	0	0	Covered	Normal School.
Toulouse			30.00	762.0	41.0	5.0	56	W			2		0					Clear	Normal School.
Villefranche			29.72	754.9	33.3	2.4	82	SW			2		10			0.063	1.60	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.97	761.2	75.6	24.2	83	NE			2		5k			0.04	1.		L'Abbé Marchesi.
Gorée																			
Marseilles			29.78	756.3	39.4	4.1	72	NW			4		6			0	0		Marseilles Observatory.
Mont-Louis	24.50	622.4	29.93	760.2	2[illegible].6	−3.0	5[illegible]	SSW	3.0	1.33			2		WSW	0	0		[illegible]aiguère
Montsouris, Paris			29.69	754.1	29.3	−1.5	9[illegible]	N			5		10			0.071	1.8	Snow & hail.	Montsouris Observ'tory
Perpignan			29.[illegible]7	758.8	42.8	6.0	47	N	20.5	9.17			1		NW	0	0		Dr. Fines.
Pic du Midi, (Summit) H.P†																			M. Baylac.
Saint Maur, (near Paris)			29.70	754.3	28.9	−1.7	87	N			3		10			0.087	2.2	Snowing	[illegible]
Toulouse			29.90	759.4	39.[illegible]	4.[illegible]	54	WNW			3		10			0	0		Toulouse Observatory
Tours			29.77	756.1	36.0	2.2	93	WNW			3		10		NNW	0.102	2.6		C. Marquet.
Versailles, (near Paris)			29.70	754.3	32.7	0.4		NE			2		9			0.171	4.34	Light snow	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.37	771.3	34.3	1.[illegible]	81		1.1	0.5		..es	..k			{ 0 / 0	0 / 0 }		H. Le Lec, S. J.

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.0 ft.; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.3 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
* Near Marseilles. • † Summit inaccessible; weather snowy; snow-fall on the Plantade 40 millimeters, or 1.6 inches.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Stations.	Corrected Inches	Corrected Millimeters	Reduced Inches	Reduced Millimeters	Fahrenheit	Centigrade	Per cent	Wind From—	Miles per hour	Meters per second	Force	Clouds Upper	Clouds Lower	Direction Upper	Direction Lower	Rain Inches	Rain Millimeters	Weather	Observer
Bamberg			29.57	751.0	28.4	−2.0	84	ESE			3		9			0.236	6.0		Prof. T. Hoh.
Berlin			29.67	753.6	30.6	−0.8	100	NE			3		10			0.287	7.3	Snowing	Prof. Arn[illegible]
Breslau			29.52	749.8	29.7	−1.3	92	S			6		10			0.862	21.9		Dr. P. Neugebauer
Carlsruhe			29.68	753.8	33.4	0.8	68	NE			1		0			0.335	8.5		A. Senz.
Cassel			29.71	754.5	29.7	−1.3	93	NW			1		6			0.177	4.5	Snowing	Dr. H. Mö[illegible]
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main			29.80	756.8	33.8	1.0	81	NE			2		2			0.268	6.8		Physical Society
Friedrichshafen			29.71	754.5	31.1	−0.5	44	W					0			0.004	0.1		M. Wilhelm.
Hamburg			29.81	758.0	32.4	0.2	89	ENE			2		10			0.067	1.7	Cloudy	Deutsche Seewarte.
Kiel			29.94	760.4	31.8	−0.1	87	NE			5		10			0.008	0.2	Snowing	Prof. G. Karsten
Königsberg			29.91	759.7	31.1	−0.5	91	E			7		10			0.035	0.9	Snowing	Prof. E. Luther.
Köslin			29.77	756.1	32.2	0.1		NE			3		10			0	0		H. Müller.
Leipsic			29.70	754.4	22.6	−5.2	98	NW			1		10			0	0	Snowing	Prof. Bruhns.
Münster			29.63	752.7	37.2	2.9	80	NE			1		4			0.146	3.7	Snowing	Prof. E. Heis.
Posen			29.6[illegible]	752.1	33.4	0.8	100	NE			7		10			0.131	3.4	Snowing	Dr. Magener.
Strassburg, (in Alsace)			29.70	754.3	34.5	1.4	87	SW			2		10			0.087	2.2		Dr. Schur.
Stuttgart			29.69	754.0	34.7	1.5	71	S					2			0.024	0.6		Prof. Schoder.
Thorn			29.65	753.0	33.6	0.9	98	ENE			6		10			0	0	Snowing	Dr. Hasenbalg
Treves, (Trier)			29.65	753.0	32.4	0.2	96	NE			4		9			0.118	3.0	Misty	Prof. Flesch.
Wustrow, Naval School			29.87	758.7	31.1	−0.5	100	NE			6		10			0	0	Light rain	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Corrected Inches	Corrected Millimeters	Reduced Inches	Reduced Millimeters	Fahrenheit	Centigrade	Per cent	Wind From—	Miles per hour	Meters per second	Force	Clouds Upper	Clouds Lower	Direction Upper	Direction Lower	Rain Inches	Rain Millimeters	Weather	Observer
Athens			29.84	758.0	63.1	17.3		S										Clear	

NOTE.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Meters.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.65	753.1	38.1	3.4	52	SE	1.3	0.6			2			0	0		
Padua			29.67	753.5	42.3	5.7	100	NW	2.5	1.1			5	W		0	0		
Vicenza			29.69	754.0	38.3	2.5	58	NE	0	0			1			0	0		
Verona																			
Bergamo			29.65	753.0	35.6	2.0	59	E			4		4			0	0		
Domodossola																			
Milan			29.69	754.2	36.7	2.6	72	E			1		4			0	0		
Pavia																			
Moncalieri			29.72	754.8	30.9	— 0.6	73	ESE	1.8	0.8			7	NW		0	0		
Mondovi			29.71	754.6	31.5	— 0.3	49	NW			2		5			0	0		
Porto Maurizio																			
Genoa			29.67	753.6	43.3	6.3	55	SE	3.1	1.4			10	S		Blank	Blank		
Piacenza			29.69	754.1	30.6	— 0.8	96	NE	6.9	3.1			10			0	0	Dense fog	
Bologna			29.69	754.2	39.4	4.1	39	NW			1		3	S		0	0		
Florence			29.77	756.2	37.4	3.0	81	SE			2		10			0	0	Snowing?	
Leghorn			29.67	753.7	36.9	2.7	86	ENE	4.9	2.2			7			0	0		
Siena			29.71	754.7	34.2	1.2	87	WSW	0	0			10			0.094	2.4	Snowing?	
Urbino																			
Pesaro																			
Ancona			29.70	754.4	43.5	6.4	54	SW			4		10			0	0		
Grosseto			29.72	755.0	39.4	4.1	82	N			4		9	SW		0.131	3.4	Snow & rain.	
Rome			29.78	756.4	41.4	5.2	86	E	8.1	3.6			9	S		0.039	1.0		
Naples, O. U.			29.82	757.5	50.4	10.2	46	SW			6		10	WSW		0	0		
Lecce			29.91	759.7	50.4	10.2	63	W	16.1	7.2			3	W		0.024	0.6		
Cosenza			29.89	759.3	49.3	9.6	91	SW			4		9			0.118	3.0		
Riposto, (Sicily)			29.94	760.5	53.6	12.0	76	E			2		9	NNE		0	0		
Palermo			29.85	758.3	52.5	11.1	52	WSW	4.3	1.9			10			0	0		
Caltanissetta			29.92	759.9	44.8	7.1	83	W			2		10	E		0	0		
Sub-Series.																			
Naples, S. R.			29.84	757.8	46.4	8.0	66	NW	6.3	2.8			..k,c	W		0.110	2.8		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.84	757.8	33.8	1.0		NE			5								
Groningen			29.84	757.9	32.9	0.5		NE			1								
Helder			29.89	759.1	32.5	0.3		NE			4								
Utrecht			29.80	756.8	30.9	— 0.6	88	ENE			4		0					Clear	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.23	767.7	29.5	— 1.4	88	Calm	0	0			0			0	0		
Brönö			30.30	769.7	32.0	0.0	74	SSW	9	4			6			0	0		
Christiania			30.36	771.2	28.4	— 2.0	56	N	5.6	2.5			0			0	0		
Tromsö			30.07	763.8	35.2	1.8	88	SSW	2	1			7			0.031	0.8		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors.		Barometer: Reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds.			Force.	Clouds.				Rain-fall in the past 24 hours.		Weather.	Observer.
								Direction.	Velocity.			Amount		Direction.					
												Up'er	Low'r	Upper.	Lower.				
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	—lb.	—lo.	—lo.	From—	From—	Inches.	Millimeters.		
Angra, (Azores,)	.....	.....	29.66	753.3	47.7	8.7	81	NW	13.1	5.86	.....	.....	8	.....	.....	0.843	21.4	Raining	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.93	760.3	50.9	10.5	43	NNE	3.2	1.42	.....	.....	3	NNE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	29.89	759.3	62.6	17.0	63	S	4.0	1.78	.....	.....	1	.....	.....	0.024	0.6	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	29.95	760.6	49.5	9.7	58	NE	6.3	2.8	.....	.....	9	W	.....	0	0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.67	753.5	35.1	1.7	94	E	25	11	.....	.....	10	.....	.....	.....	.....	Snowing	Astronomical Obs.
Wilna	.....	.....	30.10	764.5	28.9	— 1.7	86	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.10	764.5	28.9	— 1.7	86	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.40	772.1	26.6	— 3.0	85	ESE	9	4	.....	.....	10	.....	.....	.....	.....	Light fog	Central Physical Obs.
Kuopio	.....	.....	30.45	773.5	21.0	— 6.1	90	NE	2	1	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kief	.....	.....	30.39	772.0	3.2	—16.0	90	NW	9	4	.....	.....	0	.....	.....	.....	.....	Heavy snow	Physical Cabinet.
Nikolaiev	.....	.....	30.08	763.9	25.5	— 3.6	95	ESE	16	7	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.03	762.8	35.4	1.9	93	ESE	20	9	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.10	764.5	41.7	5.4	78	E	2	1	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.48	774.3	21.7	— 5.7	85	SSW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.18	766.5	26.8	— 2.9	81	E	9	4	.....	.....	10	.....	.....	Blank	Blank	.....	Ogorodnikof.
Tiflis	.....	.....	30.06	763.4	20.8	— 6.2	95	W	29	13	.....	.....	10	.....	.....	.....	.....	.....	Physical Obs.
Astraichan	28.68	728.4	30.12	765.0	45.7	7.6	56	N	9	4	.....	.....	2	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.35	771.0	18.9	— 7.3	81	N	4	2	.....	.....	5	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	30.35	770.8	22.3	— 5.4	93	Calm	0	0	.....	.....	7	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	.....	.....	.....	.....	19.9	— 6.7	84	W	2	1	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	29.13	740.0	30.21	767.3	20.8	— 6.2	79	W	18	8	.....	.....	10	.....	.....	.....	.....	Light snow	
Kasaly	.....	.....	30.21	767.4	30.4	— 0.9	90	NE	4	2	.....	.....	8	.....	.....	.....	.....	.....	
Tashkend	.....	.....	30.25	768.3	1.4	—17.0	43	N	9	4	.....	.....	5	.....	.....	.....	.....	.....	Bobrof.
Barnaul	28.03	727.2	30.42	772.7	36.3	2.4	70	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Yeniseisk	.....	.....	30.06	763.4	11..	—11.4	85	SSW	20	9	.....	.....	10	.....	.....	.....	.....	Snowing	Meteorological Obs.
Irkutsk	.....	.....	29.87	758.6	—13.7	—25.4	84	E	11	5	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Gorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Peking, (China)	.....	.....	30.27	768.9	27.9	— 2.3	34	NNW	11	5	.....	.....	2	.....	.....	.....	.....	.....	Mossin.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Observatory.
Vladivostock	.....	.....	30.04	762.9	23.7	— 4.6	32	N	4	2	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Nikolaievsk, on the Amoor	.....	.....	.....	.....	— 7.8	—22.1	77	Calm	0	0	.....	.....	5	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 401 meters, or 1,311.8 feet; Ekaterinburg, 305.47 m., or 1,005.27 ft.; Tashkend, m. 144.22, or 1,521.37 ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.07 m., or 1,942.27 ft.; Oorga, 1,281.06 m., or 4,202.67 ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.97	761.3	41.5	5.3	46	N	3.0	1.33	.....	1	0	SW	.....	0	0	Almost clear	Royal Observatory.
San Fernando	.....	.....	29.93	760.3	55.4	13.0	70	NNW	0.0	0.0	.....	0	2	.....	E	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.28	769.1	8.2	—13.2	96	S	.....	.....	2	.....	0	.....	.....	0	0	.....	
mea	.....	.....	30.35	771.0	12.6	—10.8	93	SW	.....	.....	2	.....	3	.....	.....	0	0	.....	
Hernosand	.....	.....	30.42	772.6	8.2	—13.2	92	Calm	.....	.....	0	.....	1	.....	.....	0	0	.....	
Stockholm	.....	.....	30.28	769.1	26.1	— 3.3	85	NE	.....	.....	6	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	30.19	766.8	29.5	— 1.4	88	ESE	.....	.....	6	.....	10	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.38	771.6	20.7	— 6.3	92	NE	8.1	3.6	.....	.....	10	.....	.....	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction.	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.22	716.9	29.76	756.0	30.7	— 0.7	73	SSW	.....	.....	2	.....	10	.....	.....	0.094	0.1	Covered	The Observatory.
Zurich	28.01	711.4	29.73	755.2	30.2	— 1.0	85	S	.....	.....	1	.....	2	.....	.....	0.020	0.5	Clear.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —0.9 mm.; Thermometer, —3.5 cent.; Relative Humidity, —1 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds, the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	29.87	758.7	58.3	14.6	44	SSE	13	6.0	.....	.....	3	.....	SW	0.700	12.7	.....	
Fao, (Persian Gulf)	.....	.....	30.20	767.0	59.9	15.5	.....	NW	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.80	756.9	57.7	14.3	.....	S	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.76	755.8	53.1	11.7	.....	W	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.72	755.0	50.0	10.0	.....	SE	.....	.....	2	.....	.....	.....	.....	.....	.....	Raining.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.12	765.1	59.5	15.3	68	NNE	.....	.....	1	.....	1k	.....	NE	0	0	Fair.....	Prof. C. V. A. Van Dyck.

NOTE.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	29.82	757.4	15.6	— 9.1	74	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.20	767.1	36	2.2	.....	SW	6	2.7	.....	.....	10s	.....	W	0	0	Cloudy.....	W. R. Bigg.
*Chatham, N. B	.....	.....	29.83	757.7	34	1.1	84	SW	5	1.3	.....	5ck	5ks	SW	SW	0.04	1.0	Fair.....	G. A. Blair.
Charlottetown P. E. Island	.....	.....	29.88	758.9	36	2.2	95	SW	10	4.5	.....	.....	10n	.....	.....	0.222	5.64	Light rain...	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.08	764.0	36.7	2.6	88	W	.....	.....	1	.....	10s	.....	.....	0.039	0.99	Dull.....	James Smith, M. A.
Dalhousie, N. B	.....	.....	29.86	758.4	11.5	—11.4	70	W	.....	.....	2	.....	10n	.....	.....	0	0	Snowing.....	H. A. Johnson.
Esquimault, B. C	.....	.....	29.63	752.6	37.1	2.8	92	N	6	2.7	.....	.....	10	.....	.....	0.55	14.0	Cloudy.....	W. H. Bevis.
Fredericton, N. B	.....	.....	29.94	760.5	37.6	2.8	90	SW	2	0.9	.....	.....	10s	.....	.....	0.330	8.38	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.54	775.7	— 28	—33.3	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	James Stewart.
Goderich, Ontario	.....	.....	30.35	770.9	29.1	— 1.6	81	Calm	.....	.....	0	2c	2s	W	.....	0	0	Fine.....	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.32	770.1	29.2	— 1.6	.....	Calm	.....	.....	0	.....	.....	.....	.....	0	0	Clear.....	James Grant.
*Halifax, N. S	.....	.....	29.98	761.5	38	3.3	91	SW	19	8.5	.....	.....	10n	.....	.....	0.08	2.0	Light rain...	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.23	767.8	35	1.7	90	W	9	4.0	.....	5ck	0	.....	.....	0	0	Clearing.....	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.30	769.6	19.3	— 7.1	.....	S	4	1.8	.....	.....	9s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.05	763.3	37	2.8	81	W	24	10.7	.....	2ck	5ks	W	.....	0.02	0.5	Cloudy.....	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.11	764.8	37	2.8	78	W	9	4.0	.....	.....	10ks	.....	W	0.02	0.5	Cloudy.....	J. B. Hayley.
*Parry Sound, Ontario	.....	.....	30.28	769.1	23	— 5.0	95	W	5	2.2	.....	0	2ks	.....	W	0	0	Fair.....	Rev. R. Mooley.
*Port Dover Ontario	.....	.....	30.31	769.9	33	0.6	89	W	4	1.8	.....	5k	0	W	.....	0	0	Fair.....	H. Morgan.
Port Hastings, N. S	.....	.....	30.57	776.5	33.6	0.9	.....	S	3	1.3	.....	.....	.....	.....	.....	0.020	0.51	Fine.....	Peter Grant.
*Port Stanley Ontario	.....	.....	30.33	770.4	28	— 2.2	94	W	4	1.8	.....	0	Haze	.....	.....	0	0	Clear.....	M. Payne.
*Quebec, Quebec	.....	.....	29.97	761.2	31	— 0.6	89	SW	18	8.0	.....	0	2ks	.....	SW	0	0	Clear.....	Capt. Ash, R. N.
St. John, N. B	.....	.....	29.98	761.5	37.0	2.8	95	SW	1	0.4	.....	.....	10n	.....	.....	0.450	11.43	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.28	769.1	30	— 1.1	89	NW	3	1.3	.....	.....	10n	.....	.....	0	0	Cloudy.....	K. Stewart.
Stayner, Ontario	.....	.....	30.28	769.1	31	— 0.6	75	Calm	0	0	.....	.....	8ks	.....	NW	0	0	Cloudy.....	R. J. Cooke.
Stratford, Ontario	.....	.....	30.32	770.1	28.9	— 1.7	81	NW	2	0.9	.....	.....	.....	.....	.....	0	0	Fine.....	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	29.97	761.2	37	2.8	96	SW	12	5.4	.....	.....	10n	.....	SW	0.08	2.0	Light rain...	T. C. Hill.
*Toronto, Ontario	.....	.....	30.31	769.9	32	0.0	84	NW	9	4.0	.....	0	0	.....	.....	0	0	Clear.....	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.18	766.6	42	5.6	91	NW	4	1.8	.....	.....	10s	.....	W	0.07	1.8	Cloudy.....	
Alpena, Mich.	.....	.....	30.27	768.8	27	— 2.8	77	W	10	4.5	.....	.....	10s	.....	W	0	0	Cloudy.....	
Atlantic City, N. J.	.....	.....	30.26	768.6	36	2.2	90	W	6	2.7	.....	8c	0	SW	.....	0.46	11.7	Cloudy.....	
Augusta, Ga.	.....	.....	30.42	772.7	40	4.4	95	NW	1	0.4	.....	.....	Fog	.....	.....	0.11	2.8	Foggy.....	
Baltimore, Md.	.....	.....	30.34	770.6	36	2.2	80	NE	1	0.4	.....	5ek	Fog	W	.....	0.57	14.5	Foggy	
Barnegat, N. J.	.....	.....	30.23	767.8	35	1.7	90	W	10	4.5	.....	5c	0	.....	.....	0.34	8.6	Fair.....	
Benton, Montana	27.41	696.2	30.21	767.3	— 5	—20.6	100	N	4	1.8	.....	10c	0	.....	.....	0	0	Cloudy.....	
Bismarck, Dakota	28.60	726.4	30.53	775.4	—11	—23.9	52	NE	2	0.9	.....	0	5s	.....	.....	0	0	Fair.....	
Boston, Mass	.....	.....	30.09	764.3	42	5.6	91	W	8	3.6	.....	10ck	Haze	W	.....	0.22	5.6	Cloudy.....	
Breckenridge, Minn	.....	.....	30.55	776.0	— 7	—21.7	80	W	8	3.6	.....	.....	8s	.....	.....	0	0	Cloudy.....	
Buffalo, N. Y.	.....	.....	30.28	769 1	33	0.6	79	W	8	3.6	.....	0	2s	.....	SW	0.01	0.3	Fair.....	
Burlington, Vt.	.....	.....	30.14	765.5	41	5.0	74	W	5	2.2	.....	2k	8s	W	....	0.03	0.8	Cloudy..... ..	
Cairo, Ill.	.....	.....	30.35	770.9	42	5.6	83	NW	4	1.8	.....	.....	10s	.....	....	0	0	Cloudy.....	
Cape Hatteras, N. C.	.....	.....	30.28	769.1	48	8.9	92	W	10	4.5	.....	.....	10s	.....	W	0 46	11.7	Cloudy..	
Cape Henry, Va	.....	.....	30.37	771.4	41	5.0	91	NW	12	5.4	.....	.....	10s	.....	NW	0.16	4.1	Cloudy.....	
Cape May, N. J.	.....	.....	30.28	769.1	34	1.1	100	NW	8	3.6	.....	.....	Fog	.....	....	0.38	9.7	Foggy.....	
Charleston, S. C.	.....	.....	30.41	772.4	48	8.9	85	NW	3	1.3	.....	5k	0	NW	.....	0.87	22.1	Fair.....	
Cheyenne, Wyoming	24.00	609.6	29.94	760.5	15	— 9.4	67	W	4	1.8	.....	2c	0	.....	.....	0	0	Fair.....	
Chicago, Ill.	.....	.....	30.37	771.4	31	— 0.6	79	NW	4	1.8	.....	0	Haze	.....	.....	0	0	Clear.....	
Cincinnati, Ohio	.....	.....	30.37	771.4	36	2.2	93	S	2	0.9	.....	.....	Fog	.....	.....	0	0	Fog..y	
Cleveland, Ohio	.....	.....	30.36	771.1	35.7	2.1	74	SW	6	2.7	.....	Haze	0	W	.....	0	0	Fair.....	
Colorado Springs, Col.	24.10	612.1	29.97	761.2	22	— 5.6	45	N	4	1.8	.....	0	1s	.....	.....	0	0	Clear.....	
Corsicana, Tex.	.....	.....	30.22	767.6	57	13.9	100	S	3	1.3	.....	.....	Fog	.....	.....	0	0	Foggy	
Davenport, Iowa	.....	.....	30.46	773.7	26	— 3.3	76	NW	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Denison, Tex.	.....	.....	30.16	766.1	51	10.6	93	S	1	0.4	.....	.....	Fog	.....	.....	0	0	Foggy.....	
Denver, Col.	24.80	629.9	30.02	762.5	20	— 6.7	56	S	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	
Detroit, Mich.	.....	.....	30.34	770.6	32	0.0	79	W	4	1.8	.....	0	5ks	.....	W	0	0	Fair.....	
Dodge City, Kan.	27.50	698.5	29.80	756.4	35	1.7	61	N	4	1.8	.....	.....	10s	.....	....	0	0	Cloudy	
Dubuque, Iowa	.....	.....	30.43	772.9	21	— 6.1	71	NW	2	0.9	.....	5ks	Haze	.....	.....	0	0	Fair.....	
Duluth, Minn.	.....	.....	30.45	773.4	6	—14.4	62	SW	5	2.2	.....	0	2s	.....	....	Inap.	Inap.	Clear.....	
Eastport, Me.	.....	.....	29.95	760.7	39	3.9	91	W	7	3.1	.....	.....	10s	.....	W	0.18	4.6	Cloudy..	
Erie, Pa.	.....	.....	30.31	769.9	36	2.2	80	SW	14	6.3	.....	2c	Haze	.....	.....	0	0	Fair.....	
Escanaba, Mich.	.....	.....	30.33	770.4	18	- 7.8	84	N	4	1.8	.....	.....	10s	.....	SW	0.15	3.8	Cloudy.....	
Fort Gibson, Indian Terr.	.....	.....	30.20	767.1	46	7.8	85	E	8	3.6	.....	5ek	0	S	.....	0	0	Fair.....	
Fort Sill, Indian T.	28.92	734.6	30.08	764.0	40	4.4	91	S	8	3.6	.....	0	Fog	.....	....	0	0	Clear..	
Fort Sully, Dakota	28.65	727.7	30.64	775.7	2	—16.7	86	Calm	0	0	.....	0	2s	.....	.....	Inap.	Inap.	Fair.....	
Galveston, Tex.	.....	.....	30.22	767.6	63	17.2	100	SE	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Grand Haven, Mich.	.....	.....	30.35	770.9	35	1.7	80	W	11	4.9	.....	.....	10s	.....	W	0	0	Cloudy.....	
Indianapolis, Ind.	.....	.....	30.36	771.1	36	2.2	90	SW	3	1.3	.....	2c	Fog	.....	.....	0	0	Fair.....	
Indianola, Tex.	.....	.....	30.22	767.6	61	16.1	100	NE	4	1.8	.....	.....	Fog	.....	.....	0.01	0.3	Foggy	
Jacksonville, Fla.	.....	.....	30.37	771.4	55	12.8	93	N	5	2.2	.....	.....	Fog	.....	.....	0	0	Foggy	
Keokuk, Iowa	.....	.....	30.39	771.9	29	— 1.7	77	NE	3	1.3	.....	5c	0	N	.....	0	0	Fair.....	
Key West, Fla.	.....	.....	30.20	768.3	73.	22.9	85	E	9	4.0	.....	.....	10s	.....	.....	0.34	8.6	Cloudy.....	
Kittyhawk, N. C.	.....	.....	30.3	771.1	42	5.6	100	NW	10	4.5	.....	.....	10s	.....	.....	0.12	3.0	Cloudy.....	
Knoxville, Tenn	.....	.....	30.44	773.2	37	2.8	100	NE	4	1.8	.....	.....	Fog	.....	.....	0.11	2.8	Foggy	
La Crosse, Wis.	.....	.....	30.48	774.2	15	— 9.4	82	N	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Leavenworth, Kan.	.....	.....	30.32	770.1	28	— 2.2	77	NE	2	0.9	.....	0	2s	.....	.....	0	0	C ear.....	
Lexington, Ky.	29.26	743.2	30.41	772.4	39	3.9	100	S	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Long Branch, N. J.	.....	.....	30.22	767.6	36	2.2	90	SW	15	6.7	.....	2c	2s	SW	.....	0.63	16.0	Fair.....	
Louisville, Ky.	.....	.....	30. 9	771.9	38	3.3	90	SE	2	0.9	.....	.....	Fog	.....	.....	0	0	Foggy	
Lynchburg, Va.	.....	.....	30.37	771.4	34	1.1	89	Calm	0	0	.....	5c	Fog	SW	.....	0.54	13.7	Foggy	
Malone, N. Y.	.....	.....	30.10	764.5	38	3.3	80	W	9	4.0	.....	.....	10ks	.....	NW	0.03	0.8	Cloudy.....	
Marquette, Mich.	.....	.....	30.35	770.9	14	—10.0	82	W	8	3.6	.....	0	0	.....	.....	0.04	1.0	Clear.....	
Memphis, Tenn.	.....	.....	30.32	770.1	49	9.4	93	Calm	0	0	.....	.....	10s	....	.....	0	0	Cloudy.....	
Milwaukee, Wis.	.....	.....	30.41	772.4	25	— 3.9	87	SW	4	1.8	.....	5c	Fog	.....	.....	0	0	Fair.....	
Mobile, Ala.	.....	.....	30.32	770.1	54	12.2	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Montgomery, Ala.	.....	.....	30.38	771.6	49.5	9.7	80	E	6	2.7	.....	10cs	Haze	SW	.....	0.01	0.3	Cloudy.....	
Morgantown, W. Va.	.....	.....	30.38	771.6	45	7.2	84	SW	1	0.4	.....	.....	10s	.....	SW	0.36	9.1	Cloudy.....	
Mt. Washington, N. H.	23.18	596.4	29.84	757.9	19	— 7.2	100	NW	60	26.8	.....	.....	Fog	.....	.....	0	0	Foggy.....	
Nashville, Tenn.	.....	.....	30.36	771.1	43	6.1	83	Calm	0	0	.....	.....	10s	.....	E	0	0	Cloudy..	
New Haven, Conn.	.....	.....	30.16	766.1	39	3.9	100	NW	6	2.7	.....	.....	Fog	.....	.....	0.18	4.6	Foggy.....	
New London, Conn.	.....	.....	30.14	765.5	37.5	3.1	95	W	2	0.9	.....	.....	Fog	.....	.....	0.37	9.4	Foggy.....	
New Orleans, La.	.....	.....	30.2.	769.4	57	13.9	97	SE	8	3.6	.....	10k	Fog	SW	.....	0.03	0.8	Cloudy.....	
Newport, R. I.	.....	.....	30.10	764.5	42	5.6	91	W	2	0.9	.....	10cs	0	W	.....	0.23	5.8	Cloudy.....	
New York, N. Y.	.....	.....	30.21	767.3	34	1.1	90	SW	9	4.0	.....	0	Fog	.....	.....	0.22	5.6	Clear.....	
Norfolk, Va.	.....	.....	30.36	771.1	40	4.4	95	NW	6	2.7	.....	.....	10s	.....	.....	0.14	3.6	Cloudy.....	
North Platte, Neb.	27.20	690.9	29.90	759.4	26	— 3.3	75	S	4	1.8	.....	Haze	8s	....	.....	0	0	Cloudy.....	
Omaha, Neb.	29.21	741.9	30.05	763.0	28	— 2.2	77	Calm	0	0	.....	8c	0	.....	.....	0	0	Fair.....	
Oswego, N. Y.	.....	.....	30.24	768.1	39	3.9	75	W	10	4.5	.....	.....	10s	.....	NW	0.03	0.8	Cloudy.....	
Peck's Beach, N. J.	.....	.....	30.3	769.6	36	2.2	100	W	8	3.6	.....	10es	0	.....	.....	0.81	20.6	Cloudy.....	
Pembina, Dakota	.....	.....	30.50	774.7	—14	—25.6	100	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Philadelphia, Penn.	.....	.....	30.30	769.6	35	1.7	90	W	4	1.8	.....	2ek	Fog	W	....	0.80	20.3	Fair.....	
Pike's Peak, Colorado	17.58	446.5	29.78	756.4	1	—17.2	71	SW	36	16.1	.....	2k	0	SW	.....	0	0	Fair.....	
Pittsburgh, Penn.	.....	.....	30.38	771.6	40	4.4	80	W	10	4.5	.....	2ck	5s	.....	.....	0.12	3.0	Fair.....	
Port Huron, Mich.	.....	.....	30.33	770.4	31	— .6	89	SW	5	2.2	.....	0	2s	.....	.....	0	0	Fair.....	
Portland, Me.	.....	.....	30.03	762.7	39	3.9	91	SW	8	3.6	.....	8c	Haze	W	.....	0.10	2.5	Cloudy.....	
Portland, Oregon	.....	.....	29.62	752.3	41	5.0	82	Calm	0	0	.....	.....	10n	.....	.....	0.43	10.9	Light rain...	
Punta Rassa, Fla.	.....	.....	30.29	769.4	67.1	19.5	90	NE	8	3.6	.....	5es	0	NE	.....	Inap.	Inap.	Fair.....	
Rochester, N. Y.	.....	.....	30.24	768.1	38	3.3	81	W	14	6.3	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy..	
Salt Lake City, Utah	25.62	650.7	29.95	760.7	29	— 1.7	78	N	4	1.8	.....	.....	10s	....	....	0	0	Cloudy.....	
Sandy Hook, N. J.	.....	.....	30.20	767.1	34	1.1	100	W	.....	.....	.....	.....	10s	.....	W	0.64	16.3	Cloudy.....	
San Diego, Cal.	.....	.....	30.15	765.8	51	10.6	86	Calm	0	0	.....	0	2s	.....	S	0	0	Fair.....	
San Francisco, Cal.	.....	.....	29.97	761.2	50	10.0	75	SE	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Santa Fe, N. M.	23.34	592.8	29.88	758.9	28	— 2.2	32	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Savannah, Ga.	.....	.....	30.47	772.4	47	8.3	85	Calm	0	0	.....	.....	10s	.....	.....	0.42	10.7	Cloudy..	
Shreveport, La.	.....	.....	30.30	769.6	54	12.2	100	Calm	0	0	.....	.....	Fog	.....	SW	0.09	2.3	Foggy.....	
Smithville, N. C.	.....	.....	30.38	771.6	45	7.2	92	NW	2	0.9	.....	2es	0	....	.....	0.36	9.1	Fair.....	
Springfield, Mass.	.....	.....	30.13	765.3	38	3.3	80	Calm	0	0	.....	.....	10ks	.....	NW	0.23	5.8	Cl'dy, foggy.	
St. Louis, Mo.	.....	.....	30.41	772.4	31	— 1.1	79	NE	8	3.6	.....	0	0	....	.....	0	0	Clear.....	
St. Marks, Fla.	.....	.....	30.34	770.6	54	12.2	100	N	8	3.6	.....	.....	Fog	.....	.....	0	0	Foggy.....	
St. Paul, Minn.	.....	.....	30.48	774.2	6.5	—14.2	87	SW	1	0.4	.....	2es	0	.....	.....	Inap.	Inap.	Fair.....	
St. Paul's Island, Alaska	.....	.....	29.78	756.4	26	— 3.3	87	WNW	24	10.7	.....	.....	10s	.....	.....	0.23	5.8	.....	
Squan Beach, N. J.	.....	.....	30.19	766.8	35	1.7	90	W	11	4.9	.....	2es	Haze	.....	.....	0.45	11.4	Fair.....	
Thatcher's Island, Mass.	.....	.....	30.08	764.0	37	2.8	99	SW	12	5.4	.....	5c	2s	NW	NW	0.36	9.1	Cloudy.....	
Toledo, Ohio	.....	.....	30.35	770.9	30	2.2	80	W	6	2.7	.....	0	2s	.....	W	0	0	Clear.....	
Tucson, Arizona	.....	.....	30.28	769.1	50	10.0	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
Tybee Island, Ga.	27.69	703.3	30.37	771.4	48	8.9	92	N	4	1.8	.....	2k	8s	NE	N	0.10	2.5	Cloudy.....	
Vicksburg, Miss.	.....	.....	30.30	771.1	53	11.7	100	N	5	2.2	.....	10n	Sm'e	.....	.....	1.09	27.7	Light rain....	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.10	612.1	29.58	751.3	12	—11.1	80	SE	7	3.1		6c	0	SW		0.01	0.3	Cloudy	
Washington, D. C.			30.34	770.6	31	— 0.6	95	Calm	0	0			Fog			0.33	8.4	Foggy	
Wilmington, N. C			30.37	771.4	42	5.6	100	NW	5	2.2			Fog			0.37	9.4	Foggy	
Wood's Holl, Mass.			30.10	764.5	41	5.0	91	W	7	3.1			Fog			0.48	12.2	Dense fog	
Wytheville, Va.	27.98	710.7	30.22	767.6	40	4.4	91	SW	6	2.7		10k	0	W		0.25	6.3	Cloudy	
Yankton, Dakota	29.10	739.1	30.55	776.0	7	—13.9	66	NE	1	0.4			10s			0	0	Cloudy	
Yuma, Arizona			30.09	764.3	44	6.7		E				5c	0	W		0	0	Fair	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.			30.12	765.0	76	24.4	86	NE	7	3.1		5k	5s	SE	N	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'Loupe, do			30.09	764.3	75	23.9	81	NE				0	10ks			0.23	5.8	Fair	L. V. Bigard.
St. Thomas, St. T., W. I.			30.35	770.9	75	23.9	71	E	9	4.0		2ck	4k	E		0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I.			30.31	769.9	75	23.9	81	Calm	0	0		8c	8s	SE	SE	0	0		James Gall.
Santiago de Cuba, W. I.			29.96	761.0	72	22.2	76	N	6.0	2.7		0	2s		N			Fair	Robert Mason.
Havana, Cuba, W. I.			30.26	768.6	72	22.2	81	Calm	0	0		0	0			0	0	Clear	Charles Hasselbrink
St. Georges, Bermudas			30.49	774.4	61.5	16.4	77	S	4.0	1.8		8c	2k	S		0.05	1.3	Fair	C. F. Allen.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Navassa, W. I.																			
Clifton, Jamaica, W. I.	27.26	692.4	30.07	763.8	64	18.8	83	NE	1.0	0.4		2c	0	NE		0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A			30.01	762.2	78	25.6	82	E			4		7ks			0.080	2.03		C. J. Hering.
Batavia, Dutch Guiana, S. A			30.08	763.9	78.8	26										0.197	5.00		Dr. H. Groot.
Medellin, Colombia, S. A.	25.19	639.9			68.0	20.0	78		0	0			9s			0.04	1.0	Cloudy	Thomas Herran.
St. Johns, Newfoundland.			30.26	768.6	23.0	— 5.0		SE					10n			0	0	Light snow	John Delaney.
York Factory, B. A.			30.13	765.3	—43.5	—41.9		W	4	1.8		0	Fog			0	0		J. Fortescue.
Honolulu, Oahu, H. I.																			E. P. Church.
Makawao, Maui, H. I.																			F. L. Clarke.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,180 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS

TAKEN SIMULTANEOUSLY ON FEBRUARY 8, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.02	762.5	60.6	15.9	58	Calm			0		2			0	0	Clear	Charnot and Masselot.
Algiers			30.03	762.7	57.2	14.0	69	NW			2		4			0	0	Fair	Peter.
La Calle																			Kuntz.
Tunis																			Jacques.
Sfax			30.01	762.3	51.1	10.6	68	NW			4		10			0.012	0.3	Hidden	Chauvey.
Saida			30.04	763.0	57.2	14.0	79	SW			2		5			0.008	0.2	Fair	Millot.
Tebessa			30.08	764.0	56.3	13.5	36	WNW			1		1			0	0	Clear	Colin.
Gerlville			30.06	763.4	48.0	8.9		W			4		5			0	0	Fair	Buard.
Laghouat			30.09	764.3	46.0	7.8	61	N			3		2			0.102	2.6	Clear	Delord.
Biskra			30.11	764.8	53.6	12.0	54	NW			3		1			0	0	Clear	Dubois.
			30.10	764.4	60.8	16.0	23	Calm			0		4			0	0	Fair	

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			29.76	756.0	33.4	0.8	85	NE			2	5				0.355	8.4		Prof. Ivan Stosir.
Buda-Peath																			I. R. Cen. M. I., Hungary
Cracow			29.95	760.8	25.9	— 3.4	98	NE			2	8				0	0		I. R. Observatory.
Gperies			29.89	759.2	29.8	— 1.2	80	NW			2	10				0	0		Julius Mikolik.
Gratz	28.50	723.8	29.75	755.6	30.4	— 0.9	80	SW			2	10				0.028	0.7		Andreas Rospini.
Hermannstadt	28.41	721.5	29.86	753.5	38.5	3.6	72	ESE			1	0				0	0		Prof. Reissenberger.
Kremsmünster	28.36	720.4	29.79	756.7	20.5	— 0.4	90	ENE			2	6				0	0		Prof. C. Wagner.
Lemberg			29.90	761.0	29.8	— 1.2	98	SE			3	10				0	0		Dr. T. Stanecki.
Nyiregyhaza			29.56	758.4	33.8	1.0	81	E			2	4				0	0		Habzsuda Daniel.
Pola			29.73	755.1	39.6	4.2	76	Calm			0	10cks				0.140	3.54		I. R. Hydrographic Office
Szegedin			29.79	756.6	35.8	2.1	82	S			3	6				0	0		Karl Stancel.
Trieste			29.72	754.9	39.2	4.1	69	ENE			1	2				0	0		Prof. V. Faroffi.
Vienna			29.77	756.2	26.8	— 2.9	97	N			1	10				0.185	4.7	Snowing	I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels			29.66	753.4	32.9	0.5	93	N			0	10				0.280	7.10		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction.	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	30.17	766.3	35.0	1.7	.....	E	12	5.4	.....	.....	9	.....	.....	0.010	0.25	Snowy	William Boswell.
Ardrossan	.....	.....	30.12	765.0	37	2.8	.....	ENE	.....	.....	1	.....	8	.....	.....	.....	.....	Foggy	J. Mayes.
Armagh Observatory	.....	.....	30.11	764.8	36.6	2.6	.....	E	6	2.7	.....	.....	5	.....	.....	.....	.....	*D. clouds	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	30.03	762.7	36.4	2.4	.....	NNE	11	4.9	.....	.....	10	.....	.....	.....	.....	Overcast	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.05	763.3	37.7	3.2	.....	Calm	.....	.....	0	.....	8	.....	.....	.....	.....	*D. clouds	J. Dreyer.
Bradford	.....	.....	29.96	761.0	36.1	2.3	.....	NW	.....	.....	1	.....	10	.....	.....	0.02	0.5	Overcast	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.05	763.3	78.4	25.8	.....	NE	.....	.....	4	.....	6	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.91	759.7	33.8	1.0	.....	N	.....	.....	2	.....	10	.....	.....	.....	.....	Snowing	H. Todd.
Cardington	.....	.....	29.93	760.2	35.0	1.7	.....	N	.....	.....	1	.....	10	.....	.....	Blank	Blank	Overcast	John McLaren.
Carlisle	.....	.....	30.06	763.5	35.1	1.7	.....	N	.....	.....	1	.....	10	.....	.....	0	0	Threatening	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	29.88	758.9	33.7	0.9	.....	NNE	.....	.....	2	.....	.....	.....	.....	.....	.....	Snowing	Capt. J. Fellowes, R. E.
Dartmoor	28.50	723.9	30.08	764.0	31.6	— 0.2	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	R. E. Power.
Donaghadee	.....	.....	30.09	764.3	38	3.3	.....	E	.....	.....	3	.....	8	.....	.....	.....	.....	*D. clouds	J. Mac Gowan.
Dover	.....	.....	29.82	757.4	35	1.7	.....	NNW	.....	.....	4	.....	10	.....	.....	.....	.....	Snowing	J. Costello.
Eccles, (near Manchester)	.....	.....	30.00	762.0	36.0	2.2	.....	N	2.4	1.1	.....	.....	10	.....	.....	.....	.....	Gloomy	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.04	763.0	37.5	3.1	.....	NE	10	4.5	.....	.....	10	.....	.....	.....	.....	Overcast	The Staff.
Fort Napier, (Natal)	27.68	703.1	29.94	760.5	74.2	23.4	.....	SE	.....	.....	2	.....	8	.....	.....	.....	.....	*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.94	760.5	83	28.3	.....	N	.....	.....	1	.....	9	.....	.....	.....	.....	*D. clouds	(tis.
Galway, Queen's College	.....	.....	29.96	761.0	41	5.0	.....	NE	.....	.....	1	.....	4	.....	.....	.....	.....	*D clouds	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)	.....	.....	30.01	762.2	65.6	18.7	.....	E	.....	.....	2	.....	6	.....	.....	.....	.....	*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	30.09	764.3	35.0	1.7	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	Lewis Stuart.
Great Yarmouth	.....	.....	29.86	758.4	36	2.2	.....	NE	.....	.....	5	.....	8	.....	.....	.....	.....	Snowing	G. T. Watson.
Greenwich Royal Obs.	.....	.....	29.90	759.4	35.1	1.7	.....	N	.....	.....	4	.....	10	.....	.....	.....	.....	Snowing	The Staff for G. B. Airy
Guernsey	.....	.....	29.97	761.2	37	2.8	.....	NNW	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.02	762.5	35.1	1.7	.....	NNE	.....	.....	1	.....	10	.....	.....	Blank	Blank	*D. clouds	L. J. Crossley.
Helston	.....	.....	30.02	762.5	43	6.1	.....	NE	.....	.....	2	.....	3	.....	.....	0	0	*D. clouds	M. P. Moyle.
Holyhead	.....	.....	30.04	763.0	38	3.3	.....	NE	.....	.....	3	.....	10	.....	.....	Blank	Blank	Overcast	John Tilston.
Kew Observatory	.....	.....	29.92	760.0	35.4	1.9	.....	NNW	17	7.6	.....	.....	10	.....	.....	.....	.....	Overcast	The Staff.
Kingstown	.....	.....	30.08	764.0	38	3.3	.....	ENE	.....	.....	3	.....	10	.....	.....	.....	.....	Gloomy	George Mitchell
Leicester Museum	.....	.....	30.09	764.3	35.2	1.8	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Snowing	William J. Harrison.
Malta, (Mediterranean)	.....	.....	29.88	758.9	56.4	13.6	.....	NW	.....	.....	1	.....	6k	.....	.....	.....	.....	*D. clouds	Fred Travis, Pvt A. H. C
Nairn	.....	.....	30.17	766.3	34	1.1	.....	Calm	.....	.....	0	.....	8	.....	.....	.....	.....	¾ clouded	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.27	768.8	75.6	24.2	.....	.....	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	30.00	762.0	35.3	1.8	.....	N	.....	.....	4	.....	10d	.....	NNE	.....	.....	Snowing	E. J. Lowe, F. R. S.
Oscott, St Mary's College	.....	.....	30.00	762.0	34.0	1.1	.....	NNE	.....	.....	2	.....	9	.....	.....	.....	.....	Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	29.94	760.5	36	2.2	.....	NNW	.....	.....	3	.....	10	.....	.....	.....	.....	Gloomy	J. Lucas.
Plymouth	.....	.....	30.02	762.5	36.8	2.7	.....	NE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	John Merrifield.
Roche's Point	.....	.....	30.01	762.2	41	5.0	.....	SE	.....	.....	4	.....	10	.....	.....	Blank	Blank	Overcast	W. Kennedy.
Saint Ann's Head	.....	.....	30.04	763.0	37	2.8	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.96	761.0	38.4	3.6	.....	NNE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	A. P. Amy.
Sandwick Manse(Orkneys)	.....	.....	30.18	766.6	34.9	1.6	.....	Calm	0	0	.....	.....	10	.....	.....	.....	.....	Fine	Rev. Dr. Clouston
Scarborough	.....	.....	30.00	762.0	35.1	1.7	.....	ENE	.....	.....	4	.....	10	.....	.....	.....	.....	Snowing	F. Shaw.
Scutari Cemetery(Turkey)	.....	.....	29.88	758.9	57.4	14.1	.....	SE	.....	.....	1	.....	4	.....	.....	.....	.....	*D. clouds	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.99	761.7	36.9	2.7	.....	NNE	.....	.....	3	.....	10	.....	.....	0	0	Overcast	W. F. Cooper.
Silloth Rectory	.....	.....	30.05	763.3	37.1	2.8	82	E	.....	.....	2	.....	10	.....	.....	0	0	Overcast	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.02	762.5	35.5	1.9	.....	N	.....	.....	1	.....	10	.....	.....	Blank	Blank	Gloomy	The Staff.
Stornoway, Lews C. (Heb.)	.....	.....	30.12	765.0	36	2.2	.....	S	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds	John Smith.
Strathfield Turgiss	.....	.....	29.96	761.0	36.7	2.6	.....	N	.....	.....	1–2	.....	10	.....	.....	.....	.....	Snowing	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	30.15	765.8	33	0.6	.....	Calm	.....	.....	0	.....	8	.....	.....	.....	.....	Gloomy	John Trotter.
Truro, Royal Institution	.....	.....	30.01	762.2	39	3.9	.....	NE	.....	.....	2	.....	9	.....	.....	.....	.....	Gloomy	W. Newcombe.
Valencia Observatory	.....	.....	29.92	760.0	43.7	6.5	.....	E	21	9.4	.....	.....	3	.....	.....	.....	.....	Hazy	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.80	756.4	93.9	34.4	30	SE	18	8.0	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	40	4.4	.....	E	.....	.....	4	.....	2	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	30.13	765.3	35.0	1.7	.....	E	.....	.....	2	.....	10k	.....	.....	0.03	0.8	Cloudy	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	30.08	764.0	40	4.4	.....	SE	.....	.....	4	3	3	SE	.....	0	0	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,490 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.98	761.5	31.3	— 0.4	83	ENE	.....	.....	4	.....	10	.....	.....	.....	.....	Snowing	
Fanöe	.....	.....	29.98	761.4	32.0	0.0	89	ENE	.....	.....	6	.....	9	.....	.....	.....	.....	.....	
Godthaab, (Greenland)	.....	.....	29.40	746.8	14.7	— 9.6	94	NNE	.....	.....	4	.....	10	.....	.....	.....	.....	Snowing	
Stykkisholm, (Iceland)	.....	.....	29.74	755.3	31.5	— 0.3	96	SE	.....	.....	4	.....	10	.....	.....	.....	.....	.....	
Thorshavn, (Faröe)	.....	.....	30.05	763.3	39.7	4.2	77	SSW	.....	.....	2	.....	4	.....	.....	.....	.....	Raining	
Vestervig	.....	.....	30.04	763.1	30.6	— 0.8	85	NE	.....	.....	6	.....	10	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols: no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 1—10.	Clouds. Amount. Upper. 1—10.	Clouds. Amount. Lower. 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.91	759.8	38.3	3.5	81	NW	.....	.....	2	.....	10	.....	.....	0.047	1.2	Covered	Normal School.
Amiens	.....	.....	29.80	756.9	33.8	1.0	86	NW	.....	.....	3	.....	10	.....	.....	0.094	2.4	Covered	Normal School.
Avignon	.....	.....	29.87	758.6	39.2	4	49	N	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bar-sur-Seine	.....	.....	29.73	755.2	29.8	— 1.2	93	W	.....	.....	6	.....	10	.....	.....	0.098	2.5	Snowing.....	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.94	760.4	33.1	0.6	88	W	5.8	2.6	.....	.....	.....	.....	NW	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	29.81	757.1	35.1	1.7	83	N	.....	.....	3	.....	10	.....	.....	0.128	3.25	Covered	Normal School.
Besançon	.....	.....	29.82	757.3	28.8	— 1.8	.....	S	.....	.....	3	.....	10	.....	.....	0	0	Covered	Normal School.
Bourg en Bresse	.....	.....	29.86	758.5	31.1	— 0.5	93	SW	.....	.....	1	.....	8	.....	.....	.....	.....	Snowing.....	Normal School.
Bourges	.....	.....	29.85	758.2	36.0	2.2	70	NNE	.....	.....	6	.....	10	.....	NE	0.12	3.	Covered	Normal School.
Brest	.....	.....	29.94	760.4	39.7	4.3	87	Calm	.....	.....	0	.....	10	.....	.....	0	0	Covered	Naval Observatory.
Caen	.....	.....	29.86	758.5	35.6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School
Chartres	.....	.....	29.81	757.2	22.5	— 5.3	.....	NW	.....	.....	4	.....	10	.....	.....	0	0	Cove ed	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.87	758.6	29.7	— 1.3	93	SW	.....	.....	3	.....	10	.....	.....	0.150	3.8	Covered	Puy de Dome, Obs.
Commercy	.....	.....	29.71	754.7	28.9	— 1.7	92	WNW	.....	.....	6	.....	10n	.....	WNW	0	0	Covered	Normal School.
Commune de Gréasque*	.....	.....	29.80	756.9	35.6	2.0	60	NW	.....	.....	4	.....	5	.....	NW	0	0	.....	.....
Grenoble	.....	.....	29.88	759.0	29.3	— 1.5	80	NW	.....	.....	4	.....	10	.....	.....	0	0	Misty.....	Normal School.
Le Mans	.....	.....	29.93	760.2	32.0	0	85	N	.....	.....	4	.....	8	.....	N	0	0	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	29.84	758.0	30.9	— 0.6	75	S	.....	.....	6	.....	10	.....	.....	0	0	Snowing.....	Normal School.
Macon	.....	.....	29.67	753.6	28.8	— 1.8	.....	SSE	.....	.....	2	.....	10	.....	.....	0.094	2.4	Covered	Normal School.
Mirecourt	.....	.....	29.72	754.8	27.7	— 2.4	96	W	.....	.....	4	.....	10	.....	SE	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	29.84	758.0	39.4	4.1	49	NE	.....	.....	2	.....	10	.....	SW	0	0	Covered	Normal School.
Orleans	.....	.....	29.82	757.5	32.0	0	100	NW	.....	.....	3	.....	10	.....	N	0	0	Covered	Normal School.
Paris Observatory	.....	.....	29.78	756.1	32.5	0.3	100	NW	.....	.....	2	.....	10	.....	.....	0.020?	0.50?	Snowing.....	National Observatory
Parthenay	.....	.....	30.09	764.3	33.1	0.6	96	SW	.....	.....	2	.....	5	.....	NW	0	0	Cloudy.....	Normal School.
Privas	.....	.....	29.91	759.6	32.0	0	.....	N	.....	.....	4	.....	8	.....	.....	0	0	Very cloudy	Normal School.
La Roche-sur-Yon	.....	.....	30.01	762.3	37.0	2.8	52	N	.....	.....	2	.....	8	.....	S	0	0	Very cloudy	Normal School.
Rochefort, Observatory	.....	.....	30.09	762.1	40.5	4.7	68	N	.....	.....	4	.....	0	.....	.....	0	0	Blue sky.....	Naval Observatory.
Rouen	.....	.....	29.82	757.5	36.3	2.4	96	NNW	.....	.....	2	.....	10	.....	NW	0.122	3.1	Covered	Normal School.
Saint Lo	.....	.....	29.96	760.9	35.2	1.8	87	NW	.....	.....	1	.....	10	.....	NW	0.04	1.	.....	Normal School.
Tarbes	28.90	734.1	30.02	762.5	46.4	8	71	W	.....	.....	4	.....	2	.....	E	0.08	2.	Slightly cl'dy	Normal School.
Toulouse	.....	.....	30.07	763.8	40.5	4.7	62	W	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Villefranche	.....	.....	30.01	762.2	38.1	3.4	75	S	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.1	77.0	25	77	NE	.....	.....	3	.....	0	.....	.....	0.12	3.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	29.80	757.0	39.7	4.3	67	NW	.....	.....	4	.....	10	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.56	623.8	29.97	761.3	29.7	— 1.3	56	WSW	13.0	5.83	.....	.....	1	.....	W	0	0	Foggy	—. Faignère.
Montsouris, Paris	.....	.....	29.76	756.0	32.9	0.5	96	NW	.....	.....	1	.....	10	.....	.....	0.094	2.4	Snowing.....	Mont-souris Observ'tory
Perpignan	.....	.....	29.89	759.1	42.8	6.0	58	NW	26.1	11.67	.....	.....	2	.....	NW	0	0	.....	Dr. Pines.
Pic du Midi, (Summit) H.P†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.76	755.9	33.6	0.9	94	NW	.....	.....	3	.....	10	.....	.....	0.311	7.9	Snowing.....	E. Renou.
Toulouse	.....	.....	29.98	761.5	38.1	3.4	60	NNW	.....	.....	3	.....	8	.....	.....	0.039	1.0	.....	Toulouse Observatory
Tours	.....	.....	29.92	759.9	31.3	— 0.4	.....	WNW	.....	.....	3	.....	10	.....	.....	0.02	0.6	Raining.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.76	756.0	33.4	0.8	92	NW	.....	.....	2	.....	10	.....	.....	0.113	2.87	Snowing.....	Dr. A. Bérigny.
Zi-Ka Wei, (near Shanghai)	.....	.....	30.47	773.9	36.1	2.3	89	Calm	0	0	.....	5ck	0	W	.....	{ 0 / 0	0 / 0	{ Lunar corona & dew.	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.1 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 303 m., or 1,011 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Summit inaccessible; weather snowy; snow-fall on the Plantade 90 millimeters, or 3.5 inches.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.56	750.7	30.2	— 1.0	94	SE	.....	.....	4	.....	10	.....	.....	0.236	6.0	Snowing.....	Prof. T. Hoh.
Berlin	.....	.....	29.87	758.7	30.6	— 0.8	74	E	.....	.....	2	.....	0	.....	.....	0.181	4.6	.....	Prof. Arndt.
Breslau	.....	.....	29.91	759.8	30.2	— 1.0	76	E	.....	.....	3	.....	0	.....	.....	0	0	.....	Dr. P. Nasgowitzer
Carlsruhe	.....	.....	29.65	753.2	29.1	— 1.6	91	SW	.....	.....	6	.....	10	.....	.....	0.177	4.5	Snowing.....	A. Senz.
Cassel	.....	.....	29.60	751.9	31.3	— 0.4	84	SE	.....	.....	4	.....	10	.....	.....	0.008	0.2	Snowing.....	Dr. H. Möhn.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.72	754.8	31.5	— 0.3	88	S	.....	.....	1	.....	10	.....	.....	0.205	5.2	Snowing.....	Physical Society
Friedrichshafen	.....	.....	29.74	755.5	32.4	0.2	56	W	.....	.....	.....	.....	10	.....	.....	0.071	1.8	Light snow..	M. Wilhelm.
Hamburg	.....	.....	29.84	757.8	30.2	— 1.0	80	NE	.....	.....	3	.....	2	.....	.....	0.047	1.2	Clear, fog....	Deutsche Seewarte.
Kiel	.....	.....	29.92	759.9	32.9	0.5	82	ENE	.....	.....	6	.....	5	.....	.....	0.031	0.8	Snowing.....	Prof. G. Karsten
Königsberg	.....	.....	30.14	765.5	23.0	— 5.0	88	NE	.....	.....	5	.....	10	.....	.....	0.043	1.1	Snowing.....	Prof. E. Luther.
Köslin	.....	.....	29.97	761.3	32.0	0.0	.....	ESE	.....	.....	2	.....	3	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	29.80	756.9	28.8	— 1.8	96	ESE	.....	.....	3	.....	5	.....	.....	0.606	15.4	.....	Prof. Bruhns.
Münster	.....	.....	29.67	753.5	30.2	— 1.0	96	NE	.....	.....	1	.....	10	.....	.....	0.059	1.5	Snowing.....	Prof. E. Heis.
Posen	.....	.....	29.97	761.2	30.6	— 0.8	84	E	.....	.....	4	.....	5	.....	.....	0	0	.....	Dr. Magener.
Strasburg (in Alsace)	.....	.....	29.69	754.0	32.2	0.1	89	SW	.....	.....	3	.....	10	.....	.....	0.130	3.3	Snowing.....	Dr. Schur.
Stuttgart	.....	.....	29.68	753.9	32.4	0.2	92	W	.....	.....	.....	.....	6	.....	.....	0.043	1.1	.....	Prof. Schoder.
Thorn	.....	.....	29.98	761.6	30.4	— 0.9	100	NE	.....	.....	4	.....	9	.....	.....	0	0	Snowing.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	29.35	750.5	32.2	0.1	93	SW	.....	.....	4	.....	10	.....	.....	0.157	4.0	Misty.....	Prof. Fiesch.
Wustrow, Naval School	.....	.....	29.95	760.8	31.5	— 0.3	88	NE	.....	.....	6	.....	6	.....	.....	0	0	.....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.85	758.1	57.2	14.0	.....	SW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Raining.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—12.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	29.72	754.9	37.2	2.9	53	E	2.5	1.1	.....	.....	2	.....	.....	0	0	.....	
Padua	.....	.....	29.72	754.9	36.5	2.5	59	NE	2.5	1.1	.....	.....	8	W	.....	0	0	.....	
Vicenza	.....	.....	29.74	755.3	35.1	1.7	72	NW	.....	.....	1	.....	6	.....	.....	0	0	.....	
Verona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bergamo	.....	.....	29.68	753.9	34.5	1.4	69	S	.....	.....	2	.....	2	.....	.....	0	0	.....	
Domodossola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Milan	.....	.....	29.73	755.2	35.6	2.0	75	S	.....	.....	1	.....	6	SSE	.....	0	0	.....	
Pavia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Moncalieri	.....	.....	29.76	756.0	25.9	— 3.4	75	ESE	3.8	1.7	.....	.....	8	.....	.....	0	0	.....	
Mondovi	.....	.....	29.73	755.2	30.4	— 0.9	38	NW	.....	.....	2	.....	7	NW	.....	0	0	.....	
Porto Maurizio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Genoa	.....	.....	29.68	753.8	46.2	7.9	32	NE	4.3	1.9	.....	.....	2	N	.....	0	0	.....	
Piacenza	.....	.....	29.74	755.4	32.5	0.3	83	E	0.7	0.3	.....	.....	2	.....	.....	0	0	.....	
Bologna	.....	.....	29.74	755.3	34.2	1.2	43	W	.....	.....	1	.....	8	E	.....	0	0	.....	
Florence	.....	.....	29.72	754.9	36.7	2.6	86	NE	.....	.....	2	.....	10	SE	.....	0.055	1.4	Snow & rain.	
Leghorn	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Siena	.....	.....	29.71	754.6	35.6	2.0	93	SW	0.7	0.3	.....	.....	10	.....	.....	0.091	2.3	Snowing	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ancona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Grosseto	.....	.....	29.73	755.2	41.4	5.2	72	W	.....	.....	4	.....	10	.....	.....	0	0	Light rain	
Rome	.....	.....	29.72	755.0	44.4	6.9	96	S	.....	.....	2	.....	7	SW	.....	0.232	5.9	.....	
Naples, O. U.	.....	.....	29.77	756.2	46.5	7.5	73	WSW	2.5	1.1	.....	.....	9	WSW	.....	0.055	1.4	.....	
Lecce	.....	.....	29.84	758.0	46.4	7.8	90	WSW	.....	.....	4	.....	10	WSW	.....	0	0	.....	
Cosenza	.....	.....	29.83	757.7	53.6	12.0	52	NNE	7.4	3.3	.....	.....	2	N	.....	0	0	.....	
Riposto, (Sicily)	.....	.....	29.89	759.3	49.5	9.7	69	W	2.5	1.1	.....	.....	6	.....	.....	0.131	3.4	.....	
Palermo	.....	.....	29.87	758.8	55.4	12.8	76	ESE	.....	.....	2	.....	7	S	.....	0	0	.....	
Caltanissetta	.....	.....	29 81	757.9	52.9	11.6	53	NE	3.1	1.4	.....	.....	8	.....	.....	0	0	.....	
Sub-Series.	.....	.....	29.90	759.5	45.4	7.2	71	WNW	.....	.....	2	.....	6	ESE	.....	0	0	.....	
Naples, S. R.	.....	.....	29.84	757.8	43.9	6.6	87	SW	3.8	1.7	.....	.....	..k	SW	.....	0.445	11.3	Light rain	Prof. F. Brioschi.

Note. The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the cooperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	29.76	755.8	34.9	1.6	.....	NE	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	29.72	754.8	32.7	0.4	.....	ENE	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	29.78	756.4	34.2	1.2	.....	NNE	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	29.67	753.6	32.4	0.2	90	NNE	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	30.16	766.0	32.0	0.0	63	Calm	0	0	.....	.....	0	.....	.....	0	0	.....	
Brönö	.....	.....	30.22	767.6	32.0	0.0	74	S	7	4	.....	.....	0	.....	.....	0	0	.....	
Christiania	.....	.....	30.33	770.4	23.7	— 4.6	56	ENE	2.5	1.1	.....	.....	0	.....	.....	0	0	.....	
Tromsö	.....	.....	29.96	761.0	38.5	3.6	85	SSW	18	8	.....	.....	10	.....	.....	0.118	3.0	Raining	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.42	747.2	45.5	7.5	85	NNW	34.9	15.59	.....	.....	10	.....	.....	0.984	25.0	Raining.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.97	761.2	55.9	13.3	58	SSW	6.5	2.92	.....	.....	3	SSW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	29.84	757.8	59.5	15.3	66	W	12.4	5.56	.....	.....	4	.....	.....	0.799	20.3	Raining.....	Capt D. A. da Cunha.
Lisbon	.....	.....	29.92	760.0	54.1	12.3	72	ESE	9.8	4.4	.....	.....	9	S	.....	0	0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.																			
Warsaw	.....	.....	30.00	761.9	32.5	0.3	90	E	11	5	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30.11	764.8	23.9	— 4.5	85	E	9	4	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	30.48	774.3	18.9	— 7.3	79	ESE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.47	774.0	22.3	— 5.4	90	Calm	0	0	.....	.....	9	.....	.....	.....	.....	.....	Central Physical Obs
Knoplo	.....	.....	30.35	770.9	10.9	—11.7	97	NW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	30.22	767.5	20.8	— 6.2	90	ESE	16	7	.....	.....	10	.....	.....	.....	.....	Snowing.....	Physical Cabinet.
Nikolaiev	.....	.....	30.15	765.9	28.2	— 2.1	85	E	18	8	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.12	765.1	30.7	— 0.7	94	E	7	3	.....	.....	9	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.51	775.9	14.5	— 9.7	84	SSW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.30	769.5	9.9	—12.3	74	ENE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.01	762.3	12.9	—10.6	93	WSW	18	8	.....	.....	0	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.64	727.5	30.10	764.5	41.4	5.2	61	SW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.31	769.8	16.9	— 8.4	88	N	7	3	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.24	768.2	18.7	— 7.4	89	WNW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	30.33	770.4	16.3	— 8.7	88	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.91	734.4	29.98	761.5	17.6	— 8.0	88	W	20	9	.....	.....	10	.....	.....	.....	.....	Snowing.....	Meteorological Obs
Nukuss	.....	.....	30.15	765.8	39.6	4.2	55	NNE	0	0	.....	.....	1	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.16	766.1	10.4	—12.0	78	E	4	2	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.56	725.4	30.34	770.6	35.4	1.9	80	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.16	766.1	17.1	— 8.3	85	SW	20	9	.....	.....	4	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	29.78	756.5	— 6.3	—21.3	82	E	7	3	.....	.....	9	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.24	768.0	28.0	— 2.2	45	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.16	766.0	8.2	—13.2	68	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	— 5.6	—20.9	86	W	4	2	.....	.....	8	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.																			
Madrid	.....	.....	30.05	763.2	45.0	7.2	47	W	3.7	1.67	.....	0	1	.....	.....	0	0	Almost clear	Royal Observatory.
San Fernando	.....	.....	30.04	762.9	60.6	15.9	80	S	9.2	4.1	.....	1	9	.....	E	0.020	0.5	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Stations.																			
Haparanda	.....	.....	30.21	767.4	12.2	—11.0	79	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.36	771.2	11.5	—11.4	93	S	.....	.....	4?	.....	1	.....	.....	0	0	.....	
Hernosand	.....	.....	30.41	772.4	13.6	—10.2	97	SSW	.....	.....	2	.....	2	.....	.....	0	0	.....	
Stockholm	.....	.....	30.29	769.4	26.8	— 2.9	85	ENE	.....	.....	6	.....	5	.....	.....	0	0	.....	
Wisby	.....	.....	30.23	767.8	29.8	— 1.2	96	ESE	.....	.....	4	.....	5	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.36	771.2	25.5	— 3.6	88	ENE	9.8	4.4	.....	.....	10	.....	ENE	0.000	0.01	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction.	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.35	720.1	29.85	758.3	28.8	— 1.8	88	SW	.....	.....	5	.....	10	.....	.....	0	0	Covered	The Observatory.
Zurich	28.06	712.6	29.78	756.4	29.8	— 1.2	83	W	.....	.....	2	.....	10	.....	.....	0.047	1.2	Snowing	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —6.7 mm.; Thermometer, —4.6 cent.; Relative Humidity, +14 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	29.91	759.7	54.3	12.4	69	WSW	7	3.0	.....	.....	5	.....	SW	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.24	768.0	59.5	15.3	.....	NW	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.91	759.6	52.2	11.2	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.70	754.3	49.3	9.6	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.88	759.0	44.6	7.0	.....	N	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.04	763.0	60.6	15.9	66	NE	.....	.....	1	.....	0	.....	.....	0	0	Fair	Prof. C. V. A. Van Dyck.

NOTE.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	30.36	771.1	6.5	—14.2	65	NW	8.5	3.8	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.52	775.2	24	— 4.4	.....	Calm	0	0	.....	.....	10s	.....	NW	0	0	Cloudy	W. R. Bigg.
*Chatham, N. B.	.....	.....	30.37	771.4	8	—13.3	89	NW	5	2.2	.....	0	0	.....	.....	0	0	Clear	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	30.33	770.4	16	— 8.9	92	N	13	5.8	.....	.....	10n	.....	.....	0.040	1.02	Light snow	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.46	773.7	23.0	— 5.0	72	E	.....	.....	1	.....	10k s	.....	.....	Inap.	Inap.	Dull	James Smith, M. A.
Dalhousie, N. B.	.....	.....	30.41	772.4	2.2	—16.6	72	W	.....	.....	2	.....	10k s	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.54	750.3	35.1	1.7	100	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	W. H. Bevis.
Fredericton, N. B.	.....	.....	30.42	772.7	15.6	— 9.1	55	N	6	2.7	.....	.....	.....	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.73	775.4	—22	—30.0	100	S	2	0.9	.....	0	..8	.....	S	0	0	Fair	James Stewart.
Goderich, Ontario	.....	.....	30.47	773.9	24.1	— 4.4	92	Calm	.....	.....	0	.....	10n	.....	.....	.....	.....	Dull	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.47	773.9	21.3	— 5.9	.....	S	.....	.....	1	.....	.....	.....	.....	0	0	Clear	James Grant.
*Halifax, N. S.	.....	.....	30.25	768.3	31	— 0.6	75	NW	12	5.4	.....	2ck	2k s	N	N	0.03	0.8	Fair	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.48	774.2	30	— 1.1	94	Calm	0	0	.....	8ck	0	NW	.....	0	0	Fair	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.60	777.2	14.6	— 9.7	.....	Calm	0	0	.....	.....	10s	.....	.....	0.30	7.6	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.48	774.2	17	— 8.3	75	NE	10	4.5	.....	5k	5k s	W	.....	0	0	Cloudy	C. H. McLeod, C.
*Ottawa, Ontario	.....	.....	30.49	774.4	18	— 7.8	76	W	3	1.3	.....	10k	0	W	.....	0	0	Cloudy	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.52	775.2	16	— 8.9	83	N	5	2.2	.....	2ck	5k s	W	W	0	0	Fair	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.46	773.7	23	— 5.0	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	H. Morgan.
Port Hastings, N. S.	.....	.....	30.45	773.4	20.9	— 6.2	.....	NW	7	3.1	.....	.....	.....	.....	.....	0	0	Fine	Peter Grant.
*Port Stanley Ontario	.....	.....	30.47	773.9	18	— 7.8	97	E	10	4.5	.....	.....	Fog	.....	.....	0	0	Foggy	M. Payne.
*Quebec, Quebec	.....	.....	30.48	774.2	10	—12.2	79	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	Capt. Ash, R. N.
St. John, N. B.	.....	.....	30.41	772.4	23	— 5.0	60	N	6	2.7	.....	.....	10k s	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.45	773.4	25	— 3.9	87	E	5	2.2	.....	.....	10n	.....	.....	0	0	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	30.48	774.2	24	— 4.4	75	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	30.47	773.9	19.9	— 6.7	95	Calm	0	0	.....	.....	2s	.....	.....	0	0	Fine	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	30.2	767.6	23	— 5.0	84	N	11	4.9	.....	8k	2k s	NW	N	0.02	0.5	Cloudy	T. C. Hill.
*Toronto, Ontario	.....	.....	30.47	773.9	30	— 1.1	84	W	5	2.2	.....	5ck	2s	W	.....	0	0	Fair	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.- The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.46	773.7	32	0.0	79	NW	9	4.0	.....	2k	0	W	.....	0	0	Clear...	.....
Alpena, Mich	.....	.....	30.45	773.4	18	— 7.8	68	Calm	0	0	.....	.....	10s	.....	N	0	0	Cloudy...	.....
Atlantic City, N. J.	.....	.....	30.47	773.9	33	0.6	89	N	4	1.8	.....	1c	Haze	SW	.....	0	0	Clear...	.....
Augusta, Ga.	.....	.....	30.39	771.9	51	10.6	93	N	2	0.9	.....	.....	10s	.....	NE	0.56	14.2	Cloudy...	.....
Baltimore, Md	.....	.....	30.49	774.4	38	3.3	72	NW	1	0.4	.....	5ck	Fog	.....	.....	0	0	Foggy	.....
Barnegat, N. J	.....	.....	30.45	773.4	33	0.6	89	N	2	0.9	.....	5cs	0	.....	.....	0	0	Fair...	.....
Benton, Montana	27.04	686.8	29.84	757.9	— 9	—22.8	100	W	1	0.4	.....	5c	0	.....	.....	0	0	Fair...	.....
Bismarck, Dakota	28.40	721.3	30.24	768.1	1	—17.2	72	E	8	3.6	.....	.....	10ks	.....	E	0	0	Cloudy...	.....
Boston, Mass	.....	.....	30.42	772.7	34.5	1.4	74	W	9	4.0	.....	0	Sm'e	.....	.....	0	0	Clear...	.....
Breckenridge, Minn	.....	.....	30.37	771.4	5	—15.0	88	E	17	7.6	.....	.....	10s	.....	.....	0	0	Cloudy...	.....
Buffalo, N. Y.	.....	.....	30.45	773.4	30	— 1.1	78	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Smoky...	.....
Burlington, Vt.	.....	.....	30.46	773.7	34	1.1	71	W	5	2.2	.....	2k	5s	.....	.....	0	0	Cloudy...	.....
Cairo, Ill.	.....	.....	30.31	769.9	48	8.9	92	E	4	1.8	.....	.....	10s	.....	E	0	0	Cloudy...	.....
Cape Hatteras, N. C.	.....	.....	30.32	770 1	48	8.9	100	NE	17	7.6	.....	.....	10n	.....	NE	0.11	2.8	Light rain...	.....
Cape Henry, Va	.....	.....	30.46	773.7	44	6.7	92	Calm	0	0	.....	5es	2s	.....	.....	0	0	Fair...	.....
Cape May, N. J.	.....	.....	30.48	774.2	35	1.7	90	N	5	2.2	.....	10c	0	.....	.....	0	0	Cloudy...	.....
Charleston, S. C.	.....	.....	30.38	771.6	51	10.6	93	N	8	3.6	.....	.....	10n	.....	.....	0.15	3.8	Light rain...	.....
Cheyenne, Wyoming	23.90	607.0	29.84	757.9	25	— 3.9	60	W	4	1.8	.....	8c	2s	.....	.....	0	0	Cloudy...	.....
Chicago, Ill.	.....	.....	30.29	769.4	36	2.2	70	SE	3	1.3	.....	2k	5s	NW	.....	0	0	Fair...	.....
Cincinnati, Ohio	.....	.....	30.31	770.0	36	2.2	80	SE	1	0.4	.....	5ks	For	.....	.....	0	0	Cloudy...	.....
Cleveland, Ohio	.....	.....	30.45	773.4	26.2	— 3.2	94	SE	2	0.9	.....	0	Sm'e	.....	SE	0	0	Smoky...	.....
Colorado Springs, Col.	24.00	609.6	29.86	758.4	37	2.7	48	NE	4	1.8	.....	1c	2s	.....	SE	0	0	Fair...	.....
Corsicana, Tex	.....	.....	30.20	767.1	63	17.2	94	SE	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy...	.....
Davenport, Iowa	.....	.....	30.25	768.3	35	1.7	90	E	8	3.6	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy...	.....
Denison, Tex	.....	.....	30.15	765.8	62	16.7	88	S	4	1.8	.....	.....	Fog	.....	.....	0.02	0.5	Light rain...	.....
Denver, Col.	24.08	626.9	29.90	759.4	29	— 1.7	66	W	2	0.9	.....	5es	0	SE	.....	0	0	Fair...	.....
Detroit, Mich	.....	.....	30.41	772.4	26	— 3.3	88	W	3	1.3	.....	0	Fog	.....	.....	0	0	Fair...	.....
Dodge City, Kan	27.39	695.7	29.73	755.1	36	2.2	70	SE	7	3.1	.....	10es	0	.....	.....	0	0	Cloudy...	.....
Dubuque, Iowa	.....	.....	30.28	769.1	32	0.0	69	N	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy...	.....
Duluth, Minn	.....	.....	30.52	775.2	8	—13.3	78	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy...	.....
Eastport, Me	.....	.....	30.36	771.1	26	— 3.3	64	NE	13	5.8	.....	5es	0	W	.....	0	0	Fair...	.....
Erie, Pa	.....	.....	30.41	772.4	31	— 0.6	89	SE	8	3.6	.....	0	Haze	.....	.....	0	0	Clear...	.....
Escanaba, Mich	.....	.....	30.50	774.7	14	—10.0	73	N	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy...	.....
Fort Gibson, Indian Terr.	.....	.....	30.13	765.3	59	15.0	87	SE	12	5.4	.....	.....	10s	.....	SW	0	0	Cloudy...	.....
Fort Sill, Indian T.	28.91	734.3	30.03	762.7	54	12.2	100	SW	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	.....
Fort Sully, Dakota	28.40	721.3	30.24	767.8	6	—14.4	88	E	14	6.3	.....	.....	10s	.....	E	Inap.	Inap.	Cloudy...	.....
Galveston, Tex	.....	.....	30.25	768.3	63	17.2	100	SE	4	1.8	.....	.....	Fog	.....	.....	0.09	2.3	Foggy	.....
Grand Haven, Mich	.....	.....	30.37	771.4	27	— 2.8	88	E	3	1.3	.....	2es	Sm'e	.....	E	0	0	Fair...	.....
Indianapolis, Ind	.....	.....	30.31	769.9	38	3.3	80	SE	3	1.3	.....	2es	Fog	.....	.....	0	0	Fair...	.....
Indianola, Tex	.....	.....	30.25	768.3	59	15.0	100	SE	6	2.7	.....	0	Fog	.....	.....	0	0	Foggy	.....
Jacksonville, Fla	.....	.....	30.30	769.6	57	13.9	93	NW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy...	.....
Keokuk, Iowa	.....	.....	30.17	766.3	39	3.9	91	SE	3	1.3	.....	.....	10s	.....	SE	0	0	Cloudy...	.....
Key West, Fla	.....	.....	30.23	767.8	73.2	22.9	81	SE	4	1.8	.....	5ck	Sm'e	W	SE	0.17	4.2	Fair...	.....
Kittyhawk, N. C	.....	.....	30.45	773.4	45	7.2	92	NE	18	8.0	.....	.....	10ks	.....	NE	0.32	8.1	Cloudy...	.....
Knoxville, Tenn	.....	.....	30.12	772.7	40	4.4	91	Calm	0	0	.....	10ck	Fog	SW	.....	0	0	Cloudy...	.....
La Crosse, Wis.	.....	.....	30.24	768 1	16	— 8.9	65	W	5	2.2	.....	Haze	Haze	.....	.....	0	0	Hazy...	.....
Leavenworth, Kan	.....	.....	30.12	765.0	41	5.0	83	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy...	.....
Lexington, Ky	29.21	742.7	30.39	771.9	30	3.9	100	SE	8	3.6	.....	0	0	.....	.....	0	0	Clear...	.....
Long Branch, N. J.	.....	.....	30.46	773.7	33	3.3	72	NW	7	3.1	.....	2c	0	.....	.....	0	0	Clear...	.....
Louisville, Ky	.....	.....	30.34	770.6	33	3.3	81	Calm	0	0	.....	0	5s	.....	.....	0	0	Fair...	.....
Lynchburg, Va	.....	.....	30.49	774.4	41	5.0	91	Calm	0	0	.....	10k	Fog	SW	.....	0	0	Cloudy...	.....
Malone, N. Y.	.....	.....	30.15	765.4	25	— 3.9	87	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy...	.....
Marquette, Mich	.....	.....	30.53	775.4	12	—11.1	80	NW	4	1.8	.....	.....	8n	.....	NW	0.01	0.3	Light snow	.....
Memphis, Tenn	.....	.....	30.32	770.1	53	11.7	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	.....
Milwaukee, Wis.	.....	.....	30.37	771.4	30	— 1.1	89	NE	4	1.8	.....	2k	Fog	W	NE	0	0	Foggy	.....
Mobile, Ala.	.....	.....	30.41	770.6	56	13.3	93	N	2	0.9	.....	.....	10s	.....	NE	0.05	1.3	Cloudy...	.....
Montgomery, Ala.	.....	.....	30.38	771.6	54.5	12.5	97	NE	4	1.8	.....	.....	Fog	.....	.....	0.40	10.2	Foggy...	.....
Morgantown, W. Va.	.....	.....	30.45	773.4	29	— 1.7	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Dense fog...	.....
Mt. Washington, N. H.	23.70	602 0	30.06	763.5	3	—16.1	100	NW	60	6.8	.....	.....	Fog	.....	.....	0	0	Foggy	.....
Nashville, Tenn.	.....	.....	30.33	770.4	47	8.3	92	E	3	1.3	.....	8k	Fog	SW	.....	0	0	Cloudy...	.....
New Haven, Conn	.....	.....	30.48	774.2	35	1.7	70	N	8	3.6	.....	Haze	0	.....	.....	0	0	Clear...	.....
New London, Conn.	.....	.....	30.44	773.2	37	2.8	66	NW	6	2.7	.....	2c	0	.....	.....	0	0	Fair...	.....
New Orleans, La	.....	.....	30.31	769.9	58	14.4	100	NE	4	1.8	.....	.....	Fog	.....	.....	1.43	36.3	Dense fog...	.....
Newport, R. I.	.....	.....	30.43	772.9	35	1.7	80	NW	5	2.2	.....	0	0	.....	.....	0	0	Clear...	.....
New York, N. Y.	.....	.....	30.48	774.2	37	2.8	70	NW	6	2.7	.....	0	Fog	.....	.....	0	0	Clear...	.....
Norfolk, Va.	.....	.....	30.41	773.2	42.5	5.8	91	NE	5	2.2	.....	8c	Fog	W	.....	Inap.	Inap.	Fair...	.....
North Platte, Neb.	27.03	686.6	29.94	752.8	36	2.2	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	.....
Omaha, Neb.	29.00	736.6	30.12	765.0	28	— 2.2	94	N	4	1.8	.....	10c	0	.....	.....	0	0	Cloudy...	.....
Oswego, N. Y.	.....	.....	30.48	774.2	34.5	1.4	89	Calm	0	0	.....	Haze	2s	.....	NW	0	0	Fair...	.....
Peck's Beach, N. J.	.....	.....	30.48	774.2	30	— 1.1	100	NE	4	1.8	.....	Haze	8s	.....	.....	0	0	Fair...	.....
Pembina, Dakota	.....	.....	30.51	774.9	— 7	—21.7	100	SE	4	1.8	.....	Haze	Haze	.....	.....	0	0	Hazy...	.....
Philadelphia, Penn	.....	.....	30.50	774.7	35	1.7	80	NE	3	1.3	.....	5ck	Sm'e	W	.....	0	0	Fair...	.....
Pike's Peak, Colorado	17.54	445.5	29.75	755.6	5	—15.0	75	SW	62	27.7	.....	5c	5s	.....	.....	0	0	Cloudy...	.....
Pittsburgh, Penn	.....	.....	30.46	773.7	30	— 1.1	89	E	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	.....
Port Huron, Mich	.....	.....	30.45	773.4	26	— 3.3	100	Calm	0	0	.....	8c	Fog	.....	.....	0	0	Cloudy...	.....
Portland, Me.	.....	.....	30.40	772.1	35	1.7	54	NW	3	1.3	.....	0	Haze	.....	.....	0	0	Clear...	.....
Portland, Oregon	.....	.....	29.58	751.3	42	5.6	91	Calm	0	0	.....	.....	10s	.....	.....	0.70	17.8	Cloudy...	.....
Punta Rassa, Fla.	.....	.....	30.26	768.6	67.0	19.4	94	E	1	0.4	.....	8ck	0	E	.....	0	0	Cloudy...	.....
Rochester, N. Y.	.....	.....	30.46	773.7	33	0.6	79	SW	2	0.9	.....	0	Sm'e	.....	.....	0	0	Clear...	.....
Salt Lake City, Utah	25.41	646.2	29.77	756.1	39	3.9	56	S	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy...	.....
Sandy Hook, N. J.	.....	.....	30.48	773.7	34	1.1	89	NW	.....	.....	.....	5c	0	.....	.....	0	0	Fair...	.....
San Diego, Cal.	.....	.....	30.02	762.5	62	11.1	86	S	8	3.6	.....	.....	10ks	S	0	0	0	Cloudy...	.....
San Francisco, Cal.	.....	.....	29.55	750.6	49	9.4	93	SE	24	10.7	.....	.....	10n	.....	.....	0.93	23.6	Heavy rain...	.....
Santa Fe, N. M	23.26	590.8	29.80	756.9	38	3.3	17	E	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy...	.....
Savannah, Ga.	.....	.....	30.35	770.9	55	12.8	87	NE	3	1.3	.....	.....	10n	.....	NE	0.02	0.5	Light rain...	.....
Shreveport, La.	.....	.....	30.42	770.1	58	14.4	100	SE	3	1.3	.....	.....	Fog	.....	S	0.09	2.3	Foggy	.....
Smithville, N. C.	.....	.....	30.41	772.4	47	8.3	96	N	8	3.6	.....	.....	10s	.....	N	0.26	6.6	Cloudy...	.....
Springfield, Mass	.....	.....	30.46	773.7	36.5	2.5	66	NW	4	1.8	.....	2c	0	.....	.....	0	0	Clear...	.....
St. Louis, Mo.	.....	.....	30.23	767.8	45	7.2	68	S	6	2.7	.....	.....	10s	.....	.....	0.24	6.1	Cloudy...	.....
St. Marks, Fla	.....	.....	30.30	769.6	59	15.0	100	N	5	2.2	.....	.....	Fog	.....	.....	0	0	Dense fog...	.....
St. Paul, Minn	.....	.....	30.32	770.1	17.5	— 8.1	83	NE	9	4.0	.....	.....	10s	.....	NE	0	0	Cloudy...	.....
St. Paul's Island, Alaska	.....	.....	29.83	757.7	25	— 3.9	84	ENE	15	6.7	.....	.....	10s	.....	.....	0.01	0.3	.....	.....
Squan Beach, N. J.	.....	.....	30.39	771.9	31	— 0.6	79	Calm	0	0	.....	2c	5es	.....	.....	0	0	Fair...	.....
Thatcher's Island, Mass.	.....	.....	30.43	772.9	34	1.1	69	NW	14	6.3	.....	0	0	.....	.....	0	0	Clear...	.....
Toledo, Ohio	.....	.....	30.38	771.6	33	0.6	79	E	2	0.9	.....	0	Fog	.....	E	0	0	Clear...	.....
Tucson, Arizona	27.54	699.5	30.49	774.4	57	13.9	.....	SE	.....	.....	.....	0	10s	.....	S	0	0	Cloudy...	.....
Tybee Island, Ga.	.....	.....	30.34	770.6	53	11.7	93	N	4	1.8	.....	.....	10n	.....	N	0.29	5.1	Light rain...	.....
Vicksburg, Miss.	.....	.....	30.36	771.1	53.5	11.9	98	SE	2	0.9	.....	5k	Fog	.....	.....	Inap.	Inap.	Foggy	.....

UNITED STATES SERIES.—CONTINUED

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From —	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From —	CLOUDS. Direction. Lower. From —	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	23.96	608.6	29.44	747.8	31	— 0.6	64	NE	2	0.9	.....	10c	0	SW	.....	0	0	Cloudy	
Washington, D. C.	.....	.....	30.50	774.7	31	— 0.6	95	W	2	0.9	.....	5cs	Fog	W	.....	0	0	Foggy	
Wilmington, N. C	.....	.....	30.41	772.4	47	8.3	92	NE	6	2.7	.....	.....	10s	.....	.....	0.16	4.1	Threatening	
Wood's Holl, Mass.	.....	.....	30.42	772.7	33	0.6	69	NW	7	3.1	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va.	28.00	711.2	30.24	768.1	40	4.4	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Yankton, Dakota	28.88	733.5	30.29	769.4	14	—10.0	72	E	7	3.1	.....	.....	10s	.....	.....	0	0	Cloudy	
Yuma, Arizona	.....	.....	29.99	761.7	52	11.1	.....	SW	.....	.....	.....	.....	10ck	.....	SW	Inap.	Inap.	Cloudy	
SUB-SERIES.																			
Bridgetown, Barbados, W. I.	.....	.....	30.09	764.3	78	25.6	90	NE	7	3.1	.....	2k	10s	W	.....	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.06	763.5	75	23.9	86	E	.....	.....	.....	0	5ks	.....	.....	0.21	5.3	Fair	L. V. Bigard.
St. Thomas, St. T., W. I.	.....	.....	30.34	770.6	76	24.4	72	E	9	4.0	.....	2c	4k	E	.....	0.09	2.3	Fair	W. S. Cameron.
Kingston, Jamaica, W. I.	.....	.....	30.31	769.9	72	22.2	71	Calm	0	0	.....	2c	2s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I.	.....	.....	29.97	761.2	73	22.8	76	W	1.2	0.5	.....	0	2s	.....	NW	.....	.....	Fair	Robert Mason.
Havana, Cuba, W. I.	.....	.....	30.23	767.8	73	22.8	76	SE	3.6	1.6	.....	8ck	0	N	.....	0	0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.27	768.8	65.0	18.3	84	SW	12.0	5.4	.....	0	10k	.....	.....	0	0	Fair	C. F. Allen.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	27.30	693.4	30.12	765.0	63	17.2	83	N	1.0	0.4	.....	2c	2k	NE	.....	0.05	1.3	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A.	.....	.....	30.03	762.7	78	25.6	82	NE	.....	.....	4	.....	8ks	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A.	.....	.....	30.02	762.4	79.7	26.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.336	8.50	.....	Dr. H. Groot.
Medellin, Colombia, S. A.	25.22	640.7	.....	.....	66.6	19.2	81	.....	0	0	.....	3ck	5s	.....	.....	0.38	9.7	Cloudy	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.98	761.5	20.6	— 6.7	.....	W	.....	.....	.....	5k	10s	.....	.....	0.10	2.5	Fair	John Delaney.
York Factory, B. A.	.....	.....	30.09	764.3	—28	—33.3	.....	S	3	1.3	.....	7k	0	W	.....	0	0	.....	J. Fortescue.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS

TAKEN SIMULTANEOUSLY ON FEBRUARY 9, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:48 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	29.91	759.7	60.1	15.6	68	SE	.....	.....	2	.....	3	.....	.....	0	0	Fair.....	Charnot and Masselot.
Algiers	.....	.....	29.96	761.0	60.8	16.0	62	N	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Sfax	.....	.....	30.02	762.5	59.4	15.2	46	W	.....	.....	3	.....	0	.....	.....	0.047	1.2	Clear.....	Jacques.
Saida	.....	.....	30.09	764.2	62.2	16.8	59	S	.....	.....	2	.....	1	.....	.....	0	0	Clear.....	Chauvey.
Tebessa	.....	.....	30.02	762.5	64.4	18.0	29	SW	.....	.....	2	.....	2	.....	.....	0	0	Clear.....	Millot.
Geriville	.....	.....	30.08	763.9	45.0	7.2	.....	S	.....	.....	4	.....	2	.....	.....	0	0	Clear.....	Colin.
Laghouat	.....	.....	30.10	764.4	51.4	10.8	68	SSE	.....	.....	3	.....	2	.....	.....	0	0	Clear.....	Huard.
Biskra	.....	.....	30.11	764.7	59.0	15.0	58	SE	.....	.....	3	.....	1	.....	.....	0	0	Clear.....	Delord.
	.....	.....	30.10	764.6	63.0	17.2	34	NNW	.....	.....	1	.....	1	.....	.....	0	0	Clear.....	Dubois.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	29.87	758.8	34.3	1.3	85	SSW	.....	.....	1	.....	0	.....	.....	0.063	1.6	.....	Prof. Ivan Stosir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	29.92	759.9	32.0	0.0	94	NE	.....	.....	3	.....	8	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	29.92	759.9	35.1	1.7	86	Calm	.....	.....	0	.....	9	.....	.....	0	0	.....	Julius Mikolik.
Gratz	28.58	726.0	29.83	757.7	34.7	1.5	86	S	.....	.....	2	.....	10	.....	.....	0.450	12.2	.....	Andreas Rospini.
Hermannstadt	28.44	722.4	29.90	759.5	36.7	2.6	76	ESE	.....	.....	1	.....	5	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.52	724.4	29.94	760.5	25.2	— 3.8	82	WSW	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	.....	.....	30.09	764.3	25.3	— 3.7	91	SE	.....	.....	3	.....	10	.....	.....	0.075	1.9	.....	Dr. T. Stanecki.
Nyirekyhaza	.....	.....	29.91	759.8	34.9	1.6	85	E	.....	.....	1	.....	6	.....	.....	0	0	.....	Habsuda Daniel.
Pola	.....	.....	29.93	760.2	39.9	4.4	71	W	.....	.....	2	.....	5ks	.....	.....	0.037	0.95	.....	I.R. Hydrographic Office
Szegedin	.....	.....	29.85	758.1	35.6	2.0	80	S	.....	.....	2	.....	6	.....	.....	0.122	3.10	.....	Karl Stancel.
Trieste	.....	.....	29.91	759.8	39.4	4.1	69	SW	.....	.....	1	.....	2	.....	.....	0.169	4.3	Partly cov'd.	Prof. V. Farolfi.
Vienna	.....	.....	29.84	757.9	26.1	— 3.3	86	W	.....	.....	4	.....	10	.....	.....	0.185	4.7	Snowing.....	I. R. Central Institute.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	29.87	758.8	29.5	— 1.4	95	NNE	.....	.....	0	.....	10	.....	.....	0.055	1.40	.....	Royal Observatory.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	....	.....	29.95	760.7	37.0	2.8	.....	SE	10	4.5	.....	.....	5	.....	.....	0.070	1.78	.....	William Boswell.
Ardrossan	.....	.....	29.92	760.0	38.5	3.6	.....	ENE	.....	.....	3	.....	5	.....	.....	.....	.....	Hazy	J. Mayes.
Armagh Observatory	.....	.....	29.91	759.7	36.2	2.3	.....	E	1	0.4	.....	.....	10	.....	.....	.....	.....	Overcast... ..	S. Call, for Dr. Robinson
Bidston, Liverpool Obs	.....	.....	29.87	758.7	38	3.3	.....	NNE	7	3.1	.....	.....	10	.....	.....	.....	.....	Overcast	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.88	758.9	37.3	2.9	.....	SE	.....	.....	1	.....	10	.....	.....	.....	.....	*D. clouds	J. Dreyer.
Bradford	.....	.....	29.84	757.9	34.6	1.4	.....	NW	.....	.....	0	.....	10	.....	.....	0.02	0.5	Snowing	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.05	763.3	78.6	25.9	.....	NE	.....	.....	3	.....	4	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.89	759.2	36.0	2.2	.....	SSE	.....	.....	1	.....	10	.....	.....	.....	.....	*D. clouds	H. Todd.
Cardington	.....	.....	29.91	759.7	34.4	1.3	.....	NE	.....	.....	1	.....	10	.....	.....	Blank	Blank	Overcast	John McLaren.
Carlisle	.....	.....	29.88	758.9	38.1	3.4	.....	E	.....	.....	1	.....	9	.....	.....	0.03	0.8	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E	.....	.....	29.89	759.2	34.2	1.2	.....	NNE	.....	.....	1	.....	.....	.....	.....	0	0	Snowing	Capt. J. Fellowes, R. E.
Dartmoor	28.40	721.3	29.96	761.0	33.0	0.6	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Overcast	R. E. Power.
Donaghadee	.....	.....	29.89	759.2	40	4.4	.....	SE	.....	.....	2	.....	8	.....	.....	.....	.....	*D. clouds	J. Mac Gowan.
Dover	.....	.....	29.87	758.7	33	0.6	.....	Calm	.....	.....	0	.....	9	.....	.....	.....	.....	Snowing	J. Costello.
Eccles, (near Manchester)	.....	.....	29.86	758.4	35.9	2.2	.....	Calm	0	0	.....	.....	10	.....	.....	.....	.....	Drizzling	Thomas Mackereth.
Falmouth Observatory	.....	.....	29.89	759.2	38.5	3.6	.....	N	4	1.8	.....	.....	10	.....	.....	.....	.....	Foggy	The Staff.
Fort Napier, (Natal)	27.65	702.3	29.91	759.7	72.1	22.3	.....	NE	.....	.....	1	.....	9	.....	.....	.....	.....	*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.96	761.0	83	28.3	.....	N	.....	.....	0	.....	4	.....	.....	.....	.....	Blue sky	Lieut.
Galway, Queen's College	.....	.....	29.79	756.7	37	2.8	.....	S	.....	.....	4	.....	10	.....	.....	.....	.....	Snowing	B. G. Clare, for Prof. Currey.
Gibraltar, (Mediterranean)	.....	.....	29.90	759.4	60.8	16.0	.....	SW	.....	.....	6	.....	9	.....	.....	Blank	Blank	Overcast	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.90	759.4	36.0	2.2	.....	E	.....	.....	1	.....	5	.....	.....	.....	.....	Fine	Lewis Stuart.
Great Yarmouth	.....	.....	29.90	759.4	34	1.1	.....	ESE	.....	.....	3	.....	6	.....	.....	.....	.....	*D. clouds	G. T. Watson.
Greenwich Royal Obs	.....	.....	29.89	759.2	36.2	2.3	.....	E	.....	.....	1	.....	6	.....	.....	.....	.....	*D. clouds	The Staff for G. B. Airy
Guernsey	.....	.....	29.85	758.2	38.5	3.6	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Misty	Dr. S. E. Hoskins.
Halifax, Moorside Obs	.....	.....	29.90	759.4	33.4	0.8	.....	ENE	.....	.....	1	.....	10	.....	.....	.....	.....	Snowing	L. J. Crossley.
Helston	.....	.....	29.87	758.7	40	4.4	.....	NE	.....	.....	2	.....	10	.....	.....	0	0	Overcast	M. P. Moyle.
Holyhead	.....	.....	29.88	758.9	38	3.3	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Hazy	John Tilston.
Kew Observatory	.....	.....	29.90	759.4	33.4	0.8	.....	NNE	1	0.4	.....	.....	10	.....	.....	.....	.....	Misty	The Staff.
Kingstown	.....	.....	29.91	759.7	39	3.9	.....	NW	.....	.....	1	.....	10	.....	.....	.....	.....	Foggy	George Mitchell
Leicester Museum	.....	.....	29.90	759.4	34.0	1.1	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Snowing	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.05	763.3	57.2	14.0	.....	NW	.....	.....	1	.....	8k	.....	.....	.....	.....	*D. clouds	Fred Travis, Pvt A.H.C.
Nairn	.....	.....	29.95	760.7	35	1.7	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Overcast	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.24	768.1	73.2	22.9	.....	SE	.....	.....	3	.....	4	.....	.....	.....	.....	*D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	29.90	759.4	34.1	1.2	.....	ESE	.....	.....	1	.....	10d	.....	ESE	.....	.....	Snowing	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	29.88	758.9	34.9	1.6	.....	NNE	.....	.....	0-1	.....	10	.....	.....	.....	.....	Snowing	Rev. Stephen Whitty.
Oxford, Radcliffe Obs	.....	.....	29.87	758.7	33	0.6	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Snowing	J. Lucas.
Plymouth	.....	.....	29.88	758.9	38.0	3.3	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Misty	John Merrifield.
Roche's Point	.....	.....	29.88	758.9	43	6.1	.....	S	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast	W. Kennedy.
Saint Ann's Head	.....	.....	29.90	759.4	37	2.8	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Misty	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.83	757.7	39.2	4.0	.....	E	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	A. P. Amy.
Sandwick Manse (Orkneys)	.....	.....	30.02	762.5	34	1.1	.....	E	2	0.9	.....	.....	10	.....	.....	.....	.....	Snow-show'rs	Rev. Dr. Clouston
Scarborough	.....	.....	29.90	759.4	34.0	1.1	.....	SSE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	F. Shaw.
Scutari Cemetery (Turkey)	.....	.....	29.65	753.1	46.0	7.8	.....	NE	.....	.....	2	.....	10	.....	.....	.....	.....	Raining	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.88	758.9	35.5	1.9	.....	SE	.....	.....	1	.....	10	.....	.....	0	0	Raining	W. F. Cooper.
Silloth Rectory	.....	.....	29.88	758.9	38.8	3.8	80	NNE	.....	.....	1	.....	10	.....	.....	0	0	Overcast	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	29.87	758.7	34.6	1.4	.....	NE	.....	.....	0	.....	10	.....	.....	.....	.....	Snowing	The Staff.
Stornoway, Lews C. (Hebr)	.....	.....	29.91	759.7	38	3.3	.....	ESE	.....	.....	2	.....	2	.....	.....	.....	.....	Blue sky	John Smith.
Strattield Turgiss	.....	.....	29.88	758.9	38.3	3.5	.....	N	.....	.....	1	.....	8	.....	.....	.....	.....	*D. clouds	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.96	761.0	36	2.2	.....	ESE	.....	.....	2	.....	9	.....	.....	.....	.....	Overcast	John Trotter.
Truro, Royal Institution	.....	.....	29.91	759.7	41	5.0	.....	NE	.....	.....	2	.....	10	.....	.....	.....	.....	Gloomy	W. Newcombe.
Valencia Observatory	.....	.....	29.83	757.7	45.6	7.6	.....	SE	21	9.4	.....	.....	6	.....	.....	.....	.....	*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.82	757.4	83.5	28.6	47	WNW	18	8.0	.....	.....	2	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	40	4.4	.....	E	.....	.....	3	.....	3	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	30.04	763.0	35.8	2.1	.....	E	.....	.....	1	.....	10k	.....	.....	0.14	3.6	Showery	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	29.85	758.2	39	3.9	.....	SE	.....	.....	4	.....	10	.....	.....	0	0	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,490 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.05	763.3	30.9	— 0.6	86	SE	.....	.....	4	.....	10	.....	.....	.....	.....	.....	.....
Fanöe	.....	.....	29.99	761.8	30.6	— 0.8	92	ENE	.....	.....	4	.....	9	.....	.....	.....	.....	.....	.....
Godthaab, (Greenland)	.....	.....	28.99	736.3	27.0	— 2.8	55	E	.....	.....	4	.....	10	.....	.....	.....	.....	.....	.....
Stykkisholm, (Iceland)	.....	.....	29.56	750.7	36.1	2.3	84	SE	.....	.....	2	.....	8	.....	.....	.....	.....	.....	.....
Thorshavn, (Faröe)	.....	.....	29.97	761.3	40.3	4.6	87	SSE	.....	.....	2	.....	10	.....	.....	.....	.....	Snowing	.....
Vestervig	.....	.....	30.08	763.9	28.4	— 2.0	96	NE	.....	.....	2	.....	10	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. —0.	Clouds. Amount. Upper. —0.	Clouds. Amount. Lower. —0.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.83	757.7	37.4	3	88	NW	.....	.....	2	.....	10	.....	.....	0.063	1.6	Covered	Normal School.
Amiens	.....	.....	29.76	755.9	37.8	3.2	53	NNW	.....	.....	6	.....	5	.....	NW	0	0	Cloudy.....	Normal School.
Avignon	.....	.....	29.95	760.8	36.9	2.7	55	N	.....	.....	1	.....	10	.....	.....	0	0	Misty.....	Normal School.
Bar-sur-Seine	.....	.....	29.91	759.8	35.1	1.7	73	W	.....	.....	1	.....	8k	.....	W	0.264	6.7	Very cloudy	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.86	758.4	36.5	2.5	79	SE	0.0	0.0	.....	.....	.....	.....	SE	0.039	1.0	.....	Beaumette Observatory
Beauvais	.....	.....	29.91	759.7	36.1	2.3	62	SE	.....	.....	1	.....	10	.....	NW	0.08	2.	Covered.....	Normal School.
Besançon	.....	.....	29.76	755.9	32.2	0.1	.....	SSW	.....	.....	2	.....	10	.....	.....	1.57	40.	Covered	Normal School.
Bourg en Bresse	.....	.....	29.93	760.2	37.0	2.8	100	S	.....	.....	1	.....	10	.....	.....	.....	.....	Snowing.....	Normal School.
Bourges	.....	.....	29.84	757.8	37.6	3.1	83	NE	.....	.....	2	.....	1	.....	ENE	0.20	5.	Clear.....	Normal School.
Brest	.....	.....	29.79	756.6	42.3	5.7	61	E	.....	.....	2	.....	5	.....	ENE	0	0	½ covered....	Naval Observatory.
Caen	.....	.....	29.86	758.5	33.8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Chartres	.....	.....	29.86	758.4	31.1	— 0.5	.....	N	.....	.....	2	.....	10	.....	.....	0	0	Covered.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.85	758.2	37.8	3.2	58	S	.....	.....	2	.....	10	.....	.....	0	0	Covered.....	Normal School.
Commercy	.....	.....	29.96	760.9	28.6	— 1.9	96	WSW	.....	.....	2	.....	10n	.....	WSW	0	0	Covered.....	Puy de Dome, Obs.
Commune de Gréasque*	.....	.....	29.93	760.2	42.8	6.0	51	NW	.....	.....	2	.....	8	.....	SW	0	0	Covered	Normal School.
Grenoble	.....	.....	29.98	761.4	32.0	0	82	S	.....	.....	1	2c	.....	.....	.....	0	0	Slightly cl'dy	Normal School.
Le Mans	.....	.....	29.89	759.1	34.3	1.3	80	W	.....	.....	3	.....	10	.....	W	0	0	Covered	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	29.94	760.4	35.8	2.1	89	SW	.....	.....	1	.....	10	.....	.....	0.142	3.6	Covered	Normal School.
Mâcon	.....	.....	29.86	758.4	36.5	2.5	84	Calm	.....	.....	0	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	29.97	761.3	29.7	— 1.3	80	SW	.....	.....	4	.....	10	.....	.....	0	0	Covered.....	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	29.99	761.8	40.8	4.9	58	NW	.....	.....	6	.....	10	.....	SE	0	0	Covered	Normal School.
Orleans	.....	.....	29.82	757.4	36.0	2.2	89	SW	.....	.....	3	.....	10	.....	SW	0	0	Covered	Normal School.
Paris Observatory	.....	.....	29.90	759.4	34.0	1.1	85	S	.....	.....	1	.....	10	.....	.....	Blank	Blank	Covered	National Observatory
Parthenay	.....	.....	29.93	760.3	36.7	2.6	93	SW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30.00	762.0	36.5	2.5	.....	NW	.....	.....	2	.....	8	.....	.....	0	0	Very cloudy	Normal School.
La Roche-sur-Yon	.....	.....	29.87	758.6	38.1	3.4	66	E	.....	.....	1	.....	5	.....	SE	0	0	Cloudy.....	Normal School.
Rochefort, Observatory	.....	.....	29.85	758.1	39.6	4.2	65	SE	.....	.....	5	.....	10	.....	NW	0	0	Covered	Naval Observatory.
Rouen	.....	.....	29.89	759.3	36.5	2.5	79	NNW	.....	.....	3	.....	10	.....	.....	0	0	Covered	Normal School.
Saint Lo	.....	.....	29.88	759.0	34.7	1.5	100	NW	.....	.....	1	.....	10	.....	S	0	0	.....	Normal School.
Tarbes	28.75	730.2	29.87	758.6	44.6	7	79	S	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Toulouse	.....	.....	29.93	760.1	40.1	4.5	74	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Covered	Normal School
Villefranche	.....	.....	29.85	758.2	37.4	3	74	N	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.2	75.2	24	83	NE	.....	.....	2	.....	8kn	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	29.91	759.6	44.1	6.7	71	W	.....	.....	1	.....	10	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.56	623.8	29.98	761.6	27.9	— 2.3	92	SW	24.2	10.83	.....	.....	8	.....	SW	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	29.88	759.0	32.7	0.4	92	S	0	.....	.....	.....	10	.....	W	0.142	3.6	Snow & fog..	Montsouris Observ'tory
Perpignan	.....	.....	29.87	758.6	39.7	4.3	75	E	7.4	3.33	.....	.....	6	.....	SW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H.P†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saint Maur, (near Paris)	.....	.....	29.89	759.2	35.4	1.9	82	WNW	.....	.....	1	.....	10	.....	.....	0.343	8.7	Very cloudy	M. Baylac.
Toulouse	.....	.....	29.83	757.7	35.6	2.	82	NNW	.....	.....	1	.....	9	.....	.....	0	0	.....	E. Renou.
Tours	.....	.....	29.87	758.6	37.0	2.8	83	WNW	.....	.....	3	.....	10	.....	ESE	0	0	.....	Toulouse Observatory
Versailles, (near Paris)	.....	.....	29.87	758.8	33.4	0.8	88	SW	.....	.....	1	.....	10	.....	.....	0.119	3.02	Light fog.....	C. Marquet.
Zi-Ka-Wei, (near Shanghai)	.....	.....	30.32	770.2	35.6	2.0	85	SSE	5.2	2.3	.....	0	0	.....	.....	{ c 0	0 }	Misty.....	Dr. A. Bérigny.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	{ c 0	0 }	.....	H. Le Lec, S. J.

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,580.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet: Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Summit inaccessible; weather snowy; snow-fall on the Plantade 30 millimeters, or 1.2 inches.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.78	756.3	21.4	— 5.9	93	SE	.....	.....	3	.....	6	.....	.....	0	0	.....	Prof. T. Hoh.
Berlin	.....	.....	29.98	761.6	31.1	— 0.5	81	SE	.....	.....	2	.....	7	.....	.....	0.110	2.8	.....	Prof. Arndt.
Breslau	.....	.....	29.94	760 4	34.5	1.4	81	ESE	.....	.....	2	.....	10	.....	.....	0	0	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	29.91	759.7	30.2	— 1.0	84	SSW	.....	.....	1	.....	10	.....	.....	0.106	2.7	.....	A. Senz.
Cassel	.....	.....	29.85	758.2	31.3	— 0.4	85	SE	.....	.....	1	.....	0	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe.
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.00	761.9	28.8	— 1.8	85	E	.....	.....	1	.....	10	.....	.....	0.008	0.2	.....	Physical Society.
Friedrichshafen	.....	.....	29.94	760.5	32.0	0.0	72	SW	.....	.....	.....	.....	9	.....	.....	0.028	0.7	Snowing.....	M. Wilhelm.
Hamburg	.....	.....	29.98	761.4	28.0	— 2.2	85	SE	.....	.....	2	.....	4	.....	.....	0.028	0.7	Smoke-haze	Deutsche Seewarte.
Kiel	.....	.....	30.02	762.5	32.2	0.1	93	Calm	.....	.....	0	.....	7	.....	.....	0.016	0.4	Snowing.....	Prof. G. Karsten.
Königsberg	.....	.....	30.19	766.8	25.7	— 3.5	90	SE	.....	.....	2	.....	10	.....	.....	0.020	0.5	Snowing.....	Prof. E. Luther.
Köslin	.....	.....	30.06	763.4	29.7	— 1.3	.....	SE	.....	.....	1	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	29.98	761.5	27.7	— 2.4	67	ESE	.....	.....	1	.....	10	.....	.....	0	0	Foggy	Prof. Bruhns.
Münster	.....	.....	29.89	759.1	30.0	— 1.1	98	NE	.....	.....	1	.....	4	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	30.02	762.4	32.7	0.4	83	E	.....	.....	5	.....	10	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.95	760.6	29.1	— 1.6	84	NNW	.....	.....	1	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	29.93	760 2	30.2	— 1.0	76	N	.....	.....	.....	.....	10	.....	.....	0.016	0.4	Light snow..	Prof. Schoder.
Thorn	.....	.....	30.03	762.8	29.1	— 1.6	90	NE	.....	.....	5	.....	9	.....	.....	0	0	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	29.83	757.7	30.2	— 1.0	86	SE	.....	.....	3	.....	10	.....	.....	0.004	0.1	Foggy	Prof. Fiesch.
Wustrow, Naval School	.....	.....	30.05	763.2	32.0	0.0	90	NE	.....	.....	5	.....	10	.....	.....	0	0	.....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.67	753.6	55.6	13.1	.....	NW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.88	759.0	36.7	2.6	57	SE	0.7	0.3			0			0	0		
Padua			29.89	759.2	38.5	3.6	57	W	9.4	4.2			0			0	0		
Vicenza			29.89	759.3	35.4	1.9	69	ENE			2		0			0	0		
Verona																			
Bergamo					35.6	2.0		S			2		3			0	0		
Domodossola																			
Milan			29.94	760.4	35.6	2.0	67	NW			1		6	SSW		0	0		
Pavia																			
Moncalieri			29.96	761.0	27.7	— 2.4	77	ESE	0	0			3	W		0	0		
Mondovi			29.92	760.0	29.5	— 1.4	55	NW			2		4	NNW		0	0		
Porto Maurizio																			
Genoa			29.88	759.0	40.8	4.9	70	N	2.5	1.1			10	SE		0.020	0.5		
Piacenza			29.94	760.4	34.7	1.5	69	N	9.4	4.2			8	SE		0	0		
Bologna			29.93	760.3	39.4	4.1	30	W			1		2	S		0	0		
Florence			29.98	761.5	35.1	1.7	82	N			2		10	NW		0	0	Snowing	
Leghorn			29.92	760.0	37.9	3.3	86	N	6.3	2.8			9			0	0		
Siena			29.96	761.0	35.4	1.9	97	SW	0	0			10			0.055	1.4	Snowing	
Urbino																			
Pesaro																			
Ancona			29.97	761.3	39.9	4.4	74	W			4		10			0	0		
Grosseto			29.97	761.2	46.0	7.8	83	SE			2		7	NW		0.008	0.2		
Rome			30.00	762.0	50.0	10.0	58	SSE	3.8	1.7			3			0	0		
Naples, O. U			30.02	762.4	52.0	11.1	51	WNW			4		1	NW		0	0		
Lecce			29.95	760.8	51.4	10.8	46	ENE	15.4	6.9			2	W		0	0		
Cosenza			30.03	762.8	47.5	8.6	77	N	1.8	0.8			10			0.031	0.8	Raining	
Riposto, (Sicily)			29.99	761.8	56.8	13.8	64	S			2		5	E		0	0		
Palermo			30.00	762.1	54.5	12.5	44	WNW	8.7	3.9			5			0	0		
Caltanissetta			30.02	762.6	46.8	8.2	57	WNW			6		2	ESE		0	0		
Sub-Series.																			
Naples, S. R			30.01	762.2	49.8	9.9	56	SW	3.8	1.7			c	SW		0.264	6.7	Foggy	Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters, or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.92	759.9	33.4	0.8		ENE			2								
Groningen			29.87	758.8	26.6	— 3.0		E			2								
Helder			29.92	760.0	27.1	— 2.7		ENE			1								
Utrecht			29.86	758.4	28.2	— 2.1	94	NE			3		0					Clear	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.14	765.6	33.8	1.0	89	Calm	0	0			0			0	0		
Brönö			30.09	764.2	35.6	2.0	64	Calm	0	0			6			0	0		
Christiania			30.26	768.6	22.6	— 5.2	96	ENE	1.1	0.5			10			0.059	1.5		
Tromsö			29.83	757.6	36.1	— 2.3	77	SW	9	4			10			0.118	3.0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WINDS. Direction. From—	WINDS. Velocity. Miles per hour.	WINDS. Velocity. Meters per second.	WINDS. Force. 0—10	CLOUDS. Amount. Upper. —10.	CLOUDS. Amount. Lower. —10.	CLOUDS. Direction. Upper. Storm—	CLOUDS. Direction. Lower. From—	RAIN-FALL IN THE PAST 24 HOURS. Inches.	RAIN-FALL IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Angra, (Azores,)	.....	.....	29.95	760.7	50.7	10.4	77	WNW	9.8	4.39	.....	.....	3	.....	.....	1.654	42.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.80	757.0	49.1	9.5	74	SW	9.1	4.08	.....	.....	9	SW	.....	0.495	12.58	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	29.88	759.0	60.8	16.0	69	W	19.6	8.75	.....	.....	10	.....	.....	0.185	4.7	Raining.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	29.74	755.3	54.0	12.2	69	SW	24.8	11.1	.....	.....	8	.....	.....	1.343	34.1	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.05	763.3	28.2	— 2.1	90	E	11	5	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30.36	771.1	24.4	— 4.2	61	E	9	4	.....	.....	4	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	30.46	773.7	18.9	— 7.3	80	ESE	4	2	.....	.....	1	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.45	773.3	19.0	— 7.2	84	SSE	2	1	.....	.....	1	.....	.....	.....	.....	.....	Central Physical Obs
Knopio	.....	.....	30.32	770.0	7.9	—13.4	100	NW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	30.42	772.6	16.3	— 8.7	91	E	9	4	.....	.....	2	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.28	769.0	26.4	— 3.1	55	E	25	11	.....	.....	0	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.17	766.4	24.6	— 4.1	82	ENE	13	6	.....	.....	0	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.53	775.4	18.5	— 7.5	86	SSW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.35	771.0	20.3	— 6.5	71	ENE	18	8	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.07	763.7	15.4	— 9.2	94	W	9	4	.....	.....	9	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.74	730.0	30.21	767.4	39.2	4.0	72	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.48	774.2	14.0	—10.0	90	NNE	11	5	.....	.....	7	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.18	766.6	15.8	— 9.0	91	WNW	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	30.34	770.5	15.3	— 9.3	81	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.65	727.7	29.70	754.4	19.0	— 7.2	90	W	31	14	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.22	767.5	39.9	4.4	56	NE	7	3	.....	.....	9	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.19	766.7	16.7	— 8.5	70	E	4	2	.....	.....	3	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.67	728.1	30.46	773.7	34.5	1.4	72	NNW	20	9	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	29.86	758.4	12.9	—10.6	75	SW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	29.34	745.1	14.7	— 9.6	88	SW	9	4	.....	.....	8	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.04	762.9	30.4	— 0.9	54	SW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.40	772.1	9.7	—12.4	51	Calm	0	0	.....	.....	0	.....	.....	Blank	Blank	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	— 7.4	—21.9	85	NW	16	7	.....	.....	4	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.82	757.4	46.4	8.0	84	N	4.5	2.00	.....	.....	10	.....	.....	0.181	4.6	Rainy.....	Royal Observatory.
San Fernando	.....	.....	29.93	760.1	59.5	15.3	79	WSW	15.0	6.7	.....	1	3	WNW	WNW	0.465	11.8	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.15	765.7	10.8	—11.8	85	S	.....	.....	2	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.26	768.7	17.6	— 8.0	100	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	30.27	768.8	18.0	— 7.8	97	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Stockholm	.....	.....	30.23	767.7	27.9	— 2.3	83	E	.....	.....	2	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	30.25	768.3	28.4	— 2.0	100	SE	.....	.....	4	.....	10	.....	.....	0.035	0.9	.....	
SUB-SERIES.																			
Upsala	.....	.....	30.27	768.8	27.0	— 2.8	89	E	2.7	1.2	.....	.....	10	.....	.....	0.006	0.15	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.45	722.6	29.93	760.2	37.0	2.8	57	SSW	.....	.....	1	.....	4	.....	.....	0	0	Cloudy	The Observatory.
Zurich	28.24	717.4	29.96	761.0	31.8	— 0.1	83	SW	.....	.....	1	.....	8	.....	.....	0	0	Cloudy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —4.1 mm.; Thermometer, —0.1 cent.; Relative Humidity, —17 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	29.67	753.7	46.0	7.8	80	NE	12	5.5	.....	.....	10	.....	NE	0.610	15.5	.....	
Fao, (Persian Gulf)	.....	.....	30.27	768.8	60.8	16.0	.....	NW	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.76	755.8	46.6	8.1	.....	NW	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.79	756.6	52.3	11.3	.....	NW	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.88	759.0	42.8	6.0	.....	W	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.84	758.0	65.3	18.5	56	SE	.....	.....	1	.....	10cs	.....	.....	0	0	Threatening	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	30.41	772.4	—15.5	—26.4	70	NW	2.0	0.9	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.42	772.7	15	— 9.4	.....	NE	8	3.6	.....	.....	10s	.....	NE	0	0	Cloudy	W. R. Bigg.
*Chatham, N. B	.....	.....	30.50	774.7	— 8	—22.2	92	W	1	0.4	.....	0	0	.....	.....	0	0	Clear	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	30.43	772.9	3	—16.1	86	NW	8	3.6	.....	0	0	.....	.....	Inap.	Inap.	Clear	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.38	771.6	8.5	—13.1	77	E	.....	.....	1	.....	10n	.....	.....	0.05	1.3	Dull	James Smith, M. A.
Dalhousie, N. B	.....	.....	30.48	774.2	— 7.0	—21.7	40	W	.....	.....	2	.....	.....	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C	.....	.....	29.49	749.0	33.1	0.6	100	Calm	0	0	.....	1cs	.....	.....	.....	0	0	Clear	W. H. Bevis.
Fredericton, N. B	.....	.....	30.52	775.2	— 5.9	—21.1	96	N	1	0.4	.....	.....	.....	.....	.....	0.150	3.81	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	29.98	761.5	6	—14.4	100	E	8	3.6	.....	.....	10n	.....	.....	0	0	Cloudy	James Stewart.
Goderich, Ontario	.....	.....	29.97	761.2	33.7	0.9	89	NE	.....	.....	4	.....	10n	.....	.....	0	0	Sleety	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.03	762.7	31.1	— 0.5	.....	E	.....	.....	1	.....	10n	.....	.....	Inap.	Inap.	Raining	James Grant.
*Halifax, N. S	.....	.....	30.44	773.2	11	—11.7	76	N	5	2.2	.....	0	0	.....	.....	0.02	0.5	Clear	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.33	770.4	19	— 7.2	98	NE	13	5.8	.....	.....	10s	.....	NE	0	0	Cloudy	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.16	766.1	17.1	— 8.3	.....	SE	6	2.7	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.44	773.2	0	—17.8	73	NE	11	4.9	.....	Haze	5s	.....	.....	0.02	0.5	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.41	772.4	7	—13.9	76	N	6	2.7	.....	.....	10n	.....	W	Inap.	Inap.	Threatening	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.22	767.6	20	— 6.7	99	E	16	7.2	.....	.....	10n	.....	E	0.02	0.5	Light snow	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.12	765.0	32	0.0	90	NE	7	3.1	.....	.....	10n	.....	NE	0.04	1.0	Light rain	H. Morgan.
Port Hastings, N. S	.....	.....	30.47	773.9	18.9	— 7.3	.....	NW	15	6.7	.....	.....	.....	.....	.....	0	0	Fine	Peter Grant.
*Port Stanley, Ontario	.....	.....	30.05	763.3	33	0.6	91	E	15	6.7	.....	.....	10n	.....	E	0.25	6.3	Heavy rain	M. Payne.
*Quebec, Quebec	.....	.....	30.50	774.7	— 3	—19.4	66	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	Capt. Ash, R. N.
St. John, N. B	.....	.....	30.52	775.2	5	—15.0	75	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.06	763.5	27	— 2.8	88	E	11	4.9	.....	.....	10s	.....	.....	0.01	0.3	Light snow	K. Stewart.
Stayner, Ontario	.....	.....	30.15	765.8	24	— 4.4	94	SE	8	3.6	.....	.....	10n	.....	SE	Inap.	Inap.	Light snow	R. J. Cole.
Stratford, Ontario	.....	.....	30.11	764.8	31.0	— 0.6	96	E	15	6.7	.....	.....	10n	.....	.....	0	0	Rainy	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	30.39	771.9	11	—11.7	90	SW	1	0.4	.....	0	2ks	.....	.....	0	0	Clear	T. C. Hill.
*Toronto, Ontario	.....	.....	30.20	767.1	28	— 2.2	93	E	18	8.0	.....	.....	10n	.....	E	0.01	0.3	Light snow	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour	Wind. Velocity. Meters per second.	Wind. Force.	Clouds. Amount. Up'r	Clouds. Amount. Low'r	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.34	770.6	25	— 3.9	87	NW	1	0.4	.....	5k	5s	W	.....	0	0	Cloudy.	
Alpena, Mich.	.....	.....	29.98	761.5	28	— 2.2	100	E	17	7.6	.....	.....	10n	.....	.....	0.11	2.8	Light snow.	
Atlantic City, N. J.	.....	.....	30.33	770.4	37	2.8	100	S	2	0.9	.....	10c	Haze	NW	.....	0	0	Cloudy.	
Augusta, Ga.	.....	.....	30.37	771.4	41	5.0	100	N	2	0.9	.....	.....	Fog	.....	.....	0	0	Foggy.	
Baltimore, Md.	.....	.....	30.33	770.4	38	3.3	81	SE	1	0.4	.....	5k	Fog	W	.....	0	0	Foggy.	
Barnegat, N. J.	.....	.....	30.33	770.4	31	— 0.6	89	Calm	0	0	.....	5ck	Fog	N	.....	0	0	Fair.	
Benton, Montana	26.84	681.7	29.64	752.8	0	—17.8	100	Calm	0	0	.....	10c	0	.....	.....	0	0	Cloudy.	
Bismarck, Dakota	27.99	710.9	29.75	755.6	10	—12.2	79	E	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
Boston, Mass.	.....	.....	30.40	772.1	32	0.0	94	NE	10	4.5	.....	5k	5s	NE	NE	0	0	Cloudy.	
Breckenridge, Minn	.....	.....	29.86	758.4	14	—10.0	91	E	12	5.4	.....	.....	10s	.....	E	0.01	0.3	Cloudy.	
Buffalo, N. Y.	.....	.....	30.10	764.5	31.5	— 0.3	84	E	12	5.4	.....	.....	Haze	.....	.....	0	0	Hazy.	
Burlington, Vt.	.....	.....	30.42	772.7	15	— 9.4	82	N	4	1.8	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.	
Cairo, Ill.	.....	.....	30.05	763.3	53	11.7	93	S	11	4.9	.....	.....	10n	.....	S	Inap.	Inap.	Light rain.	
Cape Hatteras, N. C.	.....	.....	30.25	768.3	50	10.0	78	NE	10	4.5	.....	0	5ks	.....	SW	Inap.	Inap.	Fair.	
Cape Henry, Va.	.....	.....	30.35	770.9	45	7.2	100	Calm	0	0	.....	0	Fog	.....	.....	0	0	Clear.	
Cape May, N. J.	.....	.....	30.33	770.4	41	5.0	91	S	5	2.2	.....	0	Haze	.....	.....	0	0	Fair.	
Charleston, S. C.	.....	.....	30.36	771.1	47	8.3	85	N	3	1.3	.....	0	Fog	.....	.....	0.01	0.3	Clear.	
Cheyenne, Wyoming	23.78	604.0	29.72	754.9	37	2.8	37	W	16	7.2	.....	10ck	0	.....	.....	0	0	Cloudy.	
Chicago, Ill.	.....	.....	29.75	755.6	50	10.0	93	S	9	4.0	.....	.....	10n	.....	.....	1.78	45.2	Heavy rain.	
Cincinnati, Ohio	.....	.....	29.98	761.5	52	11.1	78	SW	6	2.7	.....	.....	10s	.....	SW	0.02	0.5	Cloudy.	
Cleveland, Ohio	.....	.....	29.94	760.5	43.8	6.6	92	SE	18	8.0	.....	.....	10n	.....	SW	0.46	11.7	Heavy rain.	
Colorado Springs, Col.	23.91	607.3	29.78	756.4	34	1.1	62	Calm	0	0	.....	8ck	0	SE	.....	0	0	Fair.	
Corsicana, Tex.	.....	.....	30.05	763.3	66	18.9	84	S	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Davenport, Iowa	.....	.....	29.68	753.9	51	10.6	93	N	1	0.4	.....	.....	10n	.....	.....	1.49	37.8	Heavy rain.	
Denison, Tex.	.....	.....	29.97	761.2	65	18.3	89	S	12	5.4	.....	.....	10s	.....	.....	0.04	1.0	Cloudy.	
Denver, Col.	24.60	624.8	29.82	757.4	32	0.0	59	S	3	1.3	.....	5cs	2s	NE	S	0	0	Fair.	
Detroit, Mich.	.....	.....	29.91	759.7	33	0.6	89	NE	8	3.6	.....	.....	10n	.....	.....	1.09	27.7	Light rain.	
Dodge City, Kan.	27.22	691.4	29.50	749.3	42	5.6	83	SW	12	5.4	.....	8cs	0	.....	.....	0	0	Fair.	
Dubuque, Iowa	.....	.....	29.81	757.2	38	3.3	90	NW	2	0.9	.....	.....	Fog	.....	.....	0.31	7.9	Foggy.	
Duluth, Minn.	.....	.....	29.96	761.0	18	— 7.8	84	NE	16	7.2	.....	.....	10s	.....	.....	0.12	3.0	Cloudy.	
Eastport, Me.	.....	.....	30.48	774.2	11	—11.7	60	NE	13	5.8	.....	0	Haze	.....	.....	0	0	Clear.	
Erie, Pa.	.....	.....	30.01	762.2	40	4.4	91	S	18	8.0	.....	.....	10n	.....	S	0.05	1.3	Light rain.	
Escanaba, Mich.	.....	.....	29.92	760.0	25	— 3.9	94	NE	12	5.4	.....	.....	10n	.....	.....	0.15	3.8	Sleeting.	
Fort Gibson, Indian Terr.	.....	.....	29.88	758.9	63	17.2	89	S	18	8.0	.....	.....	10s	.....	S	0	0	Cloudy.	
Fort Sill, Indian T.	28.74	730.0	29.84	757.9	56	13.3	68	SW	4	1.8	.....	2k	0	SW	.....	0	0	Clear.	
Fort Sully, Dakota	28.05	712.5	29.80	756.9	17	— 8.3	92	NW	3	1.3	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy.	
Galveston, Tex.	.....	.....	30.13	765.3	64	17.8	100	SE	6	2.7	.....	.....	Fog	.....	.....	0	0	Foggy.	
Grand Haven, Mich.	.....	.....	29.79	756.7	37	2.8	100	E	8	3.6	.....	.....	Fog	.....	.....	0.54	13.7	Foggy.	
Indianapolis, Ind.	.....	.....	29.91	759.7	52	11.1	93	S	12	5.4	.....	.....	10n	.....	.....	0.01	0.3	Light rain.	
Indianola, Tex.	.....	.....	30.13	765.3	65	18.3	97	S	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Jacksonville, Fla.	.....	.....	30.35	770.9	54	12.2	93	N	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Keokuk, Iowa	.....	.....	29.66	753.4	53	11.7	100	W	5	2.2	.....	.....	10n	.....	W	0.88	22.4	Light rain.	
Key West, Fla.	.....	.....	30.22	767.6	70.9	21.6	90	NE	14	6.3	.....	5k	0	NE	.....	0	0	Fair.	
Kittyhawk, N. C.	.....	.....	30.34	770.6	44	6.7	92	N	4	1.8	.....	2s	Haze	.....	.....	0	0	Fair.	
Knoxville, Tenn.	.....	.....	30.26	768.6	45	7.2	92	SW	1	0.4	.....	.....	10s	.....	SW	0	0	Cloudy.	
La Crosse, Wis.	.....	.....	29.77	756.1	30	— 1.1	100	N	8	3.6	.....	.....	Fog	.....	.....	0.05	1.3	Foggy.	
Leavenworth, Kan.	.....	.....	29.65	753.1	63	17.2	83	SW	20	8.9	.....	.....	10s	.....	SW	0.02	0.5	Threatening	
Lexington, Ky.	28.99	736.3	30.10	764.5	51	10.6	93	S	20	8.9	.....	.....	10ks	.....	SW	0	0	Cloudy.	
Long Branch, N. J.	.....	.....	30.34	770.6	40	4.4	82	SW	1	0.4	.....	.....	Fog	.....	.....	0	0	Foggy.	
Louisville, Ky.	.....	.....	30.04	763.0	53	11.7	86	S	12	5.4	.....	.....	10s	.....	S	0	0	Threatening	
Lynchburg, Va.	.....	.....	30.31	769.9	34	1.1	89	Calm	0	0	.....	0	Fog	.....	.....	0	0	Clear.	
Malone, N. Y.	.....	.....	30.32	770.1	20	— 6.7	70	Calm	0	0	.....	.....	10s	.....	.....	0.15	3.8	Threatening	
Marquette, Mich.	.....	.....	29.99	761.7	24	— 4.4	87	E	4	1.8	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.	
Memphis, Tenn.	.....	.....	30.14	765.5	56	13.3	100	S	8	3.6	.....	.....	10s	.....	.....	0.01	0.3	Cloudy.	
Milwaukee, Wis.	.....	.....	29.73	755.1	37	2.8	100	Calm	0	0	.....	.....	Fog	.....	.....	0.52	13.2	Light rain.	
Mobile, Ala.	.....	.....	30.30	769.6	55	12.8	93	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy.	
Montgomery, Ala.	.....	.....	30.34	770.6	58	14.4	88	SE	4	1.8	.....	.....	10ks	.....	SW	0	0	Cloudy.	
Morgantown, W. Va.	.....	.....	30.12	765.0	45	7.2	84	Calm	0	0	.....	8c	2s	W	SW	0.03	0.8	Cloudy.	
Mt. Washington, N. H.	23.74	603.0	30.10	764.5	22	— 5.6	100	NW	10	4.5	.....	.....	Fog	.....	.....	0	0	Clearing.	
Nashville, Tenn.	.....	.....	30.14	765.5	57	13.9	75	S	8	3.6	.....	.....	10s	.....	S	0	0	Cloudy.	
New Haven, Conn.	.....	.....	30.35	770.9	33	0.6	79	SW	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy.	
New London, Conn.	.....	.....	30.37	771.4	33.5	0.8	89	Calm	0	0	.....	2ck	Fog	W	.....	0	0	Fair.	
New Orleans, La.	.....	.....	30.26	768.6	57	13.9	97	E	5	2.2	.....	.....	Fog	.....	.....	0	0	Foggy.	
Newport, R. I.	.....	.....	30.37	771.4	35	1.7	80	Calm	0	0	.....	2ck	Haze	SW	.....	0	0	Fair.	
New York, N. Y.	.....	.....	30.35	770.9	35	1.7	80	Calm	0	0	.....	5k	Fog	.....	.....	0	0	Cloudy.	
Norfolk, Va.	.....	.....	30.34	770.6	38.5	3.6	95	Calm	0	0	.....	Haze	Fog	.....	.....	0	0	Fair.	
North Platte, Neb.	26.87	682.5	29.50	749.3	28	— 2.2	77	Calm	0	0	.....	Haze	5s	.....	.....	0	0	Fair.	
Omaha, Neb.	28.57	725.7	29.63	752.6	42	5.6	96	NW	6	2.7	.....	.....	10n	.....	.....	0.11	2.8	Drizzling.	
Oswego, N. Y.	.....	.....	30.25	768.3	30	— 1.1	84	E	5	2.2	.....	.....	10s	.....	.....	0	0	Threatening	
Peck's Beach, N. J.	.....	.....	30.35	770.9	38	3.3	100	SE	4	1.8	.....	2cs	Fog	.....	.....	0	0	Fair.	
Pembina, Dakota	.....	.....	29.94	760.5	11	—11.7	79	E	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Philadelphia, Penn.	.....	.....	30.35	770.9	33	0.6	89	SW	2	0.9	.....	.....	Fog	.....	.....	0	0	Foggy.	
Pike's Peak, Colorado	17.51	444.7	29.72	754.9	5	—15.0	87	SW	60	26.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Pittsburgh, Penn.	.....	.....	30.08	764.0	41	5.0	91	Calm	0	0	.....	.....	10n	.....	.....	0.03	0.8	Light rain.	
Port Huron, Mich.	.....	.....	29.93	760.2	34	1.1	90	SE	6	2.7	.....	.....	10n	.....	SE	0.36	9.1	Light rain.	
Portland, Me.	.....	.....	30.47	773.9	24	— 4.4	74	NE	9	4.0	.....	.....	10s	.....	E	0	0	Cloudy.	
Portland, Oregon	.....	.....	29.51	749.5	40	4.4	82	NW	4	1.8	.....	.....	10n	.....	NW	0.21	5.3	Light rain.	
Punta Rassa, Fla.	.....	.....	30.28	769.1	65.1	18.4	94	NE	12	5.4	.....	.....	10ks	.....	NE	0.02	0.5	Cloudy.	
Rochester, N. Y.	.....	.....	30.20	767.1	29	— 1.7	89	E	11	4.9	.....	.....	10s	.....	W	0	0	Cloudy.	
Salt Lake City, Utah	25.34	643.6	29.67	753.6	40	4.4	48	E	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Sandy Hook, N. J.	.....	.....	30.34	770.6	36	2.2	90	S	.....	.....	.....	10ck	0	SW	.....	0	0	Cloudy.	
San Diego, Cal.	.....	.....	29.87	758.7	58	14.4	93	SW	32	14.3	.....	.....	10n	.....	SW	0.10	2.5	Heavy rain.	
San Francisco, Cal.	.....	.....	29.50	749.3	52	11.1	76	SW	20	8.9	.....	0	8ks	.....	SW	1.19	30.2	Threatening	
Santa Fe, N. M.	23.26	590.8	29.80	756.9	28	— 2.2	54	N	6	2.7	.....	2k	2s	SW	.....	0.12	3.0	Fair.	
Savannah, Ga.	.....	.....	30.36	771.1	45	7.2	92	Calm	0	0	.....	.....	Fog	.....	.....	0.13	3.3	Foggy.	
Shreveport, La.	.....	.....	30.17	766.3	61.5	16.4	94	S	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy.	
Smithville, N. C.	.....	.....	30.35	770.9	41	5.0	91	N	5	2.2	.....	5c	0	W	.....	0	0	Fair.	
Springfield, Mass.	.....	.....	30.37	771.4	31	— 0.0	68	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cl'dy, smoky	
St. Louis, Mo.	.....	.....	29.78	756.4	60	15.6	76	SW	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.	
St. Marks, Fla.	.....	.....	30.34	770.6	59	15.0	87	N	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
St. Paul, Minn.	.....	.....	29.78	756.4	25.5	— 3.6	88	NE	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.	
St. Paul's Island, Alaska	.....	.....	29.59	751.6	17	— 8.3	83	NNE	16	7.2	.....	c	10k	.....	.....	Inap.	Inap.	Cloudy.	
Squan Beach, N. J.	.....	.....	30.27	768.8	29	— 1.7	100	Calm	0	0	.....	.....	Fog	.....	.....	0.03	0.8	.....	
Thatcher's Island, Mass.	.....	.....	30.40	772.1	34	1.1	79	E	20	8.9	.....	.....	10k	.....	E	0	0	Foggy.	
Toledo, Ohio	.....	.....	29.88	758.9	38	3.3	100	S	1	0.4	.....	.....	10n	.....	S	0.19	4.8	Cloudy.	
Tucson, Arizona	.....	.....	30.23	767.8	49	9.4	.....	E	.....	.....	.....	10cs	0	S	.....	0	0	Light rain.	
Tybee Island, Ga.	27.64	702.0	30.33	770.4	49	9.4	85	N	1	0.4	.....	0	0	.....	.....	0.06	1.5	Cloudy.	
Vicksburg, Miss.	.....	.....	30.25	768.3	59	15.0	94	S	6	2.7	.....	.....	10n	.....	S	Inap.	Inap.	Clear.	
																		Misting.	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.81	604.8	29.29	744.0	33	0.6	61	E	8	3.6	.....	10k	0	SW	.....	0	0	Cloudy	
Washington, D. C	.....	.....	30.30	769.6	38	3.3	90	SE	1	0.4	.....	2ck	Haze	NW	.....	0	0	Fair	
Wilmington, N. C	.....	.....	30.36	771.1	39	3.9	91	NE	1	0.4	.....	8cs	Fog	.....	.....	0	0	Fair	
Wood's Holl, Mass	.....	.....	30.38	771.6	35	1.7	79	SE	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va	27.87	707.9	30.09	764.3	40	4.4	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Yankton, Dakota	28.48	723.4	29.80	756.9	29	— 1.7	88	NW	3	1.3	.....	.....	10s	.....	.....	0	0	Foggy	
Yuma, Arizona	.....	.....	29.90	759.4	57	13.9	.....	SE	.....	.....	.....	8c	2ks	S	SW	0	0	Cloudy	
Sub-Series																			
Bridgetown, Barbados, W. I.	.....	.....	30.09	764.3	78	25.6	82	E	7	3.1	.....	5k	5ks	SE	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, Guadeloupe, W. I.	.....	.....	30.06	763.5	74	23.3	81	E	.....	.....	.....	5k	5ks	.....	.....	0.08	2.0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I.	.....	.....	30.33	770.4	75	23.9	76	ESE	1	0.4	.....	2c	4k	E	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I.	.....	.....	30.27	768.8	71	21.7	79	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I.	.....	.....	29.94	760.5	73	22.8	76	N	7.2	3.2	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
Havana, Cuba, W. I.	.....	.....	30.24	768.1	73	22.8	81	S	2.4	1.1	.....	2ck	ks,hz	NE	NW	0	0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.21	767.3	63.0	17.2	83	NE	24.0	10.7	.....	8ck	5k	NE	.....	0.38	9.7	Cloudy	C. F. Allen.
St. John's, Porto Rico, W.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	27.28	692.9	30.09	764.3	65	18.3	83	N	2.0	0.9	.....	2c	5k	NE	.....	0	0	Dull	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.04	763.0	80	26.7	74	E	.....	.....	2	.....	8ks	.....	.....	1.120	28.45	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.08	763.9	80.6	27.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.226	5.75	.....	Dr. H. Groot.
Medellin, Colombia, S. A.	25.22	640.7	.....	.....	65.3	18.5	79	.....	0	0	.....	5ck	4s	.....	.....	0.78	19.8	Clearing	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.96	761.0	— 3.0	—19.4	.....	NW	.....	.....	.....	0	0	.....	.....	0	0	Fair	John Delaney.
York Factory, B. A.	.....	.....	30.24	768.1	—36	—37.8	.....	W	2	0.9	.....	1c	Fog	E	.....	0.01	0.3	.....	J. Fortescue.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.0 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches. Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS

TAKEN SIMULTANEOUSLY ON FEBRUARY 10, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:48 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean tim .
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	29.89	759.3	63.7	17.6	39	W	.....	.....	3	.....	10	.....	.....	0	0	Hidden	Charnot and Masselot.
Algiers	.....	.....	29.81	757.2	70.5	21.4	55	WSW	.....	.....	1	.....	6	.....	.....	0.161	4.1	Fair	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kunts.
Tunis	.....	.....	29.78	756.3	67.3	19.6	51	WSW	.....	.....	2	.....	2	.....	.....	0	0	Clear	Jacques.
Sfax	.....	.....	29.88	759.0	62.2	16.8	61	S	.....	.....	1	.....	2	.....	.....	0	0	Clear	Chauvey.
Saïda	.....	.....	29.96	760.9	59.0	15.0	39	WNW	.....	.....	3	.....	2	.....	.....	0.276	7.0	Clear	Millot.
Tebessa	.....	.....	29.84	758.0	46.2	7.9	.....	S	.....	.....	4	.....	3	.....	.....	0	0	Fair	Colin.
Gerfville	.....	.....	29.97	761.2	55.0	12.8	41	W	.....	.....	2	.....	2	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	29.94	760.5	59.0	15.0	58	SW	.....	.....	3	.....	2	.....	.....	0	0	Clear	Delord.
Biskra	.....	.....	29.91	759.7	64.4	18.0	35	NNE	.....	.....	1	.....	2	.....	.....	0	0	Clear	Dubois.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	29.85	758.2	34.0	1.1	85	Calm	.....	.....	0	.....	10	.....	.....	0.445	11.3	.....	Prof. Ivan Stozir.
Buda-Peath	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	29.92	760.0	34.9	1.6	82	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	I. R. Observatory.
Eperies	.....	.....	30.01	762.2	34.0	1.1	86	S	.....	.....	2	.....	0	.....	.....	0	0	.....	Julius Mikolik.
Gratz	28.58	726.0	29.82	757.4	25.9	— 3.4	86	SW	.....	.....	2	.....	10	.....	.....	0.016	0.4	.....	Andreas Rospini.
Hermannstadt	28.52	724.4	30.00	762.1	33.3	0.7	81	SE	.....	.....	1	.....	10	.....	.....	0.102	2.60	.....	Prof. Reissenberger.
Kremsmünster	28.34	719.7	29.78	756.4	15.3	— 9.3	91	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	.....	.....	30.02	762.4	23.4	— 4.8	98	S	.....	.....	1	.....	1	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.01	762.2	28.4	— 2.0	96	E	.....	.....	1	.....	3	.....	.....	Blank	Blank	.....	Habsuda Daniel.
Pola	.....	.....	29.70	754.3	43.5	6.4	91	SE	.....	.....	5	.....	10s	.....	.....	0.309	7.85	.....	I.R. Hydrographic Of'ce
Szegedin	.....	.....	29.97	761.3	31.8	— 0.1	98	S	.....	.....	2	.....	2	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	29.73	755.2	41.7	5.4	91	ESE	.....	.....	1	.....	10	.....	.....	0.614	15.6	Rainy	Prof. V. Farolfi.
Vienna	.....	.....	29.85	758.2	21.6	— 5.8	83	SW	.....	.....	1	.....	10	.....	.....	0.110	2.8	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	29.80	758.5	29.7	— 1.3	88	WNW	.....	.....	1	.....	10	.....	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.02	762.5	38	0.1		SE	9	4.0			5			0.100	2.54	Snowy	William Boswell.
Ardrossan			29.99	761.7	37	2.8		E			2		1					Foggy	J. Mayes.
Armagh Observatory			29.90	759.4	36.0	2.2		E	16	7.2			9					Overcast	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs.			29.93	760.2	32.6	0.3		ESE	15	6.7			5					*D. clouds	John Hartnup.
Birr Castle, (Parsonstown)			29.82	757.4	34.8	1.6		NNE			1		10					Overcast	J. Dreyer.
Bradford			29.90	759.4	33.9	1.1		N			1		2			0	0	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)			30.07	763.8	86.0	26.7		NE			2		2					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.92	760.0	38.2	3.4		N			1		1					*D. clouds	H. Todd.
Cardington			29.95	760.7	35.0	1.7		NE			1		2					Blue sky	John McLaren.
Carlisle			29.97	761.2	35.5	1.9		Calm			0		1			0	0	Blue sky	J. Bell, for J. Cartmell.
Chatham, School M. E.			29.93	760.2	34.7	1.5		NNE			1		6					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.42	721.9	29.98	761.5	33.0	0.6		Calm			0		10					Overcast	R. E. Power.
Donaghadee			29.92	760.0	38	3.3		ESE			3		5					*D. clouds	J. Mac Gowan.
Dover			29.90	759.4	35	1.7		NE			2		5					½ clouded	J. Costello.
Eccles, (near Manchester)			29.92	760.0	37.0	2.8		SE	1.6	0.7			5					Hazy	Thomas Mackereth.
Falmouth Observatory			29.92	760.0	37.9	3.3		SE	8	3.6			10					Rain & fog	The Staff.
Fort Napier, (Natal)	27.52	699.0	29.78	756.4	71.7	22.1		SE			1		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.96	761.0	85	29.4		NE			1		10						
Galway, Queen's College			29.76	755.9	40	4.4		SE			2		6					*D. clouds	B. G. Clare, for Prof. Currie.
Gibraltar, (Mediterranean)			29.79	756.7	58.0	14.4		W			6		10			Blank	Blank	Gloomy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.96	761.0	34.2	1.2		ENE			1		1					Fine	Lewis Stuart.
Great Yarmouth			29.90	759.4	33	0.6		NNW			2		5					*D. clouds	G. T. Watson.
Greenwich Royal Obs.			29.93	760.2	35.1	1.7		NNE			1		7					*D. clouds	The Staff for G. B. Airy
Guernsey			29.91	759.7	39.[illegible]	4.2		ESE			1		10					Gloomy	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.98	761.5	32.7	0.4		Calm			0		0					Hazy	L. J. Cressley.
Helston			29.90	759.4	41	5.0		E			2		10			0	0	Overcast	M. P. Moyle.
Holyhead			29.88	758.9	38	3.3		SE			2		10			Blank	Blank	Hazy	John Tilston.
Kew Observatory			29.94	760.5	35.9	2.2		NNE	5	2.2			5					*D. clouds	The Staff.
Kingstown			29.84	757.9	39	3.9		SE			4		10					Raining	George Mitchell
Leicester Museum			29.97	761.2	35.1	1.7		NE			1		3					*D. clouds	William J. Harrison.
Malta, (Mediterranean)			29.89	759.2	63.9	17.2		SW			2		2k					*D. clouds	Fred Travis, Pvt A. H. C.
Nairn			30.04	763.0	34	1.1		Calm			0		2					½ covered	W. D. Penny.
Nassau, (Bahamas)			30.25	768.3	71.3	21.8		E			2		5					*D. clouds	Surg.-Maj. Henry.
Nottingham			29.96	761.0	34.0	1.1		NE			1		4cs					*D. clouds	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			29.96	761.0	37.1	2.8		NE			1–2		5					*D. clouds	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.93	760.2	34	1.1		Calm			0		7					*D. clouds	J. Lucas.
Plymouth			29.91	759.7	39.5	4.2		SSE			2		10					Snowy	John Merrifield.
Roche's Point			30.80	756.9	45	7.2		WNW			3		10					Raining	W. Kennedy.
Saint Ann's Head			30.88	758.9	38	3.3		SSE			4		10					Raining	John C. Walker.
Saint Helier, (Jersey)			29.91	759.7	41.8	5.4		E			1		8					¾ clouded	A. P. Amy.
Sandwick Manse (Orkneys			30.06	763.5	35.1	1.7		E	9	4.0			5					Snow-show'rs	Rev. Dr. Clouston
Scarborough			29.93	760.2	34.4	1.3		NE			1		5					*D. clouds	F. Shaw.
Scutari Cemetery (Turkey			29.92	760.0	39.0	3.9		N			3		10					Raining	Sergt. W. H. Lyne.
Sheffield			29.96	761.0	34.2	1.2		NNE			1		8			0.020	0.51	Misty	W. F. Cooper.
Silloth Rectory			29.95	760.7	35.3	1.8	86	Calm			0		0			0	0	Blue sky	Rev Francis Redford.
Stonyhurst Observatory			29.95	760.7	33.9	1.1		NE			1		2			Blank	Blank	Hazy	The Staff.
Stornoway, Lews C. (Hebr)			30.01	762.2	37	2.8		E			2		0					Blue sky	John Smith.
Stratfield Turgiss			29.94	760.5	35.0	1.7		E			1		3					Blue sky	Rev. Charles H. Griffith
Streatley Vicarage													4						Rev. John Slatter.
Thurso			30.03	762.7	38	3.3		Calm			0		10					*D. clouds	John Trotter.
Truro, Royal Institution			29.90	759.4	38	3.3		E			2		7					Raining	W. Newcombe.
Valencia Observatory			29.82	757.4	49.7	9.8		W	15	6.7								*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.83	757.7	72.0	22.2	65	WNW	19	8.5			7						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					39	3.9		E			3		3			0	0		
Leith, Restalrig Park			30.00	762.0	35.3	1.8		NE			1		5k			0.08	2.0	Cloudy	Andrew Gibb
Monach Lt-house, Hebrides			29.94	760.5	39	3.9		SE			4	0	0			0	0		J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.68	753.9	28.4	— 2.0	96	N			7		10					Snowing	
Fanöe			29.82	757.5	28.0	— 2.2	89	NE			4		9						
Godthaab, (Greenland)			29.11	739.4	17.1	— 8.3		SW			7		10					Snowing	
Stykkisholm, (Iceland)			29.60	751.9	37.9	3.3	97	SE			4		10					Raining	
Thorshavn, (Faröe)			30.11	764.8	41.4	5.2	71	SE			2		2						
Vestervig			29.87	758.6	28.4	— 2.0	92	NE			2		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.95	760.6	39.2	4	89	NE			1		0			0.079	2.0	Clear	Normal School.
Amiens			29.90	759.4	34.2	1.2	86	NNW			6		10			0	0	Covered	Normal School.
Avignon			29.76	755.9	39.6	4.2	65	N			2		10			0	0	Covered	Normal School.
Bar-sur-Seine			29.90	759.4	31.8	— 0.1	87	N			1		10			0	0	Covered	C. Saillard.
Beaumette, (near Angers)			29.89	759.3	37.9	3.3	66	NE	3.6	1.6					NNE	0	0		Beaumette Observatory
Beauvais			29.95	760.6	30.0	— 1.1	82	NNE			1		0			0	0	Clear	Normal School.
Besançon			29.90	759.5	28.8	— 1.8		S			2		8		SW	0	0	Very cloudy	Normal School.
Bourg en Bresse			29.89	759.1	28.9	— 1.7	98	N			1		1k		NE			Pretty clear.	Normal School.
Bourges			29.85	758.3	26.6	— 3	80	NE			2		1		NE	0	0	Clear	Normal School.
Brest			29.86	758.4	40.5	4.7	74	SW			2		10		W	0	0	Misty	Naval Observatory.
Caen			29.91	759.7	35.6	2													Normal School.
Chartres			29.88	758.9	31.6	— 0.2		N			2		0			0	0	Clear	Normal School.
Chaumont																			Normal School.
Clermont			29.85	758.3	30.2	— 1.0	89	N			2		5		N	0	0	Cloudy	Puy de Dome, Obs.
Commercy			29.89	759.2	25.7	— 3.5	95	WSW			2		0			0	0	Clear	Normal School.
Commune de Gréasque*			29.72	755.0	40.6	4.8	93	NE			1		10		NE	0.24	6.	Light rain	
Grenoble			29.83	757.7	32.0	0	96	S			1		10			0	0	Snowing	Normal School.
Le Mans			29.93	760.3	33.4	0.8	82	N			3		2		N	0	0	Slightly cl'dy	Normal School.
Loches																			
Lons-Le-Saulnier																			
Mâcon			29.88	758.9	32.0	0	85	N			1		5		W	0	0	Cloudy	Normal School.
Mirecourt			29.85	758.1	26.2	— 3.2		SE			2		5		E	0	0	Cloudy	Normal School.
Metz			29.86	758.5	26.6	— 3	74	SW			1		2			0	0	Slightly cov'd	Normal School.
Nismes																			
Orleans			29.77	756.1	39.2	4	56	N			6		5		E	0	0	Cloudy	Normal School.
Paris Observatory			29.91	759.6	29.5	— 1.4	100	NNE			3		2		NNE	0	0	Slightly cl'dy	Normal School.
Parthenay			29.92	760.0	29.7	— 1.3	80	ESE			1		8			0.098?	2.50?	Almost ov'd.	National Observatory
Privas			29.88	758.9	39.2	4	93	NW			2		5		N	0	0	Cloudy	Normal School.
La Roche-sur-Yon			30.23	767.7	34.5	1.4		NW			2		8			0	0	Very cloudy	Normal School.
Rochefort, Observatory			29.93	760.2	36.3	2.4	79	ENE			2		8		S	0	0	Very cloudy	Normal School.
Rouen			29.93	760.2	40.3	4.6	66	NE			3		0			0	0	Blue sky	Naval Observatory.
Saint Lo			29.91	759.7	34.5	1.4	78	ESE			3		0			0	0	Clear	Normal School.
Tarbes			29.94	760.5	36.5	2.5	66	S			2		4		SE	0.059	1.5		Normal School.
Toulouse	28.76	730.4	29.86	758.5	42.8	6	71	NW			4		10		E	0.04	1.	Covered	Normal School.
Villefranche			29.91	759.6	43.0	6.1	73	W			2		10					Covered	Normal School
			29.87	758.8	32.9	0.5	90	N			2		5		N	0	0	Cloudy	Normal School.
Sub-Series.																			
Fort de France, Martinique			30.00	762.1	77.0	25	83	NE			2		2k			0.08	2.		L'Abbé Marchési.
Gorée																			
Marseilles																			
Mont-Louis			29.70	754.4	42.3	5.7	77	WNW			2		10			0	0		Marseilles Observatory.
Montsouris, Paris	24.47	621.4	29.84	758.0	32.4	0.2	80	NW	13.0	5.83			10		SW	0.047	1.2		—. Falguère.
Perpignan			29.91	759.7	28.9	— 1.7	88	Calm			0		10		NW	Inap.	Inap.	Light fog	Montsouris Observ'tory
Pic du Midi, (Summit) H.Pt			29.75	755.6	44.6	7.0	68	N	14.9	6.66			10		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)																			M. Baylac.
Toulouse			29.92	759.9	30.2	— 1.0	79	N			1		1			0	0	Slightly cl'dy	E. Renou.
Tours			29.82	757.4	40.5	4.7	80	NW			2		10			0.028	0.7		Toulouse Observatory
Versailles, (near Paris)			29.92	759.9	33.6	0.9	67	NNE			3		5		N	0	0		C. Marquet.
Zi-Ka-Wei, (near Shanghai			29.90	759.4	32.0	0.0	66	NW			2		5			0.128	3.24	Fair	Dr. A. Bérigny.
																			H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Summit inaccessible; weather snowy; snow-fall on the Plantade 20 millimeters, or 0.8 inches.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg																			
Berlin			29.70	754.4	23.5	— 4.7	84	W			2		10			0	0		Prof. T. Hoh.
Breslau			29.73	755.2	31.5	— 0.3	80	SW			1		7			0.193	4.9		Prof. Arndt.
Carlsruhe			29.84	757.8	30.0	— 1.1	72	SSE			3		2			0.177	4.5		Dr. P. Naugebauer
Cassel			29.81	757.1	28.4	— 2.0	84	N			1		10			0	0	Snowing	A. Senz.
Cologne			29.72	755.0	30.2	— 1.0	91	W			2		6			0	0		Dr. H. Möhl.
Emden																			Dr. Garthe.
Frankfort on the Main																			Prof. Prestel.
Friedrichshafen			29.90	759.4	29.5	— 1.4	90	ENE			1		10			0.016	0.4	Snowing	Physical Society.
Hamburg			29.83	757.6	23.9	— 4.5	68	E					10			0.138	3.5	Snowing	M. Wilhelm.
Kiel			29.74	755.4	29.5	— 1.4	92	N			1		10			0.138	3.5	Light snow	Deutsche Seewarte.
Königsberg			29.82	757.5	30.0	— 1.1	88	N			3		10			0.106	2.7	Snowing	Prof. G. Karsten.
Köslin			29.88	758.9	23.4	— 4.8	80	E			5		5			0.043	1.1	Snowing	Prof. E. Luther.
Leipsic			29.66	753.4	29.5	— 1.4		E			2		9			0	0		H. Müller.
Münster			29.81	757.2	28.2	— 2.1	71	SW			2		10			0.154	3.9		Prof. Bruhns.
Posen			29.80	756.9	27.3	— 2.6	95	S			2		3			0	0		Prof. E. Heis.
Strassburg, (in Alsace)			29.81	757.1	30.9	— 0.6	93	SW			5		10			Inap.	Inap.	Snowing	Dr. Magener.
Stuttgart			29.85	758.1	27.3	— 2.5	92	Calm			0		10			0	0		Dr. Schur.
Thorn			29.83	757.6	26.6	— 3.0	74	N					10			0.008	0.2	Snowing	Prof. Schoder.
Treves, (Trier)			29.78	756.3	30.2	— 1.0	86	NE			6		9			0	0	Snowing	Dr. Hasenbalg.
Wustrow, Naval School			29.78	756.4	27.5	— 2.5	83	SE			2		8			0.047	1.2	Foggy	Prof. Flesch.
			29.71	754.5	30.6	— 0.8	100	N			2		10			0.059	1.5	Snowing	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			29.93	760.1	54.3	12.4		NW										Clear	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.78	756.5	33.6	0.9	92	ENE	0.7	0.3			10			0.232	5.9	Snowing	
Padua			29.71	754.5	32.9	0.5	88	NE	12.5	5.6			10			0.165	4.2	Snowing	
Vicenza			29.73	755.1	33.6	0.9	98	N			4		10			0	0	Snowing	
Verona																			
Bergamo			29.70	754.3	33.8	1.0	85	SE			1		10			0	0		
Domodossola																			
Milan			29.77	756.2	35.1	0.7	94	WNW			1		10			0	0		
Pavia																			
Moncalieri			29.81	757.1	34.5	1.4	74	ENE	2.5	1.1			9			0	0		
Mondovi			29.80	756.8	32.4	0.2	79	NW			2		3			0	0		
Porto Maurizio																			
Genoa			29.69	754.2	37.2	2.9	55	NE	9.8	4.4			10	N		Blank	Blank		
Piacenza			29.78	756.3	34.5	1.5	83	W	10.5	4.7			10			Blank	Blank		
Bologna			29.77	756.2	32.7	0.4	62	W			6		10			0	0	Snowing	
Florence			29.67	753.7	42.8	6.0	86	WSW			2		10	SW		0.031	0.8	Raining	
Leghorn			29.67	753.6	43.3	6.3	89	ENE	6.9	3.1			10			0	0		
Siena			29.67	753.5	40.3	4.6	100	S	1.3	0.6			10	S		0.488	12.4	Raining	
Urbino																			
Pesaro																			
Ancona			29.69	754.1	48.9	9.4	74	SE			6		10			0.039	1.0	Raining	
Grosseto			29.65	753.2	51.1	10.6	91	S			4		10	SW		0.429	10.9	Raining	
Rome			29.72	754.9	49.8	9.9	83	SSE	28.0	12.5			10	S		0.118	3.0	Raining	
Naples, O. U.			29.86	758.5	51.8	11.0	87	SW			6		10	SW		0	0		
Lecce			29.97	761.2	52.2	11.2	59	SSW	6.3	2.8			7			0	0		
Cosenza			29.92	760.0	43.7	6.5	66	NW	0.7	0.3			4			0	0		
Riposto, (Sicily)			29.90	759.5	53.6	12.0	70	NE			2		4	ESE		0	0		
Palermo			29.78	756.3	64.8	18.2	44	SW	9.8	4.4			8			0	0		
Caltanissetta			29.94	760.5	47.3	8.5	83	N			4		10	S		0	0		
Sub-Series.																			
Naples, S. E.			29.86	758.5	48.7	9.3	83	SW	9.4	4.2			..ks	SW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.91	759.6	32.4	— 0.2		NNW			2								
Groningen			29.75	755.6	30.6	— 0.8		NNW			1								
Helder			29.84	757.9	31.8	— 0.1		NNW			1								
Utrecht			29.82	757.5	26.4	— 3.1	96	NE			2		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.97	761.1	30.6	— 0.8	73	Calm	0	0			0			0	0		
Brönö			30.10	764.6	34.2	1.2	78	Calm	0	0			6			0	0		
Christiania			30.01	762.3	23.0	— 5.0	71	NNE	5.8	2.6			10			0	0		
Tromsö			30.15	765.7	28.0	— 2.2	73	NE	7	3			10			0.055	1.4		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luis at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.97	761.3	54.1	12.3	83	NNW	9.4	4.20	.....	.....	7	.....	.....	0.039	1.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.75	755.6	55.4	13.0	66	WNW	7.4	3.33	.....	.....	6	NNW	.....	0.236	6.00	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.14	765.5	62.4	16.9	68	NW	15.9	7.13	.....	.....	1	.....	.....	0.457	11.6	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	29.83	757.6	55 4	13.0	67	NNW	8.7	3.9	.....	.....	4	.....	.....	0.512	13.0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.91	759.6	34.5	— 1.4	74	SSE	27	12	.....	.....	0	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.11	764.9	21.6	— 5.8	60	S	4	2	.....	.....	2	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.23	767.7	17.1	— 8.3	81	SE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.24	768.0	20.1	— 6.6	79	SSE	4	2	.....	.....	2	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	30.13	765.4	8.2	—13.2	100	NW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	30.22	767.5	13.1	—10.5	97	NE	4	2	.....	.....	2	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.08	764.1	22.1	— 5.5	70	NE	25	11	.....	.....	8	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	29.93	760.3	29.8	— 1.2	78	E	13	6	.....	.....	7	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.38	771.6	19.2	— 7.1	72	SW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.19	766.8	16.5	— 8.6	79	ENE	34	15	.....	.....	1	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	29.82	757.4	15.4	— 9.2	94	WNW	9	4	.....	.....	8	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.72	729.6	30.19	766.9	40.8	4.9	70	E	9	4	.....	.....	7	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.45	773.5	18.0	— 7.8	77	NE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.16	766.0	18.3	— 7.6	83	W	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.70	729.1	30.76	755.8	19.8	— 6.8	89	SW	31	14	.....	10	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.31	769.8	43.7	6.5	64	NE	4	2	.....	.....	6	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.28	769.0	23.2	— 4.9	84	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Tashkend	28.80	731.4	30.60	777.2	36.5	2.5	77	NW	7	3	.....	.....	8	.....	.....	.....	.....	.....	Bobrof.
Barnaul	.....	.....	29.50	749.4	9.9	—12.3	81	SSW	31	14	.....	.....	3	.....	.....	.....	.....	.....	Michelson.
Yeniselsk	.....	.....	28.93	734.8	13.8	—10.1	89	SW	7	3	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Marks.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolsef.
Peking, (China)	.....	.....	30.23	767.9	25.2	— 3.8	53	SSE	3	3	.....	.....	0	.....	.....	.....	.....	.....	Mossin.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Observatory.
Vladivostock	.....	.....	30.26	768.5	1.9	—16.7	80	NW	6	6	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Nikulaievsk, on the Amoor	.....	.....	.....	.....	— 9.2	—22.9	84	NW	4	2	.....	.....	2	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.67	753.6	46.9	8.3	76	NE	13.4	6.00	.....	0	9	.....	.....	0.154	3.9	Cloudy	Royal Observatory.
San Fernando	.....	.....	29.82	757.3	57.7	14.3	79	WNW	25.1	11.2	.....	2	6	ESE	ESE	0.024	0.6	.....	The Naval Observatory.

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.10	764.5	5.0	—15.0	73	S	.....	.....	2	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.11	764.7	14.0	—10.0	94	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	30.13	765.3	14.4	— 9.8	94	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Stockholm	.....	.....	29.91	759.8	27.3	— 2.6	83	NE	.....	.....	6	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	29.88	758.9	27.3	— 2.6	100	SSE	.....	.....	6	.....	10	.....	.....	0.063	1.6	.....	
Sub-Series.																			
Upsala	.....	.....	29.98	761.5	28.2	— 2.1	92	NE	9.2	4.1	.....	.....	10	.....	.....	0.000	0.01	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.32	719.2	29.80	757.0	34.2	1.2	74	S			1		10			0.043	1.1	Covered	The Observatory.
Zurich	28.10	713.8	29.84	757.8	27.1	— 2.7	85	NW			1		10			0	0	Snowing	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —7.4 mm.; Thermometer, —1.8 cent.; Relative Humidity, +1 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Constantinople			29.93	760.3	37.4	3.0	92	N	22	10.0			10		N	0.067	1.7		
Fao, (Persian Gulf)			30.29	769.4	59.0	15.0		NW			3								
Salonica			29.93	760.3	54.0	12.2		SE			2								
Valona			29.82	757.5	54.3	12.4		W			1								
Varna			29.92	760.0	28.4	— 2.0		N			3							Foggy	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y			29.83	757.7	56.5	13.6	70	SSE			1		10n		SW	1.07	27.2	Rainy	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Bathurst, N. B.			30.22	767.6	—12.5	—24.7	74	Calm	0	0						0	0		Hon. J. Ferguson.
Brockville, Ontario			30.15	765.8	20	— 6.7		NE	5	2.2			10s		NE	0.50	12.7	Cloudy	W. R. Bigg.
*Chatham, N. B.			30.20	767.1	7	—13.9	91	N	10	4.5		2k	8ks	N	N	0	0	Cloudy	G. A. Blair.
Charlottetown, P. E. Island.			30.14	765.5	13	—10.6	93	NE	13	5.8			10n			Inap.	Inap.	Light snow	H. J. Cundall, C. E.
Cornwall, Ontario			30.15	765.8	20.8	— 6.2	80	E			1		10n			0.45	11.4	Rainy	James Smith, M. A.
Dalhousie, N. B.			30.32	770.1	-10.5	—23.6	54	W			2					0	0		H. A. Johnson.
Esquimault, B. C.			29.56	750.8	36.1	2.3	91	E	3	1.3			10			0.16	4.1	Cloudy	W. H. Bevis.
Fredericton, N. B.			30.13	765.3	11.1	—11.6	88	NE	12	5.4			10s			0	0		Prof. Harrison.
*Fort Garry, Manitoba			29.29	744.0	26	— 3.3	95	SE	14	6.3			10n			0	0	Threatening	James Stewart.
Goderich, Ontario			30.08	764.0	24.9	— 3.9	95	SW			2		10n			0	0	Raw	H. J. Strang, M. A.
Granton, Ontario			30.05	766.3	30.1	— 1.1		Calm			0		10n			1.10	27.9	Cloudy	James Grant.
*Halifax, N. S.			29.94	760.5	22	— 5.6	99	E	13	5.8			10n			0.37	9.4	Heavy snow	F. Allison, M. A.
*Kingston, Ontario			30.04	763.0	22	— 5.6	94	N	3	1.3			10s			0.53	13.5	Cloudy	S. Woods, M. A.
Little Current, Ontario			30.13	765.3	9.6	—12.4		Calm	0	0			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.09	764.3	16	— 8.9	83	NE	17	7.6		0	2ks			0.37	9.4	Clear	C. H. McLeod, C.
*Ottawa, Ontario			30.11	764.8	16	— 8.9	76	NW	10	4.5		2k	5n	W	W	0.07	1.8	Clearing	J. B. Haney.
*Parry Sound, Ontario			30.14	765.5	5	—15.0	82	NE	6	2.7		0	0			0.16	4.1	Clear	Rev. R. Mooley.
*Port Dover, Ontario			30.10	764.5	27	— 2.8	94	Calm	0	0		10k	0	NE		1.02	25.9	Cloudy	H. Morgan.
Port Hastings, N. S.			30.12	765.0	11.0	—11.7		SE	5	2.2						0.300	7.62	Stormy	Peter Grant.
*Port Stanley, Ontario			30.05	763.3	32	0.0	97	E	5	2.2			10n		E	1.01	25.7	Cloudy	M. Payne.
*Quebec, Quebec			30.15	765.8	13	—10.6	81	NE	30	13.4			10n		N	0	0	Cloudy	Capt. Ash, R. N.
St. John, N. B.			30.01	762.2	15	— 9.4	91	NE	12	5.4			10n			0.350	8.89		G. Murdoch, C. E.
*Saugeen, Ontario			30.06	763.5	22	— 5.6	86	Calm	0	0			10n			0.08	2.0	Cloudy	K. Stewart.
Stayner, Ontario			30.14	765.5	18	— 7.8	91	Calm	0	0			10n			0.48	12.2	Cloudy	R. J. Cole.
Stratford, Ontario			30.07	763.8	26.6	— 3.0	93	SE	3	1.3			10n			0.592	15.04	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			30.23	767.8	10	—12.2	92	E	4	1.8			10n			0.01	0.3	Light snow	T. C. Hill.
*Toronto, Ontario			30.11	764.8	23	— 5.0	86	N	3	1.3			10n			0.48	12.2	Cloudy	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.8 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. —In	Clouds. Amount. Up'er —In	Clouds. Amount. Low'r —In	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.93	760.2	31	— 0.6	89	NW	3	1.3	.....	.....	10s	.....	.....	0.49	12.4	Cloudy.....	
Alpena, Mich.	.....	.....	29.99	761.5	26	— 3.3	88	SE	5	2.2	.....	.....	10s	.....	.....	0.14	3.6	Cloudy.....	
Atlantic City, N. J.	.....	.....	29.88	758.9	52	11.1	72	W	12	5.4	.....	5k	0	NW	.....	0.01	0.3	Fair.....	
Augusta, Ga.	.....	.....	30.17	766.3	57	13.9	90	S	1	0.4	.....	10s	.. ..	SW	0	0	0	Cloudy.....	
Baltimore, Md.	.....	.....	29.95	760.7	53	11.7	67	NW	5	2.2	.....	2k	Sm'e	W	.....	0.05	1.3	Clear.....	
Barnegat, N. J.	.....	.....	29.83	757.7	51	10.6	72	NW	19	8.5	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Benton, Montana	26.90	683.2	29.70	754.4	— 4	—20.0	100	W	16	7.2	.....	0	0	.....	.....	0	0	Clear.....	
Bismarck, Dakota	27.53	699.2	29.17	740.9	25	— 3.9	62	NW	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Boston, Mass.	.....	.....	29.87	758.7	26	— 3.3	100	NW	20	8.9	.....	.....	10s	.....	.....	0.47	11.9	Cloudy.....	
Breckenridge, Minn	.....	.....	29.26	743.2	32	0.0	90	SE	24	10.7	.....	.....	10s	.....	SE	0.01	0.3	Cloudy.....	
Buffalo, N. Y.	.....	.....	30.07	763.8	27.5	— 2.5	88	E	4	1.8	.....	.....	10s	.....	NE	1.42	36.1	Cloudy.....	
Burlington, Vt.	.....	.....	30.05	763.3	19	— 7.2	84	N	6	2.7	.....	.....	10s	.....	.....	0.28	7.1	Cloudy.....	
Cairo, Ill.	.....	.....	29.99	760.2	59	15.0	100	S	3	3.6	.....	.....	Fog	.....	S	0.03	0.8	Light rain...	
Cape Hatteras, N. C.	.....	.....	29.99	761.7	58	14.4	81	W	16	7.2	.....	0	5ks	.....	W	0	0	Fair.....	
Cape Henry, Va.	.....	.....	29.98	761.5	56	13.3	78	SW	19	8.5	.....	2c	0	W	.....	0	0	Fair.....	
Cape May, N. J.	.....	.....	29.93	760.2	50	10.0	78	W	20	8.9	.....	0	0	.....	.....	0	0	Clear.....	
Charleston, S. C.	.....	.....	30.19	766.8	53	11.7	93	SW	5	2.2	.....	0	0	.....	.....	0	0	Clear.....	
Cheyenne, Wyoming	23.53	597.6	29.47	748.5	31	— 0.6	48	W	32	14.3	.....	0	0	.....	.....	0	0	Clear.....	
Chicago, Ill.	.....	.....	29.80	756.9	41	5.0	82	SE	5	2.2	.....	.....	Fog	.....	.....	0.20	5.1	Foggy	
Cincinnati, Ohio	.....	.....	29.88	758.9	57	13.9	87	S	4	1.8	.....	0	5s	.....	.....	0.63	16.0	Fair.....	
Cleveland, Ohio	.....	.....	30.02	762.5	34.6	1.4	92	E	2	0.9	.....	.....	Fog	.....	E	1.20	30.5	Foggy	
Colorado Springs, Col.	23.67	601.2	29.54	750.3	40	4.4	31	SW	14	6.3	.....	8cs	0	SW	.....	0	0	Fair.....	
Corsicana, Tex.	.....	.....	29.88	758.9	65	18.3	83	S	12	5.4	.....	2k	0	S	.....	0	0	Fair.....	
Davenport, Iowa	.....	.....	29.72	754.9	40	4.4	100	S	12	5.4	.....	.....	Fog	.....	.....	0.69	17.5	Foggy	
Denison, Tex.	.....	.....	29.76	755.9	65	18.3	89	S	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Denver, Col.	.....	.....	29.56	750.8	39	3.9	46	W	10	4.5	.....	5c	0	.....	.....	0	0	Fair.....	
Detroit, Mich.	24.34	618.2	29.98	761.5	33	0.6	100	E	8	3.6	.....	.....	Fog	.....	.....	1.32	33.5	Foggy.....	
Dodge City, Kan.	27.01	686.0	29.26	743.2	42	5.6	65	SE	14	6.3	.....	2c	0	SE	.....	0	0	Fair.....	
Dubuque, Iowa	.....	.....	29.72	754.9	37	2.8	90	SE	8	3.6	.....	.....	Fog	.....	.....	0.05	1.3	Foggy.....	
Duluth, Minn.	.....	.....	29.61	752.1	27	— 2.8	88	NE	12	5.4	.....	.....	10n	.....	.....	0.06	1.5	Sleeting.....	
Eastport, Me.	.....	.....	29.94	760.5	20	— 6.7	100	NE	31	13.9	.....	.....	10n	.....	.....	0.39	9.9	Heavy snow	
Erie, Pa.	.....	.....	30.03	762.7	34	1.1	90	NE	1	0.4	.....	.....	10s	.....	.....	1.84	46.7	Cloudy.....	
Escanaba, Mich.	.....	.....	29.86	758.4	29	— 1.7	89	SE	8	3.6	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.....	
Fort Gibson, Indian Terr.	.....	.....	29.72	754.9	65	18.3	78	SE	11	4.9	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Fort Sill, Indian T.	28.53	724.6	29.63	752.6	53	11.7	86	SW	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Fort Sully, Dakota	27.62	701.5	29.28	743.7	22	— 5.6	68	W	3	1.3	.....	5cs	2s	W	W	0	0	Cloudy.....	
Galveston, Tex.	.....	.....	30.03	762.7	64	17.8	94	SE	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Grand Haven, Mich.	.....	.....	29.90	759.4	36	2.2	100	SE	11	4.9	.....	.....	10n	.....	.....	0.23	5.8	Light rain...	
Indianapolis, Ind.	.....	.....	29.84	757.9	56	13.3	93	S	4	1.8	.....	.....	10s	.....	.....	1.18	30.0	Cloudy.....	
Indianola, Tex.	.....	.....	30.03	762.7	64	17.8	100	S	8	3.6	.....	0	2s	.....	S	0	0	Fair.....	
Jacksonville, Fla.	.....	.....	30.24	768.1	55	12.8	93	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy.....	
Keokuk, Iowa.	.....	.....	29.66	753.4	41	5.0	100	SE	9	4.0	.....	.....	Fog	.....	SE	0.05	1.3	Foggy	
Key West, Fla.	.....	.....	30. 0	767.1	72.5	22.4	85	E	8	3.6	.....	0	2ks	.....	E	0	0	Clear.....	
Kittyhawk, N. C.	.....	.....	30.03	762.7	52	11.1	86	W	14	6.3	.....	2cs	Haze	W	.....	0.03	0.8	Fair.....	
Knoxville, Tenn.	.....	.....	30.08	764.0	57	13.9	93	SW	12	5.4	.....	.....	10ks	.....	SW	0.03	0.8	Cloudy.....	
La Crosse, Wis.	.....	.....	29.65	753.1	38	3.3	100	SE	10	4.5	.....	.....	Fog	.....	.....	0	0	Foggy	
Leavenworth, Kan.	.....	.....	29.57	751.1	45	7.2	76	S	14	6.3	.....	.....	1s	.....	.....	0	0	Clear.....	
Lexington, Ky.	28.91	734.3	30.00	762.0	56	13.3	100	S	12	5.4	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.....	
Long Branch, N. J.	.....	.....	29.85	758.2	48	8.9	78	NW	14	6.3	.....	.....	10ks	.....	NW	0.02	0.5	Cloudy.....	
Louisville, Ky.	.....	.....	29.92	760.0	60	—15.6	88	S	5	2.2	.....	.....	10s	.....	S	0.31	7.9	Cloudy.....	
Lynchburg, Va.	.....	.....	29.99	761.7	53	11.7	80	SW	2	0.9	.....	0	0	.....	.....	0.01	0.3	Clear.....	
Malone, N. Y.	.....	.....	30.08	764.0	19	— 7.2	84	NE	4	1.8	.....	.....	10s	.....	.....	0.60	15.2	Cloudy.....	
Marquette, Mich.	.....	.....	29.83	757.7	28	— 2.2	88	SE	12	5.4	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.....	
Memphis, Tenn.	.....	.....	30.00	762.0	63	17.2	94	S	7	3.1	.....	.....	10n	.....	SW	Inap.	Inap.	Light rain...	
Milwaukee, Wis.	.....	.....	29.84	757.9	33	0.6	100	E	4	1.8	.....	.....	Fog	.....	E	0.11	2.8	Foggy	
Mobile, Ala.	.....	.....	30.18	766.6	61	16.1	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy.....	
Montgomery, Ala.	.....	.....	30.18	766.6	60.5	15.8	97	S	4	1.8	.....	2cs	Fog	.....	.....	0	0	Fair.....	
Morgantown, W. Va.	.....	.....	30.02	762.5	51	10.6	78	SW	1	0.4	.....	.....	10s	.....	SW	0.36	9.1	Clearing.....	
Mt. Washington, N. H.	23.47	596.1	29.83	757.7	17	— 8.3	100	NE	10	4.5	.....	.....	Fog	.....	.....	0.61	15.5	Foggy	
Nashville, Tenn.	.....	.....	29.99	761.7	62	16.7	88	S	3	1.3	.....	.....	10s	.....	SW	0	0	Cloudy.....	
New Haven, Conn.	.....	.....	29.84	757.9	32	0.0	69	N	24	10.7	.....	.....	10s	.....	N	0.13	3.3	Cloudy.....	
New London, Conn.	.....	.....	29.83	757.7	33	0.6	79	N	12	5.4	.....	5ck	2s	NW	N	0.42	10.7	Clearing.....	
New Orleans, La.	.....	.....	30.13	765.3	64	17.8	100	S	1	0.4	.....	.....	Fog	.....	.....	0	0	Dense fog...	
Newport, R. I.	.....	.....	29.81	757.2	29	— 1.7	89	NW	20	8.9	.....	.....	10n	.....	NW	0.51	13.0	Light snow	
New York, N. Y.	.....	.....	29.85	758.2	47	8.3	69	W	18	8.0	.....	2k	0	W	.....	0.13	3.3	Clear.....	
Norfolk, Va.	.....	.....	29.99	761.7	53	11.7	83	SW	11	4.9	.....	2c	0	NW	.....	Inap.	Inap.	Fair.....	
North Platte, Neb.	26.52	673.6	29.08	738.6	28	— 2.2	88	Calm	0	0	.....	2c	2s	.....	.....	0	0	Fair.....	
Omaha, Neb.	28.34	719.8	29.38	746.2	38	3.3	90	S	17	7.6	.....	0	0	.....	.....	0.02	0.5	Clear.....	
Oswego, N. Y.	.....	.....	30.12	765.0	26	— 3.9	88	NW	10	4.5	.....	.....	10s	.....	NW	0.98	24.9	Cloudy.....	
Peck's Beach, N. J.	.....	.....	29.90	759.4	50	10.0	78	W	18	8.0	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Pembina, Dakota.	.....	.....	29.21	741.9	30	— 1.1	89	SE	24	10.7	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Philadelphia, Penn.	.....	.....	29.91	759.7	52	11.1	60	NW	15	6.7	.....	5k	0	NW	.....	Inap.	Inap.	Fair.....	
Pike's Peak, Colorado	17.31	439.7	29.52	749.8	0	—17.8	70	SW	6	2.7	.....	0	8s	.....	.....	0.10*	2.5*	Fair.....	
Pittsburgh, Penn.	.....	.....	30.02	762.5	46	7.8	85	Calm	0	0	.....	.....	10s	.....	.....	0.39	9.9	Cloudy.....	
Port Huron, Mich.	.....	.....	30.03	762.7	29	— 1.7	89	NE	4	1.8	.....	.....	10s	.....	.....	0.69	17.5	Cloudy.....	
Portland, Me.	.....	.....	29.91	759.7	21	— 6.1	86	N	22	9.8	.....	.....	10n	.....	.....	0.61	15.5	Light snow..	
Portland, Oregon	.....	.....	29.82	757.4	39	3.9	81	S	18	8.0	.....	.....	10n	.....	.....	0.03	0.8	Light rain...	
Punta Rassa, Fla.	.....	.....	30.03	767.8	64.5	18.1	90	E	5	2.2	.....	Haze	0	.....	.....	0	0	Clear.....	
Rochester, N. Y.	.....	.....	30.09	764.3	27	— 2.8	88	NE	4	1.8	.....	.....	10s	.. ..	N	1.71	43.4	Cloudy.....	
Salt Lake City, Utah	25.39	644.9	29.72	754.9	34	1.1	79	Calm	0	0	.....	.....	10ks	.....	NW	0.23	5.8	Cloudy.....	
Sandy Hook, N. J.	.....	.....	29.81	757.9	41	5.0	91	NW	18	8.0	.....	.....	10ks	.....	NW	0.07	1.8	Cloudy.....	
San Diego, Cal.	.....	.....	30.17	766.3	47	8.3	92	S	8	3.6	.....	.....	10s	.....	S	1.53	38.9	Cloudy.....	
San Francisco, Cal.	.....	.....	30.11	764.8	46	7.8	69	Calm	0	0	.....	.....	10s	.....	.....	0.10	2.5	Cloudy.....	
Santa Fe, N. M.	23.05	585.5	29.59	751.6	26	— 3.3	64	N	4	1.8	.....	.....	10n	.....	.....	0.03	0.8	Heavy snow	
Savannah, Ga.	.....	.....	30.20	767.1	57	13.9	87	W	1	0.4	.....	0	Fog	.....	.....	0	0	Clear.....	
Shreveport, La.	.....	.....	30.01	762.2	65	18.3	89	S	4	1.8	.....	.....	10ks	.....	SW	0	0	Threatening	
Smithville, N. C.	.....	.....	30.15	765.8	54	12.2	90	W	8	3.6	.....	0	8ks	.....	W	0	0	Cloudy.....	
Springfield, Mass.	.....	.....	29.88	758.9	31	— 0.6	78	N	12	5.4	.....	5cs	5s	W	NW	0.55	14.0	Fair.....	
St. Louis, Mo.	.....	.....	29.79	756.1	59	15.0	81	S	12	5.4	.....	0	0	.....	.....	0.42	10.7	Clear.....	
St. Marks, Fla.	.....	.....	30.24	768.1	53	11.7	93	Calm	0	0	.....	0	8s	.....	NW	0	0	Cloudy.....	
St. Paul, Minn.	.....	.....	29.61	749.5	33.5	0.8	84	SE	11	4.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
St. Paul's Island, Alaska	.....	.....	29.82	757.4	16	— 8.9	82	NNW	5	2.2	.....	0	10k	.....	.....	0.04	1.0	Snow flurries..	
Squan Beach, N. J.	.....	.....	29.79	756.7	49	9.4	71	NW	16	7.2	.....	0	2s	.....	NW	0.10	2.5	Fair.....	
Thatcher's Island, Mass.	.....	.....	29.80	756.9	28	— 2.2	88	NE	42	18.8	.....	.....	10s	.....	NE	0.72	18.3	Cloudy.....	
Toledo, Ohio.	.....	.....	29.96	761.0	37	2.8	.....	E	3	1.3	.....	.....	10s	.....	E	0.16	4.1	Cloudy.....	
Tucson, Arizona.	27.54	699.5	30.13	765.3	48	8.9	93	NW	.....	.....	.....	0	5ks	.....	W	0	0	Fair.....	
Tybee Island, Ga.	.....	.....	30.22	767.6	54	12.2	94	SW	4	1.8	.....	0	Fog	.....	SW	0	0	Fair.	
Vicksburg, Miss.	.....	.....	30.08	764.0	65	18.3	88	S	6	2.7	.....	.....	10ks	.....	SW	0.01	0.3	Cloudy.....	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in the past 24 hours. Inches.	Rain-fall in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.78	604.0	29.26	743.2	24	— 4.4	68	SW	20	8.9	.....	1c	0	SW	.....	0.01	0.3	Clear	
Washington, D. C	.....	.....	29.97	761.2	51	10.6	79	NE	4	1.8	.....	2c	Sm'e	W	.....	0.03	0.8	Fair	
Wilmington, N. C	.....	.....	30.12	765.0	56	13.3	97	W	11	4.9	.....	0	2s	.....	W	0	0	Fair	
Wood's Holl, Mass	.....	.....	29.75	755.6	32	0.0	89	NW	20	8.9	.....	.....	10s	.....	NW	0.51	13.0	Cloudy	
Wytheville, Va	27.69	703.3	29.82	757.4	53	11.7	93	W	2	0.9	.....	10k	0	W	.....	0.01	0.3	Cloudy	
Yankton, Dakota	28.10	713.7	29.38	746.2	31	— 0.6	84	SE	5	2.2	.....	0	5s	.....	SE	0	0	Fair	
Yuma, Arizona	.....	.....	30.11	764.8	44	6.7	.....	SW	.....	.....	.....	0	0	.....	.....	0.18	4.6	Clear	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.12	765.0	79	26.1	78	NE	4	1.8	.....	2c	5s	N	NE	0.25	6.3	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.06	763.5	74	23.3	85	E	.....	.....	.....	0	5ks	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.32	770.1	76	24.4	69	SSE	1	0.4	.....	4ck	4k	S	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.25	768.3	72	22.2	71	Calm	0	0	.....	2c	2s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.94	760.5	70	21.1	79	N	4.8	2.1	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.21	767.3	71	21.7	79	SE	2.4	1.1	.....	.....	ks, hz	.....	N	0	0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.19	766.8	62.5	16.9	80	S	2.0	0.9	.....	10pk	2k	NW	.....	Inap.	Inap.	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.28	692.9	30.08	764.0	63	17.2	83	N	3.0	1.3	.....	.....	10k	.....	.....	0	0	Very dull	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.05	763.3	77	25.0	86	E	.....	.....	3	.....	7ks	.....	.....	0.030	0.76	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.07	763.8	80.6	27.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.512	13.00	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.20	640.0	.....	.....	66.2	19.0	81	.....	0	0	.....	.....	9s	.....	.....	0	0	Cloudy	Thomas Herran.
St. Johns, Newfoundland	.....	.....	30.37	771.4	0.0	—17.8	.....	W	.....	.....	.....	.....	.....	.....	.....	0	0	Fair	John Delaney.
York Factory, B. A	.....	.....	30.02	762.5	—25	—31.7	.....	E	5	2.2	.....	6k	Fog	E	.....	0	0	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher. *Melted frost.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS

TAKEN SIMULTANEOUSLY ON FEBRUARY 11, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.89	759.1	63.5	17.5	59	NW			2		6			0	0	Fair	Charnot and Masselot.
Algiers			29.82	757.5	53.2	11.8	63	N			3		9			0.551	14.0	Hidden	Peter.
La Calle																			
Tunis			29.80	756.8	52.2	11.2	97	W			3		10			1.189	30.2	Hidden	Kuntz.
Sfax			29.84	758.0	61.3	16.3	64	S			4		4			0.236	6.0	Fair	Jacques.
Sarda			29.93	760.2	41.0	5.0	84	N			1		6			0.276	7.0	Fair	Chauvey.
Tebessa			29.84	758.0	46.9	8.3		NW			3		8			0.039	1.0	Cloudy	Millot.
Geriville			29.91	759.6	39.9	4.4	87	NNW			3		2			0	0	Clear	Colin.
Laghouat			29.91	759.8	51.8	11.0	41	SW			4		2			0	0	Clear	Buard.
Biskra			29.92	759.9	57.6	14.2	60	NW			1		5			1.496	38.0	Fair	Delord.
																			Dubois.

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			29.79	756.7	29.8	— 1.2	98	SW			1		10			0.650	16.5	Snowing	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow																			
Eperies			29.87	758.8	28.8	— 1.8	90	NE			1		10			0.087	2.2		I. R. Observatory.
Gratz			29.84	758.0	32.7	0.4	81	Calm			0		10			0	0		Julius Mikolik.
Hermannstadt	28.56	725.4	29.82	757.3	30.4	— 0.9	84	NW			5		10			0	0		Andreas Rospini.
Kremsmünster	28.37	720.7	29.85	758.1	33.8	1.0	70	SW			1		3			0	0		Prof. Reissenberger.
Lemberg	28.53	724.6	29.95	760.7	25.2	— 3.8	82	WNW			2		10			0.217	5.5		Prof. C. Wagner.
Nyiregyhaza			29.90	759.4	27.1	— 2.7	96	S			4		4			0	0		Dr. T. Stanecki.
Pola			29.82	757.5	35.2	1.8	82	NE			1		2			0	0		Habzsuda Daniel.
Szegedin			29.65	753.1	39.6	4.2	97	ENE			1		10s			0.956	24.28		I.R. Hydrographic Office
Trieste			29.71	754.7	34.5	1.4	76	S			3		10			0.016	0.40		Karl Stancel.
Vienna			29.66	753.4	34.3	1.3	76	ENE			3		10			0.071	1.8	Snowing	Prof. V. Farolfi.
			29.87	758.8	27.3	— 2.6	75	WNW			2		10			0.236	6.0	Snowing	I. R. Central Institute.

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.89	759.1	33.1	0.6	90	WSW			1	0	3			0.039	1.00		Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.78	756.4	35.1	1.7		WNW	19	8.5			3			0.170	4.32	Blue sky	William Boswell.
Ardrossan			29.87	758.7	38	3.3		NW			2		0					Blue sky	J. Mayes.
Armagh Observatory			29.90	759.4	35.4	1.9		ENE	5	2.2			0					Blue sky	S. Cah, for Dr. Robinson
Bidston, Liverpool Obs.			29.87	758.7	35	1.7		SE	5	2.2			0					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			29.84	757.9	39.2	4.0		SE			1		0					Blue sky	J. Dreyer.
Bradford			29.75	755.6	34.6	1.4		W			1		0			0	0	Blue sky	J. McLandsborough.
Bridgetown, (Barbados)			30.07	763.8	79.4	26.3		NE			4		2					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.88	758.9	30.9	— 0.6		W			1		10					Overcast	H. Todd.
Cardington			29.90	759.4	31.0	— 0.6		W			1		8					Overcast	John McLaren.
Carlisle			29.85	758.2	35.3	1.8		W			1		4			0	0	*D. clouds	C. Bell, for J. Cartmell.
Chatham, School M. E.			29.90	759.4	28.7	— 1.8		NNE			0		0					Foggy	Capt. J. Fellowes, R. E.
Dartmoor	28.36	720.3	29.94	760.5	33.0	0.6		Calm			0		10					Overcast	R. E. Power.
Donaghadee			29.87	758.7	38	3.3		E			2		3					*D. clouds	J. Mac Gowan.
Dover			29.87	758.7	35	1.7		WNW			2		3					¼ clouded	J. Costello.
Eccles, (near Manchester)			29.86	758.4	25.8	— 3.4		SE	0.2	0.1			3					Misty	Thomas Mackereth.
Falmouth Observatory			29.82	757.4	40.2	4.6		E	16	7.2			10					Raining	The Staff.
Fort Napier, (Natal)	27.40	696.0	29.65	753.1	87.0	30.6		E			3		1					*D. clouds	Pvt. G. Salmon, A. H. C. (this
Free Town, (Sierra Leone			29.93	760.2	88	31.1		E			2		6						
Galway, Queen's College			29.72	754.9	40	4.4		SE			1		7					*D. clouds	B. G. Clare, for Prof. Carr
Gibraltar, (Mediterranean)			30.02	762.5	63.3	17.4		SW			5		9					Hazy	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.84	757.9	36.8	2.7		W			1		3					Fine	Lewis Stuart.
Great Yarmouth			29.85	758.2	32	0.0		WSW			2		4					Blue sky, fog	G. T. Watson.
Greenwich Royal Obs.			29.88	758.9	28.7	— 1.8		ESE			1		10					Foggy	The Staff for G. B. Airy
Guernsey			29.81	757.2	35	1.7		ENE			2		10					Drizzling	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.87	758.7	35.4	1.9		WNW			1		0					Blue sky	L. J. Cressley.
Helston			29.80	756.9	44	6.7		E			2		10			1.40	35.6	Raining	M. P. Moyle.
Holyhead			29.86	758.4	37	2.8		ENE			3		0					Blue sky	John Tilston.
Kew Observatory			29.9	759.4	27.5	— 2.5		NE	1	0.4								Foggy	The Staff.
Kingstown			29.88	758.9	39	3.9		ESE			3		5					*D. clouds	George Mitchell.
Leicester Museum			29.90	759.4	27.8	— 2.3		Calm			0		3					Clear, mist	William J. Harrison.
Malta, (Mediterranean)			29.66	753.4	63.2	17.3		SE			1		8k					*D. clouds	Fred Travis, Pvt. A.H.C.
Nairn			29.83	757.7	37	2.8		NNW			1		10					Overcast	W. D. Penny.
Nassau, (Bahamas)			30.25	768.3	70.2	21.2		E			3		5			Blank	Blank	*D. clouds	Surg.-Maj. Henry.
Nottingham			29.88	758.9	33.0	0.6		SW			1		0					Blue sky	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			29.90	759.4	23.8	— 4.6		N			0-1		10					Dense fog	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.88	758.9	28	— 2.2		Calm			0		10					Foggy	J. Lucas.
Plymouth			29.82	757.4	39	3.9		E			3		10					Gloomy	John Merrifield.
Roche's Point			29.78	756.4	43	6.1		SE			4		10			Blank	Blank	Overcast	W. Kennedy.
Saint Ann's Head			29.82	757.4	38	3.3		ESE			3		8					Misty	John C. Walker.
Saint Helier, (Jersey)			29.79	756.7	34.6	1.4		E			5		10					Overcast	A. P. Amy.
Sandwick Manse (Orkneys			29.82	757.4	38.5	3.6		N	9	4.0			3					Fine	Rev. Dr. Clouston
Scarborough			29.80	756.9	36.0	2.2		WNW			2		10					Overcast	F. Shaw.
Scutari Cemetery (Turkey			30.02	762.5	40.6	4.8		NNE			2		10					Gloomy	Sergt. W. H. Lyne.
Sheffield			29.84	757.9	36.8	2.6		W			2		2			0	0	Blue sky	W. F. Cooper.
Silloth Rectory			29.84	757.9	40.9	4.9	66	Calm			0		4			0.030	0.76	*D. clouds	Rev. Francis Redford.
Stonyhurst Observatory			29.85	758.2	33.4	0.8		W			1								The Staff.
Stornoway, Lews C. (Hebr)			29.93	760.2	41	5.0		WNW			2		2					Blue sky	John Smith.
Stratfield Turgiss			29.89	759.2	29.0	— 1.7		Calm			0								Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.78	756.4	41	5.0		NE			3		5					*D. clouds	John Trotter.
Truro, Royal Institution			29.80	756.9	40	4.4		E			2		10					Raining	W. Newcombe
Valencia Observatory			29.72	754.9	47.1	8.4		SE	21	9.4			6					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.85	758.2	71.2	21.8	66	W	17	7.6			9						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					39	3.9		E			1		3			0	0		
Leith, Restalrig Park			29.85	758.2	36.8	2.7		W			2	8ck		NE		0.24	6.1	Fine, cloudy	Andrew Gibb.
Monach Lt-house, Hebrides			29.89	759.2	39	3.9		E			3	0	0			0	0		J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.75	755.7	28.9	— 1.7	86	SE			6		10						
Faröe			29.67	753.5	27.0	— 2.8	92	S			2		9						
Godthaab, (Greenland)			29.69	754.1	7.0	—13.9	96	ESE			2		2						
Stykkisholm, (Iceland)			29.72	754.9	40.3	4.6	79	SE			6		8						
Thorshavn, (Faröe)			29.98	761.6	39.2	4.0	66	NE			4		8						
Vestervig			29.68	753.9	27.0	— 2.8	96	NE			4		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Low 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.89	759.3	37.4	3	89	SE	.....	.....	1	.....	10	.....	.....	0.268	6.8	Covered	Normal School.
Amiens	.....	.....	29.91	759.6	31.6	— 0.2	85	NW	.....	.....	6	.....	0	.....	.....	0	0	Clear.....	Normal School.
Avignon	.....	.....	29.89	759.1	36.0	2.2	53	N	.....	.....	7	.....	0	.....	.....	0	0	Very clear...	Normal School.
Bar-sur-Seine	.....	.....	30.02	762.6	26.1	— 3.3	.....	W	.....	.....	2	.....	8	.....	.....	0	0	Very cloudy	C. Saillard..
Beaumette, (near Angers)	.....	.....	29.83	757.6	36 0	2.2	82	SSE	6.3	2.8	.....	.....	.....	.....	WSW	0.224	5.7	.....	Beaumette Observatory
Beauvais	.....	.....	29.98	761.4	29.5	— 1.4	.....	SW	.....	.....	1	.....	5	.....	NW	0	0	Cloudy.....	Normal School.
Besançon	.....	.....	30.04	762.9	27.0	— 2.8	.....	N	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourg en Bresse	.....	.....	30.01	762.3	24.1	— 4.4	100	W	.....	.....	1	.....	0	.....	.....	.....	.....	Clear.....	Normal School.
Bourges	.....	.....	29.95	760.8	24.8	— 4	78	E	.....	.....	3	.....	1	.....	NE	0	0	Clear.....	Normal School.
Brest	.....	.....	29.76	755.8	48.0	8.9	65	W	.....	.....	2	.....	8	.....	W	0.039	1.00	Almost cov'd	Naval Observatory.
Caen	.....	.....	29.87	758.6	32.0	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Chartres	.....	.....	29.91	759.7	25.0	— 3.9	.....	S	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.95	760.8	32.9	0.5	82	SE	.....	.....	2	.....	10	.....	.....	0	0	Covered	Puy de Dome, Obs.
Commercy	.....	.....	30.01	762.3	27.7	— 2.4	96	W	.....	.....	2	.....	10n	.....	W	0	0	Covered	Normal School.
Commune de Gréasque*	.....	.....	29.82	757.5	34.9	1.6	71	NW	.....	.....	4	.....	0	.....	.....	0.051	1.3	.....	
Grenoble	.....	.....	29.98	761.6	32.0	0	100	NW	.....	.....	1	..e	10	.....	S	0	0	Misty.....	Normal School.
Le Mans	.....	.....	29.92	759.9	27.7	— 2.4	96	SE	.....	.....	3	.....	10	.....	.....	0.087	2.2	Covered	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lons-Le-Saulnier	.....	.....	30.05	763.3	25.5	— 3.6	73	N	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Mâcon	.....	.....	30.00	761.9	22.1	— 5.5	.....	Calm	.....	.....	0	.....	10	.....	.....	0	0	Covered	Normal School.
Mirecourt	.....	.....	30.02	762.4	26.2	— 2.2	92	SW	.....	.....	1	.....	10	.....	.....	0	0	Covered.....	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Nismes	.....	.....	29.89	759.2	40.8	4.9	65	N	.....	.....	6	.....	0	.....	.....	0	0	Clear.....	Normal School.
Orleans	.....	.....	29.97	761.1	27.7	— 2.4	100	S	.....	.....	3	.....	10	.....	S	0	0	Covered	Normal School.
Paris Observatory	.....	.....	29.98	761.4	26.2	— 3.2	82	SSE	.....	.....	1	.....	.....	.....	.....	0	0	Foggy	National Observatory
Parthenay	.....	.....	29.90	759.4	33.8	1	96	SW	.....	.....	4	.....	8	.....	SW	0	0	Very cloudy	Normal School.
Privas	.....	.....	29.98	761.5	31.5	— 0.3	.....	NE	.....	.....	4	.....	0	.....	.....	0	0	Clear.....	Normal School.
La Roche-sur-Yon	.....	.....	29.88	759.0	43.2	6.2	73	E	.....	.....	2	.....	5	.....	E	0	0	Cloudy.....	Normal School.
Rochefort, Observatory	.....	.....	29.94	760.4	40.5	4.7	91	S	.....	.....	3	.....	1	.....	NE	0	0	Blue sky.....	Naval Observatory.
Rouen	.....	.....	29 93	760.1	32.7	0.4	96	ESE	.....	.....	3	.....	5	.....	SE	0	0	Cloudy...	Normal School.
Saint Lo	.....	.....	29.87	758.8	30.2	— 1	100	SE	.....	.....	2	.....	10	.....	SE	0	0	.....	Normal School.
Tarbes	28.94	735.1	30.05	763.2	46.4	8	44	S	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	.....	.....	30.04	763.0	36.1	2.3	64	NE	.....	.....	2	.....	0	.....	.....	.....	.....	Clear.....	Normal School
Villefranche	.....	.....	30.05	763.2	24.8	— 4	78	NW	.....	.....	6	.....	10	.....	S	0	0	Covered.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.99	761.8	73.8	23.2	91	NE	.....	.....	2	.....	8k0	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Marseilles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Mont-Louis	.....	.....	29.82	757.3	39.0	3.9	77	NW	.....	.....	4	.....	0	.....	.....	0	0	.....	Marseilles Observatory.
Montsouris, Paris	24.61	625.1	30.01	762 2	34.2	1.2	50	SW	13.0	5.83	.....	.....	0	.....	.....	0	0	.....	—. Faignère.
Perpignan	.....	.....	29.96	760.9	25.0	— 3.9	86	Calm	.....	.....	0	.....	10	.....	.....	0	0	Light fog.....	Montsouris Observ'tory
Pic du Midi, (Summit) H.P†	.....	.....	29.93	760.1	38.1	3.4	33	NE	5.6	2.50	.....	.....	0	.....	.....	0	0	.....	Dr. Fines.
Saint Maur, (near Paris)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Baylac.
Toulouse	.....	.....	29.97	761.2	27.3	— 2.6	74	SSE	.....	.....	1	.....	10	.....	.....	0	0	Covered	E. Renou.
Tours	.....	.....	29.96	760.9	34.9	1.6	74	ESE	.....	.....	1	.....	0	.....	.....	0	0	.....	Toulouse Observatory
Versailles, (near Paris)	.....	.....	29.92	760.0	28.9	— 1.7	.....	SSE	.....	.....	2	.....	10	.....	.....	0	0	Rain & snow	C. Marquet.
Zi-Ka-Wei, (near Shanghai)	.....	.....	29.95	760.6	30.2	— 1.0	73	SW	.....	.....	2	.....	10	.....	.....	0	0	Light snow.	Dr. A. Bérigny.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Summit inaccessible; weather fine; rain-fall on the Plantade 0.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.78	756.3	26.8	— 2.9	81	W	.....	.....	2	.....	9	.....	.....	0	0	Snowing.....	Prof. T. Hoh.
Berlin	.....	.....	29.86	758 5	26.1	— 3.3	73	S	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	29.91	759.8	25.0	— 3.9	100	NW	.....	.....	3	.....	10	.....	.....	0.614	15.6	Snowing.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	29.97	761.2	29.1	— 1.6	75	SW	.....	.....	3	.....	10	.....	.....	0.063	1.6	.....	A. Senz.
Cassel	.....	.....	29.80	756.8	28.8	— 1.8	90	SW	.....	.....	6	.....	9	.....	.....	0.012	0.3	Snowing.....	Dr. H. Möhn.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Frankfort on the Main	.....	.....	30.02	762.4	28.8	— 1.8	87	SW	.....	.....	1	.....	10	.....	.....	Imap.	Imap.	Snowing.....	Prof. Prestel.
Friedrichshafen	.....	.....	30.01	762.2	27.0	— 2.8	46	W	.....	.....	.....	.....	4	.....	.....	0	0	.....	Physical Society.
Hamburg	.....	.....	29.70	754.3	31.6	— 0.2	96	SW	.....	.....	6	.....	10	.....	.....	0.193	4.9	Stormy.....	M. Wilhelm.
Kiel	.....	.....	29.69	754.0	32.7	0.4	89	SSE	.....	.....	3	.....	10	.....	.....	0.260	6.6	Snowing.....	Deutsche Seewarte.
Königsberg	.....	.....	29.95	760.6	24.1	— 4.4	77	SE	.....	.....	5	.....	5	.....	.....	0	0	.....	Prof. G. Karsten.
Köslin	.....	.....	29.86	758.5	29.5	— 1.4	.....	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. E. Luther.
Leipsic	.....	.....	29.90	759.4	26.2	— 3.2	72	SW	.....	.....	3	.....	4	.....	.....	0	0	.....	H. Müller.
Münster	.....	.....	29.84	758.0	34.0	1.1	91	S	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. Bruhns.
Posen	.....	.....	29.93	760.3	27.7	— 2.4	95	W	.....	.....	2	.....	10	.....	.....	0.189	4.8	Snowing.....	Prof. E. Heis.
Strassburg, (in Alsace)	.....	.....	30.01	762.2	30.4	— 0.9	77	S	.....	.....	1	.....	4	.....	.....	0	0	.....	Dr. Magener.
Stuttgart	.....	.....	29.99	761.8	27.9	— 2.3	61	N	.....	.....	.....	.....	2	.....	.....	0.008	0.2	.....	Dr. Schur.
Thorn	.....	.....	29.87	758.8	30.0	— 1.1	93	NE	.....	.....	4	.....	10	.....	.....	0	0	Snowing.....	Prof. Schoder.
Treves, (Trier)	.....	.....	29.88	759.0	29.3	— 1.5	83	SW	.....	.....	4	.....	10	.....	.....	0.004	0.1	Foggy	Dr. Hasenbalg.
Wustrow, Naval School	.....	.....	29.80	756.9	26.4	— 3.1	91	S	.....	.....	5	.....	10	.....	.....	0	0	.....	Prof. Flesch.
																			E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.97	761.3	54.1	12.3	.....	W	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.66	753.4	37.4	3.0	59	E	6.9	3.1			10			0.295	7.5		
Padua			29.66	753.3	34.2	1.2	94	NW	6.9	3.1			10			0	0	Foggy	
Vicenza																			
Verona			29.65	753.1	41.0	5.0	86	E			1		10			0	0		
Bergamo			29.65	753.0	37.0	2.8	72	SE			1		1			0	0		
Domodossola																			
Milan			29.71	754.5	42.6	5.9	32	NW			1		0			0	0		
Pavia																			
Moncalieri			29.77	756.1	33.6	0.9	74	ESE	3.8	1.7			0			0	0		
Mondovi			29.76	755.8	37.8	3.2	51	NW			2		0			0	0		
Porto Maurizio			29.74	755.3	46.4	8.0		SW			2		0			0.012	0.3		
Genoa			29.70	754.4	47.5	8.6	27	NE	3.1	1.4			0			0	0		
Piacenza			29.72	754.8	35.6	2.0	65	E	0	0			0			Blank	Blank		
Bologna			29.69	754.2	37.0	2.8	43	WNW			1		10			0	0	Sleeting	
Florence			29.70	754.3	45.9	7.7	79	W			2		7	W		0	0		
Leghorn			29.65	753.2	47.3	8.5	70	NW	6.3	2.8			5			0	0		
Siena			29.65	753.0	43.3	6.3	90	W	0	0			10	W		0.031	0.8		
Urbino																			
Pesaro																			
Ancona			29.68	753.9	36.3	2.4	93	NW			4		10			0.283	7.2	Raining	
Grosseto			29.67	753.6	49.1	9.5	92	N			2		8	NW		0.394	10.0		
Rome			29.64	752.9	51.8	11.0	95	SSE	6.3	2.8			10	W		0.354	9.0	Raining	
Naples, O. U.			29.70	754.3	57.2	14.0	83	S			6		10	S		0.157	4.0		
Lecce			29.81	757.1	52.5	11.4	59	SW	32.2	14.4			6	SW		0	0		
Cosenza			29.74	755.4	58.6	14.8	68	ESE	47.2	21.1			5			Blank	Blank		
Riposto, (Sicily)			29.81	757.1	57.9	14.4	87	SE			2		9	N		0	0		
Palermo			29.60	751.8	67.1	19.5	40	SSW	7.4	3.3			10			0	0		
Caltanissetta			29.74	755.5	52.2	11.2	73	SSE			2		2	NW		0.031	0.8		
Sub-Series.																			
Naples, S. R.			29.70	754.4	55.4	13.0	88	SW	2.5	1.1			..k,c	W		0.177	4.5		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.91	759.6	35.2	1.8		W			4								
Groningen			29.64	752.8	34.2	1.2		WSW			4								
Helder			29.74	755.4	37.2	2.9		WSW			5								
Utrecht			29.79	756.6	34.5	1.4	99	WSW			3		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.89	759.3	33.1	0.6	78	E	12.3	5.5			10			0	0		
Brönö			30.29	769.4	28.8	— 1.8	49	NE	7	3			5			0	0		
Christiania			30.02	762.5	26.1	— 3.3	85	ENE	7.6	3.4			10			0.043	1.1	Light snow.	
Tromsö			30.34	770.7	27.5	— 2.5	85	WSW	0	0			10			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.34	770.7	48.9	9.4	76	NW	6.5	2.92	.....	.....	4	.....	.....	0.039	1.0	.....	Dr. J. A. N. Sampaio.
Campo Maior	.....	.....	29.94	760.5	48.2	9.0	84	SE	6.9	3.00	.....	.....	10	SE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.15	765.9	63.7	17.6	75	NNW	6.2	2.78	.....	.....	10	.....	.....	0.185	4.7	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	29.87	758.8	52.9	11.6	90	SSW	16.1	7.2	.....	.....	10	.....	.....	0.020	0.5	Raining.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.89	759.2	27.1	— 2.7	83	E	13	6	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30.10	764.4	24.6	— 4.1	61	SE	4	2	.....	.....	8	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	30.18	766.6	17.2	— 8.2	81	E	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.16	766.0	5.7	—14.6	96	Calm	0	0	.....	.....	10	.....	.....	.....	.....	Light fog.....	Central Physical Obs
Kuoplo	.....	.....	30.21	767.2	18.9	— 7.4	97	NNE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	30.09	764.2	10.4	—12.0	93	NNE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.06	763.5	22.8	— 5.1	76	NNE	11	5	.....	.....	10	.....	.....	.....	.....	.....	Kurdukof.
Kertch	.....	.....	29.95	760.7	28.0	— 1.7	94	WNW	4	2	.....	.....	10	.....	.....	.....	.....	Light rain ?	Lagorio.
Moscow	.....	.....	30.22	767.6	15.6	— 9.1	78	SW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.02	762.6	20.3	— 6.5	79	E	22	10	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	30.09	764.3	8.2	—13.2	92	Calm	0	0	.....	.....	10	.....	.....	.....	.....	Light snow..	Ogorodnikof.
Tiflis	28.50	723.9	29.94	760.4	46.6	8.1	48	NE	9	4	.....	.....	1	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.13	765.3	24.8	— 4.0	91	NNE	13	6	.....	.....	10	.....	.....	.....	.....	Snowing.....	Sobastianof.
Kasan	.....	.....	30.05	763.3	11.5	—11.4	89	SSW	2	1	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	8.8	—12.9	84	W	2	1	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.90	734.1	29.98	761.4	14.0	—10.0	80	WSW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.10	764.6	50.0	10.0	50	ENE	7	3	.....	.....	3	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.19	766.8	23.2	— 5.0	84	Calm	0	0	.....	.....	5	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.65	727.8	30.43	772.8	41.4	5.2	71	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	29.89	759.2	14.5	— 9.7	77	SW	13	6	.....	.....	3	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.48	748.9	1.9	—16.7	83	SSW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzof.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.25	768.3	26.1	— 3.3	68	S	4	2	.....	.....	4	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.38	771.7	4.8	-15.1	77	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	— 2.4	—19.1	70	W	20	9	.....	.....	7	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409 meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.99	761.7	43.9	6.6	66	N	3.0	1.33	.....	0	0	.....	.....	0	0	Clear.....	Royal Observatory.
San Fernando	.....	.....	30.04	763.0	59.0	15.0	82	WSW	7.2	3.2	.....	1	9	ENE	ESE	0.476	12.1	.....	The Naval Observatory.

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.43	773.0	9.0	—12.8	76	N	.....	.....	2	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.37	771.3	18.9	— 7.3	98	NE	.....	.....	2	.....	7	.....	.....	0	0	.....	
Hernosand	.....	.....	30.32	770.2	18.3	— 7.6	97	ENE	.....	.....	4	.....	10	.....	.....	0	0	.....	
Stockholm	.....	.....	30.06	763.5	27.9	— 2.3	79	ENE	.....	.....	4	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	30.03	762.8	30.9	— 0.6	100	SE	.....	.....	6	.....	3	.....	.....	0.016	0.4	.....	
Sub-Series.																			
Upsala	.....	.....	30.11	764.8	28.4	— 2.0	85	ENE	10.1	4.5	.....	.....	10	.....	E	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.50	724.0	30.01	762.3	27.7	— 2.4	61	NNE	.....	.....	1	.....	9	.....	.....	0	0	Covered	The Observatory.
Zurich	28.28	718.4	30.02	762.6	25.9	— 3.4	78	W	.....	.....	1	.....	4	.....	.....	0	0	Clear.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.6 mm.; Thermometer, —5.5 cent.; Relative Humidity, —12 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.03	762.8	37.9	3.3	80	NNE	7	3.0	.....	.....	10	.....	NE	0	0	Light rain...	
Fao, (Persian Gulf)	.....	.....	30.16	766.0	58.8	14.9	.....	SE	.....	.....	4	.....	.....	.....	.....	Blank	Blank	.....	
Salonica	.....	.....	29.97	761.2	52.2	11.2	.....	NW	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.72	754.8	57.0	13.9	.....	S	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	30.00	762.0	33.8	1.0	.....	NW	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.85	758.3	62.6	17.0	72	WSW	.....	.....	2	.....	3k	.....	SW	0.33	8.4	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	30.26	768.6	— 7.5	—21.9	79	SW	2.0	0.9	.....	.....	.....	.....	.....	0.35	8.9	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.72	754.9	38	3.3	.....	SW	13	5.8	.....	.....	10s	.....	SW	0.04	10.2	Light rain....	W. R. Bigg.
*Chatham, N. B.	.....	.....	30.34	770.6	— 7	—21.7	96	Calm	0	0	.....	5c	0	.....	.....	0	0	Fair.....	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	30.38	771.6	3	—16.1	87	Calm	0	0	.....	0	0	.....	.....	0.05	1.3	Clear.....	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.67	753.6	32.7	0.4	88	E	.....	.....	1	.....	10	.....	.....	0.260	6.60	Rainy	James Smith, M. A.
Dalhousie, N. B.	.....	.....	30.25	768.3	— 2.5	—19.2	34	W	.....	.....	2	8cs	.....	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.31	744.5	41.1	5.1	92	SW	3	1.3	.....	8ck	.....	.....	.....	0	0	Cloudy.....	W. H. Bevis.
Fredericton, N. B.	.....	.....	30.33	770.4	— 2.4	—19.1	90	Calm	0	0	.....	7c	.....	.....	.....	0.500	12.70	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	29.83	757.7	—14	—25.6	100	W	18	8.0	.....	0	28	.....	W	0	0	Fair.....	James Stewart.
Goderich, Ontario	.....	.....	30.59	777.0	43.0	6.1	95	SW	.....	.....	2	.....	10n	.....	.....	*0.917	*23.29	Unsettled....	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.55	750.6	47.0	8.3	.....	SW	.....	.....	2	.....	10n	.....	.....	0.51	13.0	Raining.....	James Grant.
*Halifax, N. S.	.....	.....	30.40	772.1	2	—16.7	86	N	2	0.9	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.69	754.1	37	2.8	93	S	32	14.3	.....	.....	10n	.....	S	0.28	7.1	Heavy rain..	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.48	774.2	36.3	2.4	.....	SW	18	8.0	.....	.....	9s	.....	.....	0.83	21.1	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.74	755.4	34	1.1	84	S	20	8.9	.....	.....	10n	.....	S	0.12	3.0	Light rain...	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.67	753.6	31	— 0.6	73	Calm	0	0	.....	.....	10n	.....	.....	0.02	0.5	Light rain...	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.43	747.5	41	5.0	100	S	11	4.9	.....	.....	10n	.....	S	0.37	9.4	Foggy	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.60	751.8	52	11.1	97	W	7	3.1	.....	.....	10n	.....	W	0.46	11.7	Light rain....	H. Morgan.
Port Hastings, N. S.	.....	.....	30.49	772.1	13.0	—10.6	.....	NW	4	1.8	.....	.....	.....	.....	.....	0.300	7.62	Fine.....	Peter Grant.
*Port Stanley, Ontario	.....	.....	29.60	751.8	45	7.2	98	SW	10	4.5	.....	.....	Fog	.....	.....	0.83	21.1	Heavy rain .	M. Payne.
*Quebec, Quebec	.....	.....	29.97	761.2	19	— 7.2	84	NE	15	6.7	.....	.....	10n	.....	NE	0.10	2.5	Light snow.	Capt. Ash, R. N.
St. John, N. B.	.....	.....	30.14	765.5	11	—11.7	80	E	2	0.9	.....	.....	.....	.....	.....	1.000	25.40	.....	G. Murdoch, C. E.
*Sangeen, Ontario	.....	.....	29.48	748.8	46	7.8	91	W	9	4.0	.....	.....	10n	.....	NW	0.65	16.5	Cloudy.....	K. Stewart.
Stayner, Ontario	.....	.....	29.49	749.0	45	7.2	92	Calm	0	0	.....	.....	8n	.....	W	0.20	5.1	Cloudy.....	R. J. Cole.
Stratford, Ontario	.....	.....	29.55	750.6	45.6	7.6	98	SW	10	4.5	.....	.....	10n	.....	.....	0.904	22.96	Rainy.....	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	30.37	771.4	4	—15.6	100	Calm	0	0	.....	2c	0	.....	.....	0.14	3.6	Clear.....	T. C. Hill.
*Toronto, Ontario	.....	.....	29.56	750.8	39	3.9	100	S	3	1.3	.....	.....	Fog	.....	.....	0.59	15.0	Heavy rain..	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m. *Rain-fall in 48 hours.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. Lb.	Clouds. Amount. Upper.	Clouds. Amount. Low'r.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.96	761.0	35	1.7	90	SE	30	13.4	.....	.....	10s	.....	S	0.10	2.5	Threatening	
Alpena, Mich.	.....	.....	29.49	749.0	38	3.3	90	W	8	3.6	.....	.....	10s	.....	W	0.42	10.7	Cloudy.....	
Atlantic City, N. J.	.....	.....	30.13	765.3	41	5.0	91	S	12	5.4	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Augusta, Ga.	.....	.....	30.18	766.6	56	13.3	97	S	1	0.4	.....	2cs	Fog	W	.....	0	0	Fair.....	
Baltimore, Md.	.....	.....	30.10	764.5	45	7.2	84	E	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Barnegat, N. J.	.....	.....	30.13	765.3	40	4.4	91	S	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Benton, Montana	26.82	681.2	29.62	752.3	4	—15.6	100	NE	1	0.4	.....	0	0	.....	.....	0	0	Clear.....	
Bismarck, Dakota	27.98	710.7	29.81	757.2	— 5	—20.6	26	NE	8	3.6	.....	1c	Haze	N	.....	0	0	Fair.....	
Boston, Mass.	.....	.....	30.21	767.3	30	— 1.1	95	SE	12	5.4	.....	.....	10s	.....	.....	0	0	Threatening	
Breckenridge, Minn	.....	.....	29.87	758.7	— 3	—19.4	83	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Buffalo, N. Y.	.....	.....	29.58	751 3	51	10.6	93	SW	16	7.2	.....	.....	10n	.....	SW	0 37	9.4	Heavy rain..	
Burlington, Vt.	.....	.....	29.80	758.4	35	1.7	100	S	26	11.6	.....	.....	10n	.....	.....	0.06	1.5	Light rain....	
Cairo, Ill.	.....	.....	29.79	756.7	62	16.7	100	W	15	6.7	.....	.....	10n	.....	W	0.21	5.3	Light rain....	
Cape Hatteras, N. C.	.....	.....	30.11	764.8	61	16.1	88	SE	9	4.0	.....	2k	0	.....	.....	0	0	Fair.....	
Cape Henry, Va.	.....	.....	30.14	765.5	58	14.4	79	S	12	5.4	.....	10c	0	.....	.....	0	0	Cloudy.....	
Cape May, N. J.	.....	.....	30.13	765.3	44	6.7	92	SE	10	4.5	.....	.....	10s	.....	S	0	0	Cloudy.....	
Charleston, S. C.	.....	.....	30.20	767.1	58	14.4	93	S	6	7.2	.....	0	Fog	.....	.....	0	0	Clear.....	
Cheyenne, Wyoming	23.77	603.8	29.71	754.6	31	— 0.6	32	W	28	12.5	.....	0	1s	.....	.....	0	0	Clear.....	
Chicago, Ill.	.....	.....	29.74	755.4	43	6.1	67	NW	6	2.7	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.....	
Cincinnati, Ohio	.....	.....	29.60	751.8	66	18.9	68	SW	16	7.2	.....	0	5s	.....	SW	0	0	Fair.....	
Cleveland, Ohio	.....	.....	29.62	752.3	51.3	10.7	88	W	16	7.2	.....	.....	10n	.....	W	0.53	13.5	Light rain...	
Colorado Springs, Col.	23.98	609.1	29.85	758.2	30	— 1.1	67	NE	11	4.9	.....	2cs	0	.....	.....	0	0	Clear.....	
Corsicana, Tex.	.....	.....	30.02	762.5	57	13.9	57	SW	6	2.7	.....	8k	0	S	.....	0.20	5.1	Cloudy.....	
Davenport, Iowa	.....	.....	29.90	759.4	33	0.6	79	NW	12	5.4	.....	.....	10s	.....	.....	0.13	3.3	Cloudy.....	
Denison, Tex.	.....	.....	29.93	760.2	54	12.2	49	W	4	1.8	.....	2c	0	SW	.....	0.05	1.3	Clear.....	
Denver, Col.	24.66	626.4	29.88	758.9	30	— 1.1	46	S	8	3.6	.....	5c	0	W	.....	0	0	Fair.....	
Detroit, Mich.	.....	.....	29.57	751.1	51	10.6	93	SW	7	3.1	.....	.....	10n	.....	.....	0.66	16.8	Light rain....	
Dodge City, Kan.	27.44	697.0	29.85	758.2	24	— 4.4	74	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Dubuque, Iowa	.....	.....	29.88	758.9	29	— 1.7	66	W	8	3.6	.....	0	5s	.....	.....	0	0	Fair.....	
Duluth, Minn.	.....	.....	29.75	755.6	8	—13.3	67	SW	8	3.6	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Eastport, Me.	.....	.....	30.27	768.8	22	— 5.6	85	S	12	5.4	.....	10cs	Haze	.....	.....	0.06	1.5	Cloudy.....	
Erie, Pa.	.....	.....	29.54	750.3	59	15.0	94	S	20	8.9	.....	.....	10n	.....	W	0.38	9.7	Heavy rain...	
Escanaba, Mich.	.....	.....	29.60	751.8	30	— 1.1	83	SW	12	5.4	.....	5c	0	SW	.....	0.22	5.6	Fair.....	
Fort Gibson, Indian Terr.	.....	.....	29.95	760.7	48	8.9	77	NW	8	3.6	.....	0	0	.....	.....	0.45	11.4	Clear.....	
Fort Sill, Indian T.	28.84	732.5	29.96	761.0	44	6.7	67	N	4	1.8	.....	0	2s	.....	N	0.06	1.5	Clear.....	
Fort Sully, Dakota	28.06	712.7	29.84	757.9	9	-12.8	89	SE	3	1.3	.....	5cs	0	W	.....	0	0	Fair.....	
Galveston, Tex.	.....	.....	30.05	763.3	68	20.0	94	SW	3	1.3	.....	0	5s	.....	SW	0	0	Fair.....	
Grand Haven, Mich.	.....	.....	29.63	752.6	40	4.4	77	W	12	5.4	.....	.....	10s	.....	W	0.18	4.6	Cloudy.....	
Indianapolis, Ind.	.....	.....	29.69	754.1	55	12.8	87	NW	6	2.7	.....	.....	10n	.....	.....	0.74	18.8	Light rain...	
Indianola, Tex.	.....	.....	30.0	763.5	68	20.0	97	W	4	1.8	.....	.....	10ks	.....	SW	0	0	Cloudy	
Jacksonville, Fla.	.....	.....	30.24	768.1	60	15.6	94	SE	3	1.3	.....	0	Fog	.....	.....	0	0	Foggy	
Keokuk, Iowa	.....	.....	29.91	759.7	34	1.1	79	NW	8	3.6	.....	.....	10s	.....	NW	0.01	0.3	Cloudy.....	
Key West, Fla.	.....	.....	30.21	767.3	72.2	22.3	75	E	4	1.8	.....	10k	0	E	.....	0	0	Cloudy..	
Kittyhawk, N. C.	.....	.....	30.15	765.8	51	10.6	93	SE	12	5.4	.....	5c	0	SE	.....	0	0	Fair.....	
Knoxville, Tenn.	.....	.....	30.00	762.0	65	18.5	73	SW	24	10.7	.....	.....	10n	.....	SW	Inap.	Inap.	Light rain...	
La Crosse, Wis.	.....	.....	29.95	760.7	19	— 7.2	69	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Leavenworth, Kan.	.....	.....	30.05	763.3	50	10.0	68	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Lexington, Ky.	28.72	729.5	29.78	756.4	63	17.2	83	S	24	10.7	.....	0	5ks	.....	SW	0	0	Fair.....	
Long Branch, N. J.	.....	.....	30.14	765.5	40	4.4	91	SE	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Louisville, Ky.	.....	.....	29.69	754 1	65	18.3	78	S	24	10.7	.....	5k	0	SW	.....	0	0	Fair.....	
Lynchburg, Va.	.....	.....	30.05	763.3	50	10.0	96	Calm	0	0	.....	.....	10n	.....	.....	Inap.	Inap.	Light rain...	
Malone, N. Y.	.....	.....	29.59	751.6	42	5.6	83	S	36	16.1	.....	.....	10s	.....	.....	0.30	7.6	Cloudy.....	
Marquette, Mich.	.....	.....	29.58	751.3	24	— 4.4	61	W	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Memphis, Tenn.	.....	.....	29.88	758.9	68	20.0	79	SW	15	6.7	.....	.....	10s	.....	SW	Inap.	Inap.	Threatening	
Milwaukee, Wis.	.....	.....	29.73	755.1	35	1.7	70	NW	17	7.6	.....	.....	10ks	.....	.....	0.30	7.6	Cloudy.....	
Mobile, Ala.	.....	.....	30.14	765 5	64	17.8	94	S	8	3.6	.....	.....	Fog	.....	.....	0	0	Foggy	
Montgomery, Ala.	.....	.....	30.16	766.1	65	18.3	89	S	4	1.8	.....	.....	10ks	.....	SW	0	0	Cloudy.....	
Morgantown, W. Va.	.....	.....	29.77	756.1	66	18.9	63	SW	17	7.6	.....	.....	10s	.....	SW	0	0	Cloudy.....	
Mt. Washington, N. H.	23.52	597.4	29.88	758.9	18	— 7.8	100	SW	60	26.8	.....	.....	Fog	.....	.....	0	0	Foggy.....	
Nashville, Tenn.	.....	.....	29.85	758.2	68	2 .0	74	S	10	4.5	.....	10k	0	W	.....	0	0	Cloudy.....	
New Haven, Conn.	.....	.....	30.19	766.8	39	3.9	90	S	8	3.6	.....	.....	10n	.....	.....	Inap.	Inap.	Light rain...	
New London, Conn.	.....	.....	30.20	767.1	36.5	2.5	90	SE	14	6.3	.....	.....	10s	.....	S	0	0	Cloudy.....	
New Orleans, La.	.....	.....	30.11	764.8	68.5	20.3	95	S	8	3.6	.....	.....	Fog	.....	.....	0.01	0.3	Foggy	
Newport, R. I.	.....	.....	30.21	767.3	37	2.8	81	S	12	5.4	.....	.....	10s	.....	S	Inap.	Inap.	Cloudy.....	
New York, N. Y.	.....	.....	30.15	765.8	38	3.3	90	SE	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy, fog..	
Norfolk, Va.	.....	.....	30.14	765.5	55.5	13.1	84	S	7	3.1	.....	8c	0	.....	.....	0	0	Fair.....	
North Platte, Neb.	26.99	685.5	29.66	753.4	25	— 3.9	75	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair.....	
Omaha, Neb.	28.89	732.8	29.62	752.5	23	— 5.0	86	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Oswego, N. Y.	.....	.....	29.72	754.9	41.7	5.3	79	SE	20	8.9	.....	.....	10n	.....	NW	0.52	13.2	Light rain ..	
Peck's Beach, N. J.	.....	.....	30.13	765.3	43	6.1	91	SE	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Pembina, Dakota	.....	.....	29.83	757.7	—10	—23.3	100	W	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
Philadelphia, Penn.	.....	.....	30.12	765.0	42	5.6	83	S	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Pike's Peak, Colorado	17.62	445.0	28.73	756.1	0.5	—17.5	40	W	38	17.0	.....	0	0	.....	.....	0	0	Clear.....	
Pittsburgh, Penn.	.....	.....	29.72	754.9	61	17.8	61	SW	16	7.2	.....	.....	10ks	.....	SW	0	0	Cloudy.....	
Port Huron, Mich.	.....	.....	29.51	749.5	51	10.6	93	SW	12	5.4	.....	.....	10n	.....	SW	0.32	8.1	Light rain...	
Portland, Me.	.....	.....	30.2	767.1	34	1.1	79	S	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Portland, Oregon	.....	.....	29.59	751.6	44	6.7	84	SW	4	1.8	.....	.....	10n	.....	.....	0.99	25.1	Heavy rain..	
Punta Rassa, Fla.	.....	.....	30.25	768.3	63.1	17.3	78	NE	8	3.6	.....	0	1s	.....	.....	0	0	Clear.....	
Rochester, N. Y.	.....	.....	29.63	752.6	46	7.8	85	S	16	7.2	.....	.....	10s	.....	W	0.47	11.9	Cloudy.....	
Salt Lake City, Utah	25.58	649.7	29.91	759.7	38	3.3	63	SW	4	1.8	.....	.....	10s	.....	.....	0.19	4.8	Cloudy.....	
Sandy Hook, N. J.	.....	.....	30.13	765.3	41	5.0	83	S	7	3.1	.....	.....	10s	.....	S	0	0	Cloudy.....	
San Diego, Cal.	.....	.....	30.28	769 1	43	6.1	91	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
San Francisco, Cal.	.....	.....	30.05	763.3	50	10.0	86	SE	16	7.2	.....	.....	10n	.....	SE	0.14	3.6	Light rain...	
Santa Fe, N. M.	23.28	591.6	29.82	757.4	25	— 3 9	38	N	16	7.2	.....	0	0	.....	.....	0.17	4.3	Clear.....	
Savannah, Ga.	.....	.....	30.20	767.1	58	14.4	87	Calm	0	0	.....	0	Fog	.....	.....	0	0	Clear.....	
Shreveport, La.	.....	.....	29.92	760.0	64	17.8	73	W	3	1.3	.....	10k	0	.....	SW	0	0	Cloudy.....	
Smithville, N. C.	.....	.....	30.19	766.8	56	13.3	93	SW	4	1.8	.....	1c	Fog	W	.....	0	0	Clearing.....	
Springfield, Mass.	.....	.....	30.17	766.3	34	1.1	84	S	4	1.8	.....	.....	10n	.....	.....	0.02	0.5	Light rain...	
St. Louis, Mo.	.....	.....	29.86	758.4	50	10.0	78	N	4	1.8	.....	.....	10s	.....	.....	0.52	13.2	Cloudy.....	
St. Marks, Fla.	.....	.....	30.22	767.6	59	15.0	94	SE	6	2.7	.....	.....	Fog	.....	.....	0	0	Dense fog....	
St. Paul, Minn.	.....	.....	29.88	758.9	13.5	—10.3	80	SW	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	
St. Paul's Island, Alaska	.....	.....	29.07	761.2	9	—12.8	78	NE	8	3.6	.....	0	2k	.....	.....	0.01	0.3	.....	
Squan Beach, N. J.	.....	.....	30.08	764.0	39	3.9	91	SE	10	4.5	.....	.....	10s	.....	.....	0	0	Threatening	
Thatcher's Island, Mass.	.....	.....	30.22	767.6	33	0.6	89	S	26	11.6	.....	.....	10s	.....	S	0	0	Cloudy.....	
Toledo, Ohio	.....	.....	29.60	751.8	52	11.1	100	S	4	1.8	.....	.....	10n	.....	S	0.15	3.8	Heavy rain..	
Tucson, Arizona	27.74	704.6	30.33	770.4	32	0.0	.....	S	.....	.....	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Tybee Island, Ga.	.....	.....	30.23	767.3	61	16.1	83	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Vicksburg, Miss.	.....	.....	30.01	763.0	69	20.6	84	S	10	4.5	.....	5 s	2k	SW	SW	0	0	Fair.....	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.90	607.0	29.38	746.2	28	— 2.2	57	SW	3	1.3	.....	10k	0	W	.....	0	0	Cloudy	
Washington, D. C	.....	.....	30.07	763.8	44.5	6.9	96	Calm	0	0	.....	.....	10n	.....	.....	Inap.	Inap.	Light rain	
Wilmington, N. C	.....	.....	30.18	766.6	54	12.2	93	S	5	2.2	.....	1cs	Fog	W	.....	0	0	Fair	
Wood's Holl, Mass	.....	.....	30.21	767.3	36	2.2	80	S	16	7.2	.....	.....	10s	.....	S	0	0	Cloudy	
Wytheville, Va	27.67	702.8	29.85	758.2	44	6.7	100	Calm	0	0	.....	.....	Fog	.....	.....	0.04	1.0	Foggy	
Yankton, Dakota	28.70	729.0	30.09	764.3	13	—10.6	71	S	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.25	768.3	42	5.6	.....	Calm	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.03	762.7	78	25.6	86	NE	9	4.0	.....	5c	8s	NE	S	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.07	763.8	73	22.8	85	NE	.....	.....	.....	2k	0	.....	.....	0	0	Clear	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.33	770.4	76	24.4	67	NNE	8	3.6	.....	4c	8k	NE	.....	0	0	Cloudy	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.29	769.4	73	22.8	76	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.94	760.5	71	21.7	67	NNE	8.4	3.8	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.23	767.8	70	21.1	75	SE	3.6	1.6	.....	0	0	.....	.....	0	0	Clear	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.25	768.3	62.0	16.7	72	NE	16.0	7.2	.....	0	8k	.....	.....	0	0	Cloudy	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.29	693.2	30.10	764.5	61	16.1	83	N	2.0	0.9	.....	.....	10k	.....	.....	0	0	Dull	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.03	762.7	77	25.0	95	SE	.....	.....	2	.....	8n, ks	.....	.....	1.120	28.45	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.07	763.8	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.197	5.00	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.21	640.4	.....	.....	66.2	19.0	83	.....	3	1.3	.....	.....	9s	.....	.....	0.02	0.5	Cloudy	Thomas Herran.
St. Johns, Newfoundland	.....	.....	30.19	766.8	3.0	—16.1	.....	N	.....	.....	.....	5k	5s	.....	.....	0	0	Fair	John Delaney.
York Factory, B. A	.....	.....	29.47	748.5	— 5	—20.6	82	E	14	6.3	.....	.....	10n	.....	.....	0.15	3.8	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 12, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	29.91	759.7	60.1	15.6	38	WNW	.....	.....	3	.....	9	.....	.....	0	0	Hidden.	Charnot and Masselot.
Algiers	.....	.....	29.87	758.8	59.0	15.0	78	W	.....	.....	1	.....	10	.....	.....	0.213	5.4	Hidden.	Peter.
La Calle	.....	.....																	Kuntz.
Tunis	.....	.....	29.93	760.1	58.5	14.7	58	NW	.....	.....	3	.....	5	.....	.....	0	0	Fair.	Jacques.
Sfax	.....	.....	29.95	760.6	64.4	18.0	44	W	.....	.....	4	.....	1	.....	.....	0	0	Clear.	Chauvey.
Saida	.....	.....	29.92	759.9	41.0	5.0	84	SW	.....	.....	2	.....	6	.....	.....	0.551	14.0	Clear.	Millot.
Tebessa	.....	.....	29.97	761.2	48.6	9.2	.....	NW	.....	.....	3	.....	1	.....	.....	0.079	2.0	Clear.	Colin.
Geriville	.....	.....	29.94	760.5	45.1	7.3	60	SE	.....	.....	5	.....	6	.....	.....	0	0	Fair.	Buard.
Laghouat	.....	.....	29.98	761.5	57.2	14.0	67	NW	.....	.....	3	.....	4	.....	.....	0	0	Fair.	Delord.
Biskra	.....	.....	29.99	761.8	55.4	13.0	61	N	.....	.....	1	.....	0	.....	.....	0	0	Clear.	Dubois.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.07	763.6	31.5	— 0.3	79	SW	.....	.....	1	.....	2	.....	.....	0	0	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eperies	.....	.....	29.90	759.9	27.0	— 2.8	94	W	.....	.....	3	.....	10	.....	.....	0.244	6.2	.....	I. R. Observatory.
Gratz	.....	.....	29.85	759.3	33.4	0.8	85	NW	.....	.....	1	.....	10	.....	.....	0.246	6.24	.....	Julius Mikolik.
Hermannstadt	28.76	730.4	30.02	762.5	30.9	— 0.6	84	ESE	.....	.....	2	.....	0	.....	.....	0	0	.....	Andreas Rospini.
Kremsmünster	28.47	723.1	29.90	760.9	32.7	0.4	80	WNW	.....	.....	4	.....	5	.....	.....	0.061	1.55	.....	Prof. Reissenberger.
Lemberg	28.63	727.1	30.06	763.5	23.4	— 4.8	90	E	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. C. Wagner.
Mytregyhaza	.....	.....	29.91	759.8	21.6	— 5.8	95	S	.....	.....	2	.....	10	.....	.....	0.004	0.1	.....	Dr. T. Stanecki.
Pola	.....	.....	29.90	760.0	27.0	— 2.8	100	SW	.....	.....	2	.....	1	.....	.....	0	0	.....	Habzsuda Daniel.
Szegedin	.....	.....	29.98	761.6	41.0	5.0	49	NNE	.....	.....	1	.....	1cs	.....	.....	0.128	3.25	.....	I.R. Hydrographic Of'ce
Trieste	.....	.....	30.06	763.5	28.9	— 1.7	84	SW	.....	.....	2	.....	2	.....	.....	0.057	1.45	.....	Karl Stancel.
Vienna	.....	.....	30.00	761.9	39.2	4.0	78	ENE	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. V. Farolfi.
	.....	.....	29.99	761.8	31.3	— 0.4	60	W	.....	.....	4	.....	0	.....	.....	0.276	7.0	.....	I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	29.91	759.7	28.2	— 2.1	80	SW	.....	.....	1	0	0	.....	.....	0	0	.....	Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.89	759.2	34.6	1.4	.....	N	9	4.0	.....	.....	2	.....	.....	0.360	9.14	Blue sky.....	William Boswell.
Ardrossan	.....	.....	29.88	758.9	38	3.3	.....	E	.....	.....	2	.....	6	.....	.....	.....	.....	Misty.....	J. Mayes.
Armagh Observatory	.....	.....	29.85	758.2	35.9	2.2	.....	ENE	2	0.9	.....	.....	.....	.....	.....	.....	.....	.....	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	29.84	757.9	39	3.9	.....	WSW	7	3.1	.....	.....	9	.....	.....	.....	.....	Overcast.....	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.77	756.1	40.0	4.4	.....	SE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	J. Dreyer.
Bradford	.....	.....	29.79	756.7	35.4	1.9	.....	N	.....	.....	1	.....	10	.....	.....	0	0	Overcast.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.05	763.3	78.0	25.6	.....	NE	.....	.....	4	.....	6	.....	.....	.....	.....	*D. clouds.....	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.83	757.7	38.9	3.8	.....	WSW	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky.....	H. Todd.
Cardington	.....	.....	29.87	758.7	35.0	1.7	.....	W	.....	.....	1	.....	3	.....	.....	.....	.....	Blue sky.....	John McLaren.
Carlisle	.....	.....	29.84	757.9	37.5	3.1	.....	N	.....	.....	1	.....	2	.....	.....	Blank	Blank	*D. clouds.....	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	29.88	758.9	29.7	1.3	.....	SE	.....	.....	1	.....	4	.....	.....	.....	.....	*D. clouds.....	Capt. J. Fellowes, R. E.
Dartmoor	28.36	720.3	29.94	760.5	35.0	1.7	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Overcast.....	R. E. Power.
Donaghadee	.....	.....	29.83	757.7	38	3.3	.....	WSW	.....	.....	2	.....	0	.....	.....	.....	.....	Blue sky.....	J. Mac Gowan.
Dover	.....	.....	29.88	758.9	33	0.6	.....	SW	.....	.....	3	.....	0	.....	.....	.....	.....	Blue sky.....	J. Costello.
Eccles, (near Manchester)	.....	.....	29.84	757.9	32.8	0.4	.....	Calm	0	0	.....	.....	8	.....	.....	.....	.....	Misty.....	Thomas Mackereth.
Falmouth Observatory	.....	.....	29.84	757.9	42.9	6.1	.....	ESE	12	5.4	.....	.....	8	.....	.....	.....	.....	Overcast.....	The Staff.
Fort Napier, (Natal)	27.41	696.2	29.67	753.6	78.0	25.6	.....	E	.....	.....	2	.....	7	.....	.....	.....	.....	*D. clouds.....	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.96	761.0	83	28.3	.....	N	.....	.....	1	.....	7	.....	.....	.....	.....	.....	[tis.
Galway, Queen's College	.....	.....	29.67	753.6	44	6.7	.....	SE	.....	.....	3	.....	10	.....	.....	.....	.....	Misty.....	B. G. Clare, for Prof. Car-
Gibraltar, (Mediterranean)	.....	.....	29.90	759.4	56.0	13.3	.....	W	.....	.....	6	.....	9	.....	.....	.....	.....	Ove cast.....	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.84	757.9	36.0	2.2	.....	NE	.....	.....	1	.....	2	.....	.....	.....	.....	Fine.....	Lewis Stuart.
Great Yarmouth	.....	.....	29.81	757.2	35	1.7	.....	WSW	.....	.....	3	.....	4	.....	.....	.....	.....	Blue sky, fog	G. T. Watson.
Greenwich Royal Obs	.....	.....	29.88	758.9	36.3	2.4	.....	SW	.....	.....	1	.....	4	.....	.....	.....	.....	*D. clouds.....	The Staff for G. B. Airy
Guernsey	.....	.....	29.86	758.4	36.5	2.5	.....	ESE	.....	.....	1	.....	8	.....	.....	.....	.....	*D. clouds.....	Dr. S. E. Hoskins.
Halifax, Moorside Obs	.....	.....	29.87	758.7	35.3	1.8	.....	NW	.....	.....	1	.....	10	.....	.....	.....	.....	*D. clouds.....	L. J. Cressley.
Helston	.....	.....	29.82	757.4	46	7.8	.....	E	.....	.....	2	.....	6	.....	.....	0	0	*D. clouds.....	M. P. Moyle.
Holyhead	.....	.....	29.83	757.7	39	3.9	.....	S	.....	.....	2	.....	4	.....	.....	.....	.....	*D. clouds.....	John Tilston.
Kew Observatory	.....	.....	29.89	759.2	33.6	0.9	.....	SW	9	4.0	.....	.....	7	.....	.....	.....	.....	Misty.....	The Staff.
Kingstown	.....	.....	29.83	757.7	40	4.4	.....	S	.....	.....	2	.....	9	.....	.....	.....	.....	Overcast.....	George Mitchell.
Leicester Museum	.....	.....	29.86	758.4	37.8	3.2	.....	SW	.....	.....	1	.....	8	.....	.....	.....	.....	*D. clouds.....	William J. Harrison.
Malta, (Mediterranean)	.....	.....	29.80	756.9	61.8	16.6	.....	NW	.....	.....	2	.....	2k	.....	.....	.....	.....	*D. clouds.....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	29.93	760.2	33	0.6	.....	SE	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky.....	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.24	768.1	73.2	22.9	.....	SE	.....	.....	4	.....	8	.....	.....	.....	.....	*D. clouds.....	Surg.-Maj. Henry.
Nottingham	.....	.....	29.84	757.9	37.0	2.8	.....	SW	.....	.....	1	.....	7k	.....	.....	.....	.....	*D. clouds.....	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	29.85	758.2	39.7	4.3	.....	WSW	.....	.....	1	.....	0	.....	.....	.....	.....	Hazy.....	Rev. Stephen Whitty.
Oxford, Radcliffe Obs	.....	.....	29.86	758.4	34	1.1	.....	Calm	.....	.....	0	.....	1	.....	.....	.....	.....	Blue sky.....	J. Lucas.
Plymouth	.....	.....	29.86	758.4	38.5	3.6	.....	E	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast.....	John Merrifield.
Roche's Point	.....	.....	29.73	755.1	45	7.2	.....	SW	.....	.....	3	.....	10	.....	.....	.....	.....	Hail-showers	W. Kennedy.
Saint Ann's Head	.....	.....	29.83	757.7	40	4.4	.....	SE	.....	.....	3	.....	10	.....	.....	.....	.....	Misty.....	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.84	757.9	37.0	2.8	.....	ESE	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast.....	A. P. Amy.
Sandwick Manse(Orkneys)	.....	.....	29.95	760.7	34.8	1.6	.....	E	16	7.2	.....	.....	0	.....	.....	.....	.....	†Showery.....	Rev. Dr. Clouston
Scarborough	.....	.....	29.80	756.9	36.5	2.5	.....	N	.....	.....	2	.....	7	.....	.....	.....	.....	*D. clouds.....	F. Shaw.
Scutari Cemetery(Turkey)	.....	.....	29.95	760.7	47.0	8.3	.....	NE	.....	.....	1	.....	9	.....	.....	.....	.....	*D.clouds	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.84	757.9	38.1	3.4	.....	NW	.....	.....	1	.....	8	.....	.....	0	0	Overcast.....	W. F. Cooper.
Silloth Rectory	.....	.....	29.84	757.9	39.0	3.9	81	E	.....	.....	1	.....	1	.....	.....	0	0	*D. clouds.....	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	29.83	757.7	33.9	1.1	.....	N	.....	.....	0	.....	10	.....	.....	.....	.....	.....	The Staff.
Stornoway, Lews C. (Hebr.)	.....	.....	29.86	758.4	37	2.8	.....	E	.....	.....	2	.....	0	.....	.....	.....	.....	Blue sky.....	John Smith.
Strathfield Turgiss	.....	.....	29.94	760.5	34.3	1.3	.....	Calm	.....	.....	0	.....	0	.....	.....	.....	.....	Blue sky.....	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.90	759.4	36	2.2	.....	Calm	.....	.....	0	.....	4	.....	.....	.....	.....	*D. clouds.....	John Trotter.
Truro, Royal Institution	.....	.....	29.81	757.2	45	7.2	.....	E	.....	.....	4	.....	8	.....	.....	.....	.....	Gloomy.....	W. Newcombe.
Valencia Observatory	.....	.....	29.75	755.6	44.0	6.7	.....	NE	3	1.3	.....	.....	10	.....	.....	.....	.....	Raining.....	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.99	761.7	75.0	23.9	42	S	20	8.9	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	40	4.4	.....	E	.....	.....	1	.....	0	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	29.88	758.9	36.7	2.6	.....	NE	.....	.....	2	.....	6k	.....	.....	0.01	0.3	Fine, cloudy	Andrew Gibb
Monach Lt-house, Hebrides	.....	.....	29.81	757.2	40	4.4	.....	SE	.....	.....	4	.....	10	.....	.....	0	0	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,490 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds. †The weather remarks probably refer to the whole day.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.82	757.4	31.1	— 0.5	90	E	.....	.....	4	.....	10	.....	.....	.....	.....	.....	
Fanöe	.....	.....	29.85	758.1	23.4	— 4.8	100	SE	.....	.....	4	.....	10	.....	.....	.....	.....	.....	
Godthaab, (Greenland)	.....	.....	29.71	754.5	8.8	—12.9	76	SSE	.....	.....	4	.....	0	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.88	758.9	37.9	3.3	83	SE	.....	.....	4	.....	8	.....	.....	.....	.....	.....	
Thorshavn, (Faröe)	.....	.....	30.05	763.2	39.4	4.1	66	ESE	.....	.....	4	.....	5	.....	.....	.....	.....	.....	
Vestervig	.....	.....	29.83	757.7	27.0	— 2.8	96	E	.....	.....	6	.....	10	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols: no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.89	759.1	37.4	3	93	S	.....	.....	1	.....	10	.....	.....	0	0	Covered	Normal School.
Amiens	.....	.....	29.94	760.5	26.2	— 3.2	79	NW	.....	.....	6	.....	0	.....	.....	0	0	Clear.....	Normal School.
Avignon	.....	.....	29.92	759.9	42.4	5.8	30	NNE	.....	.....	1	.....	5	.....	SSW	0	0	Cloudy.....	Normal School.
Bar-sur-Seine	.....	.....	29.93	760.3	26.2	— 3.2	95	S	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.84	757.9	38.8	3.8	73	E	2.7	1.2	.....	.....	.....	.....	W	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	29.95	760.8	23.9	— 4.5	.....	S	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Besançon	.....	.....	29.99	761.7	28.9	— 1.7	.....	ESE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bourg en Bresse	.....	.....	29.95	760.8	32.0	0	100	SW	.....	.....	1	.....	0	.....	.....	.....	.....	Clear.....	Normal School.
Bourges	.....	.....	29.84	758.0	30.2	— 1	100	NE	.....	.....	2	.....	1	.....	NE	0	0	Clear.....	Normal School.
Brest	.....	.....	29.76	755.8	46.9	8.3	70	E	.....	.....	1	1c	.....	.....	.....	0.010	0.25	Clear.....	Naval Observatory.
Caen	.....	.....	29.86	758.4	32.0	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Chartres	.....	.....	29.88	758.9	28.2	— 2.1	.....	E	.....	.....	2	.....	10	.....	.....	0	0	Covered.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.84	757.8	41.5	5.3	65	N	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Puy de Dome, Obs.
Commercy	.....	.....	30.00	761.9	21.4	— 5.9	95	S	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Commune de Gréasque*	.....	.....	29.93	760.2	47.5	8.6	47	NE	.....	.....	2	.....	5	.....	SW	0	0	.....	.....
Grenoble	.....	.....	29.99	761.7	30.2	— 1	56	NE	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Le Mans	.....	.....	29.88	759.0	32.4	0.2	81	E	.....	.....	3	.....	10	.....	.....	0.165	4.2	Covered	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	29.94	760.4	30.6	— 0.8	89	NW	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Macon	.....	.....	29.94	760.5	25.0	— 3.9	.....	Calm	.....	.....	0	.....	5	.....	E	0	0	Cloudy.....	Normal School.
Mirecourt	.....	.....	30.02	762.4	16.9	— 8.4	66	SW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	29.87	758.7	48.4	9.1	63	SE	.....	.....	3	.....	10	.....	SW	0	0	Covered.....	Normal School.
Orleans	.....	.....	29.85	758.1	30.6	— 0.8	100	E	.....	.....	3	.....	10	.....	E	0	0	Covered ...	Normal School.
Paris Observatory	.....	.....	29.92	759.9	25.2	— 3.8	77	SSE	.....	.....	1	.....	0	.....	.....	0	0	Clear, misty.	National Observatory
Parthenay	.....	.....	29.83	757.7	46.8	8.2	94	NE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Privas	.....	.....	29.95	760.6	36.9	2.7	.....	NE	.....	.....	2	.....	2	.....	.....	0	0	Slightly cl'dy	Normal School.
La Roche-sur-Yon	.....	.....	29.77	756.1	46.0	7.8	57	E	.....	.....	1	.....	5	.....	W	0	0	Cloudy.....	Normal School.
Rochefort, Observatory	.....	.....	29.91	759.8	46.8	8.2	55	ENE	.....	.....	3	.....	5	.....	W	0	0	¼ covered....	Naval Observatory.
Rouen	.....	.....	29.89	759.2	32.2	0.1	96	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Saint Lo	.....	.....	29.89	759.3	32.2	0.1	100	S	.....	.....	1	.....	10	.....	SW	0.067	1.7	.....	Normal School.
Tarbes	28.67	728.1	29.75	755.6	46.4	8	62	SW	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	.....	.....	29.86	758.4	46.4	8.0	61	SE	.....	.....	1	.....	0	.....	.....	.....	.....	Clear.....	Normal School
Villefranche	.....	.....	30.01	763.1	42.4	5.8	70	SW	.....	.....	1	.....	10	.....	N	0.024	0.60	Covered.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.91	760.4	71.6	22	91	Calm	.....	.....	0	.....	2k	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.10	764.6	54.9	12.7	79	E	.....	.....	1	.....	6	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.56	623.7	29.94	760.5	35.4	1.9	60	SW	16.8	7.50	.....	.....	5	.....	SW	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	29.91	759.6	24.8	— 4.0	86	SE	.....	.....	2	.....	0	.....	.....	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	29.82	757.3	46.0	7.8	71	NE	5.6	2.50	.....	.....	5	.....	SE	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H.P†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.91	759.6	28.6	— 1.9	69	NW	.....	.....	1	.....	0	.....	.....	0	0	Clear	F. Renou.
Toulouse	.....	.....	29.77	756.2	46.4	8.0	59	SE	.....	.....	3	.....	7	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	29.91	759.6	34.5	1.4	78	E	.....	.....	2	.....	0	.....	.....	0.10	2.6	Clear.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.89	759.1	31.3	— 0.4	73	S	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,580.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 324 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Summit inaccessible; weather fine; rain-fall on the Plantade 0.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.84	758.0	26.2	— 3.2	87	SW	.....	.....	2	.....	4	.....	.....	0.004	0.1	.....	Prof. T. Hohl.
Berlin	.....	.....	29.91	759.6	32.5	0.3	80	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	29.93	760.3	28.2	— 2.1	98	W	.....	.....	5	.....	10	.....	.....	0.339	8.6	Snowing.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	29.99	761.8	20.7	— 6.5	91	SW	.....	.....	1	.....	10	.....	.....	0	0	.....	A. Senz.
Cassel	.....	.....	29.87	758.7	27.0	— 2.8	82	SSW	.....	.....	5	.....	6	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.07	763.6	28.4	— 2.0	89	S	.....	.....	1	.....	9	.....	.....	0.008	0.2	.....	Physical Society.
Friedrichshafen	.....	.....	30.03	762.7	21.2	— 6.0	74	N	.....	.....	.....	.....	3	.....	.....	0.102	2.6	.....	M. Wilhelm.
Hamburg	.....	.....	29.86	758.4	29.1	— 1.6	88	SW	.....	.....	4	.....	10	.....	.....	0.201	5.1	Cloudy.....	Deutsche Seewarte.
Kiel	.....	.....	29.87	758.7	32.0	0.0	84	SW	.....	.....	1	.....	10	.....	.....	0.067	1.7	Snowing.....	Prof. G. Karsten.
Königsberg	.....	.....	29.84	757.8	23.0	— 5.0	88	SE	.....	.....	5	.....	10	.....	.....	0.016	0.4	Snowing.....	Prof. E. Luther.
Köslin	.....	.....	29.78	756.3	26.8	— 2.9	.....	Calm	.....	.....	0	.....	10	.....	.....	0	0	Snowing.....	H. Müller.
Leipsic	.....	.....	29.98	761.4	29.8	— 1.2	73	SSW	.....	.....	2	.....	6	.....	.....	0	0	.....	Prof. Bruhns.
Münster	.....	.....	29.91	759.8	28.8	— 1.8	97	S	.....	.....	2	.....	3	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	29.89	759.2	28.2	— 2.1	95	SW	.....	.....	4	.....	10	.....	.....	0.094	2.4	Snowing.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.02	762.4	19.8	— 6.8	97	E	.....	.....	1	.....	0	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	29.98	761.5	29.3	— 1.5	64	E	.....	.....	.....	.....	0	.....	.....	0	0	.....	Prof. Schoder.
Thorn	.....	.....	29.78	756.5	25.5	— 3.6	100	W	.....	.....	3	.....	10	.....	.....	0	0	Snowing.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	29.91	759.6	25.7	— 3.5	90	SE	.....	.....	4	.....	10	.....	.....	0	0	Foggy	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.87	758.7	29.5	— 1.4	90	SW	.....	.....	3	.....	10	.....	.....	0	0	.....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.93	760.2	52.5	11.4	.....	SE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Cloudy.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.02	762.4	35.1	1.7	71	N	0.7	0.3			0			0.165	4.2		
Padua			30.01	762.3	33.4	0.8	66	NE	6.3	2.8			0			0	0		
Vicenza																			
Verona			30.01	762.2	41.2	5.1	67	E			1		10			0	0		
Bergamo			29.96	760.9	36.7	2.6	57	SE			2		0			0	0		
Domodossola																			
Milan			30.04	762.9	37.0	2.8	65	SE			1		1	SE		0	0		
Pavia																			
Moncalieri			30.07	763.7	31.1	— 0.5	74	ESE	5.6	2.5			0			0	0		
Mondovi			30.01	762.3	30.7	— 0.7	57	NW			2		0			0	0		
Porto Maurizio			29.95	760.8	48.6	9.2		ENE			4		2			0	0		
Genoa			29.95	760.7	44.2	6.8	26	NE	3.1	1.4			8	S		0	0		
Piacenza			30.04	763.1	32.5	0.3	89	SE	0.7	0.3			10			0	0	Dense fog.	
Bologna			30.02	762.5	34.5	1.4	32	W			1		5	E		0	0		
Florence			29.99	761.7	43.9	6.6	49	N			2		3	NW		0	0		
Leghorn			29.92	760.0	45.9	7.7	33	ENE	9.4	4.2			3			0	0		
Siena			29.93	760.2	42.1	5.6	47	SE	0	0			0			0	0		
Urbino																			
Pesaro																			
Ancona			30.00	762.0	41.0	5.0	75	NW			2		3			0	0		
Grosseto			29.93	760.1	50.0	10.0	28	NE			4		3	NW		0.012	0.3		
Rome			29.93	760.1	50.0	10.0	41	NNE	10.5	4.7			0			0	0		
Naples, O. U			29.90	759.4	54.5	12.5	58	NE			2		1	NE		0.181	4.6		
Lecce			29.92	759.9	49.6	9.8	87	NNE	18.6	8.3			10			0	0		
Cosenza			29.90	759.4	52.5	11.4	74	NW	0	0			10			0.016	0.4		
Riposto, (Sicily)			29.82	757.4	56.1	13.4	84	NNE			2		9	W		0.173	4.4		
Palermo			29.83	757.7	54.5	12.5	49	NNW	8.7	3.9			2			0	0		
Caltanissetta			29.86	758.4	50.0	10.0	74	WNW			2		8	SE		0.055	1.4		
Sub-Series.																			
Naples, S. R			29.91	759.7	52.7	11.5	65	NE	2.5	1.1						0.335	8.5		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.93	760.1	30.2	— 1.0		WSW			4								
Groningen			29.74	755.3	31.8	— 0.1		SW			3								
Helder			29.76	756.0	36.5	2.5		SW			5								
Utrecht			29.83	757.7	30.9	— 0.6	96	SW			4		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.98	761.6	32.0	0.0	67	E	18.6	8.3			10			0	0		
Bröno			30.32	770.0	33.8	1.0	60	Calm	0	0			0			0	0		
Christiania			30.18	766.5	19.2	— 7.1	81	N	13.7	6.1			10			0.028	0.7		
Tromsö			30.34	770.7	29.7	— 1.3	86	SW	7	3			10			0.157	4.0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. U. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.15	765.8	56.1	13.4	84	SW	11.0	4.94	.....	.....	6	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	29.79	756.7	50.7	10.4	70	W	17.9	8.00	.....	.....	9	WNW	.....	0.465	11.55	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.32	770.2	61.3	16.3	58	NNW	6.4	2.86	.....	.....	8	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	29.84	758.0	53.1	11.7	58	W	36.0	16.1	.....	.....	10	.....	.....	0.740	18.8	Light rain...	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.80	757.0	26.8	— 2.9	85	SE	18	8	.....	.....	10	.....	.....	.....	.....	Light snow..	Astronomical Obs
Wilna	.....	.....	30.06	763.4	22.8	— 5.1	55	SE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	30.35	770.8	16.9	— 8.4	84	E	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.39	771.9	16.9	— 8.4	82	ENE	4	2	.....	.....	2	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	30.02	762.5	13.5	—10.3	93	NNE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	30.09	764.3	19.4	— 7.0	100	SE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.13	765.2	27.1	— 2.7	85	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.04	763.1	30.0	— 1.1	100	NW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.23	767.7	12.9	—10.6	86	SW	9	4	.....	.....	7	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.02	762.5	18.5	— 7.5	69	NE	13	6	.....	.....	5	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.20	767.0	2.1	—16.6	94	Calm	0	0	.....	.....	10	.....	.....	.....	.....	Light fog....	Ogorodnikof.
Tiflis	28.43	723.6	29.91	759.7	50.4	10.2	61	N	13	6	.....	.....	3	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.04	763.1	22.8	— 5.1	83	N	13	6	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	29.95	760.6	8.6	—13.0	92	NW	4	2	.....	.....	10	.....	.....	.....	.....	Snowing.....	Physical Cabinet.
Orenburg	.....	.....	29.90	759.5	14.9	— 9.5	87	E	2	1	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.99	736.3	30.08	763.9	8.2	—13.2	67	Calm	0	0	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	29.79	756.6	50.0	10.0	60	WNW	4	2	.....	.....	1	.....	.....	.....	.....	.....	
Kasaly	.....	.....	29.89	759.2	23.2	— 4.9	86	Calm	0	0	.....	.....	3	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.41	721.7	30.17	766.4	40.3	4.6	76	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.10	764.6	14.9	— 9.5	81	SW	13	6	.....	.....	10	.....	.....	.....	.....	Snowing.....	Meteorological Obs
Yeniseisk	.....	.....	29.86	758.4	—12.3	—24.6	77	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.12	765.1	35.1	1.7	50	Calm	0	0	.....	.....	2	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.04	762.9	24.1	— 4.4	89	Calm	0	0	.....	.....	9	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	— 2.9	—19.4	100	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 400. meters, or 1,311.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 502.0? m., or 1,942.2? ft.; Oorga, 1,281.0 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	29.78	756.3	45.1	7.3	80	NE	0.8	0.34	.....	0	9	.....	.....	0.122	3.1	Almost cov'd	Royal Observatory.
San Fernando	.....	.....	29.93	760.1	54.1	12.3	66	NW	25.1	11.2	.....	0	7	.....	NW	0.260	6.6	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.46	773.6	1.4	—17.0	79	W	.....	.....	2	.....	1	.....	.....	0	0	.....	
Umea	.....	.....	30.48	774.3	11.1	—11.6	100	NE	.....	.....	2	.....	10	.....	.....	0	0	Light snow.	
Hernosand	.....	.....	30.47	773.8	13.3	—10.4	97	NNE	.....	.....	4	.....	10	.....	.....	0.035	0.9	.....	
Stockholm	.....	.....	30.15	765.9	19.9	— 6.7	81	ENE	.....	.....	7	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	30.03	762.7	24.8	— 4.0	100	ESE	.....	.....	6	.....	10	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	30.25	768.3	18.5	— 7.5	89	ENE	14.8	6.6	.....	.....	10	.....	.....	0.003	0.07	Snowing.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.50	724.0	30.01	762.2	28.8	— 1.8	76	NNW	.....	.....	1	.....	9	.....	.....	0.004	0.1	Covered	The Observatory.
Zurich	28.29	718.6	30.06	763.4	19.8	— 6.8	76	W	.....	.....	1	.....	1	.....	.....	0	0	Clear.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.5 mm.; Thermometer, —5.2 cent.; Relative Humidity, + 4 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the General Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	29.98	761.5	43.9	6.6	78	NE	8	3.5	.....	.....	10	.....	NE	0	0	Light rain....	
Fao, (Persian Gulf)	.....	.....	30.16	766.0	64.4	18.0	.....	NW	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.97	761.2	50.7	10.4	.....	N	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.80	756.8	58.5	14.7	.....	SW	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.96	761.0	42.8	6.0	.....	NE	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.97	761.3	63.0	17.2	70	SSE	.....	.....	1	.....	4n	.....	SW	0.07	1.8	Fair.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.57	751.1	23.7	— 4.6	87	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.07	763.8	27	— 2.8	.....	SW	5	2.2	.....	0	0	.....	.....	0.10	2.5	Clear....	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.63	752.6	6	—14.4	100	Calm	0	0	.....	2k	Haze	NW	.....	0.29	7.4	Fair.....	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	29.60	751.8	34	1.1	90	W	3	1.3	.....	8k	0	....	.....	0.570	14.48	Cloudy..	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.95	760.7	29.0	— 1.7	76	W	.....	.....	1	.....	.....	.....	.....	0.157	3.99	Bright	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.64	752.8	20.0	— 6.7	85	W	.....	.....	2	.....	10ks	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.73	755.1	38.1	— 3.4	91	SW	3	1.3	.....	3k	.....	.....	.....	0.27	6.9	Cloudy.....	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.68	753.9	31.5	— 0.3	89	N	3	1.3	.....	7ck	.....	NW	.....	0.150	3.81	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.20	767.1	—24	—31.1	100	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	James Stewart.
Goderich, Ontario	.....	.....	30.10	764.5	31.7	— 0.2	86	Calm	.....	.....	0	5k	3s	W	.....	0	0	Clearing.....	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.13	765.3	27.2	— 2.7	.....	SW	.....	.....	1	.....	.....	.....	.....	0.27	6.9	Clear.....	James Grant.
*Halifax, N. S.	.....	.....	29.63	752.6	38	3.3	77	W	7	3.1	.....	0	0	.....	.....	1.093	27.77	Clear.....	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.11	764.8	29	— 1.7	89	SW	9	4.0	.....	0	0	.....	.....	0.33	8.4	Clear.....	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.93	760.2	26.8	— 2.9	.....	Calm	0	0	.....	.....	3ks	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.90	759.4	26	— 3.3	57	W	30	13.4	.....	0	0	.....	.....	0.26	6.6	Clear.....	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.98	761.5	22	— 5.6	79	W	14	6.3	.....	0	0	.....	.....	0.60	15.2	Clear.....	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.98	761.5	28	— 2.2	77	SW	13	5.8	.....	0	0	.....	.....	0.02	0.5	Clear.....	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.13	765.3	29	— 1.7	77	W	10	4.5	.....	0	0	.....	.....	0.42	10.7	Clear.....	H. Morgan.
Port Hastings, N. S.	.....	.....	29.59	751.6	36.8	2.7	.....	W	7	3.1	.....	.....	.....	.....	.....	0.140	3.56	Fine.....	Peter Grant.
*Port Stanley, Ontario	.....	.....	30.14	765.5	27	— 2.8	90	SW	5	2.2	.....	0	0	.....	.....	0.39	9.9	Clear.....	M. Payne.
*Quebec, Quebec	.....	.....	29.70	754.4	31	— 0.6	90	SW	30	13.4	.....	.....	10n	.....	SW	0.31	7.9	Cloudy.....	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.75	755.6	34	1.1	95	W	5	2.2	.....	2k	.....	.....	.....	0.200	5.08	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.01	762.2	30	— 1.1	89	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	K. Stewart.
Stayner, Ontario	.....	.....	30.02	762.5	30	— 1.1	68	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	R. J. Cole.
Stratford, Ontario	.....	.....	30.12	765.0	28.0	— 2.2	77	W	7	3.1	.....	.....	.....	.....	.....	0	0	Fine.....	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.53	750.0	37	2.8	90	W	7	3.1	.....	2k	2ks	W	W	0.97	24.6	Clear...	T. C. Hill.
*Toronto, Ontario	.....	.....	30.10	764.5	30	— 1.1	81	SW	10	4.5	.....	0	0	.....	.....	0.29	7.4	Clear.....	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.01	762.2	35	1.7	80	NW	20	8.9	.....	1k	0	W	.....	0.23	5.8	Clear.	
Alpena, Mich.	.....	.....	29.91	759.7	26	— 3.3	76	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Atlantic City, N. J.	.....	.....	30.05	763.3	43	6.1	66	NW	15	6.7	.....	10c	0	SW	.....	0	0	Cloudy.	
Augusta, Ga.	.....	.....	30.13	765.3	65	18.3	92	SW	3	1.3	.....	.....	10s	.....	NW	0.02	0.5	Cloudy.	
Baltimore, Md.	.....	.....	30.13	765 3	47	8.3	41	NW	5	2.2	.....	2ck	2s	W	.....	0.04	1.0	Fair.	
Barnegat, N. J.	.....	.....	30.02	762.5	43	6.1	67	NW	14	6.3	.....	5es	0	NW	.....	0.02	0.5	Fair.	
Benton, Montana	26.84	681.7	29.64	752.8	28	— 2.2	59	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Bismarck, Dakota	28.02	711.7	29.84	757.9	— 5	—20.6	63	E	9	4.0	.....	.....	10ks	.....	E	0	0	Cloudy.	
Boston, Mass.	.....	.....	29.85	758.2	39	3.9	71	SW	10	4.5	.....	5c	Haze	W	.....	0.16	4.1	Fair.	
Breckenridge, Minn	.....	.....	29.91	759.7	— 1	—18.3	84	N	18	8.0	.....	0	2s	.....	.....	0	0	Clear.	
Buffalo, N. Y.	.....	.....	30.12	765.0	30.5	— 0.8	78	SW	8	3.6	.....	0	0	.....	.....	1.22	31.0	Clear.	
Burlington, Vt.	.....	.....	29.97	761.2	32	0.0	69	W	11	4.9	.....	0	0	.....	.....	0.05	1.3	Clear.	
Cairo, Ill.	.....	.....	30.15	765.8	43	6.1	83	Calm	0	0	.....	0	0	.....	.....	0.03	0.8	Clear.	
Cape Hatteras, N. C.	.....	.....	30.01	762.2	62	16.7	83	W	6	2.7	.....	.....	10s	.....	W	0	0	Cloudy.	
Cape Henry, Va.	.....	.....	30.08	764.0	54	12.2	80	N	8	3.6	.....	2c	8s	W	.....	0.04	1.0	Cloudy.	
Cape May, N. J.	.....	.....	30.08	764.0	44	6.7	75	W	10	4.5	.....	10cs	0	W	.....	0.05	1.3	Cloudy.	
Charleston, S. C.	.....	.....	30.14	765.5	60	15.6	87	S	3	1.3	.....	5ck	5s	W	SW	0	0	Fair.	
Cheyenne, Wyoming	23.73	602.7	29.67	753.6	34	1.1	45	W	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Chicago, Ill.	.....	.....	30.00	762.0	41	5.0	57	S	13	5.8	.....	0	Haze	.....	.....	0	0	Clear.	
Cincinnati, Ohio	.....	.....	30.14	765.5	40	4.4	73	N	3	1.3	.....	0	Sm'e	.....	.....	0.51	13.0	Clear.	
Cleveland, Ohio	.....	.....	30.16	766.1	31.4	— 0.3	63	S	6	2.7	.....	0	0	.....	.....	0.43	10.9	Clear.	
Colorado Springs, Col.	23.84	605.5	29.70	754.4	45	7.2	11	SW	32	14.3	.....	5cs	0	SW	.....	0	6	Fair.	
Corsicana, Tex.	.....	.....	30.04	763.0	47	8.3	70	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Davenport, Iowa	.....	.....	29.99	761.0	39	3.9	71	SW	8	3.6	.....	10cs	0	W	.....	0	0	Cloudy.	
Denison, Tex.	.....	.....	29.96	761.0	52	11.1	72	SW	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Denver, Col.	24.53	623.0	29.75	755.6	40	4.4	48	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	.....	.....	30.12	765.0	29	— 1.7	78	SW	5	2.2	.....	0	0	.....	.....	0.18	4.6	Clear.	
Dodge City, Kan.	27.16	689.8	29.44	747.8	40	4.4	73	SSW	9	4.0	.....	2c	0	W	.....	0	0	Fair.	
Dubuque, Iowa	.....	.....	29.90	759.4	38	3.3	63	S	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Duluth, Minn.	.....	.....	29.92	760.0	12	—11.1	61	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Eastport, Me.	.....	.....	29.71	754.6	35	1.7	90	NW	8	3.6	.....	0	Haze	.....	.....	0.88	22.4	Clear.	
Erie, Pa.	.....	.....	30.13	765.3	33	0.6	79	SW	10	4.5	.....	0	0	.....	.....	1.16	29.5	Clear.	
Escanaba, Mich.	.....	.....	29.76	755.9	28	— 2.2	77	Calm	0	0	.....	2k	0	SW	.....	0	0	Fair.	
Fort Gibson, Indian Terr.	.....	.....	29.94	760.5	48	8.9	62	E	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Fort Sill, Indian T.	28.72	729.5	29.84	757.9	39	3.9	56	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Fort Sully, Dakota	27.95	709.9	29.68	753.9	17	— 8.3	83	E	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Galveston, Tex.	.....	.....	30.08	764.0	67	19.4	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Grand Haven, Mich.	.....	.....	30.02	762.5	36	2.2	80	S	16	7.2	.....	0	2s	.....	.....	0	0	Clear.	
Indianapolis, Ind.	.....	.....	30.13	765.3	39	3.9	72	SW	2	0.9	.....	0	Fog	.....	.....	0.16	4.1	Clear.	
Indianola, Tex.	.....	.....	30.09	764.3	67	19.4	100	E	3	1.3	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.	
Jacksonville, Fla.	.....	.....	30.20	767.1	60	15.6	94	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Keokuk, Iowa.	.....	.....	29.97	761.2	42	5.6	83	S	7	3.1	.....	8c	0	S	.....	0	0	Fair.	
Key West, Fla.	.....	.....	30.21	767.3	71.3	21.8	80	E	3	1.3	.....	5c	2ks	.....	E	0	0	Fair.	
Kittyhawk, N. C.	.....	.....	30.07	763.8	55	12.8	94	NW	6	2.7	.....	.....	10ks	.....	NW	0.16	4.1	Cloudy.	
Knoxville, Tenn.	.....	.....	30.15	765.8	49	9.4	71	NE	6	2.7	.....	0	0	.....	.....	0.76	19.3	Clear.	
La Crosse, Wis.	.....	.....	29.74	755.4	38	3.3	71	S	11	4.9	.....	10c	Haze	.....	.....	0	0	Cloudy.	
Leavenworth, Kan.	.....	.....	29.90	759.4	43	6.1	75	S	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.	
Lexington, Ky.	29.07	738.4	30.22	767.6	39	3.9	72	SE	4	1.8	.....	0	0	.....	.....	0.50	12.7	Clear.	
Long Branch, N. J.	.....	.....	30.04	763.0	43	6.1	75	NW	20	8.9	.....	5ck	0	SW	.....	0.03	0.8	Fair.	
Louisville, Ky.	.....	.....	30.19	766.8	40	4.4	82	Calm	0	0	.....	0	Fog	.....	.....	0.50	12.7	Clear.	
Lynchburg, Va.	.....	.....	30.14	765.5	52	11.1	76	Calm	0	0	.....	0	0	.....	.....	0.19	4.8	Clear.	
Malone, N. Y.	.....	.....	29.94	760.5	29	— 1.7	59	W	10	4.5	.....	0	0	.....	.....	0.25	6.3	Clear.	
Marquette, Mich.	.....	.....	29.86	758.4	22	— 5.6	72	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Memphis, Tenn.	.....	.....	30.12	765.0	51	10.6	86	E	1	0.4	.....	0	Sm'e	.....	.....	Inap.	Inap.	Clear.	
Milwaukee, Wis.	.....	.....	29.95	760.7	32	0.0	79	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Mobile, Ala.	.....	.....	30.16	766.1	63	17.2	94	SW	1	0.4	.....	.....	Fog	.....	.....	0.01	0.3	Foggy.	
Montgomery, Ala.	.....	.....	30.15	765.8	64	17.8	94	SW	5	2.2	.....	2es	Fog	W	.....	0.31	7.9	Fair.	
Morgantown, W. Va.	.....	.....	30.20	767.1	37	2.8	70	N	1	0.4	.....	0	0	.....	.....	0.42	10.7	Clear.	
Mt. Washington, N. H.	23.24	590.3	29.60	751.8	14	—10.0	100	NW	72	32.2	.....	.....	Fog	.....	.....	0.24	6.1	Foggy	
Nashville, Tenn.	.....	.....	30.15	765.8	43	6.1	91	Calm	0	0	.....	0	Fog	.....	.....	0	0	Clear.	
New Haven, Conn.	.....	.....	29.97	761.2	42	5.6	66	NW	8	3.6	.....	5c	0	NW	.....	0.09	2.3	Fair.	
New London, Conn.	.....	.....	29.95	760.7	40	4.4	56	NW	3	1.3	.....	5c	2s	SW	.....	0.07	1.8	Fair.	
New Orleans, La.	.....	.....	30.14	765.5	69	20.6	97	W	2	0.9	.....	.....	Fog	.....	.....	0.35	8.9	Foggy	
Newport, R. I.	.....	.....	29.91	759.7	40	4.4	64	W	10	4.5	.....	5cs	0	NW	.....	0.13	3.3	Fair.	
New York, N. Y.	.....	.....	30.02	762.5	42	5.6	60	NW	20	8.9	.....	2c	0	W	.....	0	0	Clear.	
Norfolk, Va.	.....	.....	30.07	763.8	58.5	14.7	73	N	11	4.9	.....	.....	10s	.....	SW	Inap.	Inap.	Cloudy.	
North Platte, Neb.	26.78	680.2	29.43	747.5	23	— 5.0	73	SE	3	1.3	.....	0	2s	.....	.....	0	0	Clear.	
Omaha, Neb.	28.69	728.7	29.77	756.1	37	2.8	90	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Clear.	
Oswego, N. Y.	.....	.....	30.08	764.0	35	1.7	52	W	12	5.4	.....	Haze	0	.....	.....	0.82	20.8	Clear.	
Peck's Beach, N. J.	.....	.....	30.09	764.3	43	6.1	67	NW	20	8.9	.....	5c	2ks	.....	.....	0.03	0.8	Fair.	
Pembina, Dakota	.....	.....	30.17	766.3	—20	—28.9	101	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Philadelphia, Penn.	.....	.....	30.08	764.0	43	6.1	59	NW	16	7.2	.....	2ck	0	.....	SW	0.02	0.5	Fair.	
Pike's Peak, Colorado	17.48	444.0	29.69	754.1	2.5	—16.4	86	SW	36	16.1	.....	0	0	.....	.....	0	0	Clear.	
Pittsburgh, Penn.	.....	.....	30.17	766.3	34	1.1	61	W	6	2.7	.....	0	Haze	.....	.....	0.45	11.4	Clear.	
Port Huron, Mich.	.....	.....	30.10	764.5	29	— 1.7	78	S	8	3.6	.....	0	0	.....	.....	0.05	1.3	Clear.	
Portland, Me.	.....	.....	29.76	755.9	38	3.3	63	W	10	4.5	.....	0	Haze	.....	.....	0.35	8.9	Clear.	
Portland, Oregon	.....	.....	29.99	761.7	39	3.9	91	SW	5	2.2	.....	.....	10n	.....	.....	0.65	16.5	Heavy rain.	
Punta Rassa, Fla.	.....	.....	30.24	768.1	66.0	18.9	90	W	4	1.8	.....	5cs	2ks	W	W	0	0	Cloudy.	
Rochester, N. Y.	.....	.....	30.09	764.3	33	0.6	69	W	10	4.5	.....	0	Haze	.....	.....	0.75	19.1	Clear.	
Salt Lake City, Utah	25.54	648.7	29.87	758.7	33	0.6	79	E	1	0.4	.....	.....	10s	.....	.....	0.05	1.3	Cloudy.	
Sandy Hook, N. J.	.....	.....	30.01	762.2	40	4.4	83	W	10	4.5	.....	5c	0	SW	.....	0.01	0.3	Fair.	
San Diego, Cal.	.....	.....	30.27	768.8	49	9.4	93	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
San Francisco, Cal.	.....	.....	30.20	767.1	51	10.6	79	SW	10	4.5	.....	.....	10s	.....	SW	1.21	30.7	Cloudy.	
Santa Fe, N. M.	23.21	589.5	29.75	755.6	26	— 3.0	50	SE	3	1.3	.....	2es	2s	SW	.....	0	0	Fair.	
Savannah, Ga.	.....	.....	30.16	766.1	63	17.2	83	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Shreveport, La.	.....	.....	30.11	764.8	49	9.4	89	Calm	0	0	.....	2c	0	SW	.....	0	0	Fair.	
Smithville, N. C.	.....	.....	30.12	765.0	56	13.3	90	SW	6	2.7	.....	.....	10ks	.....	W	0	0	Cloudy.	
Springfield, Mass.	.....	.....	29.94	760.5	42	5.6	57	SE	4	1.8	.....	5cs	Haze	S	.....	0.08	2.0	Fair.	
St. Louis, Mo.	.....	.....	30.11	764.8	45	7.2	60	S	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
St. Marks, Fla.	.....	.....	30.19	766.8	61	16.1	100	S	6	2.7	.....	.....	Fog	.....	.....	0.02	0.5	Dense fog.	
St. Paul, Minn.	.....	.....	29.77	756.1	23	— 5.0	86	Calm	0	0	.....	10c,ck	0	W	.....	0	0	Cloudy.	
St. Paul's Island, Alaska	.....	.....	29.73	755.1	20	— 6.7	70	E	34	15.2	.....	..c	10k	.....	.....	0	0	.....	
Sullan Beach, N. J.	.....	.....	29.98	761.5	42	5.6	58	NW	8	3.6	.....	5c	Haze	NW	.....	0.04	1.0	Fair.	
Thatcher's Island, Mass.	.....	.....	29.84	757.9	38	3.3	63	W	14	6.3	.....	2c	0	W	.....	0.27	6.9	Clear.	
Toledo, Ohio	.....	.....	30.10	764.5	34	1.1	69	S	5	2.2	.....	0	0	.....	.....	0.06	1.5	Clear.	
Tucson, Arizona	27.08	703.1	30.27	768.8	35	1.7	.....	S	.....	.....	.....	5c	0	W	.....	0	0	Fair.	
Tybee Island, Ga.	.....	.....	30.16	766.1	60	15.6	88	SE	4	1.8	.....	2c	Fog	.....	NE	0	0	Foggy	
Vicksburg, Miss.	.....	.....	30.12	765.0	61	16.1	88	S	3	1.3	.....	2k	Fog	SW	.....	0.03	0.8	Fair.	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.94	608.1	29.42	747.3	27	— 2.8	66	SW	16	7.2	.....	10k	0	NW	.....	0	0	Cloudy	
Washington, D. C	.....	.....	30.14	765.5	46.5	8.1	60	NW	6	2.7	.....	1cs	0	SW	.....	0.15	3.8	Clear	
Wilmington, N. C	.....	.....	30.10	764.5	60	15.6	88	SW	4	1.8	.....	.....	10s	.....	W	0	0	Cloudy	
Wood's Holl, Mass	.....	.....	29.89	759.2	38	3.3	62	NW	15	6.7	.....	.....	10s	.....	.....	0	0	Cloudy	
Wytheville, Va	27.78	705.6	29.98	761.5	43	6.1	66	N	8	3.6	.....	0	0	.....	.....	0.41	10.4	Clear	
Yankton, Dakota	28.42	721.9	29.72	754.9	34	1.1	52	SE	1	0.4	.....	10cs	Haze	NW	.....	0	0	Cloudy	
Yuma, Arizona	.....	.....	30.16	766.1	41	5.0	.....	SW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.11	764.8	78	25.6	86	E	4	1.8	.....	5ck	6s	SE	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.04	763.0	70	21.1	85	NE	.....	.....	.....	5k	5ks	.....	.....	0.64	16.3	Fair	L. V. Bigard.
St. Thomas, St. T., W. I.	.....	.....	30.33	770.4	75	23.9	81	ENE	11	4.9	.....	2c	4k	E	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I.	.....	.....	30.28	769.1	72	22.2	76	Calm	0	0	.....	5c	5s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I.	.....	.....	29.95	760.7	72	22.2	71	N	2.4	1.1	.....	0	0	.....	.....	.....	.....	Clear	Robert Mason.
Havana, Cuba, W. I.	.....	.....	30.21	767.3	73	22.8	75	SE	3.6	1.6	.....	8ck,cs	0	NE	.....	0	0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.25	768.3	61.5	16.4	72	SW	4.6	2.1	.....	0	10k	.....	.....	0	0	Cloudy	C. F. Allen.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	27.25	692.1	30.06	763.5	64	17.8	83	NNW	2.0	0.9	.....	0	5k	.....	.....	0	0	Dull	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.02	762.5	77	25.0	95	NE	.....	.....	3	.....	10n	.....	.....	2.940	74.68	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.06	763.5	76.6	24.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.689	17.5	.....	Dr. H. Groot.
Medellin, Colombia, S. A.	25.21	640.2	.....	.....	66.2	19.0	90	.....	0	0	.....	.....	10n	.....	.....	0.90	22.9	Cloudy	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.89	759.2	19.0	-- 7.2	.....	E	.....	.....	.....	.....	10n	.....	.....	0.12	3.0	Snowing	John Delaney.
York Factory, B. A.	.....	.....	30.10	764.5	— 9	—22.8	100	W	28	12.5	.....	.....	10s	.....	.....	0.15	3.8	.....	J. Fortescue.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—
}	.....	.....	.....	.....
}	.....	.....	.....	.....
}	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2 091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 13, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:18 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:38 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.11	764.7	59.5	15.3	61	NW	.....	.....	4	.....	7	.....	.....	0.118	3.0	Cloudy..	Charnot and Masselot.
Algiers	.....	.....	29.99	761.7	55.4	13.0	77	Calm	.....	.....	0	.....	8	.....	.....	0.268	6.8	Cloudy.....	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kunts.
Tunis	.....	.....	29.98	761.5	52.3	11.3	94	NE	.....	.....	3	.....	10	.....	.....	0.287	7.3	Hidden.....	Jacques.
Sfax	.....	.....	30.06	763.4	61.9	16.6	64	E	.....	.....	4	.....	2	.....	.....	0	0	Clear.....	Chauvey.
Saida	.....	.....	30.06	763.5	40.1	4.5	77	WSW	.....	.....	2	.....	7	.....	.....	0.709	18.0	Cloudy.....	Millot.
Tebessa	.....	.....	30.02	762.6	43.0	6.1	.....	N	.....	.....	2	.....	10	.....	.....	0.118	3.0	Hidden.	Colin.
Gerlville	.....	.....	30.09	764.3	37.0	2.8	79	NW	.....	.....	3	.....	8	.....	.....	0.433	11.0	Cloudy.....	Buard.
Laghouat	.....	.....	30.11	764.8	55.4	13.0	66	NW	.....	.....	4	.....	4	.....	.....	0	0	Fair.....	Delord.
Biskra	.....	.....	30.05	763.3	54.3	12.4	67	N	.....	.....	1	.....	8	.....	.....	0.217	5.5	Cloudy.....	Dubois.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.12	765.1	21.6	— 5.8	93	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Prof. Ivan Stosir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Observatory.
Eperies	.....	.....	30.11	764.9	19.4	— 7.0	92	NE	.....	.....	1	.....	5	.....	.....	0	0	.....	Julius Mikolik.
Gratz	.....	.....	30.13	765.4	38.1	3.4	89	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.83	732.2	30.10	764.6	27.3	— 2.6	68	S	.....	.....	2	.....	0	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.62	726.9	30.11	764.7	32.7	0.4	72	NW	.....	.....	2	.....	5	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	28.58	725.8	30.02	762.6	17.2	— 8.2	82	ENE	.....	.....	1	.....	10	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.07	763.6	28.4	— 2.0	92	S	.....	.....	1	.....	0	.....	.....	0	0	.....	Habsuda Daniel.
Pola	.....	.....	30.17	766.2	26.6	— 3.0	87	Calm	.....	.....	0	.....	5	.....	.....	0	0	.....	I.R. Hydrographic Of'ce
Szegedin	.....	.....	30.06	763.5	41.7	5.4	56	WNW	.....	.....	2	.....	7cs	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.18	766.5	16.7	— 8.5	.....	Calm	.....	.....	0	.....	.....	.....	.....	0	0	Light fog.....	Prof. V. Farolfi.
Vienna	.....	.....	30.08	763.9	40.5	4.7	33	WNW	.....	.....	1	.....	8	.....	.....	0	0	Covered	I. R. Central Institute.
.....	.....	.....	30.07	763.6	15.3	— 9.3	83	NE	.....	.....	1	.....	1	.....	.....	0	0	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	29.77	756.2	30.2	— 1.0	86	S	.....	.....	0	.....	10	.....	.....	0	0	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.81	757.2	35.0	1.7		SE	27	12.1			6			0.280	7.11	*D. clouds	William Boswell.
Ardrossan																			J. Mayes.
Armagh Observatory			29.50	749.3	35.6	1.9		ESE	15	6.7									S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.			29.62	752.3	34.2	1.2		ESE	27	12.1			7					Hazy	John Hartnup.
Birr Castle, (Parsonstown)			29.33	745.0	39.8	4.3		SE			2		10					Raining	J. Dreyer.
Bradford																			J. McLandsborough.
Bridgetown, (Barbados)			30.05	763.3	74.0	23.3		NE			2		6					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.73	755.1	35.0	1.7		S			1		7			Blank	Blank	*D. clouds	H. Todd.
Cardington			29.73	755.1	33.0	0.6		SE			1		7					Overcast	John McLaren.
Carlisle			29.67	753.6	37	2.8		E			3		10			0	0	Overcast	. Bell, for J. Cartmell.
Chatham, School M. E.			29.74	755.4	30.7	— 0.7		SE			0		2					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.06	712.7	29.61	752.1	35.0	1.7		SE			3		10					Raining	R. E. Power.
Donaghadee			29.53	750.0	38	3.3		ESE			6		7					*D. clouds	J. Mac Gowan.
Dover			29.70	754.4	34	1.1		ESE			2		4					½ clouded	J. Costello.
Eccles, (near Manchester)			29.68	753.9	36.0	2.2		SE	6.0	2.7			10					Hazy	Thomas Mackereth.
Falmouth Observatory			29.48	748.8	41.2	5.1		S	23	10.3			10					Raining	The Staff.
Fort Napier, (Natal)	27.54	699.5	29.80	756.9	75.1	23.9		E			1		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	84	28.9		N			0		4					Blue sky	(tis.
Galway, Queen's College			29.23	742.4	43	6.1		SE			6		10					Raining	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.15	765.8	58.0	17.4		NW			5		9					Overcast	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.69	754.1	34.2	1.2		E			2		4					Fine	Lewis Stuart.
Great Yarmouth			29.75	755.6	33	0.6		Calm			0		3					Blue sky, fog	G. T. Watson.
Greenwich Royal Obs.			29.71	754.5	34.1	1.2		SE			1		8					*D. clouds	The Staff for G. B. Airy
Guernsey			29.67	753.6	40	4.4		SSE			3		10					Showery	Dr. S. E. Hoskins.
Halifax, Moorside Obs.																			L. J. Crossley.
Helston			29.47	748.5	45	7.2		SW			6		10			0	0	Overcast	M. P. Moyle.
Holyhead			29.51	749.5	38	3.3		ESE			3		10					Snowing	John Tilston.
Kew Observatory			29.70	754.4	34.9	1.6		ESE	14	6.3			7					Hazy	The Staff.
Kingstown			29.48	748.8	38	3.3		SE			7		10					Raining	George Mitchell.
Leicester Museum			29.71	754.6	34.8	1.6		SE			1		10					Overcast	William J. Harrison.
Malta, (Mediterranean)			29.95	760.7	59.0	15.0		SE			2		4k					*D. clouds	Fred Travis, Pvt A.H.C
Nairn			29.80	756.9	34	1.1		E			1		2					¼ clouded	W. D. Penny.
Nassau, (Bahamas)			30.24	768.1	74.1	23.4		NE			2		6					*D. clouds	Surg.-Maj. Henry.
Nottingham			29.72	754.9	33.7	0.9		ESE			1		10k,d		E	Blank	Blank	Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			29.68	753.9	33.2	0.7		E			3		5					Hazy	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.67	753.6	32	0.0		ESE			1		10					Overcast	J. Lucas.
Plymouth			29.49	749.0	43.2	6.2		SE			2		10					Drizzling	John Merrifield.
Roche's Point			29.29	744.0	43	6.1		SW			5		10					Raining	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			29.64	752.8	38.6	3.3		S			4		10					Overcast	A. P. Amy.
Sandwick Manse (Orkneys			29.86	758.4	35	0.6		ESE	22	9.8			5					Snowy	Rev. Dr. Clouston
Scarborough																			F. Shaw.
Scutari Cemetery (Turkey			30.10	764.5	43.6	6.1		NNE			2		10					Gloomy	Sergt. W. H. Lyne.
Sheffield			29.70	754.4	35.6	2.0		SE			2		7			0	0	Overcast	W. F. Cooper.
Silloth Rectory			29.67	753.6	38.8	3.8	72	E			4		5			0.020	0.51	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			29.65	753.1	35.2	1.8		E			2								The Staff.
Stornoway, Lewis C. (Hebr)			29.72	754.9	36	2.2		E			6		0					Blue sky	John Smith.
Stratfield Turgiss			29.69	754.1	32.3	0.2		SE			1		10					Overcast	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.81	757.2	37	2.8		SE			2		4					*D. clouds	John Trotter.
Truro, Royal Institution			29.49	749.0	46	7.8		SW			4		10					Gloomy	W. Newcombe.
Valencia Observatory			29.21	741.9	43.0	6.1		W	23	10.3			10					Raining	The staff.
Sub-Series.																			
Cape Good Hope Obs.			30.02	762.5	73.3	22.9	43	S	20	8.9			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					38	3.3		SE			7		10			0	0		
Leith, Restalrig Park			29.74	755.4	36.0	2.2		E			2					0.03	0.8	Fine, cloudy	Andrew Gibb.
Monach Lt-house, Hebrides			29.63	752.6	37	2.8		SE			6		10			0	0		J. Youngclause.
North Unst, (Shetland Is)																			

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.84	757.8	29.3	— 1.5	90	SE			4		10					Snowing	
Fanöe			29.72	755.0	29.7	— 1.3	96	SE			4		10						
Godthaab, (Greenland)			29.97	761.3	12.6	—10.8	83	NNE			4		0						
Stykkisholm, (Iceland)			29.83	757.6	32.9	0.5	82	SE			4		5						
Thorshavn, (Faröe)			29.91	759.8	36.3	2.4	85	ESE			4		7						
Vestervig			29.79	756.7	25.2	— 3.8	95	E			7		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Low 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.73	755.1	37.4	3	93	SW			1		10			0.055	1.4	Covered	Normal School.
Amiens			29.85	758.1	32.0	0.0	85	NW			3		10			0	0	Covered	Normal School.
Avignon			30.02	762.5	45.5	7.5	80	ESE			1		8		SSW	0.031	0.8	Drizzling	Normal School.
Bar-sur-Seine			29.79	756.7	37.0	2.8	96	SW			1		10			0	0	Covered	C. Saillard.
Beaumette, (near Angers)			29.77	756.1	51.3	10.7	60	SW	13.0	5.8					SW	0.035	0.9		Beaumette Observatory
Beauvais			29.78	756.5	31.3	— 0.4	93	ESE			1		10		WSW	0	0	Covered	Normal School.
Besançon			29.91	759.8	37.4	3		SE			2		10			0	0	Covered	Normal School.
Bourg en Bresse			29.95	760.8	41.2	5.1	87	S			4		10n		SW			Covered	Normal School.
Bourges			29.80	756.8	39.6	4.2	52	NE			2		10		NE	0	0	Covered	Normal School.
Brest			29.52	749.8	46.1	7.3	85	SW			3		10		SW	0	0	Raining	Naval Observatory.
Caen			29.90	759.4	34.9	1.6	85	SE			2		5		NE	0	0	Cloudy	Normal School.
Chartres			29.78	756.4	34.0	1.1		NE			2		10			0	0	Covered	Normal School.
Chaumont																			Normal School.
Clermont			29.81	757.1	46.2	7.9	57	SW			2		10		SW	0	0	Covered	Puy de Dome, Obs.
Commercy			29.89	759.1	30.0	— 1.1	96	E			2		8s,n		E	0	0	Very cloudy	Normal School.
Commune de Gréasque*			30.02	762.6	50.7	10.4	47	SE			2		8		SE	0	0		
Grenoble			29.97	761.3	37.0	2.8	70	NE			1		10n		E	0	0	Covered	Normal School.
Le Mans			29.74	755.5	36.0	2.2	61	E			3		8		N	0	0	Very cloudy	Normal School.
Loches																			
Louns-Le-Saulnier			29.91	759.6	40.8	4.9	78	S			6		10			0.126	3.2	Covered	Normal School.
Mâcon			29.89	759.1	37.8	3.2	91	Calm			0		10			0	0	Covered	Normal School.
Mirecourt			29.92	759.9	34.2	1.2	100	SW			2		10			0	0	Covered	Normal School.
Metz																			
Nismes			30.00	762.1	46.0	7.8	76	SW			2		10		NE	0.248	6.3	Covered	Normal School.
Orleans			30.13	765.3	38.1	3.4	97	SSW			3		8		SSW	0	0	Very cloudy	Normal School.
Paris Observatory			29.76	755.8	32.0	0.0	89	SSE			1		10			0	0	Misty	National Observatory.
Parthenay			29.76	755.8	48.2	9	95	SW			4		5		SW	0	0	Cloudy	Normal School.
Privas			30.02	762.5	41.4	5.2		S			2		10			0.150	3.8	Covered	Normal School.
La Roche-sur-Yon			29.75	755.6	51.3	10.7	60	SSW			4		5		NE	0	0	Cloudy	Normal School.
Rochefort, Observatory			29.82	757.3	52.2	11.2	74	SW			5		8		NE	0.230	6.0	¾ Covered	Naval Observatory.
Rouen			29.90	759.5	34.9	1.6	71	SSE			2		10			0	0	Covered	Normal School.
Saint Lo			29.67	753.6	38.8	3.8	97	SW			1		9		W	0	0		Normal School.
Tarbes	28.84	732.5	29.91	759.6	48.2	9	42	S			2		0			0	0	Clear	Normal School.
Toulouse			30.06	763.4	50.2	10.1	82	SE			1		0					Clear	Normal School
Villefranche			29 89	759.3	38.5	3.6	75	SSE			3		10		NE	0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.94	760.4	71.6	22	74	NE			2		2k			0	0		L'Abbé Marchési.
Gorée																			
Marseilles			30.00	762.0	51.3	10.7	78	SE			1		10			0	0		Marseilles Observatory.
Mont-Louis	24.70	627.3	30.11	764.8	34.9	1.6	67	SSW	13.0	5.83			4		SW	0	0		—. Falguère.
Montsouris, Paris			29.73	755.1	31.3	— 0.4	80	SSE			1		10		SW	0	0		Montsouris Observ'tory
Perpignan			29.96	761.0	50.9	10.5	65	S?E	3.7	1.67			2			0	0		Dr. Fines.
Pic du Midi, (Summit) H.Pt†																			M. Baylac.
Saint Maur, (near Paris)			29.75	755 7	35.4	1.9	63	S			1		10			0	0	Very cloudy	E. Renou.
Toulouse			29.96	761.0	51.6	10.9	60	WSW			1		3			0	0		Toulouse Observatory
Tours			29.75	755.7	43.7	6.5	89	SW			1		6		WSW	0.020	0.5		C. Marquet.
Versailles, (near Paris)			29.72	754.9	35.6	2.0		SW			1		10			0.004	0.10	Misty	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Leo, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Summit inaccessible; weather fine; rain-fall on the Plantade 0.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			29.80	756.8	18.1	— 7.7	89	W			2		7	NE		0	0		Prof. T. Hoh.
Berlin			29.91	759.6	26.4	— 3.1	70	S			2		5			0	0		Prof. Arndt.
Breslau			29.99	761.7	25.5	— 3.6	84	SSE			6		4			0	0		Dr. P. Neugebauer
Carlsruhe			29.89	759.1	23.5	— 4.7	87	SSE			1		10			0	0		A. Senz.
Cassel			29.76	756.0	27.3	— 2.6	74	S			5		0?			0.067	1.7	Snowing?	Dr. H. Möhl.
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main			29.96	761.0	21.2	— 6.0	93	SE			1		10			0	0	Snow & fog	Physical Society.
Friedrichshafen			30.01	762.3	24.1	— 4.4	77	NW					10			0.047	1.2	Snow & fog	M. Wilhelm.
Hamburg			29.82	757.4	27.3	— 2.6	85	SSE			3		6			0.079	2.0	Cloudy	Deutsche Seewarte.
Kiel			29.84	757.8	29.7	— 1.3	95	SSW			1		10			0.051	1.3	Snowing	Prof. G. Karsten.
Königsberg			30.04	762.9	26.8	— 2.9	86	SW			2		2			0.024	0.6	Snowing	Prof. E. Luther.
Köslin			29.94	760.4	27.0	— 2.8		SE			1		10			0	0		H. Müller.
Leipsic			29.91	759.6	29.1	— 1.6	64	SSW			2		7			0	0		Prof. Bruhns.
Münster			29.80	756.9	29.7	— 1.3	76	S			2		3			0.205	5.2	Snowing	Prof. E. Heis.
Posen			30.00	762.0	22.1	— 5.5	88	SSE			4		2			0	0		Dr. Magener.
Strasburg, (in Alsace)			29.93	760.3	19.4	— 7.0	89	Calm			0		10			0.051	1.3	Snowing	Dr. Schur.
Stuttgart			29.90	759.4	31.6	— 0.2	72	E					10			0.024	0.6		Prof. Schoder.
Thorn			30.01	762.2	25.9	— 3.4	92	NE			2		1			0.720	18.3	Snowing	Dr. Hasenbalg.
Treves, (Trier)			29.79	756.6	24.8	— 4.0	83	NE			2		10			0.091	2.3	Foggy	Prof. Flesch.
Wustrow, Naval School			29.88	759.0	27.0	— 2.8	80	S			5		7			0	0		E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.07	763.6	57.7	14.3		S										Half clear	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.06	763.4	34.5	1.4	36	Calm	0	0			10			0.020	0.5		
Padua			30.07	763.8	32.9	0.5	67	NNW	0.7	0.3			10			0	0		
Vicenza																			
Verona			30.09	764.2	37.4	3.0	93	E			1		10			0	0		
Bergamo			30.02	762.4	32.7	0.4	81	SSE			2		10			0	0		
Domodossola																			
Milan			30.11	764.7	31.8	— 0.1	98	NW			2		10			0	0		
Pavia																			
Moncalieri			30.12	765.1	32.0	0.0	69	ESE	4.3	1.9			9			0	0		
Mondovi			30.07	763.8	33.3	0.7	51	N			2		6	NW		0	0		
Porto Maurizio			30.03	762.7	51.8	11.0		E			2		8			0	0		
Genoa			30.02	762.5	43.2	6.2	49	NE	2.5	1.1			10	SW		0	0		
Piacenza			30.11	764.7	32.9	0.5	83	N	1.3	0.6			10			0	0	Dense fog.	
Bologna			30.09	764.2	37.6	3.1	30	W			1		6	S		0	0		
Florence			30.05	763.3	47.1	8.4	42	E			2		6			0	0		
Leghorn			30.01	762.2	51.6	10.9	49	SW	10.5	4.7			8			0	0		
Siena			30.01	762.2	43.3	6.3	58	ESE	0.7	0.3			6	SW		0	0		
Urbino																			
Pesaro																			
Ancona			30.11	764.7	41.0	5.0	69	W			2		3			0	0		
Grosseto			30.03	762.8	52.3	11.3		WNW			2		5	SW		0	0		
Rome			30.03	762.7	53.6	12.0	55	N	4.3	1.9			3	SW		0	0		
Naples, O. U			30.04	763.0	57.4	14.1	57	NNW			2		4	SSW		0	0		
Lecce			30.11	764.8	50.4	10.2	55	NNE	6.3	2.8			6	NW		0	0		
Cosenza			30.11	764.8	49.8	9.9	54	NW	0.7	0.3			10			0	0	Dense fog.	
Riposto, (Sicily)			30.03	762.8	55.4	13.0	89	ESE			6		10	WNW		0.118	3.0		
Palermo			29.92	759.9	58.5	14.7	64	ENE	9.8	4.4			10			0	0		
Caltanissetta			30.00	762.0	47.8	8.8	92	E			6		10	W		0.031	0.8		
Sub-Series.																			
Naples, S. R			30.04	763.0	55.2	12.9	67	N	3.8	1.7			..ck	NE		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.80	756.8	31.3	— 0.4		S			3								
Groningen			29.70	754.3	29.1	— 1.6		SSW			2								
Helder			29.74	755.3	35.6	2.0		W			2								
Utrecht			29.75	755.7	29.8	— 1.2	96	SSW			2		8					Very cloudy	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.98	761.5	30.9	— 0.6	66	E	9.8	4.4			0			0	0		
Brönö			30.28	769.1	33.8	1.0	65	NE	9	4			0			0	0		
Christiania			30.16	766.1	17.2	— 8.2	59	ENE	2.7	1.2			3			0.031	0.8		
Tromsö			30.25	768.3	32.9	0.5	90	N	0	0			10			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)			30.17	766.3	53.1	11.7	80	W	6.5	2.92			3			0.157	4.0		Dr. J. A. N. Sampaio.
Campo Major			30.13	765.2	50.4	10.2	74	WSW	9.7	4.34			10	WNW		0.293	7.44		Dr. A. M. R. dos Santos.
Funchal, (Madeira,)			30.32	770.2	62.6	17.0	53	NNW	9.8	4.39			0			0	0		Capt. D. A. da Cunha.
Lisbon			30.14	765.6	52.7	11.5	85	SW	12.5	5.6			10			0.185	4.7	Raining	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			30.04	763.0	35.8	2.1	85	SSE	13	6			0						Astronomical Obs
Wilna			30.11	764.9	12.7	—10.7	72	W	4	2			0						Astronomical Obs
Dorpat			30.21	767.2	14.0	—10.0	76	E	9	4			1						Physical Cabinet.
St. Petersburg			30.16	766.0	10.2	—12.1	96	W	7	3			9						Central Physical Obs
Ropio			30.11	764.8	15.8	— 9.0	100	NW	9	4			10					Snowing	Ch. Forsten.
Rieff			30.08	763.9	24.8	— 4.0	91	WSW	7	3			10						Physical Cabinet.
Nikolaiev			30.21	767.2	26.8	— 2.9	83	Calm	0	0			10						Kurdakof.
Kertch			30.14	765.6	29.8	— 1.2	88	E	2	1			10						Lagorio.
Moscow			30.27	768.9	5.9	—14.5	78	NW	9	4			6						Meteorological Obs.
Lugan			30.18	766.5	4.5	—15.3	81	ENE	18	6			9						Meteorological Obs.
Archangel			29.76	755.8	12.2	—11.0	89	N	13	6			5						Ogorodnikof.
Tiflis	28.65	727.7	30.09	764.3	47.1	8.4	67	NNW	13	6			3						Physical Obs.
Astrakhan			30.30	769.5	13.6	—10.2	80	N	9	4			4			Blank	Blank		Sebastianof.
Kasan			30.00	761.9	8.8	—12.9	78	WNW	2	1			2						Physical Cabinet.
Orenburg																			Tschernischef.
Ekaterinburg	28.76	730.6	29.87	758.8	— 1.1	—18.4	64	Calm	0	0			3						Meteorological Obs.
Nukus			30.00	762.1	30.5	2.5	70	W	11	5			10						
Kasaly			29.81	757.1	16.0	— 8.9	81	S	13	6			10						Bobrof.
Tashkend	28.37	720.5	30.13	765.4	39.9	4.4	68	Calm	0	0			10			Blank	Blank		Michelson.
Barnaul			29.87	758.7	19.0	— 7.2	84	Calm	0	0			10						Meteorological Obs
Teniseisk			29.88	759.0	—19.7	—28.7	73	Calm	0	0			0						Marks.
Irkutsk																			Usolsef.
Oorga																			Mossin.
Peking, (China)			30.15	765.9	35.2	1.8	62	Calm	0	0			0						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock			29.74	755.5	20.1	— 6.6	87	N	9	4			0						
Nikolaievsk, on the Amoor					0.3	—17.6	100	WNW	4	2			10						

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			30.05	763.2	50.0	10.0	68	SW	13.4	6.00		2	2		W	0	0	Light clouds	Royal Observatory.
San Fernando			30.22	767.6	55.2	12.9	73	NW	16.8	7.5		0	9		NW	0	0		The Naval Observatory.

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda			30.24	768.2	25.9	— 3.4	87	NNW			2		0			0	0		
Umea			30.21	769.4	19.0	— 7.2	95	NNW			2		9			0	0		
Hernosand			30.32	770.1	7.9	—13.4	92	NNE			2		10			0.020	0.5		
Stockholm			30.13	765.3	17.2	— 8.2	53	E			6		10			0.004	0.1		
Wisby			30.08	764.0	24.4	— 4.2	95	ESE			4		7			0.343	8.7		
Sub-Series.																			
Upsala			30.21	767.4	14.2	— 9.9	87	NE	11.4	5.1			6		NE	0.003	0.08		Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.49	723.6	29.97	761.2	37.0	2.8	55	NNE	.....	.....	1	.....	10	.....	.....	0	0	Covered	The Observatory.
Zurich	28.26	717.9	29.98	761.6	28.9	— 1.7	95	W	.....	.....	1	.....	10	.....	.....	0	0	Snowing	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.8 mm.; Thermometer, —0.7 cent.; Relative Humidity, —17 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.11	764.9	40.6	4.8	90	NE	7	3.0	.....	.....	10	.....	NE	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.28	769.0	66.2	19.0	.....	S	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.21	767.2	54.9	12.7	.....	W	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.98	761.4	54.5	12.5	.....	NW	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	30.08	764.0	39.2	4.0	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.08	764.1	64.6	18.1	70	SW	.....	.....	1	.....	3n	.....	SW	0.19	4.8	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.18	766.6	28	— 2.2	.....	N	8	3.6	.....	2c	0	N	.....	0	0	Fair	W. R. Bigg.
*Chatham, N. B	.....	.....	29.78	756.4	20	— 6.7	92	Calm	0	0	.....	.....	10ks	.....	.....	0.06	1.5	Cloudy	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	29.87	758.7	23	— 5.0	95	S	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.13	765.3	26.4	— 3.1	70	N	.....	.....	2	.....	.....	.....	.....	0	0	Bright	James Smith, M. A.
Dalhousie, N. B	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. A. Johnson.
Esquimault, B. C	.....	.....	30.09	764.3	39.1	3.9	92	SW	3	1.3	.....	10cs	.....	.....	.....	0.32	8.1	Cloudy	W. H. Bevis.
Fredericton, N. B	.....	.....	29.85	758.2	22.3	— 5.4	82	Calm	0	0	.....	.....	10ks	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.13	765.3	— 8	—22.2	96	NE	6	2.7	.....	Haze	Haze	NE	NE	0	0	Hazy	James Stewart.
Goderich, Ontario	.....	.....	29.96	761.0	41.3	5.2	77	SW	.....	.....	3	5k	3s	W	.....	0.344	8.74	Fine	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.00	762.0	32.0	0.0	.....	Calm	.....	.....	0	1cs	.....	.....	.....	0	0	Clear	James Grant.
*Halifax, N. S	.....	.....	29.92	760.0	27	— 2.8	78	NW	5	2.2	.....	0	0	.....	.....	0	0	Clear	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.13	765.3	30	— 1.1	79	NE	3	1.3	.....	Haze	0	.....	.....	0	0	Clear	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.18	766.6	6.6	—14.1	.....	SW	12	5.4	.....	.....	8s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.09	764.3	25	— 3.9	69	N	20	8.9	.....	2ck	2ks	W	W	0	0	Fair	C. H. McLeod, C
*Ottawa, Ontario	.....	.....	30.12	765.0	19	— 7.2	77	W	2	0.9	.....	2cs	0	.....	.....	0	0	Clear	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.13	765.3	14	—10.0	82	N	12	5.4	.....	0	0	.....	.....	0	0	Clear	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.04	763.0	32	0.0	90	Calm	0	0	.....	8cs	0	SW	.....	0	0	Fair	H. Morgan.
Port Hastings, N. S	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Peter Grant.
*Port Stanley, Ontario	.....	.....	30.08	764.0	31	— 0.6	90	NE	5	2.2	.....	10ck	0	SW	.....	0	0	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	30.04	763.0	15	— 9.4	82	W	22	9.8	.....	0	0	.....	.....	0	0	Clear	Capt. Ash, R. N.
St. John, N. B	.....	.....	29.88	758.9	32	0.0	79	W	5	2.2	.....	9k	.....	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.04	763.0	26	— 3.3	87	E	5	2.2	.....	8ks	0	.....	.....	0	0	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. J. Cole.
Stratford, Ontario	.....	.....	30.02	762.5	32.5	0.3	85	E	9	4.0	.....	3ks	.....	.....	.....	0	0	Fine	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	29.91	759.7	24	— 4.4	85	W	3	1.3	.....	10k	2ks	NW	NW	0	0	Cloudy	T. C. Hill.
*Toronto, Ontario	.....	.....	30.06	763.5	32	0.0	83	N	10	4.5	.....	2c	0	W	.....	0	0	Fair	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. C'p'er. 0—10.	Clouds. Amount. L'w'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	30.04	763.0	37	2.8	80	SE	1	0.4	.....	0	Haze	.....	.....	0	0	Clear..	.....
Alpena, Mich.	.....	.....	30.01	762.2	26	— 3.3	70	E	16	7.2	.....	.....	10s	.....	E	0	0	Cloudy.....	.....
Atlantic City, N. J.	.....	.....	30.16	766 1	34	1.1	90	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	.....
Augusta, Ga.	.....	.....	30.08	764.0	60	15.6	97	SE	1	0.4	.....	.....	Fog	.....	.....	0	0	Foggy	.....
Baltimore, Md.	.....	.....	30.16	766.1	40	4.4	73	Calm	0	0	.....	5k	Fog	SW	.....	0	0	Fair.....	.....
Barnegat, N. J.	.....	.....	30.15	765.8	37	2.8	80	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	.....
Benton, Montana	27.01	686.0	29.81	757.2	28	— 2.2	77	SW	21	9.4	.....	2c	0	.....	.....	0	0	Fair.....	.....
Bismarck, Dakota	28.17	715.5	30.01	762.0	— 3	—19.4	66	NW	6	2.7	.....	.....	10ks	.....	N	0.48	12.2	Cloudy.....	.....
Boston, Mass.	.....	.....	30.03	762.7	39	3.9	63	SW	15	6.7	.....	0	Haze	.....	.....	0	0	Clear.....	.....
Breckenridge, Minn	.....	.....	28.81	731.8	6	—14.4	88	NW	12	5.4	.....	.....	10n	.....	NW	0.01	0.3	Light snow.	.....
Buffalo, N. Y.	.....	.....	30.03	762.7	35	1.7	70	E	4	1.8	.....	2c	1s	W	SW	0	0	Fair.....	.....
Burlington, Vt.	.....	.....	30.07	763.8	34	1.1	71	NE	1	0.4	.....	2k	0	W	.....	0	0	Fair.....	.....
Cairo, Ill.	.....	.....	29.78	756.4	58	14.4	81	S	2	0.9	.....	Haze	1ks	.....	S	0	0	Fair.....	.....
Cape Hatteras, N. C.	.....	.....	30.07	763.8	60	15.6	82	NE	8	3.6	.....	0	2s	.....	.....	Inap.	Inap.	Fair.....	.....
Cape Henry, Va.	.....	.....	30.13	765.3	49	9.4	85	SE	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	.....
Cape May, N. J.	.....	.....	30.15	765.8	41	5.0	91	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	.....
Charleston, S. C.	.....	.....	30.12	765.0	59	15.0	87	S	2	0.9	.....	2c	Fog	SW	.....	0	0	Fair.....	.....
Cheyenne, Wyoming	23.92	607.6	29.86	758.4	19	— 7.2	39	NW	28	12.5	.....	0	0	.....	.....	0	0	Clear.....	.....
Chicago, Ill.	.....	.....	29.97	753.6	48	8.9	70	SE	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.....	.....
Cincinnati, Ohio.	.....	.....	29.82	757.4	45	7.2	68	SE	2	0.9	.....	0	1s	.....	.....	0	0	Clear.....	.....
Cleveland, Ohio.	.....	.....	29.92	760.2	41.2	5.1	57	SE	6	2.7	.....	2cs	5ks	W	W	0.01	0.3	Fair.....	.....
Colorado Springs, Col.	24.00	609.6	29.87	758.7	23	— 5.0	60	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	.....
Corsicana, Tex.	.....	.....	29.79	756.7	66	18.9	78	S	20	8.9	.....	10k	0	S	.....	0	0	Cloudy.....	.....
Davenport, Iowa.	.....	.....	29.65	753.1	41	5.0	91	W	4	1.8	.....	6cs	0	.....	.....	0	0	Fair.....	.....
Denison, Tex.	.....	.....	29.60	751.8	64	17.8	78	SW	20	8.9	.....	2k	0	SW	.....	0	0	Clear.....	.....
Denver, Col.	24.76	628.9	29.98	761.5	26	— 3.3	40	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	.....
Detroit, Mich.	.....	.....	29.91	759.7	35	1.7	80	NE	7	3.1	.....	5k	0	W	.....	0	0	Fair.....	.....
Dodge City, Kan.	27.28	692.9	29.57	751.1	41	5.0	41	W	13	5.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	.....
Dubuque, Iowa.	.....	.....	29.65	753.1	36	2.2	80	Calm	0	0	.....	2cs	5s	.....	.....	0	0	Fair.....	.....
Duluth, Minn.	.....	.....	29.88	758.9	14	—10.0	82	NE	28	12.5	.....	.....	10n	.....	.....	0.10	2.5	Heavy snow	.....
Eastport, Me.	.....	.....	29.84	757.9	35	1.7	70	W	10	4.5	.....	2k	2s	W	W	0	0	Fair.....	.....
Erie, Pa.	.....	.....	29.90	761.0	41	5.0	73	SE	12	5.4	.....	2c	5s	.....	.....	0	0	Fair.....	.....
Escanaba, Mich.	.....	.....	29.93	760.2	18	— 7.8	84	NE	14	6.3	.....	.....	10s	.....	.....	0	0	Cloudy.....	.....
Fort Gibson, Indian Terr.	.....	.....	29.90	751.8	60	15.6	76	W	8	3.6	.....	.....	10ks	.....	SW	0	0	Cloudy.....	.....
Fort Sill, Indian T.	28.54	724.9	29.65	753.1	45	7.2	42	NW	16	7.2	.....	2cs	0	NW	.....	0	0	Clear.....	.....
Fort Sully, Dakota	28.23	717.0	30.05	763.3	3	—16.1	87	Calm	0	0	.....	0	5s	.....	.....	0.02	0.5	Fair.....	.....
Galveston, Tex.	.....	.....	29.89	759 2	68	2 .0	94	SE	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	.....
Grand Haven, Mich.	.....	.....	29.75	755.6	39	3.9	76	E	14	6.3	.....	.....	10s	.....	SW	0	0	Cloudy.....	.....
Indianapolis, Ind.	.....	.....	29.77	756.1	47	8.3	69	SE	4	1.8	.....	5c	0	.....	.....	0	0	Fair.....	.....
Indianola, Texas.	.....	.....	29.92	760.0	66	18.9	100	S	10	4.5	.....	0	8ks	.....	SW	0	0	Cloudy.....	.....
Jacksonville, Fla.	.....	.....	30.13	765.3	66	18.9	94	Calm	0	0	.....	.....	10s	.....	.....	0.27	6.9	Cloudy.....	.....
Keokuk, Iowa.	.....	.....	29.66	753.4	41	5.0	65	NW	6	2.7	.....	5c	0	N	.....	0	0	Fair.....	.....
Key West, Fla.	.....	.....	30.13	765.3	69.8	21.0	90	NE	4	1.8	.....	.....	10s.n	.....	E, S	0.17	4.3	Light rain...	.....
Kittyhawk, N. C.	.....	.....	30.14	765.5	48	8.9	92	SE	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	.....
Knoxville, Tenn.	.....	.....	29.99	761.7	50	10.0	86	NE	4	1.8	.....	.....	10ks	.....	SW	0.16	4.1	Cloudy.....	.....
La Crosse, Wis.	.....	.....	29.65	753.1	37	2.8	100	E	7	3.1	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy.....	.....
Leavenworth, Kan.	.....	.....	29.78	756.4	37	2.8	62	N	6	2.7	.....	0	2s	.....	.....	0	0	Clear.....	.....
Lexington, Ky.	28.81	731.8	29.90	759.4	51	10.6	86	SE	12	5.4	.....	.....	5ks	.....	SW	0	0	Fair.....	.....
Long Branch, N. J.	.....	.....	30.14	765 5	41	5.0	65	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	.....
Louisville, Ky.	.....	.....	29.84	757.9	46	7.7	77	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	.....
Lynchburg, Va.	.....	.....	30.11	764.8	47	8.3	70	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.....	.....
Malone, N. Y.	.....	.....	30.07	763.8	31	— 0.6	79	NW	4	1.8	.....	5k	0	NW	.....	0	0	Fair.....	.....
Marquette, Mich.	.....	.....	30.00	762.0	20	— 6.7	85	NE	8	3.6	.....	.....	10s	.....	E	0	0	Cloudy.....	.....
Memphis, Tenn.	.....	.....	29.84	757.9	64	17.8	89	SW	9	4.0	.....	Haze	8ks	.....	SW	0	0	Fair.....	.....
Milwaukee, Wis.	.....	.....	29.71	754.6	37	2.8	80	SE	8	3.6	.....	5c	Fog	NW	.....	0	0	Fair.....	.....
Mobile, Ala.	.....	.....	30.04	763.0	63	17.2	94	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	.....
Montgomery, Ala.	.....	.....	30.00	763.5	65	18.3	92	SW	4	1.8	.....	.....	10s	.....	SW	0	0	Cloudy.....	.....
Morgantown, W. Va.	.....	.....	30.01	762.0	34	1.1	90	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	.....
Mt. Washington, N. H.	23.40	594.4	29.76	755.9	15	— 9.4	100	NW	40	17.9	.....	.....	Fog	.....	.....	0	0	Foggy	.....
Nashville, Tenn.	.....	.....	29.85	758.2	60	15.6	88	NW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	.....
New Haven, Conn.	.....	.....	30.10	764.5	40	4.4	72	SW	2	0.9	.....	Haze	Fog	.....	.....	0	0	Clear.....	.....
New London, Conn.	.....	.....	30.12	765.0	39.5	4.2	64	SW	3	1.3	.....	0	0	.....	.....	0	0	Clear.....	.....
New Orleans, La.	.....	.....	29.99	761.7	62	16.7	94	S	2	0.9	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy	.....
Newport, R. I.	.....	.....	30.09	764.3	39	3.9	73	SW	12	5.4	.....	0	0	.....	.....	0	0	Clear.....	.....
New York, N. Y.	.....	.....	30.14	765.5	38	3.3	63	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	.....
Norfolk, Va.	.....	.....	30.13	765.3	47	8.3	73	SE	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	.....
North Platte, Neb.	26.86	682.2	29.52	749.8	22	— 5.6	79	SW	3	1.3	.....	0	2s	.....	.....	0	0	Clear.....	.....
Omaha, Neb.	28.73	729.7	29.84	757.9	26	— 3.3	76	NW	20	8.9	.....	10cs	0	.....	.....	0	0	Cloudy.....	.....
Oswego, N. Y.	.....	.....	30.00	762.5	36	2.2	80	Calm	0	0	.....	Haze	Haze	.....	.....	0	0	Clear.....	.....
Peck's Beach, N. J.	.....	.....	30.16	766.1	38	3.3	91	Calm	0	0	.....	Haze	0	.....	.....	0	0	Clear.....	.....
Pembina, Dakota.	.....	.....	30.05	763.3	0	—17.8	85	N	4	1.8	.....	.....	8s	.....	.....	0	0	Cloudy.....	.....
Philadelphia, Penn.	.....	.....	30.16	766.1	42	5.6	58	NW	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	.....
Pike's Peak, Colorado	17.39	441.7	29.60	751.8	—11.5	—24.2	100	W	34	15.2	.....	0	0	.....	.....	0.01	0.3	Clear.....	.....
Pittsburgh, Penn.	.....	.....	30.00	762.0	33	0.6	60	Calm	0	0	.....	Haze	0	.....	.....	0	0	Clear.....	.....
Port Huron, Mich.	.....	.....	29.95	760.7	32	0.0	89	NE	8	3.6	.....	5c	5s	.....	.....	0	0	Cloudy.....	.....
Portland, Me.	.....	.....	29.95	760.7	33	0.6	70	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	.....
Portland, Oregon.	.....	.....	30.28	769.1	45	7.2	84	S	6	2.7	.....	.....	10n	.....	.....	0.78	19.8	Light rain...	.....
Punta Rassa, Fla.	.....	.....	30.15	765.8	65	18.3	89	E	6	2.7	.....	0	2s	.....	E	0	0	Clear.....	.....
Rochester, N. Y.	.....	.....	30.05	763.3	38	3.3	71	E	3	1.3	.....	2c	Fog	.....	.....	0	0	Fair.....	.....
Salt Lake City, Utah	25.83	656.1	30.16	766.1	27	— 2.8	77	Calm	0	0	.....	5k	5ks	N	N	0.23	5.8	Cloudy.....	.....
Sandy Hook, N. J.	.....	.....	30.13	765.3	40	4.4	71	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	.....
San Diego, Cal.	.....	.....	30.21	767.3	48	8.9	92	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	.....
San Francisco, Cal.	.....	.....	30.38	771.5	48	8.9	78	Calm	0	0	.....	0	0	.....	.....	0.01	0.3	Clear.....	.....
Santa Fe, N. M.	23.14	587.8	29.08	753.9	20	— 6.7	55	Calm	0	0	.....	0	0	.....	.....	0.01	0.3	Clear.....	.....
Savannah, Ga.	.....	.....	30.11	764.8	64	17.8	88	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	.....
Shreveport, La.	.....	.....	29.88	758.9	64.5	18.1	89	S	3	1.3	.....	.....	8ks	.....	SW	0	0	Cloudy.....	.....
Smithville, N. C.	.....	.....	30.13	765.3	56	13.3	93	NE	4	1.8	.....	5ck	0	W	.....	0	0	Fair.....	.....
Springfield, Mass.	.....	.....	30.07	763.8	37	2.8	70	S	4	1.8	.....	0	1s	.....	.....	0	0	Fair, smoky.	.....
St. Louis, Mo.	.....	.....	29.70	754.4	54	12.2	67	SW	7	3.1	.....	0	5s	.....	.....	0	0	Fair.....	.....
St. Marks, Fla.	.....	.....	30.12	765.0	65	18.3	94	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Dense fog....	.....
St. Paul, Minn.	.....	.....	29.55	750.6	29.5	—1.4	89	N	6	2.7	.....	.....	10n	.....	.....	Inap.	Inap.	Light rain ..	.....
St. Paul's Island, Alaska.	.....	.....	29.76	755.9	14	—10.0	81	ENE	26	11.6	.....	2c	1k	.....	.....	0	0	.....	.....
Squan Beach, N. J.	.....	.....	30.09	764.5	34	1.1	79	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	.....
Thatcher's Island, Mass.	.....	.....	30.03	762.7	37	2.8	71	SW	15	6.7	.....	0	0	.....	.....	0	0	Clear.....	.....
Toledo, Ohio.	.....	.....	29.84	757.9	45	7.2	68	S	1	0.4	.....	5c	5s	SW	S	0	0	Cloudy.....	.....
Tucson, Arizona.	.....	.....	29.68	753.9	36	2.2	.....	SE	.....	.....	.....	2c	0	.....	.....	0	0	Clear.....	.....
Tybee Island, Ga.	27.09	703.3	30.28	769.1	36	2.2	.....	.....	.....	.....	.....	.....	Fog	.....	NW	0	0	Foggy.....	.....
Vicksburg, Miss.	.....	.....	30.11	764.8	63	17.2	94	NW	2	0.9	.....	.....	Fog	.....	NW	0	0	Foggy.....	.....
	.....	.....	29.95	760.7	66.5	19.2	87	S	6	2.7	.....	H ze	8k	.....	SW	0	0	Cloudy..	.....

UNITED STATES SERIES.—CONTINUED

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Inches.	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.14	613.1	29.62	752.3	23	— 5.0	60	SW	16	7.2	.....	10k	0	NW	.....	Inap.	Inap.	Cloudy	
Washington, D. C	.....	.....	30.13	765.3	36	2.2	85	Calm	0	0	.....	0	2s	.....	W	0	0	Foggy	
Wilmington, N. C	.....	.....	30.13	765.3	54	12.2	86	E	6	2.7	.....	0	5ks	.....	NW	0	0	Fair	
Wood's Holl, Mass	.....	.....	30.10	764.5	40	4.4	72	SW	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va	27.69	703.3	29.88	758.9	42	5.6	83	Calm	0	0	.....	5k	0	W	.....	0	0	Fair	
Yankton, Dakota	28.61	726.7	30.01	762.2	9	—12.8	67	NW	18	8.0	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.25	768.3	52	11.1	.....	N	.....	.....	.....	0	0	.....	.....	0	0	Clear	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.06	763.5	76	24.4	86	N	6	2.7	.....	2c	8s	W	SE	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.02	762.5	70	21.1	79	E	.....	.....	.....	2c	0	.....	.....	0	0	Clear	L. V. Bigard.
St. Thomas, St. T., W. I.	.....	.....	30.29	769.4	73	22.8	75	ENE	6	2.7	.....	4ck	8kn	NE	.....	0	0	Cloudy	W. S. Cameron.
Kingston, Jamaica, W. I.	.....	.....	30.21	767.3	72	22.2	75	Calm	0	0	.....	5c	5s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I.	.....	.....	29.87	758.7	72	22.2	76	NW	1.2	0.5	.....	4ck	2s	E	.....	0.23	5.8	Fair	Robert Mason.
Havana, Cuba, W. I.	.....	.....	30.15	765.8	70	21.1	75	SE	2.4	1.1	.....	2c	0	.....	.....	0	0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.12	765.0	67.5	19.7	82	NE	16.0	7.2	.....	0	0	.....	.....	0	0	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	27.24	691.9	30.06	763.5	63	17.2	83	N	0.5	0.2	.....	.....	10k	.....	.....	0	0	Very dull	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.00	762.0	76	24.4	91	E	.....	.....	2	.....	8ks	.....	.....	0.100	2.54	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.04	763.0	78.8	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.374	9.50	.....	Dr. H. Groot.
Medellin, Colombia, S. A.	25.20	640.0	.....	.....	65.8	18.8	85	.....	2	0.9	.....	.....	10n	.....	.....	0.67	17.0	Cloudy	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.74	755.4	20.0	— 6.7	.....	NW	.....	.....	.....	.....	10n	.....	.....	0.25	6.3	Cloudy	John Delaney.
York Factory, B. A.	.....	.....	30.55	776.0	—25	—31.7	.....	Calm	0	0	.....	2k	Haze	E	.....	0.04	1.0	.....	J. Fortescue.
Honolulu, Oahu, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
MARINE SERIES.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1 ? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 14, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity Miles per hour.	Wind. Velocity Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.26	768.5	65.8	18.8	46	Calm			0		3			0	0	Fair	Charnot and Masselot.
Algiers			30.17	766.4	62.6	17.0	67	NNW			1		7			0.150	3.8	Cloudy	Peter.
La Calle																			Kunts.
Tunis			30.13	765.3	57.4	14.1	70	N			3		7			0.028	0.7	Cloudy	Jacques.
Sfax			30.18	766.5	59.4	15.2	58	N			2		4			0	0	Fair	Chauvey.
Saida			30.22	767.5	51.8	11.0	75	WSW			1		2			0	0	Clear	Millot.
Tebessa			30.14	765.6	45.6	7.2		W			2		8			0.039	1.0	Cloudy	Colin.
Geriville			30.23	767.9	44.2	6.8	73	NW			2		3			0.256	6.5	Fair	Buard.
Laghouat			30.25	768.3	57.2	14.0	75	NW			3		3			0	0	Fair	Delord.
Biskra			30.19	766.8	59.5	15.3	58	NW			3		8			0	0	Cloudy	Dubois.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity Miles per hour.	Wind. Velocity Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.08	764.1	28.4	— 2.0	88	NE			3		6			0	0		Prof. Ivan Stozir.
Buda-Peath																			I. R. Cen. M. I., Hungary
Cracow																			I. R. Observatory.
Eperies			30.02	762.4	25.2	— 3.8	93	NE			1		9			0.016	0.4		Julius Mikolik.
Gratz			30.11	764.8	38.3	3.5	89	Calm			0		0			0	0		Andreas Rospini.
Hermannstadt	28.82	732.0	30.09	764.2	30.4	— 0.9	58	S			2		0			0	0		Prof. Reissenberger.
Kremsmünster	28.63	727.2	30.15	765.8	23.5	— 4.7	98	NW			1		10			0	0	Foggy	Prof. C. Wagner.
Lemberg	28.60	726.5	30.03	762.7	25.2	— 3.8	78	W			1		2			0.059	1.5		Dr. T. Stanecki.
Nyiregyhaza			29.98	761.6	29.5	— 1.4	96	S			1		0			0.016	0.4		Habasuda Daniel.
Pola			30.11	764.9	29.1	— 1.6	85	E			1		0			0	0		I.R. Hydrographic Of'ce
Szegedin			30.10	764.6	46.8	8.2	81	S			0		10s			0	0		Karl Stancel.
Trieste			30.12	765.0	28.6	— 1.9	82	E			2		0			0	0		Prof. V. Farolfi.
Vienna			30.10	764.6	43.3	6.3	74	Calm			0		10			0	0	Foggy	I. R. Central Institute.
			30.06	763.4	16.7	— 8.5	87	SE			1		5			0	0		

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity Miles per hour.	Wind. Velocity Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.72	755.0	39.4	4.1	89	SW			4		10			0.126	3.20		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.62	752.3	34.0	1.1	.....	SE	16	7.2	.....	.....	3	.....	.....	0.130	3.30	Blue sky.....	William Boswell.
Ardrossan	.....	.....	29.57	751.1	36	2.2	.....	ENE	.....	.....	4	.....	7	.....	.....	.....	.....	Misty.....	J. Mayes.
Armagh Observatory	.....	.....	29.51	749.5	35.3	1.8	.....	ESE	13	5.8	.....	.....	10	.....	.....	.....	.....	Gloomy.....	S. Cah, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	29.53	750.0	35.3	1.8	.....	WSW	15	6.7	.....	.....	7	.....	.....	.....	.....	*D. clouds.....	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.42	747.3	40.4	4.7	.....	SE	.....	.....	1	.....	10	.....	.....	.....	.....	Raining.....	J. Dreyer.
Bradford	.....	.....	29.51	749.5	32.4	0.2	.....	NE	.....	.....	0	.....	10	.....	.....	0.06	1.5	Overcast.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.06	763.5	78.0	25.6	.....	NE	.....	.....	2	.....	7	.....	.....	.....	.....	*D. clouds.....	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.60	751.8	44.5	6.9	.....	SW	.....	.....	1	.....	0	.....	.....	Blank	Blank	Blue sky.....	H. Todd.
Cardington	.....	.....	29.62	752.3	40.0	4.4	.....	W	.....	.....	1	.....	1	.....	.....	.....	.....	Blue sky.....	John McLaron.
Carlisle	.....	.....	29.56	750.8	33.1	0.6	.....	E	.....	.....	1	.....	10	.....	.....	0	0	Threatening	. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	29.67	753.6	44.2	6.8	.....	SW	.....	.....	1	.....	3	.....	.....	.....	.....	*D. clouds.....	Capt. J. Fellowes, R. E.
Dartmoor	28.31	719.1	29.84	757.9	40.0	4.4	.....	W	.....	.....	4	.....	10	.....	.....	.....	.....	Raining.....	R. E. Power.
Donaghadee	.....	.....	29.50	749.3	36	2.2	.....	ESE	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast.....	J. Mac Gowan.
Dover	.....	.....	29.69	754.1	36	2.2	.....	WSW	.....	.....	3	.....	6	.....	.....	.....	.....	¾ clouded...	J. Costello.
Eccles, (near Manchester)	.....	.....	29.53	750.0	36.2	2.3	.....	Calm	0	0	.....	.....	5	.....	.....	.....	.....	*D. clouds.....	Thomas Mackereth.
Falmouth Observatory	.....	.....	29.66	753.4	48.6	9.2	.....	SSW	19	8.5	.....	.....	10	.....	.....	.....	.....	Overcast.....	The Staff.
Fort Napier, (Natal)	27.55	699.8	29.81	757.2	80.0	26.7	.....	E	.....	.....	2	.....	6	.....	.....	.....	.....	*D. clouds.....	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone	.....	.....	29.94	760.5	85	29.4	.....	N	.....	.....	1	.....	10	.....	.....	.....	.....	.....	
Galway, Queen's College	.....	.....	29.31	744.5	42	5.6	.....	SE	.....	.....	4	.....	10	.....	.....	.....	.....	Raining.....	R. G. Clare, for Prof. Cur.
Gibraltar, (Mediterranean)	.....	.....	30.15	765.8	59.8	15.4	.....	SW	.....	.....	6	.....	9	.....	.....	.....	.....	Overcast.....	Pvt. G. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.57	751.1	33.7	0.9	.....	W	.....	.....	1	.....	2	.....	.....	.....	.....	Fine.....	Lewis Stuart.
Great Yarmouth	.....	.....	29.62	752.3	35	1.7	.....	S	.....	.....	2	.....	6	.....	.....	.....	.....	Foggy.....	G. T. Watson.
Greenwich Royal Obs.	.....	.....	29.67	753.6	45.5	7.5	.....	WSW	.....	.....	2	.....	1	.....	.....	Blank	Blank	Blue sky.....	The Staff for G. B. Airy
Guernsey	.....	.....	29.73	755.1	48	8.9	.....	SSE	.....	.....	4	.....	8	.....	.....	Blank	Blank	Squally.....	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	29.68	753.9	31.1	— 0.5	.....	E	.....	.....	1	.....	10	.....	.....	Blank	Blank	Overcast.....	L. J. Crossley.
Helston	.....	.....	29.61	752.1	47	8.3	.....	SW	.....	.....	2	.....	8	.....	.....	0.4	10.2	Gloomy.....	M. P. Moyle.
Holyhead	.....	.....	29.52	749.8	40	4.4	.....	E	.....	.....	3	.....	3	.....	.....	.....	.....	Blue sky.....	John Tilston.
Kew Observatory	.....	.....	29.66	753.4	42.0	5.6	.....	SW	13	5.8	.....	.....	3	.....	.....	.....	.....	Blue sky.....	The Staff.
Kingstown	.....	.....	29.51	749.5	40	4.4	.....	ESE	.....	.....	3	.....	4	.....	.....	.....	.....	*D. clouds.....	George Mitchell.
Leicester Museum	.....	.....	29.60	751.8	42.0	5.6	.....	SW	.....	.....	1	.....	5	.....	.....	Blank	Blank	*D. clouds.....	William J. Harrison.
Malta, (Mediterranean)	.....	.....	29.97	761.2	57	13.9	.....	NE	.....	.....	2	.....	8k	.....	.....	.....	.....	*D. clouds.....	Fred Travis, Pvt A.H.C.
Nairn	.....	.....	29.60	751.8	34	1.1	.....	Calm	.....	.....	0	.....	0	.....	.....	.....	.....	Blue sky.....	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.12	765.0	72.6	22.6	.....	E	.....	.....	3	.....	3	.....	.....	.....	.....	*D. clouds.....	Surg.-Maj. Henry.
Nottingham	.....	.....	29.56	750.8	37.3	2.9	.....	WNW	.....	.....	1	.....	5c	.....	.....	W	Blank	Blank	*D. clouds.....	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	29.57	751.1	43.0	6.1	.....	SSW	.....	.....	3-4	.....	8	.....	.....	.....	.....	*D. clouds.....	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	29.62	752.3	42	5.6	.....	SW	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky.....	J. Lucas.
Plymouth	.....	.....	29.66	753.4	46	7.8	.....	SW	.....	.....	2	.....	10	.....	.....	.....	.....	*D. cloud.....	John Merrifield.
Roche's Point	.....	.....	29.43	747.5	48	8.9	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Raining.....	W. Kennedy.
Saint Ann's Head	.....	.....	29.56	750.8	41	6.7	.....	SSW	.....	.....	4	.....	10	.....	.....	.....	.....	Raining.....	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.75	755.6	46.8	8.2	.....	SW	.....	.....	5	.....	5	.....	.....	.....	.....	½ covered...	A. P. Amy.
Sandwick Manse(Orkneys	.....	.....	29.72	754.9	35.1	1.7	.....	ESE	40	17.9	.....	.....	2	.....	.....	.....	.....	Snowy	Rev. Dr. Clouston
Scarborough	.....	.....	29.57	751.1	34.3	1.3	.....	SSE	.....	.....	2	.....	10	.....	.....	.....	.....	Snowing. ...	F. Shaw.
Scutari Cemetery(Turkey	.....	.....	30.16	766.1	49.0	9.4	.....	S	.....	.....	1	.....	8	.....	.....	.....	.....	*D. clouds.....	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.55	750.6	33.2	0.7	.....	SE	.....	.....	1	.....	10	.....	.....	0.149	3.79	Ove cast.....	W. F. Cooper.
Silloth Rectory	.....	.....	29.56	750.8	32.6	0.3	95	E	.....	.....	3	.....	8	.....	.....	0.180	4.57	*D. clouds.....	Rev. Francis Redford.
Stonyhurst Observatory	.....	.....	29.54	750.3	33.1	0.6	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Snowing.....	The Staff.
Stornoway, Lews C. (Heb.)	.....	.....	29.63	752.6	35	1.7	.....	E	.....	.....	3	.....	2	.....	.....	.....	.....	Blue sky.....	John Smith.
Stratfield Turgiss	.....	.....	29.66	753.4	43.3	6.3	.....	W	.....	.....	1	.....	4	.....	.....	.....	.....	Blue sky.....	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.69	754.1	33	0.6	.....	ESE	.....	.....	6	.....	10	.....	.....	.....	.....	Snowing.....	John Trotter.
Truro, Royal Institution	.....	.....	29.63	752.6	50	10.0	.....	SW	.....	.....	6	.....	8	.....	.....	.....	.....	Gloomy.....	W. Newcombe
Valencia Observatory	.....	.....	29.31	744.5	50.0	10.0	.....	SW	38	17.0	.....	.....	10	.....	.....	.....	.....	Raining.....	The Staff
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.98	761.5	76.0	24.4	73	SSE	15	6.7	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	36	2.2	.....	SE	.....	.....	4	.....	10	.....	.....	0.6	15.2	.....	
Leith, Restalrig Park	.....	.....	29.63	752.6	33.5	0.8	.....	E	.....	.....	2	.....	10ks	.....	.....	0	0	Overcast.....	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	29.54	750.3	36	2.2	.....	SE	.....	.....	6	5	5	SE	.....	0	0	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	29.92	760.0	36	2.2	.....	SE	.....	.....	6	2	5	E	.....	Blank	Blank	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.81	757.2	30.6	— 0.8	79	SE	.....	.....	7	.....	10	.....	.....	.....	.....	.....	
Fanöe	.....	.....	29.71	754.7	28.2	— 2.1	87	E	.....	.....	6	.....	10	.....	.....	.....	.....	.....	
Godthaab, (Greenland)	.....	.....	29.98	761.5	12.2	—11.0	72	NNE	.....	.....	4	.....	2	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.77	756.2	34.3	1.3	85	SE	.....	.....	4	.....	5	.....	.....	.....	.....	.....	
Thorshavn, (Faröe)	.....	.....	29.87	758.6	38.5	3.6	60	ESE	.....	.....	4	.....	7	.....	.....	.....	.....	Snowing.....	
Vestervig	.....	.....	29.84	757.9	26.6	— 3.0	96	ENE	.....	.....	7	.....	10	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.85	758.1	41.0	5	83	SW	.....	.....	2	.....	10	.....	.....	0.110	2.8	Covered	Normal School.
Amiens	.....	.....	29.77	756.1	42.8	6.0	79	SSW	.....	.....	6	.....	5	.....	SW	0.142	3.6	Cloudy.....	Normal School.
Avignon	.....	.....	30.03	762.7	51.3	10.7	63	SE	.....	.....	2	.....	8	.....	SSW	0	0	Very cloudy	Normal School.
Bar-sur-Seine	.....	.....	29.92	759.9	46.8	8.2	74	SSW	.....	.....	2	.....	8	.....	W	0.169	4.3	Very cloudy	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.86	758.5	51.6	10.9	62	SW	12.5	5.6	.....	.....	.....	.....	SW	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	29.86	758.4	43.0	6.1	74	SSW	.....	.....	3	.....	8	.....	WSW	0.069	1.75	Very cloudy	Normal School.
Besançon	.....	.....	30.02	762.6	41.0	5	87	SSW	.....	.....	2	.....	10	.....	SW	0.39	10.	Covered	Normal School.
Bourg en Bresse	.....	.....	30.08	763.9	41.9	5.5	91	S	.....	.....	1	.....	10n	.....	.....	.....	.....	Raining	Normal School.
Bourges	.....	.....	29.87	758.6	40.5	4.7	70	NW	.....	.....	4	.....	10	.....	NW	0.35	9.	Covered	Normal School.
Brest	.....	.....	29.72	755.0	53.1	11.7	73	SSW	.....	.....	3	.....	1k	.....	SW	0.138	3.50	Clear.....	Naval Observatory.
Caen	.....	.....	29.76	756.0	47.1	8.4	67	SW	.....	.....	2	.....	10	.....	SE	0.131	3.4	Covered	Normal School.
Chartres	.....	.....	29.90	759.5	44.4	6.9	.....	ESE	.....	.....	2	.....	0	.....	.....	0.343	8.7	Clear.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.08	764.0	46.4	8.0	52	S	.....	.....	3	.....	10	.....	.....	0	0	Covered	Puy de Dome, Obs.
Commercy	.....	.....	29.89	759.3	40.5	4.7	97	SW	.....	.....	4	.....	8k,n	.....	SW	0	0	Very cloudy	Normal School.
Commune de Gréasque*	.....	.....	30.07	763.6	47.8	8.8	69	SE	.....	.....	2	.....	10	.....	SE	0	0	Light rain...	
Grenoble	.....	.....	30.04	763.1	41.0	5	76	NNW	.....	.....	1	.....	10	.....	.....	0	0	Misty.....	Normal School.
Le Mans	.....	.....	29.87	758.7	44.4	6.9	79	SW	.....	.....	3	.....	2	.....	SW	0.098	2.5	Slightly cl'dy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.03	762.8	40.8	4.9	94	S	.....	.....	2	.....	10	.....	.....	0.331	8.4	Raining.....	Normal School.
Macon	.....	.....	30.00	761.9	41.5	5.3	93	Calm	.....	.....	0	.....	10	.....	.....	0.094	2.4	Covered	Normal School.
Mirecourt	.....	.....	29.95	760.6	39.2	4	87	S	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.02	762.4	48.4	9.1	77	SE	.....	.....	4	.....	5	.....	SW	0.673	17.1	Cloudy.....	Normal School.
Orleans	.....	.....	29.87	758.7	45.3	7.4	85	SW	.....	.....	3	.....	5	.....	SW	0.110	2.8	Cloudy.....	Normal School.
Paris Observatory	.....	.....	29.84	758.0	43.5	6.4	79	SW	.....	.....	2	.....	8	.....	.....	0.097	2.46	Very cloudy	National Observatory.
Parthenay	.....	....	29.92	759.9	48.9	9.4	94	SW	.....	.....	4	.....	5	.....	SW	0.12	3.	Cloudy.....	Normal School.
Privas	.....	.....	30.06	763.5	43.0	6.1	.....	SW	.....	.....	2	.....	10	.....	.....	0.098	2.5	Covered	Normal School.
La Roche-sur-Yon	.....	.....	29.91	759.6	51.4	10.8	73	S	.....	.....	4	.....	8	.....	NE	0.20	5.	Very cloudy	Normal School.
Rochefort, Observatory	.....	... .	29.98	761.6	50 4	10.2	82	SW	.....	.....	4	.....	8	.....	NE	0.157	4.0	¾ covered...	Naval Observatory.
Rouen	.....	.....	29.75	755.7	47.3	8.5	83	SSW	.....	.....	1	.....	10	.....	.....	0.047	1.2	Covered.....	Normal School.
Saint Lo	.....	.....	29.97	761.1	41.9	5.5	91	W	.....	.....	1	.....	7	.....	SW	0.02	0.5	.....	Normal School.
Tarbes	28.92	734.6	30.03	762.8	48.2	9	82	W	.....	.....	2	.....	2	.....	E	0.28	7.	Slightly cl'dy	Normal School.
Toulouse	.....	.....	30.17	766.4	44.1	6.7	94	W	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School
Villefranche	.....	.....	29.93	760.3	38.8	3.8	88	E	.....	.....	2	.....	10	.....	.....	0.16	4.	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.93	760.3	73.4	23	74	NE	.....	.....	2	.....	8k	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.01	762.3	50.7	10.4	77	E	.....	.....	2	.....	10	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.71	627.6	30.13	765.4	32.4	0.2	83	NNW	14.9	6.66	.....	.....	10	.....	.....	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	29.84	757.8	41.2	5.1	91	SW	.....	.....	3	.....	8	.....	SW	0.063	1.6	....	Montsouris Observ'tory
Perpignan	.....	.....	30.02	762.5	52.3	11.3	61	N	13.0	5.83	.....	.....	9	.....	NW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H.P†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.85	758.2	43.3	6.3	82	SSW	.....	.....	1	.....	9	.....	.....	0.087	2.2	Very cloudy	E. Renou.
Toulouse	.....	.....	30.08	763.9	43.2	6.2	97	NNW	.....	.....	1	.....	10	.....	.....	0.091	2.3	Raining.....	Toulouse Observatory
Tours	.....	.....	29.90	759.4	50.4	10.2	72	W	.....	.....	4	.....	7	.....	W	0.071	1.8	.....	C. Marguet.
Versailles, (near Paris)	.....	.....	29.84	757.8	45.3	7.4	77	W	.....	.....	2	.....	8	.....	.....	0.080	2.02	Almost cv'd.	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Summit inaccessible; weather snowy; snow-fall on the Plantade 70 millimeters, or 2.8 inches.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Bamberg	.....	.....	29.73	755.2	35.4	1.9	86	SW	.....	.....	2	.....	10	.....	.....	0.039	1.0	Raining.....	Prof. T. Hoh.
Berlin	.....	.....	29.78	756.3	36.5	2.5	85	SE	.....	.....	2	.....	8	.....	.....	0.197	5.0	.....	Prof. Arndt.
Breslau	.....	.....	29.91	759.8	32.9	0.5	86	SSE	.....	.....	7	.....	10	.....	.....	0.055	1.4	Snowing.....	Dr. P. Nasgel auer
Carlsruhe	.....	.....	29.89	759.3	39.9	4.4	80	SW	.....	.....	3	.....	9	.....	.....	0.256	6.5	.....	A. Senz.
Cassel	.....	.....	29.69	754.0	40.1	4.5	70	S	.....	.....	5	.....	8	.....	.....	0	0	....	Dr. H. Möhn.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.91	759.8	39.4	1.1	94	SW	.....	.....	1	.....	10	.....	.....	0.142	3.6	.....	Physical Society
Friedrichshafen	.....	.....	30.01	762.2	37.2	2.9	85	NW	.....	.....	.....	.....	10	.....	.....	0.118	3.0	Raining.....	M. Wilhelm.
Hamburg	.....	.....	29.95	753.0	33.1	0.6	87	SSE	.....	.....	3	.....	10	.....	.....	0.118	3.0	Cloudy.....	Deutsche Seewarte.
Kiel	.....	.....	29.69	754.2	28.0	— 2.2	87	E	.....	.....	4	.....	10	.....	.....	0.047	1.2	Snowing.....	Prof. G. Karsten.
Königsberg	.....	.....	30.06	763.5	24.3	— 4.3	88	NE	.....	.....	2	.....	10	.....	.....	0	0	....	Prof. E. Luther.
Köslin	.....	.....	29.86	758.5	24.1	— 4.4	.....	E	.....	.....	2	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	29.80	757.0	41.7	5.4	69	SSW	.....	.....	2	.....	8	.....	.....	0.083	2.1	.....	Prof. Bruhns.
Münster	.....	.....	29.69	754.0	37.2	2.9	98	S	.....	.....	2	.....	10	.....	.....	0.051	1.3	Snowing.....	Prof. E. Heis.
Posen	.....	.....	29.92	760.0	26.8	— 2.9	86	SE	.....	.....	5	.....	10	.....	.....	Inap.	Inap.	Snowy.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.93	760.3	42.6	5.9	82	SW	.....	.....	3	.....	10	.....	.....	0.035	0.9	.....	Dr. Schur.
Stuttgart	.....	.....	29.91	759.8	43.7	6.5	98	SW	.....	.....	.....	.....	5	.....	.....	0.024	0.6	.....	Prof. Schoder.
Thorn	.....	.....	29.94	760.5	24.3	— 4.3	88	ENE	.....	.....	4	.....	5	.....	.....	0.079	2.0	Snowing.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	29.80	756.8	38.5	3.6	90	W	.....	.....	6	.....	10	.....	.....	0.268	6.8	Misty.....	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.78	756.3	28.2	— 4.9	100	E	.....	.....	6	.....	10	.....	.....	0	0	Snowing.....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Athens	.....	.....	30.15	765.7	57.2	14.0	.....	SE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Covered	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.09	764.3	38.3	3.5	52	Calm	0	0			10			0.010	0.4		
Padua			30.11	764.9	36.3	2.4	57	NW	2.5	1.1			10			0	0		
Vicenza											1		0			0	0		
Verona			30.13	765.2	41.2	5.1	55	E			1		10			0	0		
Bergamo			30.07	763.6	33.1	0.6	81	SE											
Domodossola											1		10			0	0		
Milan			30.12	765.0	35.1	1.7	91	ENE											
Pavia																			
Moncalieri			30.16	766.1	33.6	0.9	70	NE	0.7	0.3			10			0	0		
Mondovi			30.12	765.1	38.3	3.5	46	W			2		9			0	0		
Porto Maurizio			30.11	764.9	51.8	11.0		ESE			2		9			0	0		
Genoa			30.06	763.5	47.8	8.8	48	N	3.1	1.4			2	SW		0	0		
Piacenza			30.15	765.7	37.2	2.9	67	SE	0	0			10			0	0		
Bologna			30.12	765.1	37.0	2.8	36	W			1		10			0	0		
Florence			30.07	763.8	51.8	11.0	57	N			2		2	SW		0	0		
Leghorn			30.05	763.2	54.5	12.5	85	WNW	7.4	3.3			9			0	0		
Siena			30.05	763.3	49.3	9.6	74	ESE	0	0			6	W		0	0		
Urbino																			
Pesaro																			
Ancona			30.15	765.7	41.5	5.3	80	WNW			2		1			0	0		
Grosseto			30.05	763.3	53.1	11.7	72	ESE			2		8	SE		0	0		
Rome			30.05	763.3	56.8	13.8	64	NNE	3.1	1.4			8	SSW		0	0		
Naples, O. U.			30.03	762.8	57.7	14.3	51	NE			4		1	NE		0	0		
Lecce			30.13	765.3	53.6	12.0	77	NE	6.3	2.8			6			0	0		
Cosenza			30.08	764.1	50.7	10.4	82	N	1.8	0.8			10			0	0	Dense fog....	
Riposto, (Sicily)			29.97	761.3	56.8	13.8	93	E			2		9	SSE		1.024	26.0	Heavy rain..	
Palermo			29.95	760.8	55.8	13.2	73	NE	1.3	0.6			10			0	0		
Caltanissetta			29.98	761.5	50.2	10.1	75	NE			2		10	SW		0	0		
Sub-Series.																			
Naples, S. R.			30.05	763.3	56.8	13.8	46	NE	9.4	4.2						0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.72	754.9	38.8	3.8		W			4								
Groningen			29.57	751.0	27.7	— 2.4		E			2								
Helder			29.64	752.8	30.4	— 0.9		ENE			1								
Utrecht			29.61	752.1	37.4	3.0	98	SW			4		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.99	761.7	30.2	— 1.0	43	NNW	21.3	9.5			8			0	0	Raining	
Brönö			30.21	767.2	32.0	0.0	67	Calm	0	0			0			0	0	Light snow.	
Christiania			30.17	766.3	23.9	— 4.5	75	ENE	6.7	3.0			10			0	0		
Tromsö			30.13	765.4	32.0	0.0	90	SW	7	3			10			0.126	3.2		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)			30.00	762.0	59.2	15.1	91	W	11.4	5.11			6			0	0		Dr. J. A. N. Sampaio.
Campo Major			30.15	765.8	53.8	12.1	65	WNW	10.4	4.66			4	WNW		0.262	66.5		Dr. A. M. R. dos Santos.
Funchal, (Madeira,)			30.29	769.4	63.9	17.7	73	SW	11.8	5.28			9			0	0		Capt. D. A. da Cunha.
Lisbon			30.21	767.2	54.9	12.7	68	SSW	11.2	5.0			7			0.591	15.0		The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.99	761.7	38.8	3.8	82	ESE	7	3			10						Astronomical Obs.
Wilna			30.12	765.1	14.2	— 9.9	76	Calm	0	0			0						Astronomical Obs.
Dorpat			30.14	765.6	20.7	— 6.3	85	NW	4	2			10						Physical Cabinet.
St. Petersburg			30.12	765.1	18.9	— 7.3	84	NE	7	3			10					Light snow.	Central Physical Obs.
Kuopio			30.19	766.7	18.0	— 7.8	89	NNE	9	4			0						Ch. Forsten.
Kieff			30.04	763.1	25.9	— 3.4	82	W	4	2			2						Physical Cabinet.
Nikolaiev			30.20	767.0	27.5	— 2.5	72	N	2	1			5						Kurdakof.
Kertch			30.17	766.3	29.5	— 1.4	86	SE	2	1			10						Lagorio.
Moscow			29.94	760.4	9.5	—12.5	85	NE	9	4			10					Light snow.	Meteorological Obs.
Lugan			29.98	761.6	20.8	— 6.2	82	WSW	18	8			9			Blank	Blank		Meteorological Obs.
Archangel			30.20	767.1	—14.4	—25.8	87	Calm	0	0			0						Ogorodnikof.
Tiflis	28.68	728.4	30.12	765.0	46.4	8.0	58	Calm	0	0			4						Physical Obs.
Astrakhan			30.17	766.2	21.7	— 5.7	87	S	9	4			10			Blank	Blank		Sebastianof.
Kasan			29.78	756.3	3.9	—15.6	95	WSW	9	4			10					Light snow.	Physical Cabinet.
Orenburg			30.15	765.9	— 1.7	—18.7	65	SE					10						Tschernischef.
Ekaterinburg	28.92	734.5	30.05	763.3	—10.1	—23.4	68	Calm	0	0			0						Meteorological Obs.
Nukuss			30.32	770.0	30.6	— 0.8	81	NE	4	2			2						
Kasaly			30.10	766.7	11.1	—11.6	42	W	9	4			0						Bobrof.
Tashkend	28.79	731.2	30.61	777.4	32.4	0.2	89	Calm	0	0			10						Michelson.
Barnaul			29.66	753.3	26.1	— 3.3	89	SW	20	9			10					Snowing.	Meteorological Obs.
Yeniseisk			29.39	746.5	1.6	—16.9	96	SE	2	1			10					Snowing.	Marks.
Irkutsk																			Usolzof.
Oorga																			Mossin.
Peking, (China)			30.13	765.2	28.8	— 1.8	56	Calm	0	0			0						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock			30.07	763.7	15.4	— 9.2	91	Calm	0	0									
Nikolaievsk, on the Amoor					6.1	—14.4	92	W	9	4			10					Snowing.	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.14	765.5	48.0	8.9	58	NW	12.7	5.67		2	3		NW	0.059	1.5	Light clouds	Royal Observatory.
San Fernando			30.20	767.1	56.5	13.6	78	NW	12.5	5.6		2	5		SE	0.339	8.6		The Naval Observatory.

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Haparanda			30.23	767.7	16.2	— 8.8	88	NW			2		0			0	0		
Umea			30.25	768.3	20.5	— 6.4	95	N			2		5			0	0		
Hernosand			30.23	767.8	24.6	— 4.1	94	NNE			2		10			0	0		
Stockholm			30.12	765.1	25.5	— 3.6	69	ENE			2		2			0	0		
Wisby			30.14	765.6	24.8	— 4.0	100	SE			4		5			0	0		
Sub-Series.																			
Upsala			30.17	766.4	26.6	— 3.0	82	E	8.5	3.8			2			0.002	0.05		Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.57	725.7	30.03	762.8	42.1	5.6	76	SSW	.....	.....	3	.....	10	.....	.....	0.020	0.5	Covered	The Observatory.
Zurich	28.33	719.5	30.02	762.6	37.6	3.1	86	W	.....	.....	1	.....	10	.....	SW	0.079	2.0	Raining	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.7 mm.; Thermometer, +2.0 cent.; Relative Humidity, +4 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.18	766.5	47.1	8.4	66	ESE	2	1.0	.....	.....	10	.....	WSW	0	0	.....	
Fao, (Persian Gulf)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.16	766.1	52.5	11.4	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.96	761.0	56.7	13.7	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.22	767.5	61.3	16.3	75	N	.....	.....	1	.....	1k	.....	N	0	0	.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	30.34	770.6	4.5	—15.3	64	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.90	759.4	15	— 9.4	.....	NE	15	6.7	.....	.....	10s	.....	NE	0.05	1.3	Light snow	W. R. Bigg.
*Chatham, N. B	.....	.....	30.38	771.6	3	—16.1	86	W	1	0.4	.....	0	0	.....	.....	0	0	Clear	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	30.34	770.6	14	—10.0	76	N	14	6.3	.....	0	0	.....	.....	0.05	1.3	Clear	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.93	760.2	13.7	—10.2	87	E	.....	.....	8	.....	10n	.....	.....	0.05	1.3	Stormy	James Smith, M. A.
Dalhousie, N. B	.....	.....	30.40	772.1	5.6	—14.7	87	NW	.....	.....	1	.....	.....	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C	.....	.....	29.85	758.2	45.3	7.4	100	SW	3	1.3	.....	.....	10	.....	.....	0.55	14.0	Cloudy	W. H. Bevis.
Fredericton, N. B	.....	.....	30.42	772.7	— 4.3	—20.2	100	Calm	0	0	.....	.....	.....	.....	.....	Inap.	Inap.	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.21	767.3	— 2	—18.9	100	N	21	9.4	.....	.....	10n	.....	.....	0.16	4.8	Light snow	James Stewart.
Goderich, Ontario	.....	.....	29.59	751.6	37.8	3.2	71	SW	.....	.....	2	.....	10n	.....	.....	0	0	Clearing	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.53	750.0	39.0	3.9	.....	SW	.....	.....	1	2cs	.....	.....	.....	0.50	12.7	Clear	James Grant.
*Halifax, N. S	.....	.....	30.30	769.6	21	— 6.1	89	N	4	1.8	.....	0	2ks	.....	N	0	0	Fair	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.81	757.2	25	— 3.9	94	NE	18	8.0	.....	.....	10n	.....	.....	0.05	1.3	Sleeting	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.46	748.3	24.8	— 4.0	.....	E	22	9.8	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.09	764.3	10	—12.2	79	NE	20	8.9	.....	Haze	5ks	.....	.....	0	0	Cloudy	C. H. McLeod, C
*Ottawa, Ontario	.....	.....	29.92	760.0	14	—10.0	64	E	20	8.9	.....	.....	10n	.....	E	0	0	Threatening	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.53	750.0	32	0.0	95	E	20	8.9	.....	.....	10n	.....	E	0.03	0.8	Light rain	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.54	750.3	36	2.2	100	W	3	1.3	.....	.....	10n	.....	SW	0.33	8.4	Light rain	H. Morgan.
Port Hastings, N. S	.....	.....	30.38	771.6	22.9	— 5.1	.....	NW	10	4.5	.....	.....	.....	.....	.....	0	0	Fine	Peter Grant.
*Port Stanley, Ontario	.....	.....	29.58	751.3	42	5.6	82	W	10	4.5	.....	.....	10ks	.....	SW	0.85	21.6	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	30.33	770.4	12	—11.1	80	NE	30	13.4	.....	.....	10n	.....	NE	0	0	Cloudy	Capt. Ash, R. N.
St. John, N. B	.....	.....	30.41	772.4	11	—11.7	80	NE	2	0.9	.....	.....	.....	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.44	747.8	37	2.8	90	S	17	7.6	.....	.....	10n	.....	S	0.23	5.8	Light rain	K. Stewart.
Stayner, Ontario	.....	.....	29.55	750.6	33	0.6	96	SE	1	0.4	.....	.....	10n	.....	SE	0.40	10.2	Light rain	R. J. Cole.
Stratford, Ontario	.....	.....	29.54	750.3	33.6	0.9	97	SE	5	2.2	.....	.....	10	.....	.....	0.535	13.59	Foggy	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	30.25	768.3	15	— 9.4	84	NE	6	2.7	.....	0	0	.....	.....	0.04	1.0	Clear	T. C. Hill.
*Toronto, Ontario	.....	.....	29.59	751.6	33	0.6	100	E	14	6.3	.....	.....	10n	.....	.....	0.68	17.3	Heavy rain	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. Scale.	Clouds. Amount. Upper.	Clouds. Amount. Lower.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.98	761.5	37	2.8	90	SE	1	0.4	.....	5s	5n	SE	S	Inap.	Inap.	Light rain...	
Alpena, Mich	.....	.....	29.28	743.7	32	0.0	79	SW	8	3.6	.....	0	5s	.....	SW	0.34	8.6	Fair.....	
Atlantic City, N. J	.....	.....	29.88	758.9	48	8.9	100	S	12	5.4	.....	.....	10n	.....	S	0.20	5.1	Light rain...	
Augusta, Ga.	.....	.....	29.86	758.4	60	15.6	82	S	4	1.8	.....	.....	10s	.....	W	0.01	0.3	Cloudy.....	
Baltimore, Md	.....	.....	29.81	757.2	50	10.0	93	E	2	0.9	.....	.....	Fog	.....	.....	0.08	2.0	Threatening	
Barnegat, N. J	.....	.....	29.86	758.4	43	6.1	96	SE	14	6.3	.....	.....	10s	.....	S	0.26	6.6	Cloudy.....	
Benton, Montana	27.27	692.6	30.07	763.8	11	—11.7	100	NE	1	0.4	.....	10c	0	.....	.....	0	0	Cloudy.....	
Bismarck, Dakota	28.39	721.1	30.22	767.6	2	—16.7	44	N	20	8.9	.....	Haze	Haze	N	N	0	0	Hazy.....	
Boston, Mass	.....	.....	30.21	767.3	32	0.0	89	NE	28	12.5	.....	10n	Fog	E	.....	Inap.	Inap.	Light rain...	
Breckenridge, Minn	.....	.....	30.04	763.0	1	—17.2	85	NW	24	10.7	.....	.....	10s	.....	.....	0.01	0.3	Cloudy.....	
Buffalo, N. Y	.....	.....	29.51	749.5	50	10.0	86	S	13	5.8	.....	.....	10n	.....	SW	0.29	7.4	Light rain...	
Burlington, Vt	.....	.....	30.05	763.3	21	— 6.1	85	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Cairo, Ill	.....	.....	29.91	759.7	36	2.2	70	NW	4	1.8	.....	0	1s	.....	.....	1.02	25.9	Clear.....	
Cape Hatteras, N. C	.....	.....	29.88	758.9	65	18.3	89	SW	8	3.6	.....	5k	Haze	SW	.....	0.09	2.3	Fair.....	
Cape Henry, Va	.....	.....	29.89	759.2	62	16.7	94	SW	6	2.7	.....	5c,k	2s	.....	SW	0.68	17.3	Fair.....	
Cape May, N. J	.....	.....	29.86	758.4	53	11.7	93	S	11	4.9	.....	.....	10n	.....	S	0.35	8.9	Light rain...	
Charleston, S. C	.....	.....	29.92	760.0	59	15.0	94	S	6	2.7	.....	5c	0	SW	.....	0	0	Fair.....	
Cheyenne, Wyoming	24.06	611.1	30.00	762.0	21	— 6.1	85	N	20	8.9	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Chicago, Ill	.....	.....	29.66	753.4	28	— 2.2	65	SW	12	5.4	.....	5k	0	W	.....	0.26	6.6	Fair.....	
Cincinnati, Ohio	.....	.....	29.73	755.1	45	7.2	63	W	8	3.6	.....	.....	10s	.....	W	0.55	14.0	Cloudy.....	
Cleveland, Ohio	.....	.....	29.63	752.6	42.4	5.8	75	SW	9	4.0	.....	2c	2ks	SW	SW	0.13	3.3	Fair.....	
Colorado Springs, Col.	24.16	613.6	30.03	762.7	20	— 6.7	56	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Corsicana, Texas	.....	.....	30.05	763.3	46	7.8	60	N	10	4.5	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Davenport, Iowa	.....	.....	29.82	757.4	20	— 6.7	85	NW	16	7.2	.....	2k	0	W	.....	0	0	Clear.....	
Denison, Texas	.....	.....	30.02	762.5	55	12.8	44	SW	18	8.0	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Denver, Col	24.88	631.9	30.10	764.5	25	— 3.9	59	W	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Detroit, Mich	.....	.....	29.58	751.3	37	2.8	80	W	14	6.3	.....	.....	10s	.....	W	0.93	23.6	Cloudy.....	
Dodge City, Kan	27.49	698.2	29.89	759.2	28	— 2.2	77	W	14	6.3	.....	0	0	.....	.....	0	0	Clear.....	
Dubuque, Iowa	.....	.....	29.79	756.7	16	— 8.9	95	W	12	5.4	.....	2k	0	W	.....	0	0	Fair.....	
Duluth, Minn	.....	.....	29.76	755.9	5	—15.0	75	NW	20	8.9	.....	.....	10s	.....	.....	0.25	6.3	Cloudy.....	
Eastport, Me	.....	.....	30.35	770.9	16	— 8.9	83	NE	12	5.4	.....	0	Haze	.....	.....	0	0	Clear.....	
Erie, Pa	.....	.....	29.58	751.3	43	6.1	91	SW	28	12.5	.....	.....	10n	.....	.....	0.17	4.3	Light rain...	
Escanaba, Mich	.....	.....	29.42	747.3	21	— 6.1	85	W	4	1.8	.....	.....	10n	.....	.....	0.35	8.9	Heavy snow	
Fort Gibson, Indian Terr.	.....	.....	29.98	761.5	39	3.9	72	NW	10	4.5	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Fort Sill, Indian T	28.90	734.0	30.05	763.3	41	5.0	42	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear.....	
Fort Sully, Dakota	28.47	723.1	30.30	769.6	9	—12.8	89	W	20	8.9	.....	.....	10s	.....	W	0	0	Cloudy.....	
Galveston, Texas	.....	.....	29.98	761.5	59	15.0	48	E	6	2.7	.....	0	0	.....	.....	0.25	6.3	Clear.....	
Grand Haven, Mich	.....	.....	29.57	751.1	32	0.0	79	SW	22	9.8	.....	.....	10s	.....	W	0.45	11.4	Cloudy.....	
Indianapolis, Ind	.....	.....	29.80	756.9	34	1.1	69	W	6	2.7	.....	.....	10s	.....	W	0.91	23.1	Cloudy.....	
Indianola, Texas	.....	.....	30.03	762.7	62	16.7	46	E	12	5.4	.....	0	0	.....	.....	0.24	6.1	Clear.....	
Jacksonville, Fla	.....	.....	29.91	760.5	65	18.3	90	S	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Keokuk, Iowa	.....	.....	29.87	758.7	25	— 3.9	75	W	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Key West, Fla	.....	.....	30.5	763.3	75.8	23.2	81	S	12	5.4	.....	2k	2ks	S	S	0.11	2.8	Fair.....	
Kittyhawk, N. C	.....	.....	29.91	759.7	61	16.1	94	SW	14	6.3	.....	5k	2s	SW	.....	0.34	8.6	Fair.....	
Knoxville, Tenn	.....	.....	29.76	755.9	52	11.1	86	W	8	3.6	.....	.....	10s	.....	SW	1.81	46.0	Cloudy.....	
La Crosse, Wis	.....	.....	29.71	754.6	12	—11.1	80	W	9	4.0	.....	5c-	2s	NW	W	0.02	0.5	Cloudy.....	
Leavenworth, Kan	.....	.....	29.98	761.5	30	— 1.1	79	NW	8	3.6	.....	0	1s	.....	.....	0	0	Clear.....	
Lexington, Ky	28.70	729.0	29.81	757.2	42	5.6	83	W	16	7.2	.....	.....	10s	.....	.....	0.50	12.7	Cloudy.....	
Long Branch, N. J	.....	.....	29.92	760.0	41	5.0	100	E	35	15.6	.....	.....	10n	.....	E	0.46	11.7	Light rain...	
Louisville, Ky	.....	.....	29.81	757.9	40	4.4	64	W	8	3.6	.....	.....	10s	.....	SW	0.68	17.3	Cloudy.....	
Lynchburg, Va	.....	.....	29.78	756.4	57	13.9	94	SW	5	2.2	.....	.....	10n	.....	SW	0.64	16.3	Light rain...	
Malone, N. Y	.....	.....	29.88	758.9	19	— 7.2	84	NE	7	3.1	.....	.....	10n	.....	SW	0.01	0.3	Sleeting.....	
Marquette, Mich	.....	.....	29.43	747.5	25	— 3.9	100	NE	8	3.6	.....	.....	10n	.....	.....	0.04	1.0	Light snow..	
Memphis, Tenn	.....	.....	29.94	760.5	41	5.0	83	NW	4	1.8	.....	0	2s	.....	.....	0.30	7.6	Clear.....	
Milwaukee, Wis	.....	.....	29.63	752.6	22	— 5.6	72	W	20	8.9	.....	.....	10ks	.....	W	0	0	Cloudy.....	
Mobile, Ala	.....	.....	29.86	758.4	54	12.2	86	N	4	1.8	.....	.....	10s	.....	W	0.29	7.4	Cloudy.....	
Montgomery, Ala	.....	.....	29.84	757.9	59	12.8	93	W	6	2.7	.....	.....	10s	.....	W	1.40	35.6	Threatening	
Morgantown, W. Va	.....	.....	29.66	753.4	57	13.9	87	S	11	4.9	.....	.....	10s	.....	S	0.18	4.6	Cloudy.....	
Mt. Washington, N. H	23.72	602.5	30.08	764.0	25	— 3.9	100	W	14	6.3	.....	.....	Fog	.....	.....	0	0	Foggy.....	
Nashville, Tenn	.....	.....	29.86	758.4	48	8.9	70	NW	1	0.4	.....	.....	10s	.....	SW	0.41	10.4	Cloudy.....	
New Haven, Conn	.....	.....	30.07	763.8	37	2.8	100	NE	12	5.4	.....	.....	10n	.....	NE	0.20	5.1	Light rain...	
New London, Conn	.....	.....	30.11	764.8	37.6	3.1	90	E	16	7.2	.....	.....	10s	.....	E	0.36	9.1	Threatening	
New Orleans, La	.....	.....	29.89	759.2	59	15.0	54	N	14	6.3	.....	.....	10ks	.....	SW	0.82	20.8	Threatening	
Newport, R. I	.....	.....	30.12	765.0	38	3.3	81	E	15	6.7	.....	.....	10n	.....	NE	0.02	0.5	Light rain...	
New York, N. Y	.....	.....	29.96	761.0	42	5.6	91	E	26	11.6	.....	.....	Fog	.....	.....	0.21	5.3	Foggy	
Norfolk, Va	.....	.....	29.87	758.7	62.6	16.9	94	SW	8	3.6	.....	.....	10n	.....	SW	0.41	10.4	Light rain...	
North Platte, Neb	27.14	689.3	29.83	757.7	27	— 2.8	76	NW	16	7.2	.....	0	2s	.....	NW	0	0	Fair.....	
Omaha, Neb	28.89	732.8	30.02	762.5	20	— 6.7	86	NW	16	7.2	.....	0	8s	.....	NW	0	0	Cloudy.....	
Oswego, N. Y	.....	.....	29.66	753.4	39	3.9	91	SE	20	8.9	.....	.....	10n	.....	.....	0.18	4.6	Light rain...	
Peck's Beach, N. J	.....	.....	29.88	758.9	47	8.3	92	S	15	6.7	.....	.....	10n	.....	.....	0.30	7.6	Light rain...	
Pembina, Dakota	.....	.....	30.15	765.8	— 3	—19.4	100	NW	24	10.7	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.....	
Philadelphia, Penn	.....	.....	29.89	759.2	44	6.7	100	E	10	4.5	.....	.....	10n	.....	E	0.23	5.8	Light rain...	
Pike's Peak, Colorado	17.44	443.0	29.65	753.1	— 2.6	—19.2	73	N	36	16.1	.....	0	0	.....	.....	0	0	Clear.....	
Pittsburgh, Penn	.....	.....	29.62	752.3	55	12.8	87	SW	12	5.4	.....	.....	10ks	.....	SW	0.10	2.5	Cloudy.....	
Port Huron, Mich	.....	.....	29.52	749.8	40	4.4	82	SW	17	7.6	.....	.....	10s	.....	SW	0.60	15.2	Cloudy.....	
Portland, Me	.....	.....	30.35	770.9	18	— 7.8	68	NE	14	6.3	.....	2k	8s	NW	SW	0	0	Cloudy.....	
Portland, Oregon	.....	.....	30.23	767.8	50	10.6	93	S	18	8.0	.....	.....	10n	.....	.....	0.14	3.6	Light rain...	
Punta Rassa, Fla	.....	.....	30.04	763.0	71	21.7	85	SE	10	4.5	.....	.....	8s	.....	SW	0	0	Cloudy.....	
Rochester, N. Y	.....	.....	29.56	750.8	48	8.9	85	S	11	4.9	.....	.....	10n	.....	SW	0.53	13.5	Light rain...	
Salt Lake City, Utah	26.00	630.4	30.32	770.1	28	— 2.2	76	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Sandy Hook, N. J	.....	.....	29.92	760.0	42	5.6	90	E	36	16.1	.....	.....	10n	.....	SE	0.51	13.0	Heavy rain..	
San Diego, Cal	.....	.....	30.21	767.3	51	10.6	79	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
San Francisco, Cal	.....	.....	30.43	772.9	49	9.4	85	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Santa Fe, N. M	23.31	592.8	29.88	758.9	23	— 5.0	46	N	14	6.3	.....	0	0	.....	.....	0	0	Clear.....	
Savannah, Ga	.....	.....	29.92	760.0	61	16.1	88	SW	2	0.9	.....	2cs	Fog	.....	.....	0	0	Clear.....	
Shreveport, La	.....	.....	30.01	762.2	48.5	9.2	78	NW	2	0.9	.....	5c	Haze	SW	NW	0	0	Fair.....	
Smithville, N. C	.....	.....	29.93	760.2	59	15.0	94	S	3	1.3	.....	.....	Fog	.....	.....	0	0	Foggy	
Springfield, Mass	.....	.....	30.14	765.5	36	2.2	75	NE	8	3.6	.....	.....	10n	.....	E	0.05	1.3	Light rain...	
St. Louis, Mo	.....	.....	29.90	759.4	32	0.0	79	NW	16	7.2	.....	0	0	.....	.....	0.77	19.6	Clear.....	
St. Marks, Fla	.....	.....	29.89	759.2	65	18.3	94	SW	12	5.4	.....	.....	10ks	.....	SW	0.01	0.3	Cloudy.....	
St. Paul, Minn	.....	.....	29.76	756.1	7	—13.9	76	NW	19	8.5	.....	.....	10s	.....	NW	0.10	2.5	Cloudy.....	
St. Paul's Island, Alaska	.....	.....	30.08	764.0	10	—12.2	79	NE	31	13.9	.....	0	1k	.....	.....	Inap.	Inap.	.....	
Squan Beach, N. J	.....	.....	29.85	758.2	43	6.1	91	E	23	10.3	.....	.....	10s	.....	.....	0.27	6.9	Threatening	
Thatcher's Island, Mass	.....	.....	30.24	768.1	34	1.1	69	E	30	13.4	.....	.....	10s	.....	E	0	0	Cloudy.....	
Toledo, Ohio	.....	.....	29.61	752.1	42	5.6	74	SW	12	5.4	.....	.....	10ks	.....	SW	0.35	8.9	Cloudy.....	
Tucson, Arizona	27.77	705.4	30.36	771.1	30	— 1.1	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
Tybee Island, Ga	.....	.....	29.91	759.7	59	15.0	91	S	6	2.7	.....	2c	2s	SW	.....	0	0	Fair.....	
Vicksburg, Miss	.....	.....	29.96	761.0	49	9.4	71	Calm	0	0	.....	0	0	.....	.....	0.12	3.0	Clear.....	

UNITED STATES SERIES.—CONTINUED

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Inches.	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.35	618.5	29.83	757.7	28	— 2.2	57	Calm	0	0	.....	9c	0	NW	.....	Inap.	Inap.	Cloudy	
Washington, D. C	.....	.....	29.78	756.4	53	11.7	100	E	4	1.8	.....	.....	10n	.....	.....	0.09	2.3	Light rain	
Wilmington, N. C	.....	.....	29.91	759.7	63	17.2	88	S	6	2.7	.....	0	2s	.....	.....	0	0	Fair	
Wood's Holl, Mass	.....	.....	30.16	766.1	35	1.7	80	E	12	5.4	.....	.....	10n	.....	E	0.04	1.0	Light rain	
Wytheville, Va	27.45	697.2	29.55	750.6	51	10.6	93	Calm	0	0	.....	.....	10n	.....	.....	0.50	12.7	Heavy rain	
Yankton, Dakota	28.77	730.7	30.17	766.3	12	—11.1	70	NW	14	6.3	.....	8cs	0	NW	.....	Inap.	Inap.	Cloudy	
Yuma, Arizona	.....	.....	30.28	769.1	54	12.2	.....	NW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.11	764.8	76	24.4	86	NE	7	3.1	.....	5k	10ks	NE	NE	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.04	763.0	71	21.7	81	NE	.....	.....	.....	0	8ps	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I.	.....	.....	30.32	770.1	75	23.9	59	ENE	10	4.5	.....	4ck	8kn	NE	.....	0	0	Cloudy	W. S. Cameron.
Kingston, Jamaica, W. I.	.....	.....	30.23	767.8	70	21.1	79	Calm	0	0	.....	2k	2s	SE	SE	0.08	2.0	.....	James Gall.
Santiago de Cuba, W. I.	.....	.....	29.87	758.7	72	22.2	75	NW	1.2	0.5	.....	0	0	.....	.....	0	0	Clear	Robert Mason.
Havana, Cuba, W. I.	.....	.....	30.08	764.0	71	21.7	79	SE	2.4	1.1	.....	5ck	0	SW	.....	0	0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.20	767.1	67.0	19.4	79	N	4.5	2.0	.....	0	5k	.....	.....	0	0	Fine	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	27.24	691.9	30.04	763.0	55	12.8	87	N	0.5	0.2	.....	0	0	.....	.....	0.46	11.7	Clear	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.00	762.0	77	25.0	91	E	.....	.....	3	.....	8ks	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.12	765.1	77.0	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.748	19.00	.....	Dr. H. Groot.
Medellin, Colombia, S. A.	25.21	640.2	.....	.....	66.4	19.1	90	.....	0	0	.....	5ck	5s	.....	.....	0.76	19.3	Cloudy	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.89	759.2	22.0	— 5.6	.....	W	.....	.....	.....	.....	10n	.....	.....	0	0	Snowing	John Delaney.
York Factory, B. A	.....	.....	30.71	780.0	—11.5	—24.2	76	NE	2	0.9	.....	.....	10s	.....	.....	0	0	.....	J. Fortescue.
Honoluiu, Oahu, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1 ? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Brvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 15, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean tim .
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Namours			30.38	771.7	62.6	17.0	64	Calm			0		1					Clear	Charnot and Masselot.
Algiers			30.34	770.7	57.9	14.4	76	N			1		5			0.835	21.2	Fair	Peter.
La Calle																			Kuntz.
Tunis			30.32	770.2	59.0	15.0	76	NE			3		9			0	0	Hidden	Jacques.
Sfax			30.35	771.0	61.2	16.2	67	Calm			0		4			0	0	Fair	Chauvey.
Saida			30.34	770.7	51.8	11.0	75	NW			1		2			0	0	Clear	Millot.
Tebessa			30.32	770.2	50.0	10.0		W			2		8			0	0	Cloudy	Colin.
Gerlville			30.36	771.1	41.7	5.4	71	NNW			2		6			0.122	3.1	Fair	Buard.
Laghouat			30.39	771.8	53.6	12.0	65	NW			4		2			0	0	Clear	Delord.
Biskra			30.37	771.5	61.7	16.5	59	N			1		9			0	0	Hidden	Dubois.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			30.25	768.3	36.7	2.6	67	Calm			0		0			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.15	765.9	34.9	1.6	80	W			1		10			0	0		I. R. Observatory.
Eperies			30.21	767.4	34.7	1.5	86	Calm			0		10			0	0		Julius Mikolik.
Gratz	28.97	735.9	30.23	767.7	37.4	3.0	51	SSE			2		0			0	0		Andreas Rospini.
Hermannstadt	28.69	728.8	30.20	767.1	29.5	— 1.4	84	NW			1		10			0	0		Prof. Reissenberger.
Kremsmünster	28.76	730.6	30.19	766.9	25.9	— 3.4	87	ENE			1		10			0	0		Prof. C. Wagner.
Lemberg			30.11	764.9	31.3	— 0.4	98	S			1		9			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.24	768.1	30.2	— 1.0	96	E			1		10			0.231	5.87		Habzsuda Daniel.
Pola			30.27	768.8	44.8	7.1	76	WNW			2		10s			0	0		I.R. Hydrographic Of'ce
Szegedin			30.24	768.0	29.1	— 1.6	88	Calm			0		10			0	0		Karl Stancel.
Trieste			30.27	768.9	44.6	7.0	88	WSW			1		10			0	0	Foggy	Prof. V. Farolfi.
Vienna			30.21	767.4	27.1	— 2.7	81	Calm			0		1			0.031	0.8		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.71	754.6	43.7	6.5	92	SW			5		10			0.039	1.00	Light rain	Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.19	741.4	40.4	4.7	.....	S	9	4.0	.....	.....	7	.....	.....	0.310	7.87	*D. clouds	William Boswell.
Ardrossan	.....	.....	29.20	741.7	46	7.8	.....	S	.....	.....	3	.....	6	.....	.....	.....	.....	*D. clouds	J. Mayes.
Armagh Observatory	.....	.....	29.19	741.4	48.9	9.4	.....	SSW	20	8.9	.....	.....	7	.....	.....	.....	.....	*D. clouds	S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	29.31	744.5	51.9	11.1	.....	SW	18	8.0	.....	.....	2	.....	.....	.....	.....	Blue sky	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.22	742.2	50.4	10.2	.....	SW	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds	J. Dreyer.
Bradford	.....	.....	29.29	744.0	48.6	9.2	.....	SW	.....	.....	2	.....	3	.....	.....	0.46	11.7	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.05	763.3	79.0	26.1	.....	NE	.....	.....	2	.....	4	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.42	747.3	48.0	8.9	.....	SSW	.....	.....	3	.....	10	.....	.....	.....	.....	Showery	H. Todd.
Cardington	.....	.....	29.42	747.3	48.6	9.2	.....	S	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	John McLaren.
Carlisle	.....	.....	29.25	742.9	48.9	9.4	.....	S	.....	.....	3	.....	2	.....	.....	0.17	4.3	*D. clouds	, Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	29.47	748.5	47.2	8.4	.....	SW	.....	.....	4	.....	9	.....	.....	.....	.....	Raining	Capt. J. Fellowes, R. E.
Dartmoor	28.08	713.2	29.55	750.6	46.0	7.8	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Raining	R. E. Power.
Donaghadee	.....	.....	29.18	741.1	48	8.9	.....	SW	.....	.....	4	.....	3	.....	.....	.....	.....	*D. clouds	J. Mac Gowan.
Dover	.....	.....	29.53	750.0	43	6.1	.....	SW	.....	.....	4	.....	9	.....	.....	.....	.....	Rain & fog	J. Costello.
Eccles, (near Manchester)	.....	.....	29.31	744.5	50.7	10.4	.....	SW	4.8	2.1	.....	.....	6	.....	.....	.....	.....	*D. clouds	Thomas Mackereth.
Falmouth Observatory	.....	.....	29.51	749.5	51.7	10.9	.....	SW	32	14.3	.....	.....	9	.....	.....	.....	.....	Showery	The Staff.
Fort Napier, (Natal)	27.55	699.8	29.58	751.3	79.6	26.4	.....	E	.....	.....	2	.....	6	.....	.....	.....	.....	*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.94	760.5	87.0	30.6	.....	N	.....	.....	3	.....	10	.....	.....	.....	.....	.....	(tis.
Galway, Queen's College	.....	.....	29.12	739.6	49	9.4	.....	S	.....	.....	5	.....	7	.....	.....	.....	.....	Raining	B.G. Clare, for Prof. Cur
Gibraltar, (Mediterranean)	.....	.....	30.33	770.4	63.5	17.5	.....	SW	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.26	743.2	43.0	6.1	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Threatening	Lewis Stuart.
Great Yarmouth	.....	.....	29.46	748.3	45	7.2	.....	SSW	.....	.....	5	.....	8	.....	.....	.....	.....	Raining	G. T. Watson.
Greenwich Royal Obs.	.....	.....	29.46	748.3	47.7	8.7	.....	SSW	.....	.....	3	.....	10	.....	.....	.....	.....	Raining	The Staff for G. B. Airy
Guernsey	.....	.....	29.59	751.6	50	10.0	.....	SSE	.....	.....	5	.....	8	.....	.....	.....	.....	Gloomy	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	29.35	745.5	49.4	9.7	.....	SW	.....	.....	2	.....	9	.....	.....	Blank	Blank	*D. clouds	E. J. Cressley.
Helston	.....	.....	29.50	749.3	52	11.1	.....	W	.....	.....	6	.....	10	.....	.....	0.26	6.6	Overcast	M. P. Moyle.
Holyhead	.....	.....	29.31	744.5	49	9.4	.....	SSW	.....	.....	4	.....	3	.....	.....	.....	.....	Blue sky	John Tilston.
Kew Observatory	.....	.....	29.46	748.3	47.3	8.5	.....	SSW	17	7.6	.....	.....	10	.....	.....	.....	.....	Raining	The Staff.
Kingstown	.....	.....	29.26	743.2	51	10.6	.....	SSW	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds	George Mitchell.
Leicester Museum	.....	.....	29.40	746.7	48.2	9.0	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.20	767.1	59.2	15.1	.....	NW	.....	.....	1	.....	4k	.....	.....	.....	.....	*D. clouds	Fred Travis, Pvt A.H.C
Nairn	.....	.....	29.11	739.4	44	6.7	.....	SE	.....	.....	1	.....	8	.....	.....	.....	.....	¾ clouded	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.10	764.5	76.0	24.4	.....	SE	.....	.....	5	.....	8	.....	.....	.....	.....	*D. clouds	Surg.-Maj. Henry.
Nottingham	.....	.....	29.38	746.2	48.8	9.3	.....	SSW	.....	.....	3	.....	10d	.....	S-W	.....	.....	Overcast	E. J. Lowe, F. R. S
Oscott, St. Mary's College	.....	.....	29.38	746.2	48.1	8.9	.....	S	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	29.42	747.3	51	10.6	.....	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Drizzling	J. Lucas.
Plymouth	.....	.....	29.50	749.3	51.8	11.0	.....	WSW	.....	.....	5	.....	2	.....	.....	.....	.....	*D.clouds	John Merrifield.
Roche's Point	.....	.....	29.28	743.7	48	8.9	.....	WSW	.....	.....	5	.....	10	.....	.....	.....	.....	Showery	W. Kennedy.
Saint Ann's Head	.....	.....	29.39	746.5	49	9.4	.....	SW	.....	.....	3	.....	7	.....	.....	.....	.....	*D. clouds	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.58	751.3	48.2	9.0	.....	W	.....	.....	4	.....	8	.....	.....	.....	.....	¾ clouded	A. P. Amy.
Sandwick Manse (Orkneys)	.....	.....	29.22	742.2	35	1.7	.....	SE	44	19.7	.....	.....	10	.....	.....	.....	.....	Raining	Rev. Dr. Clouston
Scarborough	.....	.....	29.33	745.0	45.9	7.7	.....	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	F. Shaw.
Scutari Cemetery (Turkey)	.....	.....	30.16	766.1	50.4	10.2	.....	NE	.....	.....	2	.....	3	.....	.....	.....	.....	*D. clouds	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.32	744.7	50.0	10.0	.....	WSW	.....	.....	4	.....	8	.....	.....	0.425	10.80	Overcast	W. F. Cooper.
Silloth Rectory	.....	.....	29.24	742.7	51.0	10.6	80	WSW	.....	.....	4	.....	2	.....	.....	0.116	2.94	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	29.31	744.5	48.4	9.1	.....	SW	.....	.....	1	.....	10	.....	.....	Blank	Blank	.....	The Staff.
Stornoway, Lews C. (Hebr.)	.....	.....	29.01	736.8	42	5.6	.....	SSE	.....	.....	6	.....	10	.....	.....	.....	.....	Raining	John Smith.
Stratfield Turgiss	.....	.....	29.47	748.5	49.0	9.4	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Raining	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.17	740.9	37	2.8	.....	SE	.....	.....	6	.....	10	.....	.....	.....	.....	Gloomy	John Trotter.
Truro, Royal Institution	.....	.....	29.50	749.3	54	12.2	.....	SW	.....	.....	6	.....	10	.....	.....	.....	.....	Raining	W. Newcombe
Valencia Observatory	.....	.....	29.24	742.7	48.6	9.2	.....	SW	34	15.2	.....	.....	6	.....	.....	Blank	Blank	*D. clouds	The Staff
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	30.01	762.2	76.9	24.9	43	SE	13	5.8	.....	.....	2	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	38	3.3	.....	SW	.....	.....	4	.....	5	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	29.23	742.4	43.8	6.6	.....	W	.....	.....	2	.....	.....	.....	.....	0.21	5.3	Fine	Andrew Gibb
Monach Lt-house, Hebrides	.....	.....	28.98	736.1	45	7.2	.....	S	.....	.....	4	0	3	.....	.....	0.5	12.7	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	29.52	749.8	33	0.6	.....	SE	.....	.....	7	.....	10	.....	.....	.....	.....	Snowing	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.81	757.2	32.4	0.2	94	SE	.....	.....	4	.....	10	.....	.....	.....	.....	.....	
Fanöe	.....	.....	29.69	754.0	31.6	— 0.2	96	SE	.....	.....	4	.....	10	.....	.....	.....	.....	Snow & rain	
Godthaab, (Greenland)	.....	.....	29.96	760.9	6.4	—14.2	83	NNE	.....	.....	7	.....	0	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.61	752.0	31.8	— 0.1	92	E	.....	.....	2	.....	8	.....	.....	.....	.....	.....	
Thorshavn, (Faröe)	.....	.....	29.41	746.9	37.8	3.2	73	ESE	.....	.....	7	.....	10	.....	.....	.....	.....	.....	
Vestervig	.....	.....	29.71	754.7	28.0	— 2.2	96	E	.....	.....	7	.....	10	.....	.....	.....	.....	Snowing	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper Less. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.76	756.0	39.2	4	80	SW	.....	.....	3	.....	10	.....	.....	0.197	5.0	Covered	Normal School.
Amiens	.....	.....	29.73	755.2	45.0	7.2	85	SW	.....	.....	6	.....	10	.....	.....	0	0	Covered	Normal School.
Avignon	.....	.....	30.24	768.0	57.2	14	55	ESE	.....	.....	1	.....	2n	.....	S	0.138	3.5	Very clear...	Normal School.
Bar-sur-Seine	.....	.....	29.99	761.7	47.5	8.6	66	S	.....	.....	2	.....	10	.....	.....	0.028	0.7	Sprinkling...	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.85	758.1	50.4	10.2	95	S	36.2	16.2	.....	.....	10	.....	SW	0.559	14.2	Raining.....	Beaumette Observatory
Beauvais	.....	.....	29.77	756.2	44.8	7.1	83	SSW	.....	.....	6	.....	10	.....	SW	0.207	5.25	Covered	Normal School.
Besançon	.....	.....	30.11	764.8	46.2	7.9	69	SSW	.....	.....	2	.....	10	.....	SW	0.20	5.	Covered	Normal School.
Bourg en Brosse	.....	.....	30.20	767.0	45.9	7.7	86	S	.....	.....	4	.....	2kn	.....	W	.....	.....	Slightly cl'dy	Normal School.
Bourges	.....	.....	29.98	761.5	41.2	5.1	85	NW	.....	.....	4	.....	10	.....	SW	0	0	Covered	Normal School.
Brest	.....	.....	29.61	752.2	52.0	11.1	84	SW	.....	.....	3	.....	10n	.....	SW	0.374	9.50	Covered.....	Naval Observatory.
Caen	.....	.....	29.61	752.0	50.2	10.1	86	S	.....	.....	6	.....	10	.....	NE	0.04	1.	Covered	Normal School.
Chartres	.....	.....	29.80	756.9	43.2	6.2	.....	SE	.....	.....	6	.....	10	.....	.....	0.130	3.3	Covered	Normal School.
Clermont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.17	766.2	56.8	13.8	68	W	.....	.....	4	.....	10	.....	W	0	0	Covered.....	Puy de Dome, Obs.
Commercy	.....	.....	30.00	762.0	41.5	5.3	94	SSW	.....	.....	4	.....	10n	.....	SSW	0.47	12.	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.28	769.1	52.2	11.2	63	SE	.....	.....	2	.....	8	.....	SE	0.020	0.5	.....	.....
Grenoble	.....	.....	30.20	767.0	42.8	6	70	N	.....	.....	2	2c	.....	S	.....	0.187	4.75	Slightly cl'dy	Normal School.
Le Mans	.....	.....	29.82	757.4	45.3	7.4	97	SSW	.....	.....	4	.....	8	.....	SSW	0.098	2.5	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.11	764.8	46.9	8.3	66	S	.....	.....	6	.....	10	.....	.....	0	0	Covered	Normal School.
Mâcon	.....	.....	30.09	764.2	40.1	4.7	95	Calm	.....	.....	0	.....	10	.....	.....	0.020	0.5	Covered	Normal School.
Mirecourt	.....	.....	30.04	763.1	41.4	5.2	78	S	.....	.....	4	.....	10	.....	.....	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mismes	.....	.....	30.25	768.4	57.0	13.9	64	W	.....	.....	2	.....	2	.....	W	0	0	Slightly cl'dy	Normal School.
Orleans	.....	.....	29.87	758.6	44.2	6.8	91	SW	.....	.....	4	.....	8	.....	SW	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	29.82	757.3	44.6	7.0	89	S	.....	.....	6	.....	10	.....	SSW	0.170	4.31	Raining.....	National Observatory
Parthenay	.....	.....	29.95	760.8	44.6	7	95	SW	.....	.....	6	.....	10	.....	.....	0.04	1.	Covered	Normal School.
Privas	.....	.....	30.24	768.2	49.1	9.5	.....	SW	.....	.....	4	.....	5	.....	.....	0.083	2.1	Cloudy.....	Normal School.
La Roche-sur-Yon	.....	.....	29.93	760.1	50.7	10.4	93	S	.....	.....	6	.....	10	.....	S	0.283	7.2	Covered	Normal School.
Rochefort, Observatory	.....	.....	30.01	762.3	50.0	10.0	81	SW	.....	.....	6	.....	10	.....	NE	0.315	8.0	Covered	Naval Observatory.
Rouen	.....	.....	29.71	754.6	47.7	8.7	92	S	.....	.....	3	.....	10	.....	S	0.114	2.9	Covered	Normal School.
Saint Lo	.....	.....	29.66	753.3	47.1	8.4	85	W	.....	.....	3	.....	10	.....	W	0.138	3.5	.....	Normal School.
Tarbes	29.06	738.1	29.75	755.7	46.4	8	57	S	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	.....	.....	30.29	769.4	50.9	10.5	68	SE	.....	.....	1	.....	0	.....	.....	.....	.....	Clear.....	Normal School.
Villefranche	.....	.....	29.90	759.4	45.7	7.6	92	SE	.....	.....	2	.....	10	.....	SE	0	0	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.93	760.3	73.8	23.2	83	NE	.....	.....	1	.....	2k	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.22	767.5	58.6	14.8	77	E	.....	.....	2	.....	6	.....	.....	0.047	1.20	.....	Marseilles Observatory.
Mont-Louis	24.93	633.2	30.38	771.6	36.0	2.2	68	WSW	9.3	4.17	.....	.....	5	.....	W	0.06	1.6	.....	—. Falguère.
Montsouris, Paris	.....	.....	29.80	756.8	44.6	7.0	96	S W	.....	.....	5	.....	10	.....	SSW	0.386	9.8	Raining.....	Montsouris Observ'tory
Perpignan	.....	.....	30.23	767.7	51.6	10.9	67	SE	11.1	5.00	.....	.....	2	.....	.....	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H.P†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.82	757.4	44.6	7.0	87	SSW	.....	.....	6	.....	10	.....	.....	0	0	Raining.....	E. Renou.
Toulouse	.....	.....	30.20	767.1	52.7	11.5	58	SE	.....	.....	1	.....	9	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	29.91	759.6	47.3	8.4	81	W	.....	.....	7	.....	10	.....	WSW	0.131	3.4	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.80	756.9	45.0	7.2	88	W	.....	.....	8	.....	10	.....	.....	0.289	7.34	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.8 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Summit inaccessible; weather snowy; snow-fall on the Plantade 9 millimeters, or 1.6 inches.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper Less. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Bamberg	.....	.....	29.94	760.4	44.2	6.8	60	SW	.....	.....	2	.....	8	.....	.....	0.039	1.0	Raining.....	Prof. T. Hoh.
Berlin	.....	.....	29.91	759.8	39.7	4.3	92	SW	.....	.....	3	.....	10	.....	.....	0.102	2.6	Raining.....	Prof. Arndt.
Breslau	.....	.....	30.09	764.2	41.5	5.3	60	S	.....	.....	6	.....	7	.....	.....	0	0	.....	Dr. P. Neumeyer
Carlsruhe	.....	.....	30.02	762.6	46.2	7.9	70	SW	.....	.....	3	.....	10	.....	.....	0.094	2.4	Raining.....	A. Senz.
Cassel	.....	.....	29.83	757.7	41.0	5.0	79	SSW	.....	.....	5	.....	10	.....	.....	0.114	2.9	Snowing.....	Dr. H. Möhn.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.06	763.4	46.0	7.8	83	SW	.....	.....	3	.....	8	.....	.....	0.028	0.7	.....	Physical Society.
Friedrichshafen	.....	.....	30.07	763.6	42.8	6.0	60	S	.....	.....	.....	.....	2	.....	.....	0.016	0.4	.....	M. Wilhelm.
Hamburg	.....	.....	29.78	756.3	37.4	3.0	98	SE	.....	.....	2	.....	10	.....	.....	0.472	12.0	Raining.....	Deutsche Seewarte.
Kiel	.....	.....	29.78	756.4	36.5	2.5	89	Calm	.....	.....	0	.....	10	.....	.....	0.102	2.6	Snowing.....	Prof. G. Karsten.
Königsberg	.....	.....	30.00	761.9	27.5	— 2.5	89	SE	.....	.....	2	.....	10	.....	.....	0.012	0.3	Snowing.....	Prof. E. Luther.
Köslin	.....	.....	29.90	759.5	34.5	1.4	.....	S	.....	.....	2	.....	10	.....	.....	0.003	1.6	.....	H. Müller.
Leipsic	.....	.....	29.98	761.6	42.3	5.7	77	SSW	.....	.....	3	.....	9	.....	.....	0	0	.....	Prof. Bruhns.
Münster	.....	.....	29.81	757.1	42.4	5.8	91	SW	.....	.....	1	.....	10	.....	.....	0.520	13.2	Raining.....	Prof. E. Heis.
Posen	.....	.....	30.05	763.2	41.0	5.0	77	SW	.....	.....	2	.....	9	.....	.....	0.201	5.1	Raining	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.05	763.3	47.3	8.5	67	SSW	.....	.....	2	.....	10	.....	.....	0.063	1.6	.....	Dr. Schur.
Stuttgart	.....	.....	30.07	763.7	48.2	9.0	57	W	.....	.....	.....	.....	6	.....	.....	0.094	2.4	.....	Prof. Schoder.
Thorn	.....	.....	30.00	762.0	35.8	2.1	98	WSW	.....	.....	3	.....	9	.....	.....	0	0	.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	29.89	759.3	42.8	6.0	75	SW	.....	.....	7	.....	10	.....	.....	0.417	10.6	Misty	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.84	758.0	33.8	1.0	98	S	.....	.....	3	.....	10	.....	.....	0.051	1.3	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper Less. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Athens	.....	.....	30.14	765.5	59.9	15.5	.....	NE	.....	.....	.....	.....	.....	.....	.....	.....	.....	Half clear...	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. Lb.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.25	768.4	41.4	5.2	63	SW	1.3	0.6			1			0	0		
Padua			30.26	768.7	38.3	3.5	75	WSW	1.3	0.6			0			0	0		
Vicenza																			
Verona			30.28	769.0	41.4	5.2	67	E			1		10			0	0		
Bergamo			30.20	767.1	39.2	4.0	67	E			2		0			0	0		
Domodossola																			
Milan			30.28	769.2	40.6	4.8	68	NW			2		0			0	0		
Pavia																			
Moncalieri			30.31	769.9	35.8	2.1	60	NNW	3.8	1.7			2			0	0		
Mondovi			30.24	768.2	39.6	4.2	54	NE			2		0			0	0		
Porto Maurizio			30.28	769.2	55.6	13.1		SSW			2		7			0	0		
Genoa			30.23	767.8	52.5	11.4	49	S	3.8	1.7			0			0	0		
Piacenza			30.29	769.4	37.9	3.3	66	N	0	0			0			0	0		
Bologna			30.28	769.1	41.4	5.2	32	W			1		3	N		0	0		
Florence			30.28	769.0	53.1	11.7	68	N			2		2			0	0		
Leghorn			30.24	768.0	50.9	10.5	65	WNW	3.1	1.4			1			0	0		
Siena			30.24	768.1	49.8	9.9	81	ESE	0	0			5	SW		0	0		
Urbino																			
Pesaro																			
Ancona			30.31	769.8	40.1	4.5	81	W			2		10			0	0		
Grosseto			30.25	768.3	57.2	14.0	75	N			4		7	NW		0.114	2.9		
Rome			30.20	767.0	57.2	14.0	70	NW	2.5	1.1			2			0	0		
Naples, O. U			30.23	767.8	58.3	14.6	59	SSW			1		10	NE		0	0	Foggy	
Lecce			30.23	767.8	55.4	13.0	73	N	15.0	6.7			8	NW		0	0		
Cosenza			30.25	768.3	56.5	13.6	69	NW	0	0			7			0	0		
Riposto, (Sicily)			30.18	766.6	57.9	14.4	80	SSE			2		6	NW		0	0		
Palermo			30.14	765.6	57.2	14.0	68	NE	3.8	1.7			5			0	0		
Caltanissetta			30.19	766.9	49.6	9.8	84	NW			1		6	SE		0	0		
Sub-Series.																			
Naples, S. R.			30.23	767.9	56.1	13.4	65	SW	4.3	1.9			8	W		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.66	753.4	43.2	6.2		SW			5								
Groningen			29.60	751.7	37.4	3.0		S			4								
Helder			29.55	750.5	42.3	5.7		S			6								
Utrecht			29.63	752.6	41.7	5.4	98	SSW			4		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.73	755.1	33.1	0.6	44	ESE	8.9	4.0			5			0	0		
Brönö			29.96	760.9	29.1	— 1.6	58	Calm	0	0			0			0	0		
Christiania			29.99	761.8	26.1	— 3.3	60	E	6.9	3.1			10			0	0		
Tromsö			29.96	760.9	26.6	— 3.0	91	NW	0	0			2			0.110	2.8		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.78	756.5	58.8	14.9	93	SSW	12.7	5.67	.....	.....	10	.....	.....	0.948	24.0	Raining.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.34	770.7	48.2	9.0	94	E	3.5	1.58	.....	.....	10	.....	.....	0	0	Misty.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira)	.....	.....	30.29	769.4	64.4	18.0	68	Calm	0	0	.....	.....	4	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.33	770.4	56.8	13.8	74	SSW	9.8	4.4	.....	.....	9	.....	.....	0	0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Warsaw	.....	.....	30.05	763.2	37.2	2.9	78	SSW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	30.22	767.5	18.1	— 7.7	60	SE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	30.32	770.1	12.6	—10.8	78	ESE	7	3	.....	.....	0	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.34	770.5	7.2	—13.8	83	E	2	1	.....	.....	0	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	30.19	766.7	4.6	—15.2	81	NE	2	1	.....	.....	0	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	30.34	770.5	14.2	— 9.9	84	SSE	4	2	.....	.....	3	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.32	770.1	28.2	— 2.1	69	NW	2	1	.....	.....	7	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.27	768.9	32.9	0.5	89	NNW	7	3	.....	.....	0	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.43	772.8	— 5.6	—20.9	72	NNW	13	6	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.17	766.3	14.5	— 9.7	81	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Arehangel	.....	.....	29.77	756.2	23.4	— 4.8	98	WNW	29	13	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.61	726.7	30.05	763.3	46.8	8.2	57	NNW	25	11	.....	.....	7	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.10	764.4	20.3	— 6.2	90	WNW	22	10	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	30.06	763.4	— 0.9	—18.3	83	NNE	7	3	.....	.....	1	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tchernischef.
Ekaterinburg	28.89	733.9	30.04	763.1	—15.2	—26.2	69	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	29.93	760.1	46.4	8.0	55	S	11	5	.....	.....	10	.....	.....	.....	.....	.....	
Kasaly	.....	.....	29.83	757.6	30.7	— 0.7	90	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.51	724.1	30.20	769.3	36.3	2.4	77	N	7	3	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.40	772.2	— 3.6	—19.8	50	SW	2	1	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	29.96	761.0	— 0.6	—18.1	84	WSW	13	6	.....	.....	10	.....	.....	.....	.....	Snowing.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.26	768.5	32.9	0.5	68	SSE	7	3	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.24	768.0	9.7	—12.4	88	N	7	3	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	— 3.3	—19.6	81	W	9	4	.....	.....	0	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.6 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Madrid	.....	.....	30.36	771.1	48.0	8.9	78	NW	1.5	0.67	.....	2	3	SW	.....	0	0	Light clouds	Royal Observatory.
San Fernando	.....	.....	30.37	771.5	59.4	15.2	77	W	4.0	1.8	.....	6	2	SE	SE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Haparanda	.....	.....	30.12	765.0	14.7	— 9.6	94	SW	.....	.....	2	.....	3	.....	.....	0	0	.....	
Umea	.....	.....	30.15	765.9	21.0	— 6.1	98	SW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Hernösand	.....	.....	30.15	765.7	20.1	— 6.6	97	Calm	.....	.....	0	.....	10	.....	.....	0	0	Fog & snow.	
Stockholm	.....	.....	30.02	762.6	23.2	— 4.9	67	ESE	.....	.....	4	.....	5	.....	.....	0	0	.....	
Wisby	.....	.....	29.99	761.7	24.1	— 4.4	100	SSE	.....	.....	6	.....	10	.....	.....	0	0	.....	
Sub Series.																			
Upsala	.....	.....	30.07	763.6	23.4	— 4.8	70	ESE	9.2	4.1	.....	.....	10	.....	.....	0.002	0.04	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.73	729.7	30.17	766.4	47.8	8.8	64	SW			1		8			0.024	0.6	Covered	The Observatory.
Zurich	28.46	723.0	30.15	765.7	41.9	5.5	84	W			1		4			0.118	3.0	Clear	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.4 mm.; Thermometer, +5.2 cent.; Relative Humidity, —8 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.19	766.9	45.9	7.7	73	NNE	11	5.0			5		NNE	0	0		
Fao, (Persian Gulf)			30.31	769.8	64.4	18.0		NW			3								
Salonica			30.20	767.0	64.8	18.2		SW			1								
Valona			30.06	763.5	56.5	13.6		NW			2								
Varna			30.12	765.0	35.6	2.0		NW			2								
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.			30.06	763.4	63.1	17.3	68	NNE			2		0			0	0	Fair	Prof. C. V. A. Van Dyck

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.			30.30	769.6	19.6	— 6.9	94	SE	6.2	2.8						Inap.	Inap.		Hon. J. Ferguson.
Brockville, Ontario			29.52	749.8	24	— 4.4		E	9	4.0			10s		E	0.61	15.5	Light snow	W. R. Bigg.
*Chatham, N. B.			30.31	769.9	20	— 6.7	97	NE	5	2.2			10s		NE	0.25	6.3	Light snow	G. A. Blair.
Charlottetown, P. E. Island.			30.35	770.9	22	— 5.6	96	E	11	4.9			10n			0.05	1.3	Light snow	H. J. Cundall, C. E.
Cornwall, Ontario			29.46	748.3	27.0	— 2.8	87	NE			6		10n			0.45	11.4	Stormy	James Smith, M. A.
Dalhousie, N. B.					18.8	— 7.3	95	E			4		10n			0	0	Snowing	H. A. Johnson.
Esquimault, B. C.			30.30	769.6	45.3	7.4	92	SW	4	1.8		2k		W		0.21	5.3	Clear	W. H. Bevis.
Fredericton, N. B.			30.17	766.3	21.5	— 5.8	93	NE	17	7.6			10n			1.480	37.59		Prof. Harrison.
*Fort Garry, Manitoba			30.27	768.8	—16	—26.7	100	N	6	2.7		5ck	0	NW		0	0	Fair	James Stewart.
Goderich, Ontario			29.66	753.4	29.8	— 1.2	80	NW			3		10n			0	0	Unsettled	H. J. Strang, M. A.
Granton, Ontario			29.63	752.6	28.2	— 2.1		NW			1		10n			0	0	Cloudy	James Grant.
*Halifax, N. S.			30.21	767.3	28	— 2.2	96	SE	18	8.0			10n			0.50	12.7	Heavy snow	F. Allison, M. A.
*Kingston, Ontario			29.48	748.8	24	— 4.4	100	N	6	2.7			10n			0.89	22.6	Heavy snow	S. Woods, M. A.
Little Current, Ontario			29.66	753.4	25.8	— 3.4		SW	10	4.5			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			29.55	750.6	26	— 3.3	98	NE	13	5.8			10n		N	0.84	21.3	Snow & rain	C. H. McLeod, C. E.
*Ottawa, Ontario			29.53	750.0	25	— 3.9	76	NE	10	4.5			10n		NE	0.65	16.5	Heavy snow	J. B. Haney.
*Parry Sound, Ontario			29.80	751.8	32	0.0	95	NW	5	2.2		5k	5ks	NW	NW	0.14	3.6	Cloudy	Rev. R. Mooley.
*Port Dover, Ontario			29.58	751.3	33	0.6	80	NW	10	4.5		10k	0	NW		0	0	Cloudy	H. Morgan.
Port Hastings, N. S.			30.41	772.4	27.9	— 2.3		SE	8	3.6						0.40	10.2	Fine	Peter Grant.
*Port Stanley, Ontario			29.64	752.8	30	— 1.1	80	W	10	4.5			10n		W	0	0	Cloudy	M. Payne.
*Quebec, Quebec			29.84	757.9	20	— 6.7	92	NE	36	16.1			10n		NE	1.70	43.2	Light snow	Capt. Ash, R. N.
St. John, N. B.			30.05	763.3	26	— 3.3	88	NE	16	7.2			10n			2.020	51.31		G. Murdoch, C. E.
*Saugeen, Ontario			29.63	752.6	30	— 1.1	89	N	7	3.1			10n			0.01	0.3	Cloudy	K. Stewart.
Stayner, Ontario			29.58	751.3	29	— 1.7	98	W	10	4.5			10n		W	Inap.	Inap.	Light snow	R. J. Cole.
Stratford, Ontario			29.60	751.8	28.9	— 1.7	80	N	10	4.5			10s			0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			30.47	773.9	20	— 6.7	92	Calm	0	0			10n			0	0	Cloudy	T. C. Hill.
*Toronto, Ontario			29.54	750.3	33	0.6	95	NW	7	3.1			10n			0.08	2.0	Light snow	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.41	747.0	34	1.1	100	Calm	0	0	.....	.....	Fog	.....	.....	0.70	17.8	Light rain...	
Alpena, Mich.	.....	.....	29.07	753.6	22	— 5.6	100	NW	4	1.8	.....	.....	10n	.....	NW	Inap.	Inap.	Light snow..	
Atlantic City, N. J.	.....	.....	29.25	742.9	47	8.3	100	S	25	11.2	.....	.....	10n	.....	S	0.46	11.7	Light rain ..	
Augusta, Ga.	.....	.....	29.86	758.4	44	6.7	56	W	15	6.7	.....	0	0	.....	.....	1.16	29.5	Clear.	
Baltimore, Md.	.....	.....	29.28	743.7	43	6.1	75	NW	16	7.2	.....	.....	10s	.....	W	1.00	25.4	Threatening	
Barnegat, N. J.	.....	.....	29.28	743.7	46	7.8	100	SE	24	10.7	.....	.....	Fog	.....	SE	0.60	15.2	Foggy.....	
Benton, Montana	27.28	692.9	30.08	764.0	37	2.8	71	SW	12	5.4	.....	0	5s	.....	SW	0	0	Fair.....	
Bismarck, Dakota	28.27	718.0	30.09	764.3	2	—16.7	72	NE	4	1.8	.....	.....	10ss	.....	.....	0	0	Cloudy.....	
Boston, Mass.	.....	.....	29.59	751.6	35	1.7	100	NE	14	6.3	.....	10n	Fog	NE	.....	1.60	40.6	Light rain....	
Breckenridge, Minn	.....	.....	30.18	766.6	—15	—26.1	72	NW	10	4.5	.....	0	0	.....	.....	0	0	Cle	
Buffalo, N. Y.	.....	.....	29.46	748.3	32	0.0	89	Calm	0	0	.....	.....	10n	.....	.....	0.31	7.9	Light snow..	
Burlington, Vt.	.....	.....	29.46	748.3	34	1.1	71	E	6	2.7	.....	.....	10s	.....	.....	0.14	3.6	Cloudy.....	
Cairo, Ill.	.....	.....	29.89	759.2	31	— 0.6	60	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Cape Hatteras, N. C.	.....	.....	29.38	746.2	63	17.2	83	SW	44	19.7	.....	.....	10ks	.....	SW	1.18	30.0	Cloudy..... ..	
Cape Henry, Va.	.....	.....	29.26	743.2	63.5	17.5	86	S	17	7.6	.....	10k	0	SW	.....	0.17	4.3	Threatening	
Cape May, N. J.	.....	.....	29.19	741.4	51	10.6	100	SE	17	7.6	.....	.....	Fog	.....	.....	0.34	8.6	Light rain...	
Charleston, S. C.	.....	.....	29.85	758.2	49	9.4	57	SW	17	7.6	.....	0	0	.....	.....	0.64	16.3	Clear.....	
Cheyenne, Wyoming	23.99	609.3	29.93	760.2	31	— 0.6	39	NW	28	12.5	.....	0	2s	.....	.....	Inap.	Inap.	Fair.....	
Chicago, Ill.	.....	.....	29.76	755.9	19	— 7.2	69	W	2	0.9	.....	1ck	0	W	.....	Inap.	Inap.	Clear.....	
Cincinnati, Ohio	.....	.....	29.68	753.9	31	— 0.6	79	W	16	7.2	.....	.....	10n	.....	.....	0.02	0.5	Light snow.	
Cleveland, Ohio	.....	.....	29.62	752.3	30.9	— 0.6	81	NW	6	2.7	.....	2c	2s	S	.....	0	0	Fair.....	
Colorado Springs, Col.	24.07	611.4	29.94	760.5	38	3.3	72	N	10	4.5	.....	0	0	.....	.....	0	0	Clear.....	
Corsicana, Tex.	.....	.....	30.16	766.1	37	2.8	54	SW	7	3.1	.....	0	0	.....	.....	0	0	Clear.....	
Davenport, Iowa	.....	.....	29.87	758.7	13	—10.6	81	NW	16	7.2	.....	.....	10s	.....	W	0.02	0.5	Cloudy.....	
Denison, Tex.	.....	.....	30.04	763.0	48	8.9	42	W	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Denver, Col.	24.82	630.4	30.04	763.0	40	4.4	48	N	22	9.8	.....	0	0	.....	.....	0	0	Clear.....	
Detroit, Mich	.....	.....	29.63	752.6	30	—1.1	78	NW	10	4.5	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow..	
Dodge City, Kan.	27.37	695.2	29.73	755.1	32	0.0	60	W	8	3.6	.....	5k	0	W	.....	0	0	Fair.....	
Dubuque, Iowa	.....	.....	29.90	759.4	11	—11.7	60	NW	8	3.6	.....	5k	2s	W	.....	Inap.	Inap.	Cloudy.....	
Duluth, Minn.	.....	.....	30.03	762.7	— 3	—19.4	66	NW	20	8.9	.....	0	0	.....	.....	0.04	1.0	Clear..	
Eastport, Me.	.....	.....	29.95	760.7	28	— 2.2	100	E	43	19.2	.....	.....	10n	.....	E	0.50	12.7	Sleeting.....	
Erie, Pa.	.....	.....	29.53	750.0	34	1.1	90	W	14	6.3	.....	.....	10ks	.....	NW	Inap.	Inap.	Cloudy..	
Escanaba, Mich.	.....	.....	29.74	755.4	15	— 9.4	82	NW	12	5.4	.....	.....	10n	.....	.....	0.08	2.0	Light snow..	
Fort Gibson, Indian Terr.	.....	.....	30.04	763.0	29	— 1.7	67	E	4	1.8	.....	5ck	0	NW	.....	0	0	Fair.....	
Fort Sill, Indian T.	28.81	731.8	29.97	761.2	33	0.6	52	Calm	0	0	.....	.....	0	.....	.....	0	0	Clear.....	
Fort Sully, Dakota	28.26	717.8	30.06	763.5	10	—12.2	89	E	6	2.7	.....	.....	10n	.....	.....	0.02	0.5	Light snow..	
Galveston, Tex.	.....	.....	30.22	767.5	51	10.6	37	NE	2	0.9	.....	0	0	.....	.....	0	0	Clear.....	
Grand Haven, Mich.	.....	.....	29.68	753.9	24	— 4.4	80	W	8	3.6	.....	.....	10n	.....	W	0.01	0.3	Light snow.	
Indianapolis, Ind.	.....	.....	29.74	755.4	24	— 4.4	74	W	10	4.5	.....	.....	10n	.....	W	0.01	0.3	Light snow	
Indianola, Tex.	.....	.....	30.24	768.1	51	10.6	52	SE	6	2.7	.....	0	0	.....	.....	0	0	Clea.....	
Jacksonville, Fla.	.....	.....	30.01	762.2	52	11.1	59	NW	8	3.6	.....	0	0	.....	.....	0.63	16.0	Clear.....	
Keokuk, Iowa	.....	.....	29.82	757.4	10	—12.2	79	NW	11	4.9	.....	.....	10s	.....	NW	0.01	0.3	Cloudy.....	
Key West, Fla.	.....	.....	30.06	763.5	71.7	22.1	90	NW	8	3.6	.....	.....	10n	.....	W	0.35	8.9	Light rain...	
Kittyhawk, N. C.	.....	.....	29.34	745.2	62	16.7	88	SW	26	11.6	.....	8k	0	SW	.....	0.11	2.8	Fair.....	
Knoxville, Tenn.	.....	.....	29.77	756.1	38	3.3	63	SW	12	5.4	.....	.....	10ks	.....	SW	Inap.	Inap.	Cloudy.....	
La Crosse, Wis.	.....	.....	29.93	760.2	6	—14.4	76	N	9	4.0	.....	.....	10s	.....	N	0.09	2.3	Cloudy.....	
Leavenworth, Kan.	.....	.....	30.08	764.0	13	—10.6	70	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Lexington, Ky.	28.62	726.9	29.75	755.6	32	0.0	100	W	20	8.9	.....	.....	10n	.....	.....	0.01	0.3	Light snow..	
Long Branch, N. J.	.....	.....	29.31	744.5	45	7.2	100	S	15	6.7	.....	.....	10n	.....	S	1.06	26.9	Light rain...	
Louisville, Ky.	.....	.....	29.77	756.1	32	0.0	59	W	12	5.4	.....	0	5s	.....	W	0	0	Fair.....	
Lynchburg, Va.	.....	.....	29.45	748.0	43	6.1	67	NW	8	3.6	.....	.....	10s	.....	NW	0.41	10.4	Cloudy.....	
Malone, N. Y.	.....	.....	29.39	746.5	31	— 0.6	90	NE	10	4.5	.....	.....	10n	.....	NE	0.60	15.2	Sleeting.....	
Marquette, Mich.	.....	.....	29.82	757.1	12	—11.1	80	W	16	7.2	.....	.....	10n	.....	NW	0.09	2.3	Light snow	
Memphis, Tenn.	.....	.....	30.01	762.0	37	2.8	62	W	8	3.6	.....	0	0	.....	.....	Inap.	Inap.	Clear.....	
Milwaukee, Wis.	.....	.....	29.78	756.4	12	—11.1	80	W	14	6.3	.....	.....	10n	.....	W	0.04	1.0	Light snow	
Mobile, Ala.	.....	.....	30.14	765.5	42	5.6	75	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear.....	
Montgomery, Ala.	.....	.....	30.06	763.5	42	5.6	74	W	10	4.5	.....	0	0	.....	.....	0.01	0.3	Clear.....	
Morgantown, W. Va.	.....	.....	29.55	750.6	36	2.2	80	NW	6	2.7	.....	.....	10n	.....	NW	0.64	16.3	Light snow.	
Mt. Washington, N. H.	23.37	593.6	29.73	755.1	23	— 5.0	100	SE	10	4.5	.....	.....	10n	.....	SE	0.30	7.6	Sleeting.....	
Nashville, Tenn.	.....	.....	29.87	758.7	37	2.8	62	W	10	4.5	.....	10k	0	.....	.....	0	0	Cloudy.....	
New Haven, Conn.	.....	.....	29.46	748.3	33	0.6	89	NE	24	10.7	.....	.....	10n	.....	.....	1.16	29.5	Light rain...	
New London, Conn.	.....	.....	29.50	749.3	38	3.3	90	N	10	4.5	.....	.....	10n	.....	N	0.74	18.8	Light rain...	
New Orleans, La.	.....	.....	30.16	766.1	50	10.0	42	N	12	5.4	.....	0	0	.....	.....	0.01	0.3	Clear.....	
Newport, R. I.	.....	.....	29.53	750.0	38	3.3	90	N	10	4.5	.....	.....	10n	.....	NE	2.01	51.1	Light rain...	
New York, N. Y.	.....	.....	29.36	745.7	39	3.9	100	NE	12	5.4	.....	.....	10n	.....	.....	1.29	32.8	Heavy rain..	
Norfolk, Va.	.....	.....	29.28	744.7	59.5	15.3	88	W	23	10.3	.....	.....	10n	.....	SW	0.49	12.4	Heavy rain..	
North Platte, Neb.	26.98	685.3	29.07	753.6	22	— 5.6	86	Calm	0	0	.....	2ck	2s	W	.....	Inap.	Inap.	Fair.....	
Omaha, Neb.	28.92	734.6	30.10	764.5	5	—15.0	87	NW	14	6.3	.....	2cs	0	.....	.....	0	0	Clear.....	
Oswego, N. Y.	.....	.....	29.44	747.8	30	— 1.1	100	NW	10	4.5	.....	.....	10n	.....	.....	0.72	18.3	Heavy snow	
Peck's Beach, N. J.	.....	.....	29.19	741.4	48	8.9	100	SE	28	12.5	.....	.....	10n	.....	.....	0.25	6.3	Light rain...	
Pembina, Dakota	.....	.....	30.24	768.1	—18	—27.8	100	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Philadelphia, Penn.	.....	.....	29.20	741.7	54	12.2	100	S	12	5.4	.....	.....	10n	.....	S	1.11	28.2	Light rain...	
Pike's Peak, Colorado	17.59	446.8	29.80	756.9	1	—17.2	100	NW	32	14.3	.....	0	2n	.....	NW	0.01	1.0	Light snow..	
Pittsburgh, Penn.	.....	.....	29.54	750.3	34	1.1	79	NW	10	4.5	.....	.....	10ks	.....	NW	0.36	9.1	Cloudy.....	
Port Huron, Mich.	.....	.....	29.63	752.6	20	— 1.7	78	NW	5	2.2	.....	.....	10s	.....	NW	0	0	Threatening	
Portland, Me.	.....	.....	29.71	754.6	29	— 1.7	89	NE	20	8.9	.....	.....	10n	.....	.....	0.58	14.7	Sleeting.....	
Portland, Oregon	.....	.....	30.52	775.2	45	7.2	84	S	10	4.5	.....	2k	0	W	.....	0.06	1.5	Fair.....	
Punta Rassa, Fla.	.....	.....	30.06	763.5	69	20.6	60	NW	22	9.8	.....	5ck	5ks	SW	.....	0	0	Cloudy.....	
Rochester, N. Y.	.....	.....	29.40	746.7	30	— 1.1	100	NW	8	3.6	.....	.....	10n	.....	.....	0.67	17.0	Heavy snow	
Salt Lake City, Utah	25.80	656.8	30.19	766.8	35	1.7	70	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.....	
Sandy Hook, N. J.	.....	.....	29.32	744.7	46.5	8.1	100	S	10	4.5	.....	.....	10n	.....	S	1.11	28.2	Light rain...	
San Diego, Cal.	.....	.....	30.09	764.3	54	12.2	62	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
San Francisco, Cal.	.....	.....	30.04	763.0	54	12.2	62	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Santa Fe, N. M.	.....	.....	30.34	770.6	51	10.6	89	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Savannah, Ga.	23.26	590.8	29.80	756.9	22	— 5.6	31	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.....	
Shreveport, La.	.....	.....	29.93	760.2	51	10.6	59	W	8	3.6	.....	0	0	.....	.....	1.10	27.9	Clear.....	
Smithville, N. C.	.....	.....	30.18	766.6	40	4.4	73	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear.....	
Springfield, Mass.	.....	.....	29.64	752.8	54	12.2	57	W	29	13.0	.....	1k	0	W	.....	0.06	1.5	Clear.....	
St. Louis, Mo.	.....	.....	29.52	749.8	34	1.1	89	NE	8	3.6	.....	.....	10n	.....	E	1.41	35.8	Light rain ...	
St. Marks, Fla.	.....	.....	29.90	759.4	22	— 5.6	75	N	16	7.2	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow.	
St. Paul, Minn.	.....	.....	30.07	763.8	44	6.7	75	NW	4	1.8	.....	0	0	.....	.....	0.01	23.1	Clear.....	
St. Paul's Island, Alaska	.....	.....	29.99	761.7	0	—17.8	84	NW	6	2.7	.....	0	0	.....	.....	0.05	1.3	Clear.....	
Squan Beach, N. J.	.....	.....	30.25	768.6	29	—12.8	78	NE	9	4.0	.....	0	1k	.....	.....	0	0	.....	
Thatcher's Island, Mass.	.....	.....	29.23	742.4	47	8.3	93	S	26	11.6	.....	.....	Fog	.....	SE	0.80	20.3	Light rain...	
Toledo, Ohio	.....	.....	29.58	751.3	37	2.8	100	NE	25	11.2	.....	.....	.....	.....	.....	1.72	43.7	Rain & fog...	
Tucson, Arizona	.....	.....	29.64	752.8	28	— 2.2	98	W	11	4.9	.....	.....	10n	.....	W	0.01	0.3	Light snow..	
Tybee Island, Ga.	27.65	702.3	30.24	768.1	37	2.8	.....	E	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
Vicksburg, Miss.	.....	.....	29.84	757.9	48	8.9	54	NW	6	2.7	.....	0	0	.....	.....	0.73	18.5	Clear.....	
	.....	.....	30.15	765.8	42	5.6	75	SW	1	0.4	.....	0	0	.....	.....	0	0	Clear.....	

UNITED STATES SERIES.—CONTINUED

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Inches.	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.36	618.7	29.84	757.9	26	— 3.3	58	Calm	0	0	.....	10c	0	NW	.....	0	0	Cloudy.....	
Washington, D. C	.....	.....	29.34	745.2	38	3.3	90	NW	10	4.5	.....	.....	10n	.....	NW	1.28	32.5	Light rain...	
Wilmington, N. C	.....	.....	29.60	751.8	56	13.3	56	NW	32	14.3	.....	0	5ks	.....	W	0.17	4.3	Fair.....	
Wood's Holl, Mass	.....	.....	29.57	751.1	40	4.4	100	N	6	2.7	.....	.....	10n	.....	.....	2.38	60.5	Light rain...	
Wytheville, Va	27.24	691.9	29.39	746.5	33	0.6	69	NW	12	5.4	.....	5k	0	NW	.....	0.55	14.0	Light snow..	
Yankton, Dakota	28.77	730.7	30.22	767.6	— 2	—18.9	67	NW	6	2.7	.....	8cs	0	NW	.....	Inap.	Inap.	Fair.....	
Yuma, Arizona	.....	.....	30.14	765.5	56	13.3	.....	NW	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.09	764.3	77	25.0	86	E	6	2.7	.....	5k	8ks	NE	SE	0	0	Cloudy.....	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.04	763.0	73	22.8	76	NE	.....	.....	.....	5k	0	.....	.....	0	0	Fair.....	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.33	770.4	73	22.8	59	ENE	3	1.3	.....	4ck	8ks	.....	.....	0	0	Cloudy.....	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.28	769.1	70	21.1	71	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.84	757.9	72	22.2	76	N	1.2	0.5	.....	0	0	.....	.....	0	0	Clear.....	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.10	764.5	72	22.2	85	SW	2.4	1.1	.....	2ck	s, hz	SW	NW	0	0	Fair.....	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.18	766.6	66.0	18.9	72	S	11.0	4.9	.....	10cs	0	NW	.....	0	0	Fair.....	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.25	692.1	30.07	763.8	62	16.7	83	N	2.0	0.9	.....	2c	2k	N	.....	0	0	Fine.....	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.04	763.0	80	26.7	87	NE	.....	.....	2	.....	7ks	.....	.....	0.170	4.32	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.07	763.8	77.4	25.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.374	9.50	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.28	642.0	.....	.....	65.1	18.4	87	.....	4	1.8	.....	.....	10s	.....	.....	0.02	0.5	Cloudy.....	Thomas Herran.
St. Johns, Newfoundland	.....	.....	30.42	772.7	25.0	— 3.9	.....	NE	.....	.....	.....	10cs	10s	.....	.....	0	0	Cloudy.....	John Delaney.
York Factory, B. A	.....	.....	30.49	774.4	—12	—24.4	75	Calm	0	0	.....	.....	Fog	.....	.....	0.01	0.3	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	30.07	763.8	74	23.3	95	NE	.....	.....	2	.....	.....	.....	.....	0.18	4.6	Showery...	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft.. or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 16, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.38	771.7	61.3	16.3	64	Calm	.....	.....	0	.....	2	.....	.....	0	0	Clear	Charnot and Masselot.
Algiers	.....	.....	30.43	772.8	57.9	14.4	71	N	.....	.....	1	.....	4	.....	.....	0	0	Fair	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.41	772.5	63.0	17.2	56	WNW	.....	.....	4	.....	8	.....	.....	0	0	Cloudy	Jacques.
Sfax	.....	.....	30.46	773.7	63.7	17.6	50	NNE	.....	.....	3	.....	4	.....	.....	0	0	Fair	Chauvey.
Saida	.....	.....	30.43	772.8	60.0	15.0	39	SSW	.....	.....	2	.....	0	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	30.47	773.8	59.4	15.2	.....	SW	.....	.....	2	.....	3	.....	.....	0	0	Fair	Colin.
Gerlville	.....	.....	30.47	773.8	59.4	10.2	54	S	.....	.....	1	.....	2	.....	.....	0.039	1.0	Clear	Buard.
Laghouat	.....	.....	30.50	774.8	55.4	13.0	55	W	.....	.....	1	.....	0	.....	.....	0	0	Clear	Delord.
Biskra	.....	.....	30.52	775.3	64.8	18.2	47	NW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Dubois.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.05	763.3	46.4	8.0	53	SW	.....	.....	4	.....	3	.....	.....	0	0	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eperies	.....	.....	29.82	757.4	37.8	3.2	87	W	.....	.....	2	.....	10	.....	.....	0.048	1.22	.....	I. R. Observatory.
Gratz	.....	.....	29.96	761.0	27.1	— 2.7	94	S	.....	.....	5	.....	10	.....	.....	0.069	1.75	.....	Julius Mikolik.
Hermannstadt	28.80	731.5	30.03	762.7	44.4	6.9	51	SSE	.....	.....	2	.....	0	.....	.....	0	0	.....	Andreas Rospini.
Kremsmünster	28.54	724.8	30.01	762.2	36.7	2.6	76	NW	.....	.....	1	.....	6	.....	.....	0	0	.....	Prof. Reissenberger.
Lemberg	28.65	727.7	30.02	762.4	45.0	7.2	77	WSW	.....	.....	3	.....	8	.....	.....	0.039	1.0	.....	Prof. C. Wagner.
Syregyhaza	.....	.....	29.73	755.1	35.4	1.9	93	SW	.....	.....	5	.....	10	.....	.....	0.382	9.7	.....	Dr. T. Stanecki.
Pola	.....	.....	29.97	761.3	31.6	— 0.2	96	SW	.....	.....	1	.....	10	.....	.....	0.222	5.64	.....	Habzsuda Daniel.
Szegedin	.....	.....	30.20	767.0	46.0	7.8	92	Calm	.....	.....	0	.....	10s	.....	.....	0	0	Light fog	I.R. Hydrographic Of'ce
Trieste	.....	.....	30.04	762.9	30.9	2.7	93	S	.....	.....	3	.....	10	.....	.....	0.010	0.25	.....	Karl Stancel.
Vienna	.....	.....	30.18	766.6	43.2	6.2	90	Calm	.....	.....	0	.....	10	.....	.....	0	0	Cloudy	Prof. V. Farolfi.
.....	.....	.....	29.94	760.5	46.4	8.0	64	W	.....	.....	5	.....	4	.....	.....	0.055	1.4	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	29.76	756.0	47.8	8.8	88	SW	.....	.....	6	.....	10	.....	.....	0.201	7.40	Raining	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.24	742.7	43.0	6.1		SW	11	4.9			2			0.010	0.25	Blue sky	William Boswell.
Ardrossan			29.36	745.7	47.5	8.6		WSW			4		7					*D. clouds	J. Mayes.
Armagh Observatory			29.47	748.5	48.1	8.9		SW	21	9.4			4					*D. clouds	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs.			29.50	749.3	48.6	9.2		WSW	46	20.6			7					*D. clouds	John Hartnup.
Birr Castle, (Parsonstown)			29.58	751.3	47.4	8.6		WSW			2–4		8					*D. clouds	J. Dreyer.
Bradford			29.43	747.5	47.5	8.6		W			2		4			0.12	3.0	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)			30.05	763.3	78.0	25.6		E			2		4					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.61	752.1	48.1	8.9		SW			3–4		10					Showery	H. Todd.
Cardington			29.65	753.1	49.0	9.4		W			3		9					Overcast	John McLaren.
Carlisle			29.42	747.3	48	8.9		W			6		2			0.13	3.3	*D. clouds	[illegible] Bell, for J. Cartmell.
Chatham, School M. E.			29.73	755.1	48.7	9.3		SW			2		8					Showery	Capt. J. Fellowes, R. E.
Dartmoor	28.36	720.3	29.87	758.7	46.0	7.8		W			6		10					Gloomy	R. E. Power.
Donaghadee			29.59	746.5	48	8.9		W			5		5					*D. clouds	J. Mac Gowan.
Dover			29.74	755.4	45	7.2		W			4		8					Drizzling	J. Costello.
Eccles, (near Manchester)			29.52	749.8	49.8	9.9		W	11.6	5.2			7					Squally	Thomas Mackereth.
Falmouth Observatory			29.81	757.2	52.0	11.1		WSW	34	15.2			10					Squally	The Staff.
Fort Napier, (Natal)	27.48	698.0	29.72	754.9	83.8	28.8		NW			1		10					Overcast	Pvt. G. Salmon, A. H. C. (Ass.
Free Town, (Sierra Leone			29.93	760.2	89.0	31.7		E			3		3					Blue sky	
Galway, Queen's College			29.62	752.3	49	9.4		WSW			5		6					*D. clouds	B. G. Clare, for Prof. Currey
Gibraltar, (Mediterranean)			30.40	772.1	59.6	15.3		NE			5		3					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.30	744.2	46.8	8.2		W			3		8					Fine	Lewis Stuart.
Great Yarmouth			29.57	751.1	50	10.0		WSW			5		4					Squally	G. T. Watson.
Greenwich Royal Obs.			29.70	754.4	50.2	10.1		WSW			5		10			Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey			29.88	758.9	51.6	10.6		SW			6		7					Squally	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.50	749.3	46.8	8.2		WSW			4		8			Blank	Blank	Squally	L. J. Crossley.
Helston			29.81	757.2	53	11.7		SW			6		10			0.16	4.1	Gloomy	M. P. Moyle.
Holyhead			29.56	750.8	49	9.4		SW			4		10					Overcast	John Tilston.
Kew Observatory			29.71	754.6	50.8	10.4		WSW	24	10.7			10					Ove cast	The Staff.
Kingstown			29.50	749.3	49	9.4		W			6		7					*D. clouds	George Mitchell.
Leicester Museum			29.61	752.1	49.4	9.7		SW			2		8					Showery	William J. Harrison.
Malta, (Mediterranean)			30.31	769.9	60.8	16.0		NW			2		6k						Fred Travis, Pvt A.H.C
Nairn			29.17	740.9	43	6.1		SE			1		8					¾ clouded	W. D. Penny.
Nassau, (Bahamas)			30.14	765.5	72.4	22.4		NW			3		10					Overcast	Surg.-Maj. Henry.
Nottingham			29.56	750.8	51.1	10.6		WSW			5		7c,ck		WSW	0.068	1.72	*D. clouds	E. J. Lowe, F. R. S
Oscott, St. Mary's College			29.60	751.8	48.8	9.3		WSW			6		9			Blank	Blank	Threatening	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.66	753.4	52	11.1		WSW			4		10			Blank	Blank	Overcast	J. Lucas.
Plymouth			29.80	756.9	51	10.6		WSW			4		4?					Overcast?	John Merrifield.
Roche's Point			29.62	752.3	50	10.0		W			4		5			Blank	Blank	Cloudy	W. Kennedy.
Saint Ann's Head			29.66	753.4	48	8.9		WSW			6		7					*D. clouds	John C. Walker.
Saint Helier, (Jersey)			29.91	759.7	49.5	9.7		W			6		10					Overcast	A. P. Amy.
Sandwick Manse (Orkneys			29.17	740.9	44?	6.7?		S	3	1.3			0					Blue sky	Rev. Dr. Clouston
Scarborough			29.42	747.3	48.0	8.9		WSW			5		4					*D. clouds	F. Shaw.
Scutari Cemetery (Turkey			30.18	766.6	48.6	8.9		SW			2		1					*D. clouds	Sergt. W. H. Lyne.
Sheffield			29.48	748.8	49.9	9.9		W			7		5			0.033	0.84	Overcast	W. F. Cooper.
Silloth Rectory			29.41	747.0	46.0	7.8	86	WSW			4		4			0	0	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			29.49	749.0	47.1	8.4		S			5		10			Blank	Blank	Threatening	The Staff.
Stornoway, Lewis C. (Hebr.)			29.05	737.9	44	6.7		SW			4		10					Showery	John Smith.
Stratfield Turgiss			29.72	754.9	50.5	10.3		W			1–2		10					Squally	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.13	739.9	41	5.0		SSW			2		4					*D. clouds	John Trotter.
Truro, Royal Institution			29.80	756.9	55	12.8		SW			7		10					Raining	W. Newcombe
Valencia Observatory			29.65	753.1	50.2	10.1		WSW	23	10.3			7					*D. clouds	The staff.
Sub-Series.																			
Cape Good Hope Obs.			30.12	765.0	68.6	20.3	62	S	29	13.0			7						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					38	3.3		W			4		10			0	0		
Leith, Restalrig Park			29.34	745.2	47.2	8.4		W			4		4k			0.04	1.0	Fine, cloudy	Andrew Gib
Monach Lt-house, Hebrides			29.02	737.1	47	8.3		W			4		10			0.4	10.2		J. Youngel use.
North Unst, (Shetland Is)			29.17	740.9	39	3.9		SE			7		10			Blank	Blank		

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.36	745.7	34.9	1.6	96	SW			2		10					Misty	
Fanöe			29.45	748.1	36.5	2.5	96	W			4		10						
Godthaab, (Greenland)			29.97	761.2	9.1	—12.7	84	NE			4		0						
Stykkisholm, (Iceland)			29.72	755.0	27.1	— 2.7	96	NE			7		9						
Thorshavn, (Faröe)			29.15	740.5	43.7	6.5	87	ESE			4		10						
Vestervig			29.36	745.8	30.6	— 0.8	100	ENE			2		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

STATIONS.	BAROMETER. Corrected for instrumental errors.		BAROMETER. Reduced to sea-level.		TEMPERATURE OF THE AIR.		RELATIVE HUMIDITY.	WINDS. Direction.	WINDS. Velocity.		WINDS. Force.	CLOUDS. Amount.		CLOUDS. Direction.		RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS.		WEATHER.	OBSERVER.
												Amount.		Direction.					
												per Le.		Upper	Lower.				
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	—lo.	—le.	—le.	From—	From—	Inches.	Millimeters.		
Alençon			29.61	752.1	42.8	6	75	SW			1		10			0.102	2.6	Covered	Normal School.
Amiens			29.89	759.1	52.2	11.2	85	W			3		10			0	0	Covered	Normal School.
Avignon			30.30	769.6	55.0	12.8	74	ENE			1		10			0	0	Covered	Normal School.
Bar-sur-Seine			30.09	764.2	53.4	11.9	78	S			2		10		W	0.209	5.3	Covered	C. Saillard.
Beaumette, (near Angers)			30.05	763.3	52.9	11.6	95	SW	7.2	3.2			10		SW	0.012	0.3	Raining	Beaumette Observatory
Beauvais			29.93	760.3	52.3	11.3	71	W			3		10		W	0.400	10.15	Covered	Normal School.
Besançon			30.19	766.7	49.8	9.8	76	SW			3		8		SW	0.378	9.6	Very cloudy	Normal School.
Bourg en Bresse			30.28	769.1	49.1	9.5	92	S			4		10n		W			Raining	Normal School.
Bourges			30.01	762.2	50.0	10	97	NW			2		10		NW	0	0	Covered	Normal School.
Brest			29.91	759.7	51.3	10.7	93	SW			4		10		SW	0.157	4.00	Rain and fog	Naval Observatory.
Caen			29.92	760.0	53.0	12	75	SW			2		10		S	0.252	6.4	Covered	Normal School.
Chartres			29.95	760.7	50.4	10.2		SW			3		10			0.059	1.5	Covered	Normal School.
Chaumont																			Normal School.
Clermont			30.12	765.0	61.5	16.4	40	S			2		0			0	0	Clear	Puy de Dome, Obs.
Commercy			30.03	762.7	47.3	8.5	94	SSW			4		8k,n		SSW	0.24	6.	Very cloudy	Normal School.
Commune de Gréasque*			30.33	770.3	55.0	12.8	66	NW			4		8		NW	0	0		
Grenoble			30.33	770.3	42.4	5.8	97	NW			2		5kn			0.364	9.25	Raining	Normal School.
Le Mans			30.03	762.8	52.9	11.6	76	W			3		8		W	0.193	4.9	Very cloudy	Normal School.
Loches																			
Lons-Le-Saulnier			30.20	767.0	50.0	10	76	SW			2		10		SW	0.39	10.	Raining	Normal School.
Mâcon			30.20	767.1	46.9	8.3	83	Calm			0		5		S	0.20	5.	Cloudy	Normal School.
Mirecourt			30.06	763.5	47.5	8.6	56	S			4		10			0.47	12.	Covered	Normal School.
Metz																			
Nismes			30.38	771.6	53.8	12.1	62	NE			2		10		N	0	0	Covered	Normal School.
Orleans			30.02	762.4	51.4	10.8	82	WSW			3		8		WSW	0.031	0.8	Very cloudy	Normal School.
Paris Observatory			29.98	761.6	52.2	11.2	76	WSW			3		10		W	0.250	6.34	Covered	National Observatory.
Parthenay			30.09	764.3	51.1	10.6	93	SW			4		10			0.535	13.6	Covered	Normal School.
Privas			30.32	770.2	51.6	10.9		S			2		8			0	0	Very cloudy	Normal School.
La Roche-sur-Yon			30.21	767.2	56 8	13.8	76	SW			6		10			0.59	5	Covered	Normal School.
Rochefort, Observatory			30.21	767.4	54.9	12.7	82	WSW			5		10		NE	0	0	Covered	Naval Observatory.
Rouen			29.90	759.4	54.9	12.7	66	SSW			4		10		S	0.339	8.6	Covered	Normal School.
Saint Lo			29.97	761.1	49.3	9.1	94	W			2		9		W	0.24	6.		Normal School.
Tarbes	29.21	741.9	30.31	769.9	50.0	10	50	WSW			1		0			0	0	Clear	Normal School.
Toulouse			30.41	772.4	54.1	12.3	83	S			1		0					Clear	Normal School.
Villefranche			29.95	760.6	59.0	15	90	SSE			2		5		SE	0.047	1.20	Cloudy	Normal School.
SUB-SERIES.																			
Fort de France, Martinique			29.97	761.3	75.2	24	75	NE			1		2k			0	0		L'Abbé Marchési.
Gorée																			
Marseilles			30.27	768.8	57.6	14.2	74	W			1		9			0	0		Marseilles Observatory.
Mont-Louis	25.06	636.5	30.18	774.3	42.6	5.9	67	WSW	13.0	5.81			6		W	0	0		—. Faiguère.
Montsouris, Paris			29.97	761.3	52.2	11.2	76	WSW			3		10		WSW	0.042	1.1		Montsouris Observ'tory
Perpignan			30.32	770.0	53.6	12.0	75	S	5.6	2.50			6		W	0	0		Dr. Fines.
Pic du Midi, (Summit) H. P.	21.37	542.7			31.6	— 0.2		N			4		10					Fair	M. Baylac.
Saint Maur, (near Paris)			29.98	761.6	51.8	11.0	78	S W			3		10			0.299	7.6	Covered	E. Renou.
Toulouse			30.31	769.8	58.8	14.9	62	SE			1		3			0	0		Toulouse Observatory
Tours			30.08	764.0	52.	11.1	93	WSW			5		10		SW	0.354	9.0		C. Marquet.
Versailles, (near Paris)			29.98	761.4	52.2	11.2	77	W			3		10			0.027	0.68	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec, S. J.

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			29.87	758.6	44.8	7.1	83	W			7		9			0.039	1.0		Prof. T. Hoh.
Berlin			29.04	752.9	45.1	7.3	75	S			4		8			0	0		Prof. Arndt.
Breslau			29.78	756.5	41.5	5.3	79	WSW			6		10			0.091	2.3		Dr. P. Neugebauer
Carlsruhe			29.97	761.3	47.5	8.6	80	SW			10		10			0.406	10.3		A. Senz.
Cassel			29.98	753.9	47.8	8.8	67	SW			3		10			0.335	8.5		Dr. H. Möhn.
Cologne																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main			29.95	760.6	46.2	7.9	88	SW			3		9			0.319	8.1		Physical Society.
Friedrichshafen			30.13	765.3	46.4	8.0	83	W					9			0.689	17.5		M. Wilhelm.
Hamburg			29.57	751.0	39.9	4.4	96	W			4		10			0.264	6.7	Light rain	Deutsche Seewarte.
Kiel			29.52	749.9	37.9	3.3	94	WSW			4		10			0.425	10.8		Prof. G. Karsten.
Königsberg			29.44	747.7	34.9	1.6	93	SW			2		10			0.189	4.8	Snowing	Prof. E. Luther.
Köslin			29.47	748.6	36.3	2.4		SSW			5		9			0.484	12.3		H. Müller.
Leipsic			29.77	756.1	45.0	7.2	74	SW			8		9			0.067	1.7	Stormy	Prof. Bruhns.
Münster			29.69	754.2	41.7	5.4	98	SW			2		10			0.161	4.1	Raining	Prof. E. Heis.
Posen			29.66	753.3	41.0	5.0	88	SW			2		10			0.059	1.5	Raining	Dr. Magener.
Strassburg, (in Alsace)			30.04	763.0	50.4	10.2	64	WSW			4		10			0.335	8.5		Dr. Schur.
Stuttgart			30.02	762.6	49.6	9.8	66	SW					10			0.067	1.7	Light rain	Prof. Schoder.
Thorn			29.55	750.6	37.9	3.3	96	SW			5		10			0.131	3.4		Dr. Hasenbalg
Treves, (Trier)			29.87	758.7	46.6	8.1	84	W			8		10			0.445	11.3		Prof. Flesch.
Wustrow, Naval School			29.52	749.9	35.2	1.8	98	WSW			6		10			0.028	0.7	Raining	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			30.20	767.1	58.8	14.9		SE					..k						

NOTE.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.17	766.3	41.7	5.4	63	Calm	0	0			9			0	0		
Padua			30.18	766.6	38.8	3.8	70	NW	1.3	0.6			10	W		0	0		
Vicenza																			
Verona			30.19	766.9	39.6	4.2	82	E			1		0			0	0		
Bergamo			30.13	765.3	44.6	7.0	66	S			4		5			0	0		
Domodossola																			
Milan			30.19	766.9	46.8	8.2	68	WNW			1		5			0	0		
Pavia																			
Moncalieri			30.24	768.1	37.9	3.3	71	ENE	3.1	1.4			6	NW		0	0		
Mondovi			30.22	767.5	41.0	5.0	60	NNW			2		2	NNW		0	0		
Porto Maurizio			30.24	768.0	56.3	13.5		E			4		6			0	0		
Genoa			30.20	767.1	54.7	12.6	70	SE	8.1	3.6			10	SE		0	0		
Piacenza			30.20	767.0	44.2	6.8	67	NW	37.8	16.9			10			0	0		
Bologna			30.24	768.0	45.9	7.7	28	W			1		5	E		0	0		
Florence			30.28	769.1	51.3	10.7	88	SW			2		10	SW		0	0		
Leghorn			30.26	768.7	55.0	12.8	71	WSW	13.7	6.1			10			0	0		
Siena			30.26	768.5	45.3	7.4	95	SW	0	0			10	W		0	0		
Urbino																			
Pesaro																			
Ancona			30.21	767.3	51.8	11.0	70	NNW			2		7			0	0		
Grosseto			30.27	768.8	57.2	14.0	63	E			2		6	NW		0	0		
Rome			30.33	770.3	52.3	11.3	89	SE	1.3	0.6			9	W		0.039	1.0		
Naples, O. U.			30.34	770.6	57.0	13.9	64	NW			4		10	WNW		0	0		
Lecce			30.31	769.8	55.6	13.1	63	NW	2.5	1.1			5	W		0	0		
Cosenza			30.34	770.7	55.8	13.2	73	NW	3.1	1.4			7			0	0		
Riposto, (Sicily)			30.32	770.1	59.0	15.0	69	S			2		5	SE		0	0		
Palermo			30.31	769.8	58.5	14.7	62	NE	6.9	3.1			10			0	0		
Caltanissetta			30.31	769.8	53.6	12.0	65	WNW			4		6	ESE		0	0		
Sub-Series.																			
Naples, S. R.			30.34	770.6	55.0	12.8	78	SW	5.6	2.5			..k,c	SW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.77	756.1	41.9	5.5		W			4								
Groningen			29.52	749.8	41.9	5.5		W			5								
Helder			29.57	751.0	43.0	6.1		SSW			4								
Utrecht			29.62	752.3	44.8	7.1	93	SW			5		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.40	746.7	33.8	1.0	72	E	2.9	1.3			10			0	0		
Brönö			29.57	751.0	23.4	— 4.8	69	E	7	3			1			0	0		
Christiania			29.55	750.5	20.5	— 6.4	87	NE	10.7	4.8			10			0	0	Snowing	
Tromsö			29.52	749.7	30.7	— 0.7	75	NNE	7	3			9			0.047	1.2		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er —1c.	Clouds. Amount. Low'r —1c.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.45	747.9	56.7	13.7	82	SW	17.2	7.69	.....	.....	4	.....	.....	1.906	48.4	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.35	770.8	57.2	14.0	62	ESE	8.4	3.75	.....	.....	4	WNW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.21	767.4	63.3	17.4	69	Calm	0	0	.....	.....	10	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.36	771.1	57.4	14.1	70	SE	7.4	3.3	.....	.....	4	S	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.59	751.5	36.0	2.2	96	SW	22	10	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	29.78	756.5	28.6	— 1.9	86	SE	4	2	.....	.....	10	.....	.....	.....	.....	Snowing.....	Astronomical Obs.
Dorpat	.....	.....	29.71	754.7	12.6	—10.8	82	ESE	7	3	.....	.....	8	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.80	756.8	6.1	—14.4	83	E	7	3	.....	.....	0	.....	.....	.....	.....	Light fog.....	Central Physical Obs.
Kuopio	.....	.....	29.80	756.9	— 0.4	—18.0	100	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	29.92	759.9	20.5	— 6.4	95	S	13	6	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.14	765.6	22.8	— 5.1	88	SE	9	4	.....	.....	8	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.21	767.4	27.9	— 2.3	75	ENE	4	2	.....	.....	9	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	30.13	765.3	— 1.7	—18.7	89	S	13	6	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.21	768.1	— 0.6	—18.1	72	E	13	6	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.54	750.2	16.5	— 8.6	94	W	29	13	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.81	731.7	30.28	769.1	39.0	3.9	75	SSE	25	11	.....	.....	10	.....	.....	.....	.....	Snowing.....	Physical Obs.
Astrakhan	.....	.....	30.55	776.0	4.6	—15.2	81	W	2	1	.....	.....	0	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	29.86	758.5	1.8	—16.8	75	WNW	13	6	.....	.....	9	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	30.09	764.3	— 4.0	—20.0	68	W	4	2	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.62	726.9	29.72	754.9	- 4.7	—20.4	70	WSW	9	4	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.25	768.4	12.6	—10.8	83	WNW	22	10	.....	.....	4	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.02	762.5	11.8	—11.2	68	W	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.35	720.1	30.10	764.4	45.0	7.2	57	Calm	0	0	.....	.....	10	.....	.....	Blank	Blank	.....	Michelson.
Barnaul	.....	.....	29.92	759.9	7.7	—13.5	67	Calm	0	0	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.16	766.0	— 8.7	—22.6	73	E	4	2	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.24	768.0	33.4	0.8	68	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.37	771.5	11.3	—11.5	64	Calm	0	0	.....	.....	.....	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.45	773.4	49.8	9.9	78	N	2.2	1.00	.....	1	3	N	.....	0	0	Cloudy.....	Royal Observatory.
San Fernando	.....	.....	30.37	771.4	64.2	17.9	65	SE	10.3	4.6	.....	2	2	W	W	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.74	755.4	14.0	—10.0	94	NW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	29.76	755.8	19.9	— 6.7	100	SSW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	29.71	754.7	19.9	— 6.7	97	SSE	.....	.....	2	.....	5	.....	.....	0.012	0.3	.....	
Stockholm	.....	.....	29.54	750.3	18.7	— 7.4	95	NE	.....	.....	6	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	29.47	748.5	27.0	— 2.8	100	ESE	.....	.....	4	.....	10	.....	.....	0.102	2.6	.....	
Sub-Series.																			
Upsala	.....	.....	29.61	752.1	18.7	— 7.4	89	ENE	10.7	4.8	.....	.....	10	.....	.....	0.003	0.08	Snowing.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.77	730.8	30.21	767.2	51.8	11.0	61	SSW	.....	.....	5	.....	10	.....	.....	0.140	3.7	Covered	The Observatory.
Zurich	28.47	723.1	30.13	765.2	47.7	8.7	77	SW	.....	.....	5	.....	9	.....	.....	0.028	0.7	Cloudy, föhn	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +4.5 mm.; Thermometer, +7.3 cent.; Relative Humidity, —10 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.19	766.8	45.9	7.7	70	S	3	1.5	.....	.....	0	.....	.....	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.22	767.6	64.4	18.0	.....	SE	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.18	766.6	64.9	18.3	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	30.14	765.5	56.8	13.8	.....	NW	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	30.04	763.0	42.8	6.0	.....	N	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.10	764.4	62.6	17.0	72	NW	.....	.....	1	.....	0	.....	.....	0	0	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.32	744.7	34.2	1.2	92	SW	15.7	7.0	.....	.....	.....	.....	.....	1.50	38.1	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.50	749.3	20	— 6.7	.....	N	10	4.5	.....	2c	5s	SW	W	1.20	30.5	Fair	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.40	746.7	35	1.7	67	SW	20	8.9	.....	2k	2ks	W	W	0.88	22.4	Fair	G. A. Blair.
Charlottetown, P. E. Island.	.....	.....	29.52	749.8	34	1.1	93	S	14	6.3	.....	0	0	.....	.....	0.716	18.18	Clear	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.35	745.5	20.8	— 6.2	90	NW	.....	.....	6	.....	10n	.....	.....	0.35	8.9	Stormy	James Smith, M. A.
Dalhousie, N. B.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	30.35	770.9	39.1	3.9	92	Calm	0	0	.....	3ck	.....	.....	.....	0.33	8.4	Clear	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.42	747.3	34.0	1.1	71	S	6	2.7	.....	.....	8ks	.....	.....	0.905	24.51	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.44	773.2	—24	—31.1	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	James Stewart.
Goderich, Ontario	.....	.....	29.79	756.7	20.5	— 6.4	84	NW	.....	.....	5	.....	10n	.....	.....	0	0	Cloudy	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.76	755.9	18.3	— 7.6	.....	NW	.....	.....	3	.....	10n	.....	.....	0.10	2.5	Snowing	James Grant.
*Halifax, N. S.	.....	.....	29.59	751.6	36	2.2	78	SW	18	8.0	.....	0	0	.....	.....	1.35	34.3	Clear	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.50	749.3	24	— 4.4	81	W	11	4.9	.....	5cs	2s	W	.....	0.91	23.1	Clearing	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.63	752.8	13.0	—10.2	.....	SW	21	9.4	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.31	744.5	20	— 6.7	84	SW	16	7.2	.....	.....	10n	.....	SW	0.61	15.5	Light snow	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.38	746.2	17	— 8.3	82	SW	22	9.8	.....	.....	10n	.....	SW	1.60	40.6	Cloudy	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.58	751.3	15	— 9.4	100	W	28	12.5	.....	.....	10n	.....	W	0.27	6.9	Light snow	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.75	755.6	22	— 5.6	72	W	19	8.5	.....	10k	0	W	.....	0	0	Cloudy	H. Morgan.
Port Hastings, N. S.	.....	.....	29.67	753.6	33.7	0.9	.....	NW	16	7.2	.....	.....	.....	.....	.....	0.20	5.1	Fine	Peter Grant.
*Port Stanley Ontario	.....	.....	29.81	757.2	21	— 6.1	90	W	25	11.2	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow	M. Payne.
*Quebec, Quebec	.....	.....	29.20	741.7	21	— 6.1	85	SW	23	10.3	.....	.....	10n	.....	SW	0.70	17.8	Cloudy	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.50	749.3	35	1.7	80	S	16	7.2	.....	.....	4ks	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.63	752.6	23	— 5.0	79	NW	13	5.8	.....	.....	10s	.....	.....	0.04	1.0	Light snow	K. Stewart.
Stayner, Ontario	.....	.....	29.59	751.6	23	— 5.0	81	NW	15	6.7	.....	.....	10n	.....	NW	0.69	17.5	Light snow	R. J. Cole.
Stratford, Ontario	.....	.....	29.75	755.6	18.9	— 7.3	89	W	15	6.7	.....	.....	10n	.....	.....	0.10	2.5	Snowy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.71	754.6	33	0.6	95	S	8	3.6	.....	.....	10n	.....	.....	0.98	24.9	Cloudy	T. C. Hill.
*Toronto, Ontario	.....	.....	29.63	752.6	26	— 3.3	73	W	24	10.7	.....	.....	10ks	.....	NW	0.05	1.3	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The altitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hr.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.53	750.0	30	— 1.1	89	SW	12	5.4	.....	2k	8s	SW	SW	1.06	26.9	Cloudy	
Alpena, Mich	.....	.....	29.70	754.4	16	— 8.9	83	W	19	8.5	.....	.....	10n	.....	W	0.01	0.3	Light snow	
Atlantic City, N. J	.....	.....	29.86	758.4	29	— 1.7	67	W	10	4.5	.....	0	0	.....	.....	0.10	2.5	Clear	
Augusta, Ga	.....	.....	30.09	764.3	43	6.1	55	W	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Baltimore, Md	.....	.....	29.92	760.0	29	— 1.7	66	W	15	6.7	.....	2k	2s	NW	W	0.14	3.6	Fair	
Barnegat, N. J	.....	.....	29.82	757.4	30	— 1.1	79	W	20	8.9	.....	0	0	.....	.....	0.18	4.6	Clear	
Benton, Montana	27.43	696.7	30.23	767.8	31	— 0.6	60	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Bismarck, Dakota	28.47	723.1	30.29	769.4	9	—12.8	78	N	2	0.9	.....	.....	10n	.....	N	0.05	1.3	Light snow	
Boston, Mass	.....	.....	29.55	750.6	33	0.6	74	SW	13	5.8	.....	5k	Fog	.....	.....	0.87	22.1	Fair	
Breckenridge, Minn	.....	.....	30.42	772.7	—15	26.1	72	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Buffalo, N. Y	.....	.....	29.67	753.6	24	— 4.4	74	W	24	10.7	.....	Haze	8s	.....	W	0.18	4.6	Fair	
Burlington, Vt	.....	.....	29.38	746.2	31	— 0.6	70	W	6	2.7	.....	.....	10s	.....	.....	0.16	4.1	Cloudy	
Cairo, Ill	.....	.....	30.26	768.6	25	— 3.9	75	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Cape Hatteras, N. C	.....	.....	29.91	759.7	43	6.1	83	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Cape Henry, Va	.....	.....	29.94	760.5	43	6.1	51	W	8	3.6	.....	0	0	.....	.....	0.09	2.3	Clear	
Cape May, N. J	.....	.....	29.89	759.2	31	— 0.6	68	NW	24	10.7	.....	0	0	.....	.....	0.09	2.3	Clear	
Charleston, S. C	.....	.....	30.11	764.8	45	7.2	60	SW	8	3.6	.....	0	Sm'e	.....	.....	0	0	Clear	
Cheyenne, Wyoming	24.23	615.4	30.17	766.3	20	— 6.7	85	NW	8	3.6	.....	1ck	0	NW	.....	0	0	Clear	
Chicago, Ill	.....	.....	30.05	763.3	15	— 9.4	65	NW	5	2.2	.....	1k	0	.....	.....	0.02	0.5	Clear	
Cincinnati, Ohio	.....	.....	30.07	763.8	23	— 5.0	73	W	8	3.6	.....	.....	10s	.....	W	0.01	0.3	Cloudy	
Cleveland, Ohio	.....	.....	29.89	759.2	21.1	— 6.1	80	SW	27	12.1	.....	.....	10n	.....	W	0.01	0.3	Light snow	
Colorado Springs, Col	24.31	617.5	30.18	766.6	20	— 6.7	41	N	8	3.6	.....	1k	0	.....	.....	Inap.	Inap.	Clear	
Corsicana, Tex	.....	.....	30.16	766.1	44	6.7	84	S	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Davenport, Iowa	.....	.....	30.19	766.8	12	—11.1	79	W	12	5.4	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Denison, Tex	.....	.....	30.16	766.1	45	7.2	53	E	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Denver, Col	25.06	636.5	30.28	769.1	28	— 2.2	54	N	4	1.8	.....	0	5ks	.....	N	0	0	Fair	
Detroit, Mich	.....	.....	29.85	758.2	23	— 5.0	86	W	12	5.4	.....	.....	10n	.....	W	0.02	0.5	Light snow	
Dodge City, Kan	27.67	702.8	30.10	764.5	29	— 1.7	78	W	4	1.8	.....	8cs	0	.....	.....	0	0	Fair	
Dubuque, Iowa	.....	.....	30.13	765.3	11	—11.7	40	W	7	3.1	.....	0	0	.....	.....	0	0	Clear	
Duluth, Minn	.....	.....	30.14	765.5	4	—15.6	61	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Eastport, Me	.....	.....	29.44	747.8	36	2.2	90	S	21	9.4	.....	5cs	Haze	S	.....	2.68	68.1	Fair	
Erie, Pa	.....	.....	29.77	756.1	25	— 3.9	88	W	28	12.5	.....	.....	10n	.....	W	0.17	4.3	Light snow	
Escanaba, Mich	.....	.....	29.91	759.7	5	—15.0	75	W	4	1.8	.....	1c	2s	W	W	0.02	0.5	Fair	
Fort Gibson, Indian Terr	.....	.....	30.27	768.8	30	— 1.1	78	SW	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Fort Sill, Indian T	29.00	736.6	30.16	766.1	38	3.3	56	NW	4	1.8	.....	0	5s	.....	NW	0	0	Fair	
Fort Sully, Dakota	28.57	725.7	30.39	771.9	14	—10.0	91	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Galveston, Tex	.....	.....	30.19	766.8	56	13.3	74	S	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Grand Haven, Mich	.....	.....	29.93	760.2	21	— 6.1	71	W	21	9.4	.....	.....	10s	.....	.....	0.05	1.3	Cloudy	
Indianapolis, Ind	.....	.....	30.07	763.8	23	— 5.0	73	W	6	2.7	.....	.....	10s	.....	W	0.01	0.3	Cloudy	
Indianola, Tex	.....	.....	30.17	766.3	60	15.6	82	SE	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Jacksonville, Fla	.....	.....	30.19	766.8	44	6.7	60	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Keokuk, Iowa	.....	.....	30.22	767.6	15	— 9.4	65	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Key West, Fla	.....	.....	30.18	766.6	65.8	18.8	59	N	13	5.8	.....	2k	0	N	.....	0.24	6.1	Clear	
Kittyhawk, N. C	.....	.....	29.96	761.0	39	3.9	64	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Knoxville, Tenn	.....	.....	30.15	765.8	27	— 2.8	66	W	14	6.3	.....	0	0	.....	.....	0.01	0.3	Clear	
La Crosse, Wis	.....	.....	30.13	765.3	9	—12.8	78	W	6	2.7	.....	10cs	0	W	.....	0	0	Cloudy	
Leavenworth, Kan	.....	.....	30.30	769.6	26	— 3.3	65	NW	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Lexington, Ky	28.99	736.3	30.18	766.6	21	— 6.1	71	SW	12	5.4	.....	.....	10n	.....	.....	0.01	0.3	Light snow	
Long Branch, N. J	.....	.....	29.77	756.1	30	— 1.1	67	W	29	13.0	.....	0	0	.....	.....	0.20	5.1	Clear	
Louisville, Ky	.....	.....	30.16	766.1	23	— 5.0	73	W	6	2.7	.....	.....	10s	.....	.....	0.04	1.0	Cloudy	
Lynchburg, Va	.....	.....	29.94	760.5	34	1.1	62	W	3	1.3	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Malone, N. Y	.....	.....	29.33	744.7	22	— 5.6	87	W	4	1.8	.....	.....	10n	.....	W	1.54	39.1	Heavy snow	
Marquette, Mich	.....	.....	29.90	759.4	10	—12.2	79	W	12	5.4	.....	.....	10s	.....	.....	0.03	0.8	Cloudy	
Memphis, Tenn	.....	.....	30.27	768.8	32	0.0	79	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Clear	
Milwaukee, Wis	.....	.....	30.06	763.5	8	—13.3	66	NW	13	5.8	.....	0	0	.....	.....	0.01	0.3	Clear	
Mobile, Ala	.....	.....	30.23	767.8	44	6.7	67	W	4	1.8	.....	0	Sm'e	.....	.....	0	0	Smoky	
Montgomery, Ala	.....	.....	30.21	767.3	44	6.7	68	SW	2	0.9	.....	0	Sm'e	.....	.....	0	0	Clear	
Morgantown, W. Va	.....	.....	29.97	761.2	25	— 3.9	75	W	18	8.0	.....	.....	10s	.....	W	0.01	0.3	Cloudy	
Mt. Washington, N. H	22.82	579.6	29.18	741.1	12	—11.1	100	NW	96	42.9	.....	.....	Fog	.....	.....	0.83	21.1	Foggy	
Nashville, Tenn	.....	.....	30.21	767.3	25	— 3.9	62	NW	4	1.8	.....	0	Haze	.....	.....	0	0	Clear	
New Haven, Conn	.....	.....	29.66	753.4	34	1.1	61	W	20	8.9	.....	.....	10s	.....	W	0.14	3.6	Cloudy	
New London, Conn	.....	.....	29.66	753.4	31.5	— 0.3	58	SW	14	6.3	.....	2k	0	W	.....	0.33	8.4	Clear	
New Orleans, La	.....	.....	30.22	767.6	49.5	9.7	75	W	1	0.4	.....	0	Sm'e	.....	.....	0	0	Clear	
Newport, R. I	.....	.....	29.64	752.8	33	0.6	61	W	24	10.7	.....	0	2ks	.....	W	0.58	14.7	Fair	
New York, N. Y	.....	.....	29.75	755.6	29	— 1.7	59	NW	20	8.9	.....	0	0	.....	.....	0.80	20.3	Clear	
Norfolk, Va	.....	.....	29.94	760.5	39	3.9	64	SW	7	3.1	.....	0	Haze	.....	.....	0.07	1.8	Clear	
North Platte, Neb	27.29	693.2	30.03	762.7	23	— 5.0	73	W	2	0.9	.....	0	2s	.....	.....	0	0	Clear	
Omaha, Neb	29.19	741.4	30.36	771.1	16	— 8.9	83	NW	12	5.4	.....	.....	10s	.....	NW	0	0	Cloudy	
Oswego, N. Y	.....	.....	29.52	749.8	30	— 1.1	78	SW	26	11.6	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow	
Peck's Beach, N. J	.....	.....	29.88	75 .9	29	— 1.7	78	W	14	6.3	.....	0	0	.....	.....	0 17	4.3	Clear	
Pembina, Dakota	.....	.....	30.42	772.7	—20	—28.9	100	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Philadelphia, Penn	.....	.....	29.86	758.4	28	— 2.2	54	W	13	5.8	.....	0	0	.....	.....	0.42	10.7	Clear	
Pike's Peak, Colorado	17.64	448.0	29.85	758.2	—10	—23.3	78	Calm	0	0	.....	0	5s	.....	.....	0.02	0.5	Fair	
Pittsburgh, Penn	.....	.....	29.92	760.0	21	— 6.1	71	NW	6	2.7	.....	.....	10s	.....	.....	0.03	0.8	Cloudy	
Port Huron, Mich	.....	.....	29.80	756.9	19	— 7.2	59	W	22	9.8	.....	0	10s	.....	.....	0.04	1.0	Clear	
Portland, Me	.....	.....	29.47	748.5	32	0.0	79	SW	12	5.4	.....	1k	0	W	.....	0.36	9.1	Clear	
Portland, Oregon	.....	.....	30.52	775.2	37	2.8	90	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Punta Rassa, Fla	.....	.....	30.22	767.6	52.6	11.4	52	E	4	1.8	.....	.....	10ks	.....	NW	0	0	Cloudy	
Rochester, N. Y	.....	.....	29.56	750.8	25	— 3.9	81	W	28	12.5	.....	2c	5s	W	W	0.30	7.6	Fair	
Salt Lake City, Utah	26.03	661.2	30.36	771.1	30	— 1.1	59	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Sandy Hook, N. J	.....	.....	29.74	755.4	31	— 0.6	69	W	38	17.0	.....	0	2s	.....	SW	0.46	11.7	Clear	
San Diego, Cal	.....	.....	30.12	765.0	54	12.2	48	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear	
San Francisco, Cal	.....	.....	30.27	768.8	53	11.7	55	NW	4	1.8	.....	5ck	0	.....	.....	0	0	Fair	
Santa Fe, N. M	23.32	592.3	29.86	758.4	20	— 6.7	70	NE	4	1.8	.....	2k	2s	NE	.....	0	0	Fair	
Savannah, Ga	.....	.....	30.15	765.8	46	7.8	60	W	8	3.6	.....	0	Haze	.....	.....	0	0	Clear	
Shreveport, La	.....	.....	30.26	768.6	45.5	7.5	69	N	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Smithville, N. C	.....	.....	30.03	762.7	46	7.8	54	NW	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Springfield, Mass	.....	.....	29.60	751.8	34	1.1	61	SW	12	5.4	.....	0	8ks	.....	SW	0.74	18.8	Cloudy	
St. Louis, Mo	.....	.....	30.21	767.3	22	— 5.6	75	NW	8	3.6	.....	0	0	.....	.....	0.03	0.8	Clear	
St. Marks, Fla	.....	.....	30.29	768.1	38	3.3	80	NW	3	1.3	.....	0	0	.....	.....	0	0	Clear	
St. Paul, Minn	.....	.....	30.19	766.8	3	—16.1	72	W	5	2.2	.....	0	0	.....	.....	0	0	Clear	
St. Paul's Island, Alaska	.....	.....	30.38	771.6	13	—10.6	81	NE	11	4.9	.....	0	1k	.....	.....	0	0	.....	
Squan Beach, N. J	.....	.....	29.74	755.4	29	— 1.7	67	W	21	9.4	.....	0	0	.....	.....	0.12	3.0	Clear	
Thatcher's Island, Mass	.....	.....	29.55	750.6	33	0.4	69	W	20	8.9	.....	0	0	.....	.....	0.79	20.1	Clear	
Toledo, Ohio	.....	.....	29.88	758.9	26	— 3.3	88	SW	5	2.2	.....	.....	10n	.....	SW	0.05	1.3	Light snow	
Tucson, Arizona	27.62	701.5	30.21	767.3	38	3.3	.....	SW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Tybee Island, Ga	.....	.....	30.17	766.3	52	11.1	79	NW	2	0.9	....	0	0	.....	.....	0	0	Clear	
Vicksburg, Miss	.....	.....	30.25	768.3	47	8.3	69	SW	2	0.9	....	0	0	.....	.....	0	0	Clear	

UNITED STATES SERIES.—CONTINUED

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Inches.	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.58	624.3	30.06	763.5	17	— 8.3	67	Calm	0	0	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Washington, D. C	.....	.....	29.92	760.0	29	— 1.7	67	NW	14	6.3	.....	0	1ks	.. ..	NW	0.24	6.1	Clear	
Wilmington, N. C	.....	.....	30.01	762.2	43	6.1	58	W	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	29.64	752.8	35	1.7	61	SW	24	10.7	.....	0	2s	....	SW	0.50	12.7	Fair	
Wytheville, Va	27.52	699.0	29.74	755.4	28	— 2.2	57	W	12	5.4	.....	8k	0	W	.....	0.03	0.8	Cloudy	
Yankton, Dakota	29.04	737.6	30.48	774.2	9	—12.8	67	NW	8	3.6	.....	0	8s	.....	NW	0	0	Cloudy	
Yuma, Arizona	.....	.....	30.25	768.3	58	14.4	.....	NW	.....	.....	.. ...	0	0	.....	.....	0	0	Clear	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.11	764.8	76	24.4	81	NE	6	2.7	.....	5k	10ks	SE	.....	0.15	3.8	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.05	763.3	72	22.2	76	NE	.....	.....	.....	10c	0	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.29	769.4	75	23.9	81	ENE	3	1.3	.....	8cs	4k	E	.....	0	0	Cloudy, hazy	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.26	768.6	70	21.1	90	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.90	759.4	73	22.8	76	NE	4.8	2.1	.....	0	0	.....	.....	0	0	Clear	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.19	766.8	65	18.3	76	NE	3.6	1.6	.....	.....	10n	.....	NE	0.10	2.5	Drizzling	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.00	762.0	70.5	21.4	85	SW	18.0	8.0	.....	1c	2k	SW	.....	0	0	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.24	691.9	30.05	763.3	61	16.1	83	NE	1.0	0.4	.....	2c	0	NE	.....	0	0	Fine & clear	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	29.99	761.7	81	27.2	83	E	.....	.....	3	.....	6k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.08	763.9	80.2	26.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.21	640.3	.....	.....	65.7	18.7	85	.....	3	1.3	.....	1cs	6s	.....	.....	0	0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	30.29	769.4	24.5	— 4.2	.....	E	.....	.....	.....	.....	10n	.....	.....	0.40	10.2	Threatening	John Delaney.
York Factory, B. A	.....	.....	30.32	770.1	—23	—30.6	.....	W	3	1.3	.....	0	Haze	.....	.....	0	0	....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	30.09	764.3	74.5	23.6	95	NE	.....	.....	4	.....	.. ..	.....	.....	0.12	3.0	Showery	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
MARINE SERIES.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the CHIEF SIGNAL OFFICER OF THE ARMY, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 17, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean tim .
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.26	768.6	61.7	16.5	69	ESE			1		0			0	0	Clear	Charnot and Masselot.
Algiers			30.26	768.7	66.2	19.0	63	N			1		3			0	0	Fair	Peter.
La Calle																			Kuntz.
Tunis			30.28	769.2	65.5	18.6	45	WNW			3		5			0	0	Fair	Jacques.
Sfax			30.37	771.5	68.4	20.2	41	SW			4		3			0	0	Fair	Chauvey.
Saida			30.34	770.5	69.8	21.0	17	SW			1		0			0	0	Clear	Millot.
Tebessa			30.37	771.4	63.1	17.3		S			2		0			0	0	Clear	Colin.
Geriville			30.37	771.3	60.1	15.6	41	S			1		1			0	0	Clear	Buard.
Laghouat			30.41	772.4	62.6	17.0	34	W			1		0			0	0	Clear	Delord.
Biskra			30.43	772.9	68.5	20.3	34	NW			1		0			0	0	Clear	Dubois.

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			29.83	757.6	51.3	10.7	58	SW			2		6			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.66	753.3	36.7	2.6	93	W			3		10			0.092	2.34		I. R. Observatory.
Eperies			29.65	753.0	34.9	1.6	93	Calm			0		10		SE	0	0		Julius Mikolik.
Gratz			29.81	757.1	47.3	8.5	69	S			2		2			0	0		Andreas Rospini.
Hermannstadt	28.60	726.3	29.81	757.1	47.3	8.5	69	S			2		2			0	0		Prof. Reissenberger.
Kremsmünster	28.24	717.3	29.69	754.0	39.0	3.9	77	WNW			4		5			0	0		Prof. C. Wagner.
Lemberg	28.50	724.0	29.89	759.1	38.1	3.4	97	W			5		10			1.358	34.5		Dr. T. Stanecki.
Nyiregyhaza			29.59	751.5	34.5	1.4	94	NW			4		10			0.322	8.2		Habzsuda Daniel.
Pola			29.65	753.2	38.8	3.8	90	SW			1		1			0	0		I.R. Hydrographic Of'ce
Szegedin			29.95	760.6	40.5	0.7	91	WNW			0		10s			0.006	0.14	Light fog	Karl Stancel.
Trieste			29.79	756.7	37.8	3.2	100	W			1		10			0.002	0.05		Prof. V. Faroli.
Vienna			29.94	760.5	45.1	7.3	85	Calm			0		10			0	0	Cloudy	I. R. Central Institute.
			29.78	756.5	38.8	3.8	85	W			5		10			0	0		

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.76	755.8	50.9	10.5	96	WSW			6		10			0.990	25.15	Raining	Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	....	.....	29.41	747.0	45.5	7.5	.....	SW	5	2.2	.....	.....	6	.....	.....	0	0	*D. clouds.....	William Boswell.
Ardrossan	.....	.....	29.49	749.0	46	7.8	.....	SW	.....	.....	2	.....	4	.....	.....	.....	.....	*D. clouds.....	J. Mayes.
Armagh Observatory	.....	.....	29.50	749.3	43.3	6.3	.....	SE	7	3.1	.....	.....	10	.....	.....	....	.....	Raining.....	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs	.....	.....	29.52	749.8	48.1	8.9	.....	SE	4	1.8	.....	.....	10	.....	.....	.....	.....	Misty.....	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.46	748.3	54.6	12.6	.....	SSW	.....	.....	1–2	.....	10	.....	.....	.....	.....	Drizzling.....	J. Dreyer.
Bradford	.....	.....	29.53	750.0	44.1	6.7	.....	SW	.....	.....	0	.....	10	.....	.....	0.05	1.3	Raining.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.06	763.5	77.0	25.0	.....	NE	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds.....	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.63	752.6	53.0	11.7	.....	SW	.....	.....	2	.....	10	.....	.....	Blank	Blank	Overcast.....	H. Todd.
Cardington	.....	.....	29.64	752.8	50.0	10.0	.....	W	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast.....	John McLaren.
Carlisle	.....	.....	29.51	749.5	47.1	8.4	.....	W	.....	.....	1	.....	10	....	.....	0.01	0.3	Overcast.....	T. Bell, for J. Cartmell.
Chatham, School M. E	.....	.....	29.72	754.9	52.2	11.2	.....	WSW	.....	.....	2	.....	9	.....	.....	Blank	Blank	Gloomy.....	Capt. J. Fellowes, R. E.
Dartmoor	28.33	719.6	29.83	757.7	47.5	8.6	.....	SW	.....	.....	6	.....	10	.....	.....	... ...	.....	Foggy	R. E. Power.
Donaghadee	.....	.....	29.49	749.0	47	8.3	.....	SW	.....	.....	3	.....	8	.....	.....	.....	.....	*D. clouds.....	J. Mac Gowan.
Dover	.....	.....	29.74	755.4	46	7.8	.....	WSW	.....	.....	4	.....	10	.....	.....	.....	.....	Foggy	J. Costello.
Eccles, (near Manchester)	.....	.....	29.54	750.3	47.4	8.6	.....	WSW	.....	.....	.....	.....	10	.....	.....	.....	.....	Drizzling. ...	Thomas Mackereth.
Falmouth Observatory	.....	.....	29.77	756.1	52.1	11.2	.....	SW	39	17.4	.....	.....	10	....	.....	.....	.....	Squally.....	The Staff.
Fort Napier, (Natal)	27.63	701.8	29.87	758.7	73.6	23.1	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.94	760.5	85.0	29.4	.....	N	.....	.....	8	.....	4	.....	.....	.....	.....	.....	(tis.
Galway, Queen's College	.....	.....	29.40	746.7	51	10.6	.....	WSW	.....	.....	3	.....	10	.. ..	.....	.....	.....	Misty.....	B. G. Clare, for Prof. Carr
Gibraltar, (Mediterranean)	.....	.....	30.32	770.1	62.4	16.9	.....	NE	.....	.....	1	.....	2	.....	.....	.....	.....	*D. clouds.....	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.46	748.3	45.6	7.6	.....	W	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	Lewis Stuart.
Great Yarmouth	.....	.....	29.61	752.1	52	11.1	.....	SW	.....	.....	3	.....	7	.....	.....	.....	.....	Foggy	G. T. Watson.
Greenwich Royal Obs	.....	.....	29.69	754.1	53.6	12.0	.....	WSW	.....	.....	4	.....	10	.....	.....	Blank	Blank	Overcast.....	The Staff for G. B. Airy
Guernsey	.....	.....	29.89	759.2	51.5	10.8	.....	SSW	.....	.....	5	.....	10	.....	.....	.....	.....	Misty.....	Dr. S. E. Hoskins.
Halifax, Moorside Obs	.....	.....	29.57	751.1	43.6	6.4	.....	Calm?	.....	.....	1?	.....	10	.....	.....	.....	.....	Rain & fog...	L. J. Cressley.
Helston	.....	.....	29.78	756.4	54	12.2	.....	SW	.....	.....	6	.....	10	.....	.....	5.8	147.3	Raining.....	M. P. Moyle.
Holyhead	.....	.....	29.51	749.5	49	9.4	.....	SSW	.....	.....	3	.....	10	.....	.....	.....	.....	Drizzling.....	John Tilston.
Kew Observatory	.....	.....	29.70	754.4	54.1	12.3	.....	SW	21	9.4	.....	.....	10	.....	.....	.....	.....	Raining.....	The Staff.
Kingstown	.....	.....	29.50	749.3	52	11.1	.....	SSW	.....	.....	4	.....	9	.....	.....	.....	.....	Gloomy.....	George Mitchell.
Leicester Museum	.....	.....	29.60	751.8	53.8	12.1	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.32	770.1	59	15.0	.....	NW	.....	.....	2	.....	8k	.....	.....	.....	.....	....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	29.38	746.2	45	7.2	.....	SW	.....	.....	1	.....	5	.....	.....	.....	.....	½ clouded...	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.22	767.6	70.3	21.3	.....	NW	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast.....	Surg.-Maj. Henry.
Nottingham	.....	.....	29.58	751.3	52.6	11.4	.....	SW	.....	.....	3	.....	10d	.....	SW	0.061	1.55	Overcast.....	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	29.59	751.6	53.0	11.7	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast... ..	Rev. Stephen Whitty.
Oxford, Radcliffe Obs	.....	.....	29.65	753.1	54	12.2	.....	SW	.....	.....	3	.....	10	.....	.....	.....	.....	Drizzling.....	J. Lucas.
Plymouth	.....	.....	29.78	756.4	51.5	10.8	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Drizzling.....	John Merrifield.
Roche's Point	.....	.....	29.56	750.8	51	10.6	.....	WSW	.....	.....	5	.....	10	.....	.....	.....	.....	Raining.....	W. Kennedy.
Saint Ann's Head	.....	.....	29.63	752.6	49	9.4	.....	SW	.....	.....	6	.....	10	.....	.....	.....	.....	Misty.....	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.91	759.7	50.2	10.1	.....	WSW	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast.....	A. P. Amy.
Sandwick Manse (Orkneys	.....	.....	29.36	745.7	43.8	6.6	.....	W	13	5.8	.....	.....	0	.....	.....	.....	.....	Blue sky.....	Rev. Dr. Clouston
Scarborough	.....	.....	29.45	748.0	44.3	6.8	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Gloomy.....	F. Shaw.
Scutari Cemetery (Turkey	.....	.....	29.86	758.4	47.4	8.6	.....	SW	.....	.....	2	.....	9	.....	.....	.....	.....	*D. clouds.....	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.54	750.3	45.9	7.7	.....	SE	.....	.....	1	.....	10	.....	.....	0.010	0.25	Gloomy.....	W. F. Cooper.
Silloth Rectory	.....	.....	29.50	749.3	49.4	9.7	79	W	.....	.....	2	.....	7	.....	.....	0.670	17.02	*D. clouds.....	Rev. Francis Redford.
Stonyhurst Observatory	.....	.....	29.43	747.5	44.0	6.7	.....	W	.....	.....	0	.....	.....	.....	.....	Blank	Blank	Misty.....	The Staff.
Stornoway, Lews C. (Hebr)	.....	.....	29.35	745.5	46	7.8	.....	W	.....	.....	1	.....	2	.....	.....	.....	.....	Blue sky.....	John Smith.
Stratfield Turgiss	.....	.....	29.70	754.4	53.3	11.8	.....	W	.....	.....	2	.....	10	.....	.....	.....	.....	Raining.....	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.33	745.0	49	9.4	.....	Calm	.....	.....	0	.....	3	.....	.....	.....	.....	Blue sky.....	John Trotter.
Truro, Royal Institution	.....	.....	29.79	756.7	54	12.2	.....	SW	.....	.....	6	.....	10	.....	.....	.....	.....	Gloomy.....	W. Newcombe
Valencia Observatory	.....	.....	29.52	749.8	53.4	11.9	.....	SSW	33	14.8	.....	.....	10	.....	.....	.....	.....	*D. clouds.....	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.93	760.2	76.0	24.4	57	S	28	12.5	.....	.....	2	.....	.....	.....	.....	....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	46	7.8	.....	SW	.....	.....	4	.....	5	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	29.50	749.3	46.2	7.9	.....	W	.....	.....	2	.....	10s	.....	.....	0	0	Overcast.....	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	29.35	745.5	47	8.3	.....	W	.....	.....	4	5	5	W	.....	0	0	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	29.32	744.7	42	5.6	.....	S	.....	.....	2	5	3	S	.....	Blank	Blank	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.58	751.4	32.9	0.5	92	SSW	.....	.....	2	.....	10	.....	.....	.....	.....	.....	
Fanöe	.....	.....	29.69	754.0	38.3	3.5	97	WSW	.....	.....	2	.....	10	.....	.....	.....	.....	.....	
Godthaab, (Greenland)	.....	.....	29.82	757.3	12.7	—10.7	76	E	.....	.....	2	... ..	0	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.75	755.7	18.0	— 7.8	100	NE	.....	.....	7	... .	5	.....	.....	.....	.....	.....	
Thorshavn, (Faröe)	.....	.....	29.47	748.4	44.6	7.0	79	Calm	.....	.....	0	.. ....	6	.....	.....	.....	.....	.....	
Vestervig	.....	.....	29.56	750.7	30.2	— 1.0	96	SE	.....	.....	6	.....	10	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. per Cent. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.99	761.8	44.6	7	87	SW	.....	.....	1	.....	10	.....	.....	0	0	Coverod	Normal School.
Amiens	.....	.....	29.86	758.5	53.6	12.0	91	WSW	.....	.....	6	.....	8	.....	SW	0.016	0.4	Very cloudy	Normal School.
Avignon	.....	.....	30.13	765.3	62.1	16.7	56	NNW	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bar-sur-Seine	.....	.....	30.04	763.1	56.1	13.4	82	W	.....	.....	3	.....	10	.....	W	0.571	14.5	Covered	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.04	762.9	56.5	13.6	70	W	22.8	10.2	.....	.....	.....	.....	WSW	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	29.93	760.1	53.6	12.0	83	WSW	.....	.....	3	.....	10	.....	W	0.118	3.00	Covered	Normal School.
Besançon	.....	.....	30.11	764.7	53.2	11.8	75	S	.....	.....	3	.....	8	.....	SW	0.39	10.	Very cloudy	Normal School.
Bourg en Bresse	.....	.....	30.19	766.8	50.0	15.1	91	S	.....	.....	3	..c	1n	....	W	.....	.....	Pretty clear.	Normal School.
Bourges	.....	.....	30.05	763.2	50.4	10.2	100	NW	.....	.....	2	.....	10	.....	NW	0	0	Covered	Normal School.
Brest	.....	.....	29.89	759.2	52.0	11.1	93	WSW	.....	.....	4	.....	10	.....	WSW	0.089	2.25	Fog & rain...	Naval Observatory.
Caen	.....	.....	29.89	759.3	55.0	12.8	81	SW	.....	.....	4	.....	10	.....	W	0.087	2.2	Covered.....	Normal School.
Chartres	.....	.....	29.98	761.6	52.3	11.3	.....	SW	.....	.....	3	.....	10	.....	.....	0.12	3.	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.86	758.1	57.9	14.4	58	S	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Puy de Dome, Obs.
Commercy	.....	.....	29.98	761.5	50.7	10.4	90	WSW	.....	.....	4	.....	10kn	.....	WSW	0.98	25.	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.18	766.5	58.8	14.9	65	NW	.....	.....	4	.....	2	.....	NW	0	0	.....	.....
Grenoble	.....	.....	30.18	766.6	50.	10	86	NE	.....	.....	2	.....	28	.....	S	0.256	6.5	Slightly cl'dy	Normal School.
Le Mans	.....	.....	30.03	762.8	52.3	11.3	90	SW	.....	.....	3	.....	8	.....	SW	0.130	3.3	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.14	765.6	58.1	14.5	61	WNW	.....	.....	1	.....	10	.....	SW	0.189	4.8	Sprinkling...	Normal School.
Mâcon	.....	.....	30.13	765.4	54.1	12.3	83	Calm	.....	.....	0	.....	5	.....	S	0.059	1.5	Cloudy.....	Normal School.
Mirecourt	.....	.....	29.95	760.6	49.5	9.7	.....	SW	.....	.....	6	.....	10	.....	.....	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.17	766.2	63.5	17.5	83	N	.....	.....	2	.....	2	.....	N	0	0	Slightly cl'dy	Normal School.
Orleans	.....	.....	30.06	763.4	53.6	12	80	WSW	.....	.....	4	.....	8	.....	WSW	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	29.98	761.5	58.4	11.9	83	WSW	.....	.....	2	.....	10	.....	WSW	0.142	3.60	Covered	National Observatory
Parthenay	.....	.....	30.11	764.7	54.0	12.2	90	SW	.....	.....	4	.....	5	.....	SW	0.08	2.	Cloudy.....	Normal School.
Privas	.....	.....	30.17	766.2	50.5	15.3	.....	SW	.....	.....	1	.....	2	.....	.....	0	0	Slightly cl'dy	Normal School.
La Roche-sur-Yon	.....	.....	30.12	765.1	57.9	14.4	72	SW	.....	.....	2	.....	5	.....	NE	0.047	1.2	Cloudy.....	Normal School.
Rochefort, Observatory	.....	.....	30.14	765.6	59.4	15.2	76	SSW	.....	.....	3	.....	5	.....	NE	0	0	½ covered...	Naval Observatory.
Rouen	.....	.....	29.91	759.7	55.4	13.0	81	SSW	.....	.....	2	.....	10	.....	S	0.268	6.8	Covered	Normal School.
Saint Lo	.....	.....	30.00	761.9	54.7	12.6	88	W	.....	.....	1	.....	8	.....	S	0.20	5.	.....	Normal School.
Tarbes	29.08	738.5	30.13	765.2	55.4	13	31	S	.....	.....	2	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	.....	.....	30.29	769.4	55.8	13.2	82	S	.....	.....	1	.....	0	.....	.....	.....	.....	Clear.....	Normal School
Villefranche	.....	.....	30.35	770.8	51.8	11	85	SSE	.....	.....	3	.....	5	.....	SE	0.209	5.30	Cloudy.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.96	760.9	75.9	24.4	80	NE	.....	.....	2	.....	2k	.....	.....	0.08	2.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.12	765.1	60.6	15.9	72	WNW	.....	.....	1	.....	2	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.99	634.8	30.37	771.3	47.7	8.7	59	SW	11.2	5.00	.....	.....	4	.....	SW	0	0	.....	—. Faiguère.
Montsouris, Paris	.....	.....	29.97	761.3	53.1	11.7	88	WSW	.....	.....	3	.....	10	.....	WSW	0.114	2.9	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.14	765.6	63.3	17.4	47	W	3.7	1.67	.....	.....	1	.....	.....	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.35	542.3	.....	.....	32.0	0.0	.....	N	.....	.....	6	.....	8	.....	.....	.....	.....	Fair.....	M. Baylac.
Pic du Midi, (Plantade)	.....	.....	29.98	761.5	52.2	11.2	85	S W	.....	.....	2	.....	10	.....	.....	0.031	3.4	Covered.....	E. Benou.
Saint Maur, (near Paris)	.....	.....	30.21	767.3	60.8	16.0	46	NNE	.....	.....	1	.....	2	.....	.....	0	0	.....	Toulouse Observatory
Toulouse	.....	.....	30.07	763.8	55.2	12.9	81	W	.....	.....	4	.....	10	.....	W	0.012	0.3	.....	C. Marquet.
Tours	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Versailles, (near Paris)	.....	.....	29.98	761.4	53.2	11.8	86	W	.....	.....	3	.....	10	.....	.....	0.132	3.36	Covered	Dr. A. Bérigny.
Zi-Ka Wei, (near Shanghai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.5 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

* Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.75	755.7	43.3	6.3	97	WSW	.....	.....	3	.....	10	....	.....	0.992	25.2	Raining.....	Prof. T. Hoh.
Berlin	.....	.....	29.70	754.4	44.2	6.8	74	NW	.....	.....	3	.....	10	....	.....	0.154	3.9	.....	Prof. Arndt.
Breslau	.....	.....	29.70	754.3	39.7	4.3	84	WNW	.....	.....	5	.....	9	.....	.....	0	0	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	29.93	760.1	48.6	9.2	87	SW	.....	.....	10	.....	10	.....	.....	0.689	17.5	.....	A. Senz.
Cassel	.....	.....	29.71	754.6	43.9	6.1	85	SW	.....	.....	4	.....	10	.....	.....	0.303	7.7	.....	Dr. H. Möhn.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.89	759.2	47.8	8.8	99	SW	.....	.....	1	.....	10	.....	.....	0.524	13.3	Raining.....	Physical Society.
Friedrichshafen	.....	.....	30.09	764.2	47.3	8.5	75	W	.....	.....	.....	.....	10	.....	.....	0.059	1.5	Raining.....	M. Wilhelm.
Hamburg	.....	.....	29.97	753.7	39.4	4.1	95	W	.....	.....	1	.....	10	.....	.....	0.118	3.0	Light mist...	Deutsche Seewarte.
Kiel	.....	.....	29.98	753.8	39.4	4.1	90	WSW	.....	.....	2	.....	10	.....	.....	0.043	1.1	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.41	746.9	26.6	— 3.0	87	N	.....	.....	5	.....	9	.....	.....	0.075	1.9	.....	Prof. E. Luther.
Kostin	.....	.....	29.61	752.0	32.7	0.4	.....	W	.....	.....	1	.....	10	.....	.....	0.322	8.2	.....	H. Müller.
Leipsic	.....	.....	29.71	755.5	43.5	6.4	86	SW	.....	.....	5	.....	10	.....	.....	0.083	2.1	Rainy.....	Prof. Bruhns.
Münster	.....	.....	29.71	754.6	44.2	6.8	97	SW	.....	.....	2	.....	10	.....	.....	0.364	9.0	Raining.....	Prof. E. Heis.
Posen	.....	.....	29.66	753.3	37.4	3.0	98	NW	.....	.....	2	.....	10	.....	.....	0.047	1.2	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.01	762.3	50.7	10.4	74	SW	.....	.....	2	.....	10	.....	.....	0.098	2.5	.....	Dr. Schur.
Stuttgart	.....	.....	29.96	760.9	48.7	9.3	80	SW	.....	.....	.....	.....	10	.....	.....	0.453	11.5	Raining	Prof. Schoder.
Thorn	.....	.....	29.72	754.8	36.7	2.6	89	NW	.....	.....	4	.....	10	....	.....	0	0	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	29.84	758.0	50.2	10.1	84	SW	.....	.....	9	.....	10	.....	.....	0.114	2.9	.....	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.66	753.3	34.0	1.1	100	WSW	.....	.....	3	.....	10	.....	.....	0.067	1.7	Misty	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the [illegible] of Professor Dr. J. F. Julius Schmidt, Director of the Observatory at Athens.

Athens	.....	.....	29.93	760.3	61.5	16.4	.....	SW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.95	760.7	43.0	6.1	74	E	1.3	0.6			9			0	0		
Padua			29.93	760.2	41.2	5.1	72	NNW	0.7	0.3			7			0	0		
Vicenza																			
Verona			29.95	760.8	39.6	4.2	72	E			1		10			0	0		
Bergamo			29.89	759.3	54.3	12.4	63	W			1		9			0	0		
Domodossola																			
Milan			29.94	760.4	56.1	13.4	69	WSW			2		3	WSW		0	0		
Pavia																			
Moncalieri			30.00	762.0	40.8	4.9	68	ENE	0.7	0.3			7	NW		0	0		
Mondovi			29.99	761.8	49.5	9.7	56	SSE			2		3	NW		0	0		
Porto Maurizio			30.07	763.8	55.4	13.0		SW			4		6			0	0		
Genoa			29.99	761.8	55.2	12.9	77	SE	11.9	5.3			10	SE		0	0		
Piacenza			29.96	760.9	49.6	9.8	70	NW	0	0			3			0	0		
Bologna			30.03	762.7	47.7	8.7	24	NE			1		4	S		0	0		
Florence			30.09	764.2	54.1	12.3	82	SW			2		10	SW		0	0		
Leghorn			30.07	763.6	58.6	14.8	60	WSW	6.9	3.1			10			0	0		
Siena			30.07	763.6	54.7	12.6	77	SW	0	0			10	W		0	0		
Urbino																			
Pesaro																			
Ancona			29.95	760.8	54.0	12.2	70	SSW			2		2			0	0		
Grosseto			30.05	763.3	59.4	15.2	64	E			2		5	S		0	0		
Rome			30.12	765.0	59.9	15.5	77	SSW	7.4	3.3			9	SSW		0	0		
Naples, O. U			30.15	765.8	59.2	15.1	85	SW			2		9	NW		0	0		
Lecce			30.08	764.1	58.1	14.5	66	WSW	9.4	4.2			3	NW		0	0		
Cosenza			30.19	766.7	57.6	14.2	76	NW	0	0			8			0	0		
Riposto, (Sicily)			30.14	765.5	59.4	15.2	75	ESE			2		3			0	0		
Palermo			30.15	765.7	61.2	16.2	56	WSW	13.0	5.8			9			0	0		
Caltanissetta			30.10	764.4	51.8	11.0	64	W			6		6	E		0	0		
Sub-Series.																			
Naples, S. R			30.13	765.4	56.8	13.8	74	SW	6.9	3.1			..ks	SW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.75	755.7	46.0	7.8		W			5								
Groningen			29.60	751.8	42.3	5.7		SW			1								
Helder			29.63	752.5	45.7	7.6		S			4								
Utrecht			29.63	752.6	46.2	7.9	99	WSW			4		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.45	747.9	36.7	2.6	65	SSE	2.9	0.9			10			0.020	0.5		
Brönö			29.50	749.4	24.1	— 4.4	63	NE	7	3			0			0	0		
Christiania			29.69	754.0	20.7	— 6.3	74	ENE	0.7	0.3			3			0.114	2.9		
Tromsö			29.65	753.0	18.9	— 7.3	75	E	2	1			3			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors.		Barometer: Reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds: Direction.	Winds: Velocity.		Winds: Force.	Clouds: Amount.		Clouds: Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	E. m—	Miles per hour.	Meters per second.	0—10.	Upper. —10.	Lower. —10.	Upper. E. m—	Lower. E. m—	Inches.	Millimeters.		
Angra, (Azores,)	.....	.....	29.67	753.7	54.5	12.5	84	WNW	13.1	5.86	.....	.....	6	.....	.....	0.079	2.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.25	768.4	61.7	16.5	56	SE	4.3	1.92	.....	.....	7	SSW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.07	763.7	65.1	18.4	75	SW	5.0	2.25	.....	.....	10	.....	.....	0	0	Foggy	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.24	768.1	60.8	16.0	66	S	4.9	2.2	.....	.....	5	SW	.....	0	0	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the cooperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.49	749.0	34.7	1.5	94	W	22	10	.....	.....	10	.....	.....	.....	.....	Rain & snow	Astronomical Obs.
Wilna	.....	.....	29.34	745.2	34.3	1.3	91	S	4	2	.....	.....	10	.....	.....	.....	.....	Rain & snow	Astronomical Obs.
Dorpat	.....	.....	29.62	752.4	12.2	—11.0	80	ENE	9	4	.....	.....	7	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.66	753.4	4.3	—15.4	100	Calm	0	0	.....	.....	8	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	29.68	753.8	12.2	—11.0	100	N	13	6	.....	.....	10	.....	.....	.....	.....	Snowing	Ch. Forsten.
Kleff	.....	.....	29.37	746.1	34.0	1.1	98	W	7	3	.....	.....	10	.....	.....	.....	.....	Snowing	Physical Cabinet.
Nikolaiev	.....	.....	29.63	752.5	36.5	2.5	85	S	11	5	.....	.....	6	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	29.66	753.3	39.4	4.1	92	SW	9	4	.....	.....	9	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.54	750.4	9.1	—12.7	84	S	13	6	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.57	751.1	26.2	— 3.2	85	SW	22	10	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	29.48	748.9	0.3	—17.6	89	WNW	22	10	.....	.....	3	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.51	724.1	29.95	760.8	43.3	6.3	49	NE	4	2	.....	.....	2	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.13	765.3	19.6	— 6.9	86	SE	9	4	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	29.76	756.0	2.1	—16.6	80	SW	9	4	.....	.....	5	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.73	729.8	29.82	757.5	5.6	—15.0	69	SSW	20	9	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.32	770.2	22.6	— 5.2	52	ESE	13	6	.....	.....	9	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.39	772.0	9.5	—12.5	73	W	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.82	731.9	30.70	779.7	15.4	— 9.2	78	N	9	4	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.28	769.2	3.6	—15.8	71	SW	22	10	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	29.63	752.7	14.9	— 9.5	68	ESE	18	8	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usoltsef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.34	770.6	35.1	1.7	70	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.11	764.7	27.7	— 2.4	83	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,311.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 892. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.6 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the cooperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.32	770.2	57.0	13.9	63	N	1.5	0.67	.....	0	0	.....	.....	0	0	Clear	Royal Observatory.
San Fernando	.....	.....	30.31	769.8	69.3	20.7	47	ESE	4.0	1.8	.....	2	5	SE	SE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.77	756.2	12.9	—10.6	100.	NE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	29.75	755.6	14.0	—10.0	94	NW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Hernosand	.....	.....	29.73	755.2	15.1	— 9.4	94	SE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Stockholm	.....	.....	29.65	753.2	13.6	—10.2	67	NNE	.....	.....	2	.....	4	.....	.....	0	0	.....	
Wisby	.....	.....	29.61	752.2	23.4	— 4.8	95	E	.....	.....	6	.....	10	.....	.....	0.016	0.4	Snowing	
Sub-Series.																			
Upsala	.....	.....	29.71	754.7	13.5	—10.3	85.	NNE	8.3	3.7	.....	.....	10	.....	.....	0.008	0.21	Snowing	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.74	730.0	30.16	766.0	56.5	13.6	64	N	.....	.....	1	.....	8	.....	.....	0.193	4.9	Vapor	The Observatory.
Zurich	28.48	723.3	30.13	765.4	48.6	9.2	85	SW	.....	.....	6	.....	10	.....	SW	0.472	12.0	Raining	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.8 mm.; Thermometer, +9.8 cent.; Relative Humidity, —7 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	29.88	759.0	49.1	9.5	67	SSW	4	2.0	.....	.....	10	.....	WNW	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.31	769.8	62.6	17.0	.....	NW	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.91	759.8	46.8	8.2	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.97	761.3	62.2	16.8	.....	SW	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.69	754.0	50.0	10.0	.....	NE	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.	.....	.....	29.97	761.1	63.9	17.7	68	SW	.....	.....	2	.....	3n	.....	SW	0.17	4.3	Rainy	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.42	747.3	20.7	— 6.3	78	SW	7.5	3.4	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	29.88	758.9	9	—12.8	.....	Calm	0	0	.....	.....	10s	.....	W	0.45	11.4	Cloudy	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.49	749.0	20	— 6.1	85	SW	5	2.2	.....	2k	8ks	SW	SW	0	0	Cloudy	G. A. Blair.
Charlottetown, P. E. Island.	.....	.....	29.48	748.8	27	— 2.8	87	W	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.72	754.9	9.2	—12.7	96	W	.....	.....	1	.....	10n	.....	.....	0.15	3.8	Unsettled	James Smith, M. A.
Dalhousie, N. B.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	30.20	767.1	44.3	6.8	84	SW	6	2.7	.....	4ck	.....	.....	.....	0.03	0.8	Cloudy	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.54	750.3	18.5	— 7.5	81	S	4	1.8	.....	.....	9ks	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.21	767.3	—12	—24.4	100	S	4	1.8	.....	0	2s	.....	.....	0	0	Fair	James Stewart.
Goderich, Ontario	.....	.....	29.98	761.5	22.5	— 5.3	85	NW	.....	.....	5	.....	10n	.....	.....	0.100	2.54	Cloudy	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.92	760.0	21.3	— 5.9	.....	W	.....	.....	2	.....	10n	.....	.....	0.10	2.5	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	29.51	749.5	26	— 3.3	94	W	13	5.8	.....	.....	5n	.....	.....	0.06	1.5	Cloudy	F. Allison, M. A.
*Kingston, Ontario	.....	.....	29.85	758.2	14	—10.0	81	NW	4	1.8	.....	8ck	0	.....	.....	0.32	8.1	Fair	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.93	760.2	37.8	3.2	.....	W	9	4.0	.....	.....	9s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.70	754.4	9	—12.8	89	SW	12	5.4	.....	5k	5ks	N	W	0.09	2.3	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.76	755.9	7	—13.9	75	W	12	5.4	.....	5ck	0	W	.....	0.10	2.5	Fair	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.94	760.5	3	—16.1	83	N	9	4.0	.....	0	0	.....	.....	0.40	10.2	Clear	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.93	760.2	23	— 5.0	86	W	16	7.2	.....	10k	0	W	.....	0	0	Cloudy	H. Morgan.
Port Hastings, N. S.	.....	.....	29.48	748.8	.....	.....	.....	N	3	1.3	.....	.....	.....	.....	.....	0	0	Fine	Peter Grant.
*Port Stanley Ontario	.....	.....	29.97	761.2	22	— 5.6	91	W	12	5.4	.....	.....	10n	.....	W	0.10	2.5	Light snow	M. Payne.
*Quebec, Quebec	.....	.....	29.60	751.8	10	—12.2	89	SW	18	8.0	.....	.....	10n	.....	SW	0.20	5.1	Cloudy	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.56	750.8	24	— 4.4	67	SW	7	3.1	.....	.....	4ks	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.90	759.4	18	— 7.8	82	NW	14	6.3	.....	.....	10n	.....	NW	0.20	5.1	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	29.95	760.7	14	—10.0	93	N	4	1.8	.....	.....	10n	.....	.....	0.52	13.2	Light snow	R. J. Cole.
Stratford, Ontario	.....	.....	25.93	760.2	19.9	— 6.7	89	NW	9	4.0	.....	.....	10s	.....	.....	0.40	10.2	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.48	748.8	30	— 1.1	91	SW	4	1.8	.....	8c	2s	W	W	0.10	2.5	Fair	T. C. Hill.
*Toronto, Ontario	.....	.....	29.89	759.2	20	— 6.7	86	W	6	2.7	.....	8ck	2s	N	.....	0.11	2.8	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	29.75	755.6	27	— 2.8	88	SW	2	0.9	.....	.....	10s	.....	SW	0	0	Cloudy	
Alpena, Mich	.....	.....	29.94	760.5	18	— 7.8	100	NW	5	2.2	.....	.....	10n	.....	.....	0.21	5.3	Light snow	
Atlantic City, N. J	.....	.....	29.98	761.5	29	— 1.7	78	W	12	5.4	.....	.....	10s	.....	W	0	0	Cloudy	
Augusta, Ga.	.....	.....	30.23	767.8	40	4.4	60	NW	4	1.8	.....	0	1s	.....	W	0	0	Clear	
Baltimore, Md.	.....	.....	30.07	763.8	31	— 0.6	58	W	8	3.6	.....	5k	2s	W	W	0	0	Fair	
Barnegat, N. J.	.....	.....	29.95	760.7	28	— 2.2	77	W	20	8.9	.....	.....	10s	.....	W	0	0	Cloudy	
Benton, Montana	27.16	689.8	29.96	761.0	45	7.2	47	SW	16	7.2	.....	10c	0	.....	.....	0	0	Cloudy	
Bismarck, Dakota	28.12	714.3	29.90	759.4	6	—14.4	76	SE	4	1.8	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Boston, Mass.	.....	.....	29.72	754.9	26	— 3.3	88	SW	12	5.4	.....	.....	10s	.....	SW	Inap.	Inap.	Cloudy	
Breckenridge, Minn	.....	.....	30.32	770.1	—10	—23.3	77	SE	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Buffalo, N. Y.	.....	.....	29.87	758.7	23.5	— 4.7	66	W	18	8.0	.....	Haze	5ks	.....	W	Inap.	Inap.	Fair	
Burlington, Vt.	.....	.....	29.70	754.4	17	— 8.3	67	NE	2	0.9	.....	2c	5s	.....	.....	0.03	0.8	Cloudy	
Cairo, Ill.	.....	.....	30.39	771.9	28	— 2.2	67	NW	8	3.6	.....	0	1s	.....	.....	0	0	Clear	
Cape Hatteras, N. C.	.....	.....	30.06	763.5	42	5.6	58	N	11	4.9	.....	0	0	.....	.....	0	0	Clear	
Cape Henry, Va.	.....	.....	30.09	764.3	36	2.2	55	NW	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Cape May, N. J.	.....	.....	30.02	762.5	30	— 1.1	89	W	26	11.6	.....	.....	10ks	.....	W	0	0	Cloudy	
Charleston, S. C.	.....	.....	30.23	767.8	44	6.7	59	SW	7	3.1	.....	0	2s	.....	.....	0	0	Clear	
Cheyenne, Wyoming	24.12	612.6	30.06	763.5	27	— 2.8	67	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Chicago, Ill.	.....	.....	30.20	767.1	21	— 6.1	71	W	8	3.6	.....	0	Haze	.....	.....	0	0	Clear	
Cincinnati, Ohio	.....	.....	30.21	767.3	25	— 3.9	75	W	7	3.1	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Cleveland, Ohio	.....	.....	30.04	763.0	24.8	— 4.2	86	W	22	9.8	.....	.....	10n	.....	W	0.01	0.3	Light snow	
Colorado Springs, Col.	24.25	615.9	30.12	765.0	15	— 9.4	30	N	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Corsicana, Tex.	.....	.....	30.35	770.9	46	7.8	69	NE	12	5.4	.....	Haze	8cs	.....	.....	0	0	Cloudy	
Davenport, Iowa	.....	.....	30.33	770.4	14	—10.0	82	NW	8	3.6	.....	1es	0	.....	.....	0	0	Clear	
Denison, Tex.	.....	.....	30.33	770.4	43	6.1	75	NW	1	0.4	.....	2c	8s	W	.....	0	0	Cloudy	
Denver, Col.	24.94	633.5	30.16	766.1	26	— 3.3	40	W	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Detroit, Mich.	.....	.....	30.03	762.7	26	— 3.3	76	NW	12	5.4	.....	.....	10s	.....	NW	0.03	0.8	Cloudy	
Dodge City, Kan.	27.66	702.6	30.13	765.3	22	— 5.6	78	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Dubuque, Iowa	.....	.....	30.24	768.1	14	—10.0	64	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Duluth, Minn.	.....	.....	30.31	769.9	5	—15.0	75	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Eastport, Me.	.....	.....	29.54	750.3	25	— 3.9	75	W	8	3.6	.....	2k	0	W	.....	0	0	Fair	
Erie, Pa.	.....	.....	29.94	760.5	24	— 4.4	87	W	28	12.5	.....	.....	10n	.....	.....	0.02	0.5	Light snow	
Escanaba, Mich.	.....	.....	30.13	765.3	11	—11.7	70	W	4	1.8	.....	5c	2s	W	W	Inap.	Inap.	Fair	
Fort Gibson, Indian Terr.	.....	.....	30.39	771.9	30	— 1.1	68	NE	1	0.4	.....	8cs	0	NW	.....	0	0	Fair	
Fort Sill, Indian T.	29.11	739.4	30.28	769.1	33	0.6	41	N	1	0.4	.....	0	Fog	.....	.....	0	0	Clear	
Fort Sully, Dakota	28.45	722.6	30.26	768.6	13	—10.6	91	E	7	3.1	.....	0	0	.....	.....	0	0	Clear	
Galveston, Tex.	.....	.....	30.21	767.3	56	13.3	100	NE	14	6.3	.....	.....	10n	.....	NE	0.64	16.3	Light rain	
Grand Haven, Mich.	.....	.....	30.10	764.5	26	— 3.3	74	NW	14	6.3	.....	0	9s	.....	NW	Inap.	Inap.	Cloudy	
Indianapolis, Ind.	.....	.....	30.24	768.1	22	— 5.6	72	W	4	1.8	.....	1c	0	.....	.....	Inap.	Inap.	Clear	
Indianola, Tex.	.....	.....	30.15	765.8	57	13.9	100	NE	38	17.0	.....	.....	10n	.....	NE	0.10	2.5	Light rain	
Jacksonville, Fla.	.....	.....	30.28	769.1	47	8.3	60	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Keokuk, Iowa	.....	.....	30.34	770.4	17	— 8.3	67	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Key West, Fla.	.....	.....	30.22	767.6	64.8	18.2	73	NE	16	7.2	.....	2ck	0	E	.....	0	0	Fair	
Kittyhawk, N. C.	.....	.....	30.09	764.3	35	1.7	63	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Knoxville, Tenn.	.....	.....	30.32	770.1	28	— 2.2	77	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear	
La Crosse, Wis.	.....	.....	30.30	769.6	13	—10.6	62	Calm	0	0	.....	Haze	Haze	.....	.....	0	0	Hazy	
Leavenworth, Kan.	.....	.....	30.40	772.1	21	— 6.1	70	NW	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Lexington, Ky.	29.11	739.4	30.30	769.6	23	— 5.0	60	SW	4	1.8	.....	0	0	.....	.....	0.01	0.3	Clear	
Long Branch, N. J.	.....	.....	29.93	760.2	29	— 1.7	80	NW	25	11.2	.....	.....	10s	.....	NW	0	0	Cloudy	
Louisville, Ky.	.....	.....	30.29	769.4	25	— 3.9	75	SW	1	0.4	.....	0	Sm'e	.....	.....	0	0	Clear	
Lynchburg, Va.	.....	.....	30.11	764.8	32	0.0	48	SW	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Malone, N. Y.	.....	.....	29.73	755.1	13	—10.6	81	W	8	3.6	.....	.....	10n	.....	SW	0.80	15.2	Light snow	
Marquette, Mich.	.....	.....	30.12	765.0	13	—10.6	81	W	8	3.6	.....	2cs	0	.....	.....	0	0	Fair	
Memphis, Tenn.	.....	.....	30.41	772.4	36	1.7	70	Calm	0	0	.....	2ck	Sm'e	W	.....	0	0	Fair	
Milwaukee, Wis.	.....	.....	30.22	767.6	14	—10.0	81	NW	12	5.4	.....	8c	Fog	W	.....	0	0	Cloudy	
Mobile, Ala.	.....	.....	30.32	770.1	46	7.8	76	SW	3	1.3	.....	5c	Sm'e	SW	.....	0	0	Fair	
Montgomery, Ala.	.....	.....	30.33	770.4	40.5	4.7	69	N	5	2.2	.....	0	Sm'e	.....	.....	0	0	Clear	
Morgantown, W. Va.	.....	.....	30.14	765.5	26	— 3.8	76	W	17	7.6	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy	
Mt. Washington, N. H.	22.97	583.4	29.33	745.0	4	—15.6	100	NW	72	32.2	.....	.....	Fog	.....	.....	0.40	10.2	Foggy	
Nashville, Tenn.	.....	.....	30.34	770.6	29	— 1.7	78	W	2	0.9	.....	0	Haze	.....	.....	0	0	Clear	
New Haven, Conn.	.....	.....	29.82	757.4	32	0.0	79	W	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy	
New London, Conn.	.....	.....	29.82	757.4	29	— 1.7	61	W	12	5.4	.....	2c	5s	W	W	0	0	Fair	
New Orleans, La.	.....	.....	30.28	769.1	53	11.7	78	E	2	0.9	.....	8k	Haze	W	.....	0	0	Fair	
Newport, R. I.	.....	.....	29.80	756.9	30	— 1.1	67	[illegible]	20	8.9	.....	.....	10s	.....	W	0	0	Cloudy	
New York, N. Y.	.....	.....	29.88	758.9	28	— 2.2	56	W	20	8.9	.....	0	0	.....	.....	0	0	Clear	
Norfolk, Va.	.....	.....	30.10	764.5	34	1.1	71	SW	7	3.1	.....	0	Haze	.....	.....	0	0	Clear	
North Platte, Neb.	27.28	692.9	30.02	762.5	22	— 5.6	72	SW	4	1.8	.....	2c	0	.....	.....	0	0	Clear	
Omaha, Neb.	29.20	741.7	30.37	771.4	17	— 8.3	83	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Clear	
Oswego, N. Y.	.....	.....	29.80	756.9	24	— 4.4	93	NW	20	8.9	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy	
Peck's Beach, N. J.	.....	.....	30.01	762.2	29	— 1.7	100	W	18	8.0	.....	.....	10s	.....	.....	0	0	Cloudy	
Pembina, Dakota	.....	.....	30.20	767.1	— 4	—20.0	82	S	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Philadelphia, Penn.	.....	.....	29.98	761.5	29	— 1.7	67	W	13	5.8	.....	10k	0	W	.....	0	0	Cloudy	
Pike's Peak, Colorado	17.74	450.6	29.65	760.7	10	—12.2	17	NE	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Pittsburgh, Penn.	.....	.....	30.08	764.0	24	— 4.4	86	W	16	7.2	.....	.....	10n	.....	.....	0.03	0.8	Light snow	
Port Huron, Mich.	.....	.....	29.99	761.7	23	— 5.0	73	W	18	8.0	.....	.....	10s	.....	W	0.01	0.3	Cloudy	
Portland, Me.	.....	.....	29.64	752.8	25	— 3.9	75	W	8	3.6	.....	5c	0	W	.....	0	0	Fair	
Portland, Oregon	.....	.....	30.37	771.4	47	8.3	85	S	3	1.3	.....	.....	10s	.....	.....	0.13	3.3	Cloudy	
Punta Rassa, Fla.	.....	.....	30.27	768.8	55.4	13.0	60	NE	9	4.0	.....	0	2s	.....	NE	0	0	Clear	
Rochester, N. Y.	.....	.....	29.80	756.9	23	— 5.0	86	W	19	8.5	.....	.....	10n	.....	.....	0.01	0.3	Light snow	
Salt Lake City, Utah	25.98	659.9	30.31	769.9	27	— 2.8	77	Calm	0	0	.....	5c	0	.....	.....	0	0	Fair	
Sandy Hook, N. J.	.....	.....	29.88	758.9	30	— 1.1	79	W	30	13.4	.....	0	8ks	.....	.....	0	0	Cloudy	
San Diego, Cal.	.....	.....	30.24	768.1	54	12.2	38	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
San Francisco, Cal.	.....	.....	30.29	769.4	51	10.6	82	NW	4	1.8	.....	5c	0	.....	.....	0	0	Fair	
Santa Fe, N. M.	23.47	596.1	30.01	762.2	17	— 8.3	50	N	8	3.6	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Savannah, Ga.	.....	.....	30.25	768.3	44	6.7	60	W	8	3.6	.....	0	2s	.....	.....	0	0	Clear	
Shreveport, La.	.....	.....	30.41	772.4	47	8.3	73	N	5	2.2	.....	.....	10s	.....	NE	Inap.	Inap	Threatening	
Smithville, N. C.	.....	.....	30.18	766.6	40	4.4	63	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Springfield, Mass.	.....	.....	29.78	756.4	32	0.0	68	SW	12	5.4	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
St. Louis, Mo.	.....	.....	30.36	771.1	24	— 4.4	61	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
St. Marks, Fla.	.....	.....	30.31	769.9	41	5.0	83	NW	4	1.8	.....	2c	0	W	.....	0	0	Fair	
St. Paul, Minn.	.....	.....	30.31	769.9	5	—15.0	74	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
St. Paul's Island, Alaska	.....	.....	30.26	768.6	10	—12.2	79	ENE	32	14.3	.....	0	2k	.....	.....	0	0	.....	
Squan Beach, N. J.	.....	.....	29.91	759.7	28	— 2.2	77	W	2	0.9	.....	5ck	5s	W	W	0	0	Cloudy	
Thatcher's Island, Mass.	.....	.....	29.70	754.4	28	— 2.2	46	W	24	10.7	.....	8c	2k	W	W	0	0	Cloudy	
Toledo, Ohio	.....	.....	30.04	763.0	20	— 1.7	78	SW	5	2.2	.....	.....	10s	.....	SW	0.01	0.3	Cloudy	
Tucson, Arizona	27.76	705.1	30.35	770.9	50	10.0	.....	NE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Tybee Island, Ga.	.....	.....	30.27	768.8	50	10.0	53	NW	6	2.7	.....	2c	0	.....	.....	0	0	Clear	
Vicksburg, Miss.	.....	.....	30.36	771.1	47	8.3	62	NE	2	0.9	.....	5ck	5s	W	W	0	0	Cloudy	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.36	618.7	29.84	757.9	23	— 5.0	60	SE	1	0.4	.....	1c	0	W	.....	0	0	Clear	
Washington, D. C	.....	.....	30.07	763.8	28.5	— 1.9	63	W	10	4.5	.....	0	5ks	.....	W	0	0	Fair	
Wilmington, N. C	.....	.....	30.17	766.3	39	3.9	71	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	29.77	756.1	30	— 1.1	68	W	20	8.9	.....	.....	10s	.....	W	0	0	Cloudy	
Wytheville, Va	27.70	703.6	29.97	761.2	26	— 3.3	52	W	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.99	736.3	30.44	773.2	4	—15.6	60	N	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.29	769.4	54	12.2	.....	NW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.08	764.0	79	26.1	78	NE	6	2.7	.....	5k	5ks	N	SE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.05	763.3	73	22.8	90	E	.....	.....	.....	5c	2cs	.....	.....	0.02	0.5	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.31	769.9	75	23.9	71	ENE	1	0.4	.....	4ck	8kn	NE	.....	0	0	Cloudy	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.25	768.3	70	21.1	71	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.90	759.4	71	21.7	63	NNE	6.0	2.7	.....	2c	0	N	.....	0	0	Fair	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.19	766.8	72	22.2	67	N	7.2	3.2	.....	5c	0	NE	.....	0	0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.07	763.2	67.0	19.4	62	NW	27.0	12.1	.....	0	1k	.....	.....	0.05	1.3	Fine	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.13	689.1	29.95	760.7	60	15.6	83	NE	3.0	1.3	.....	5c	2k	NE	.....	0	0	Fair	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.02	762.5	80	26.7	82	E	.....	.....	3	.....	7ks	.....	.....	0.910	23.11	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.06	763.4	77.9	25.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.807	20.50	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.20	640.0	.....	.....	66.6	19.2	87	.....	2	0.9	.....	.....	10s	.....	.....	0.12	3.0	Cloudy	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.39	746.5	29.0	— 1.7	.....	NE	.....	.....	.....	.....	10n	.....	.....	0.10	2.5	Cloudy	John Delaney.
York Factory, B. A	.....	.....	30.10	764.5	—12	—24.4	75	S	1	0.4	.....	4c	4s	N	.....	0	0	Aurora	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	30.10	764.5	74.5	23.6	92	NE	.....	.....	5	.....	.....	.....	.....	0	0	Squally	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft.. or 755.5 m.; Benton, 2,078.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,954.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 18, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the cooperation of General d'Eudeville, Commandant Supérieur du Genie in Algeria.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind: Direction. From—	Wind: Velocity. Miles per hour.	Wind: Velocity. Meters per second.	Wind: Force. 0—10.	Clouds: Amount. Up'er 0—10.	Clouds: Amount. Low'r 0—10.	Clouds: Direction. Upper. From—	Clouds: Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.21	767.4	62.8	17.1	70	Calm	.....	.....	0	.....	10	.....	.....	0	0	Hidden.	Charnot and Masselot.
Algiers	.....	.....	30.16	766.1	65.1	18.4	84	N	.....	.....	1	.....	4	.....	.....	0	0	Fair.	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.15	765.7	70.9	21.6	39	W	.....	.....	3	.....	0	.....	.....	0	0	Clear.	Jacques.
Sfax	.....	.....	30.26	768.5	69.8	21.0	51	S	.....	.....	4	.....	1	.....	.....	0	0	Clear.	Chauvey.
Saïda	.....	.....	30.26	768.6	72.5	22.5	8	SW	.....	.....	1	.....	2	.....	.....	0	0	Clear.	Millot.
Tebessa	.....	.....	30.25	768.4	73.0	22.8	.....	S	.....	.....	2	.....	0	.....	.....	0	0	Clear.	Colin.
Gerlville	.....	.....	30.28	769.0	63.0	17.2	30	SW	.....	.....	2	.....	2	.....	.....	0	0	Clear.	Buard.
Laghouat	.....	.....	30.29	769.3	68.0	20.0	32	NW	.....	.....	3	.....	0	.....	.....	0	0	Clear.	Delord.
Biskra	.....	.....	30.27	768.8	70.9	21.6	32	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear.	Dubois.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the cooperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	29.87	758.8	52.9	11.6	59	SW	.....	.....	4	.....	10	.....	.....	0	0	.....	Prof. Ivan Stosir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	29.82	757.5	39.6	4.2	87	W	.....	.....	1	.....	10	.....	.....	0.051	1.30	.....	I. R. Observatory.
Speries	.....	.....	29.82	757.3	37.2	2.9	88	Calm	.....	.....	0	.....	5	.....	SE	0	0	.....	Julius Mikolik.
Gratz	28.68	728.5	29.91	759.6	43.0	6.1	81	Calm	.....	.....	0	.....	8	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.40	721.3	29.85	758.3	39.9	4.4	73	NW	.....	.....	0	.....	7	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.60	726.4	29.95	760.8	48.2	9.0	84	WSW	.....	.....	3	.....	10	.....	.....	0.157	4.0	.....	Prof. C. Wagner.
Lemberg	.....	.....	29.80	756.8	32.0	0.0	89	NW	.....	.....	1	.....	10	.....	.....	0	0	.....	Dr. T. Stanecki.
Kyiregyhaza	.....	.....	29.87	758.8	36.3	2.4	100	SW	.....	.....	2	.....	4	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.01	762.2	50.4	10.2	90	WNW	.....	.....	1	.....	10cs	.....	.....	0	0	Fog over sea	I.R. Hydrographic Of'ce
Szekesfin	.....	.....	29.89	759.3	34.1	2.3	98	Calm	.....	.....	0	.....	10	.....	.....	0.224	5.70	.....	Karl Stancel.
Trieste	.....	.....	30.09	762.1	48.2	9.0	87	Calm	.....	.....	0	.....	10	.....	.....	0	0	Cloudy	Prof. V. Farolfi.
Vienna	.....	.....	29.84	757.8	48.4	9.1	85	W	.....	.....	4	.....	10	.....	.....	0.846	21.5	Raining	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the cooperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	29.63	752.6	58.1	14.5	60	SSW	.....	.....	3	5	0	WSW	.....	0.404	10.25	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	28.96	735.6	42.9	6.1	.....	S	4	1.8	.....	.....	10	.....	.....	0.155	3.94	Rain & mist.	William Boswell.
Ardrossan	.....	.....	29.88	758.9	48	8.9	.....	SSW	.....	.....	5	.....	9	.....	.....	.....	.....	Raining.....	J. Mayes.
Armagh Observatory	.....	.....	28.92	734.6	49.0	9.4	.....	SW	25	11.2	.....	.....	10	.....	.....	.....	.....	Raining.....	S. Callaghan, for Dr. Robinson
Bidston, Liverpool Obs	.....	.....	29.14	740.1	52.2	11.2	.....	SW	43	19.2	.....	.....	8	.....	.....	.....	.....	Overcast.....	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.10	739.1	50.5	10.3	.....	SW	.....	.....	1	.....	9	.....	.....	.....	.....	*D. clouds.....	J. Dreyer.
Bradford	.....	.....	29.12	739.6	53.6	12.0	.....	SW	.....	.....	4	.....	10	.....	.....	0.14	3.6	Gloomy.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.05	763.3	80.0	26.7	.....	NE	.....	.....	2	.....	2	.....	.....	.....	.....	*D. clouds.....	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.38	746.2	55.5	13.1	.....	S	.....	.....	5	.....	10	.....	.....	.....	.....	Raining.....	H. Todd.
Cardington	.....	.....	29.38	746.2	53.6	12.0	.....	SW	.....	.....	6	.....	8	.....	.....	.....	.....	Overcast.....	John McLaren.
Carlisle	.....	.....	29.02	737.1	51.9	11.1	.....	SW	.....	.....	8	.....	10	.....	.....	0.48	12.2	Threatening	J. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	29.53	750.0	56.2	13.4	.....	W	.....	.....	3	.....	5	.....	.....	.....	.....	*D. clouds.....	Capt. J. Fellowes, R. E.
Dartmoor	27.97	710.4	29.46	748.3	46.6	8.1	.....	S	.....	.....	7	.....	10	.....	.....	.....	.....	Rain and fog	R. E. Power.
Donaghadee	.....	.....	28.88	733.5	48	8.9	.....	WSW	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast.....	J. Mac Gowan.
Dover	.....	.....	29.52	749.8	47	8.3	.....	WSW	.....	.....	3	.....	5	.....	.....	.....	.....	½ clouded...	J. Costello.
Eccles, (near Manchester)	.....	.....	29.19	741.4	53.7	12.1	.....	SSW	7.8	3.5	.....	.....	10	.....	.....	.....	.....	Squall.....	Thomas Mackereth
Falmouth Observatory	.....	.....	29.38	746.2	52.8	11.6	.....	SSW	32	14.3	.....	.....	9	.....	.....	.....	.....	Overcast.....	The Staff.
Fort Napier, (Natal)	27.54	699.5	29.78	756.4	81.8	27.7	.....	NE	.....	.....	2	.....	8	.....	.....	.....	.....	*D. clouds.....	Pvt G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.86	758.4	85.0	29.4	.....	N	.....	.....	8	.....	3	.....	.....	.....	.....	Blue sky.....	(tic.
Galway, Queen's College	.....	.....	29.13	739.9	48	8.9	.....	SW	.....	.....	1	.....	7	.....	.....	.....	.....	.....	B. G. Clare, for Prof. Cur
Gibraltar, (Mediterranean)	.....	.....	30.16	766.1	68.8	20.4	.....	SW	.....	.....	4	.....	1	.....	.....	.....	.....	*D. clouds.....	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.86	758.4	48.0	8.9	.....	W	.....	.....	1	.....	10	.....	.....	.....	.....	Raining.....	Lewis Stuart.
Great Yarmouth	.....	.....	29.41	747.0	54	12.2	.....	SSW	.....	.....	5	.....	6	.....	.....	.....	.....	Misty.....	G. T. Watson.
Greenwich Royal Obs	.....	.....	29.46	748.3	54.8	12.7	.....	SW	.....	.....	5	.....	10	.....	.....	Blank	Blank	Ove cast.....	The Staff for G. B. Airy
Guernsey	.....	.....	29.53	750.0	51.5	10.8	.....	SSW	.....	.....	3	.....	7	.....	.....	Blank	Blank	Squally.....	Dr. S. E. Hoskins.
Halifax, Moorside Obs	.....	.....	29.16	740.7	52.5	11.4	.....	SW	.....	.....	5	.....	10	.....	.....	Blank	Blank	Threatening	L. J. Crossley.
Helston	.....	.....	29.40	746.7	55	12.8	.....	SW	.....	.....	6	.....	8	.....	.....	0.10	2.5	Gloomy.....	M. P. Moyle.
Holyhead	.....	.....	29.13	739.9	50	10.0	.....	SSW	.....	.....	6	.....	10	.....	.....	Blank	Blank	Misty.....	John Tilston.
Kew Observatory	.....	.....	29.45	748.0	53.0	11.7	.....	SSW	33	14.8	.....	.....	10	.....	.....	.....	.....	Squally.....	The Staff.
Kingstown	.....	.....	29.06	738.1	52	11.1	.....	W	.....	.....	6	.....	3	.....	.....	.....	.....	Blue sky.....	George Mitchell
Leicester Museum	.....	.....	29.31	744.5	55.4	13.0	.....	SW	.....	.....	5	.....	5	.....	.....	.....	.....	*D. clouds.....	William J. Harrison
Malta, (Mediterranean)	.....	.....	30.06	763.5	61.4	16.3	.....	NW	.....	.....	2	.....	6k	.....	.....	.....	.....	.....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	28.98	736.1	39	3.9	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Raining.....	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.14	765.5	73.4	23.0	.....	NE	.....	.....	4	.....	7	.....	.....	.....	.....	*D. clouds.....	Surg.-Maj. Henry.
Nottingham	.....	.....	29.26	743.2	55.3	12.9	.....	SSW	.....	.....	6	.....	9d,k	.....	SSW	0.027	0.69	Overcast.....	E. J. Lowe, F. R. S
Oscott, St. Mary's College	.....	.....	29.27	743.4	53.0	11.7	.....	SSW	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast.....	Rev. Stephen Whitty.
Oxford, Radcliffe Obs	.....	.....	29.58	746.2	51	10.6	.....	S	.....	.....	4	.....	10	.....	.....	.....	.....	Raining.....	J. Lucas.
Plymouth	.....	.....	29.44	747.8	51.5	10.8	.....	S	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast.....	John Merrifield.
Roche's Point	.....	.....	29.18	741.1	51	10.6	.....	SW	.....	.....	5	.....	8	.....	.....	.....	.....	Foggy	W. Kennedy.
Saint Ann's Head	.....	.....	29.29	744.0	49	9.4	.....	SSW	.....	.....	6	.....	9	.....	.....	.....	.....	Misty.....	John C. Walker.
Saint Heller, (Jersey)	.....	.....	29.56	750.8	52.2	11.2	.....	S	.....	.....	6	.....	8	.....	.....	.....	.....	¾ c'ouded...	A. P. Amy.
Sandwick Manse(Orkneys)	.....	.....	29.00	736.6	41.6	5.3	.....	SE	8	3.6	.....	.....	10	.....	.....	.....	.....	Misty.....	Rev. Dr. Clouston
Scarborough	.....	.....	29.17	740.9	53.0	11.7	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast.....	F. Shaw.
Scutari Cemetery(Turkey	.....	.....	29.87	758.7	50.0	10.0	.....	N	.....	.....	2	.....	6	.....	.....	Blank	Blank	No clouds.....	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.23	742.4	54.4	12.4	.....	WSW	.....	.....	6	.....	10	.....	.....	0.126	3.2	Threatening	W. F. Cooper.
Silloth Rectory	.....	.....	28.96	735.6	49.5	9.7	85	SW	.....	.....	6	.....	10	.....	.....	0.050	1.27	Overcast.....	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	29.14	740.1	50.7	10.4	.....	SW	.....	.....	4	.....	10	.....	.....	Blank	Blank	Squally.....	The Staff.
Stornoway, Lews C. (Hebr)	.....	.....	28.96	735.6	43	6.1	.....	NE	.....	.....	1	.....	5	.....	.....	.....	.....	*D. clouds.....	John Smith.
Stratfield Turgiss	.....	.....	29.47	748.5	53.5	11.9	.....	SW	.....	.....	2-3	.....	10	.....	.....	.....	.....	Raining.....	Rev Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	28.94	735.1	41	5.0	.....	Calm	.....	.....	0	.....	9	.....	.....	.....	.....	Overcast.....	John Trott r.
Truro, Royal Institution	.....	.....	29.34	745.2	53	11.7	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Raining.....	W. Newcombe
Valencia Observatory	.....	.....	29.08	738.6	50.8	10.4	.....	WSW	25	11.2	.....	.....	10	.....	.....	.....	.....	*D. clouds.....	The Staff
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.84	757.9	83.6	28.7	48	SSE	14	6.3	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone
Calf of Man, (Isle of Man)	.....	.....	.....	.....	45	7.2	.....	W	.....	.....	6	.....	2	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	28.91	734.3	51.2	10.7	.....	SW	.....	.....	4	.....	10k8	.....	.....	0.08	2.0	Cloudy.....	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	28.94	735.1	42	5.6	.....	E	.....	.....	3	5	5	NE	.....	0.2	5.1	Solar halo....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	29.10	739.1	43	6.1	.....	S	.....	.....	2	.....	10	.....	.....	.....	.....	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.54	750.2	33.6	0.9	98	SSE	.....	.....	2	.....	10	.....	.....	.....	.....	Raining.....	
Faröe	.....	.....	29.41	747.0	38.1	3.4	100	SSW	.....	.....	4	.....	10	.....	.....	.....	.....	Misty.....	
Godthaab, (Greenland)	.....	.....	29.76	756.0	17.6	— 8.0	85	NNE	.....	.....	2	.....	0	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.67	753.7	9.5	—12.5	92	NE	.....	.....	8	.....	8	.....	.....	.....	.....	.....	
Thorshavn, (Faröe)	.....	.....	29.20	741.6	33.6	0.9	72	NNE	.....	.....	4	.....	7	.....	.....	.....	.....	.....	
Vestervig	.....	.....	29.31	744.5	34.9	1.6	100	SSW	.....	.....	6	.....	10	.....	.....	.....	.....	Raining.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols: no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.67	753.7	49.1	9.5	84	SW	.....	.....	1	.....	5nk	.....	SW	0.047	1.2	Cloudy	Normal School.
Amiens	.....	.....	29.75	755.7	59.4	15.2	59	WSW	.....	.....	3	.....	1	.....	WSW	0.504	12.8	Clear	Normal School.
Avignon	.....	.....	30.00	761.9	59.9	15.5	64	NNW	.....	.....	1	.....	.....	.....	W	0	0	Clear, hazy?	Normal School.
Bar-sur-Seine	.....	.....	29.84	758.0	61.3	16.3	56	S	.....	.....	2	5c	.....	.....	.....	0	0	Cloudy	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.67	753.5	59.5	15.3	52	SW	28.6	12.8	.....	.....	.....	.....	SW	0.024	0.6	.....	Beaumette Observatory
Beauvais	.....	.....	29.72	754.8	55.0	13.1	64	SSW	.....	.....	1	.....	5	.....	SW	0	0	Cloudy	Normal School.
Besançon	.....	.....	29.89	759.2	56.5	13.6	67	S	.....	.....	2	.....	2	.....	SW	0.08	2.	Slightly cl'dy	Normal School.
Bourg en Bresse	.....	.....	29.97	761.3	55.4	13	93	S	.....	.....	1	.....	1ck	.....	SSW	.....	.....	Clear	Normal School.
Bourges	.....	.....	29.91	759.8	44.8	7.1	85	NW	.....	.....	2	.....	1	.....	NW	0	0	Clear	Normal School.
Brest	.....	.....	29.50	749.2	52.7	11.5	85	SW	.....	.....	6	.....	10	.....	SW	0.020	0.50	Misty	Naval Observatory.
Caen	.....	.....	29.58	751.2	60.8	16	56	S	.....	.....	2	.....	.....	.....	NE	0	0	.....	Normal School
Chartres	.....	.....	29.71	754.7	55.6	13.1	.....	SE	.....	.....	3	.....	0	.....	.....	0	0	Clear	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.92	759.9	53.1	11.7	64	S	.....	.....	2	.....	10	.....	W	0.047	1.2	Covered	Puy de Dome, Obs.
Commercy	.....	.....	29.84	757.9	54.5	12.5	63	S	.....	.....	2	.....	2cs	.....	S	0.177	4.5	Slightly cl'dy	Normal School.
Commune de Gréasque*	.....	.....	30.04	763.1	60.3	15.7	57	E	.....	.....	2	.....	5	.....	E	0	0	.....	.....
Grenoble	.....	.....	29.98	761.4	55.4	13	66	NE	.....	.....	1	.....	2k	.....	S	0	0	Slightly cl'dy	Normal School.
Le Mans	.....	.....	30.11	764.8	55.8	13.2	66	SW	.....	.....	3	.....	2	.....	SW	0	0	Slightly cl'dy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	29.86	758.2	53.6	12.0	71	SW	.....	.....	1	.....	2	.....	W	0	0	Slightly cl'dy	Normal School.
Mâcon	.....	.....	30.11	764.7	54.9	12.5	90	Calm	.....	.....	0	.....	5	.....	S	0	0	Cloudy	Normal School.
Mirecourt	.....	.....	29.79	756.7	53.8	12.1	.....	SSW	.....	.....	2	.....	5	.....	NNW	0	0	Cloudy	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.00	762.0	59.4	15.2	78	NE	.....	.....	2	.....	2	.....	N	0	0	Slightly cl'dy	Normal School.
Orleans	.....	.....	29.68	753.9	60.1	15.6	53	WSW	.....	.....	3	.....	5	.....	WSW	0	0	Cloudy	Normal School.
Paris Observatory	.....	.....	29.71	754.5	57.4	14.1	60	S	.....	.....	3	.....	5	.....	SW	0	0	Cloudy	National Observatory
Parthenay	.....	.....	29.71	754.7	59.9	15.5	55	SW	.....	.....	6	.....	5	.....	SW	0.098	2.5	Cloudy	Normal School.
Privas	.....	.....	29.95	760.7	58 3	14.6	.....	SW	.....	.....	1	.....	5	.....	.....	0	0	Cloudy	Normal School.
La Roche-sur-Yon	.....	.....	29.70	754.3	58.3	14.6	73	S	.....	.....	4	.....	5	.....	NE	0	0	Cloudy	Normal School.
Rochefort, Observatory	.....	.....	29.77	756.1	62.4	16.9	53	SW	.....	.....	6	.....	5	.....	NE	0	0	½ covered	Naval Observatory.
Rouen	.....	.....	29.63	752.5	60.6	15.9	52	SSE	.....	.....	2	.....	5	.....	SE	0	0	Cloudy	Normal School.
Saint Lo	.....	.....	29.65	753.2	59.9	15.5	80	W	.....	.....	1	.....	3	.....	W	0	0	.....	Normal School.
Tarbes	28.88	733.5	29.95	760.6	55.4	13	70	S	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Toulouse	.....	.....	30.05	763.2	53.8	12.1	76	SE	.....	.....	1	.....	0	.....	.....	.....	.....	Clear	Normal School
Villefranche	.....	.....	30.00	762.0	50.4	10.2	94	SE	.....	.....	3	.....	5	.....	.....	0	0	Cloudy	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.94	760.4	75.2	24	83	NE	.....	.....	2	.....	5ck	.....	.....	0.08	2.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	29.98	761.5	61.7	16.5	91	SSW	.....	.....	1	.....	9	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.81	630.0	30.18	766.6	49.3	9.6	38	SW	22.4	10.00	.....	.....	5	.....	SW	0	0	.....	—. Faiguère.
Montsouris, Paris	.....	.....	29.73	755.2	59.0	15.0	75	SSW	.....	.....	3	.....	7	.....	SW	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	29.94	760.5	59.2	15.1	56	NE	3.7	1.67	.....	.....	7	.....	SW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.13	536.6	.....	.....	28.6	— 1.9	.....	WSW	.....	.....	8	.....	3	.....	.....	.....	.....	Fair	M. Baylac.
Pic du Midi, (Plantade)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saint Maur, (near Paris)	.....	.....	29.71	754.7	59.4	15.2	55	SSE	.....	.....	2	.....	7	.....	.....	0	0	Cloudy	E. Renou.
Toulouse	.....	.....	29.94	760.5	60.4	15.8	44	SE	.....	.....	1	.....	10	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	29.73	755.1	58.9	14.8	56	SW	.....	.....	3	.....	7	.....	SW	0	0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.70	754.1	60.1	15.6	59	SW	.....	.....	3	.....	8	.....	.....	0	0	Pretty fine	Dr. A. Bérigny.
Zi-Ka Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 432 m., or 1,060.9 ft.; Ier nont. 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,356 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
* Near Marseilles.

GERMAN SERIES.

Furnished by the cooperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.76	755.8	54.0	12.2	87	SW	.....	.....	2	.....	9	.....	.....	0.433	11.0	.....	Prof. T. Hoh.
Berlin	.....	.....	29.67	753.6	48.7	9.3	90	SW	.....	.....	2	.....	10	.....	.....	0.551	14.0	.....	Prof. Arndt.
Bresla u	.....	.....	29.79	756.6	37.2	2.9	98	SSE	.....	.....	3	.....	10	.....	.....	0.213	5.4	Rain & mist.	Dr. P. Nangenauer
Carlsruhe	.....	.....	29.84	758.0	58.6	14.8	66	SW	.....	.....	3	.....	9	.....	.....	0.181	4.6	.....	A. Senz.
Cassel	.....	.....	29.68	753.9	57.0	13.9	69	SSW	.....	.....	2	.....	4	.....	.....	0.146	3.7	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.87	758.8	58.1	14.5	73	SW	.....	.....	2	.....	3	.....	.....	0.171	1.8	.....	Physical Society
Friedrichshafen	.....	.....	29.92	760.0	52.0	11.1	61	SW	.....	.....	.....	.....	4	.....	.....	0.004	0.1	.....	M. Wilhelm.
Hamburg	.....	.....	29.62	752.3	46.9	8.3	91	WSW	.....	.....	5	.....	10	.....	.....	0.390	9.9	.....	Deutsche Seewarte.
Kiel	.....	.....	29.60	751.7	42.3	5.7	96	SW	.....	.....	1	.....	10	.....	.....	0.358	9.1	.....	.....
Königsberg	.....	.....	29.84	757.9	26.6	— 3.0	74	NE	.....	.....	2	.....	0	.....	.....	0.016	0.4	Snowing	Prof. E. Luther.
Köslin	.....	.....	29.71	754.5	33.4	0.8	.....	SE	.....	.....	2	.....	10	.....	.....	0	0	Snowing	H. Müller.
Leipsic	.....	.....	29.74	755.4	53.2	11.8	81	SW	.....	.....	6	.....	9	.....	.....	0.449	11.4	.....	Prof. Bruhns.
Münster	.....	.....	29.66	753.4	56.5	13.6	84	SW	.....	.....	2	.....	4	.....	.....	0.051	1.3	Raining	Prof. E. Heis.
Posen	.....	.....	29.77	756.1	36.3	2.4	93	SE	.....	.....	2	.....	10	.....	.....	0.094	2.4	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.86	758.5	57.6	14.2	69	SW	.....	.....	1	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	29.89	759.3	58.1	14.5	70	S	.....	.....	.....	.....	5	.....	.....	0.102	2.6	.....	Prof. Schoder.
Thorn	.....	.....	29.78	756.3	32.7	0.4	88	NE	.....	.....	3	.....	9	.....	.....	0	0	.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	29.75	755.6	55.9	13.3	89	SW	.....	.....	5	.....	3	.....	.....	0.020	0.5	Light mist	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.61	752.2	36.5	2.5	100	S	.....	.....	2	.....	10	.....	.....	0	0	Rain & mist.	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the cooperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.91	759.6	66.9	19.4	.....	W	.....	.....	.....	.....	.....	.....	.....	.....	.....	Very clear	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	30.00	762.1	45.5	7.6	75	Calm	0	0	.....	.....	10	.....	.....	0	0	.....	
Padua	.....	.....	29.99	761.7	46.4	8.0	75	NNE	1.3	0.6	.....	.....	4	.....	.....	0	0	.....	
Vicenza	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Verona	.....	.....	29.99	761.7	52.7	11.5	56	E	.....	.....	1	.....	10	.....	.....	0	0	.....	
Bergamo	.....	.....	29.96	760.9	50.0	10.0	74	S	.....	.....	1	.....	9	.....	.....	0	0	.....	
Domodossola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Milan	.....	.....	29.99	761.8	52.7	11.5	76	ESE	.....	.....	1	.....	0	.....	.....	0	0	.....	
Pavia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Moncalieri	.....	.....	30.02	762.6	46.9	8.3	71	NNE	0.7	0.3	.....	.....	5	W	.....	0	0	.....	
Mondovi	.....	.....	30.00	761.9	46.6	8.1	77	WSW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Porto Maurizio	.....	.....	30.09	764.2	59.0	15.0	.....	E	.....	.....	4	.....	7	.....	.....	0	0	.....	
Genoa	.....	.....	30.04	763.0	54.3	12.4	81	SE	6.9	3.1	.....	.....	10	SE	.....	0	0	.....	
Piacenza	.....	.....	30.00	762.1	43.3	6.3	91	E	4.9	2.2	.....	.....	10	.....	.....	0	0	Dense fog....	
Bologna	.....	.....	30.04	763.1	50.0	10.0	24	NE	.....	.....	1	.....	4	E	.....	0	0	.....	
Florence	.....	.....	30.07	763.8	60.1	15.6	66	NW	.....	.....	2	.....	5	W	.....	0	0	.....	
Leghorn	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Siena	.....	.....	30.05	763.3	55.2	12.9	76	NE	0	0	.....	.....	4	W	.....	0	0	.....	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ancona	.....	.....	30.02	762.4	44.2	6.8	91	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	
Grosseto	.....	.....	30.06	763.4	60.4	15.8	74	SW	.....	.....	4	.....	4	S	.....	0	0	.....	
Rome	.....	.....	30.08	763.9	61.3	16.3	62	SSW	8.7	3.9	.....	.....	3	S	.....	0	0	.....	
Naples, O. U	.....	.....	30.10	764.4	61.2	16.2	62	SSW	.....	.....	4	.....	1	WNW	.....	0	0	.....	
Lecce	.....	.....	30.07	763.7	59.9	15.5	56	NW	4.9	2.2	.....	.....	2	.....	.....	0	0	.....	
Cosenza	.....	.....	30.09	764.3	58.3	14.6	72	ESE	9.4	4.2	.....	.....	2	.....	.....	0	0	.....	
Riposto, (Sicily)	.....	.....	30.05	763.3	59.7	15.4	83	NE	.....	.....	2	.....	1	.....	.....	0	0	.....	
Palermo	.....	.....	30.04	762.9	62.8	17.1	54	NE	0	0	.....	.....	1	.....	.....	0	0	.....	
Caltanissetta	.....	.....	30.07	763.6	52.2	11.2	71	NW	.....	.....	1	.....	0	.....	.....	0	0	.....	
Sub-Series.																			
Naples, S. R.	.....	.....	30.10	764.5	59.0	15.0	63	NW	1.8	0.8	.....	.....	..c	NW	.....	0	0	.....	Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the cooperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	29.62	752.4	51.8	11.0	.....	SSW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	29.49	749.1	48.4	9.1	.....	SSW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	29.47	748.5	46.4	8.0	.....	SSW	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	29.56	750.9	55.0	12.8	91	SSW	.....	.....	5	.....	5	.....	.....	.....	.....	Cloudy.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	29.23	742.5	36.7	2.6	85	S	12.1	5.4	.....	.....	10	.....	.....	0.374	9.5	.....	
Brönö	.....	.....	29.15	740.4	29.8	— 1.2	88	SSE	27	12	.....	.....	10	.....	.....	0	0	.....	
Christiania	.....	.....	29.53	750.1	21.0	— 6.1	90	.....	0.9	0.4	.....	.....	10	.....	.....	0.020	0.5	Snowing.....	
Tromsö	.....	.....	29.34	745.1	19.0	— 7.2	54	N	2	1	.....	.....	0	.....	.....	0	0	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.98	761.6	55.9	13.3	86	W	11.9	5.31	.....	.....	7	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.08	764.0	57.2	14.0	76	SW	13.2	5.91	.....	.....	9	SW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.21	767.3	63.3	17.4	63	SW	12.0	5.36	.....	.....	1	.....	.....	0.299	7.6	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.10	764.5	59.2	15.1	80	WSW	23.7	10.6	.....	.....	4	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.82	757.3	31.8	— 0.1	90	WNW	4	2	.....	.....	6	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	29.84	757.8	23.9	— 4.5	64	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	29.94	760.4	10.6	—11.9	80	ESE	7	3	.....	.....	8	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.93	760.1	11.8	—11.2	82	SSE	7	3	.....	.....	9	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	29.81	757.1	11.1	—11.6	100	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	29.74	755.4	23.7	— 4.6	95	NNE	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	29.74	755.3	35.1	1.7	90	NW	18	8	.....	.....	9	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	29.63	752.6	40.6	4.8	87	W	2	1	.....	.....	9	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.98	761.6	3.2	—16.0	85	NNW	13	6	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.55	750.5	20.3	— 1.5	80	ENE	13	6	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	29.83	757.7	1.8	—16.8	90	WNW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.25	717.5	29.67	753.7	43.2	6.2	49	NNW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	29.82	757.5	33.6	0.9	87	S	9	4	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	29.67	753.7	4.1	—15.5	76	N	4	2	.....	.....	6	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	29.89	759.3	11.1	—11.6	75	SE	13	6	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.02	727.0	29.70	754.4	6.4	—14.2	81	SE	9	4	.....	.....	10	.....	.....	.....	.....	Snowing	Meteorological Obs.
Nukuss	.....	.....	29.95	760.6	33.8	1.0	85	SE	4	2	.....	.....	1	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.02	762.5	9.5	—12.5	62	E	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.43	722.1	30.21	768.1	28.2	— 2.1	81	WNW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.04	778.3	— 5.4	—20.8	78	NE	2	1	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.52	775.8	— 0.8	—18.2	66	SSW	7	3	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Gorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.51	774.9	30.6	— 0.8	62	SW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.23	767.8	10.0	—12.2	89	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 403. meters, or 1,341.8 feet; Ekaterinburg, 306.42 m., or 1,005.22 ft.; Tashkend, 4 94.22, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk 592.07 m., or 1,942.27 ft.; Oorga, 1,281.0 m., or 4,204.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.07	763.6	58.1	14.5	49	SE	4.5	2.00	.....	1	0	SW	.....	0	0	Light clouds	Royal Observatory.
San Fernando	.....	.....	30.22	767.5	61.5	16.4	89	SSW	8.1	3.6	.....	3	2	S	S	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.78	756.4	10.0	—12.2	93	SE	.....	.....	2	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	29.68	753.8	12.2	—11.0	93	S	.....	.....	6	.....	10	.....	.....	0	0	Snowing	
Hernosand	.....	.....	29.69	754.0	10.5	— 8.6	100	S	.....	.....	4	.....	10	.....	.....	0.016	0.4	.....	
Stockholm	.....	.....	29.67	753.6	25.2	— 3.8	87	SE	.....	.....	2	.....	10	.....	.....	0.020	0.5	.....	
Wisby	.....	.....	29.78	756.4	31.6	— 0.2	100	SSW	.....	.....	4	.....	5	.....	.....	0.008	0.2	.....	
Sub-Series.																			
Upsala	.....	.....	29.68	753.8	21.4	— 5.9	92	SSE	10.3	4.6	.....	.....	10	.....	.....	0.335	8.50	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.52	724.3	29.93	760.2	58.1	14.5	49	S			1		4			0	0	Vapor	The Observatory.
Zurich	28.39	718.5	29.92	760.0	55.2	12.9	68	SW			1		2		SW	0.394	10.0	Clear, föhn.	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.8 mm.; Thermometer, +10.6 cent.; Relative Humidity, —22 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Constantinople			29.88	759.0	48.7	9.3	61	NW	4	2.0			7		NW	Blank	Blank		
Fao, (Persian Gulf)			30.04	763.0	64.4	18.0		SE			1								
Salonica			29.87	758.8	56.1	13.4		N			1								
Valona			29.95	760.8	58.5	14.7		W			2								
Varna			29.76	756.0	42.8	6.0		N			2								
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.			29.80	756.9	60.8	16.0	73	SW			3		10n		SW	0.54	13.7	Rainy	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Bathurst, N. B.			29.71	754.6	26.2	— 3.2	75	NW	5.7	2.5						0	0		Hon. J. Ferguson.
Brockville, Ontario			30.18	766.6	2	—16.7		Calm	0	0			8s		W	0	0	Cloudy	W. R. Bigg.
*Chatham, N. B.			29.72	754.9	23	— 5.0	84	NW	10	4.5		2k	0	NW		0	0	Fair	G. A. Blair.
Charlottetown, P. E. Island.			29.59	751.6	27	— 2.8	95	N	13	5.8			10n			0.02	0.5	Light snow	H. J. Cundall, C. E.
Cornwall, Ontario			30.06	763.5	15.7	— 9.1	88	W			1		10s			0	0	Unsettled	James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Esquimault, B. C.			30.46	773.7	39.1	3.9	83	SW	3	1.3			10			0	0	Cloudy	W. H. Bevis.
Fredericton, N. B.			29.80	756.9	20.0	— 6.7	85	W	12	5.4		3c				0	0		Prof. Harrison.
*Fort Garry, Manitoba			29.70	754.4	10	—12.2	100	W	13	5.8			10n			0	0	Cloudy	James Stewart.
Goderich, Ontario			30.21	767.3	23.9	— 4.5	84	Calm			0	2c	3s	NW		0	0	Fine	H. J. Strang, M. A.
Granton, Ontario			30.21	767.3	13.5	—10.3		W			1	2ck		E		0	0	Clear	James Grant.
*Halifax, N. S.			29.64	752.8	27	— 2.8	94	N	12	5.4			10n			Inap.	Inap.	Light snow	F. Allison, M. A.
*Kingston, Ontario			30.16	766.1	11	—11.7	96	Calm	0	0		2c	0	W		0	0	Clear	S. Woods, M. A.
Little Current, Ontario			30.15	765.8	12.6	—10.8		Calm	0	0			8s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.06	763.5	16	— 8.9	83	W	8	3.6		2cs	2ks			0.03	0.8	Fair	C. H. McLeod, C. E.
*Ottawa, Ontario			30.08	764.0	14	—10.0	78	W	7	3.1		10k	0	W		0	0	Cloudy	J. B. Haney.
*Parry Sound, Ontario			30.16	766.1	13	—10.6	95	Calm	0	0			10n			0.04	1.0	Light snow	Rev. R. Mooley.
*Port Dover, Ontario			30.19	766.8	20	— 6.7	85	W	11	4.9		0	0			0	0	Clear	H. Morgan.
Port Hastings, N. S.			29.62	752.3	21.0	— 6.1		NW	7	3.1						0	0	Fine	P. ter Grant.
*Port Stanley, Ontario			30.22	767.6	18	— 7.8	87	NW	10	4.5		0	0			0	0	Clear	M. Payne.
*Quebec, Quebec			29.95	760.7	17	— 8.3	83	SW	17	7.6			10n		SW	0	0	Cloudy	Capt. Ash, R. N.
St. John, N. B.			29.79	756.7	21	— 6.1	78	NW	11	4.9						0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.14	765.5	21	— 6.1	81	NE	3	1.3		10k	0	N		0.05	1.3	Cloudy	K. Stewart.
Stayner, Ontario			30.15	765.8	18	— 7.8	90	Calm	0	0		8ck	0	NW		0.14	3.6	Cloudy	R. J. Cole.
Stratford, Ontario			30.20	767.1	17.4	— 8.1	92	W	4	1.8			0			0	0	Fine	C. J. MacGregor, M. A.
*Sydney, C. B.			29.56	750.8	17	— 8.3	88	NW	1	0.4		0	2ks		NW	0.01	0.3	Clear	T. C. Hill.
*Toronto, Ontario			30.17	766.3	23	— 5.0	88	W	5	2.2			10n		W	0.02	0.5	Light snow	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery.

Note.- The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0 10	Clouds. Amount. Up'er 0 10	Clouds. Amount. Low'r 0 10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.05	763.3	22	— 5.6	72	Calm	0	0	.....	2ck	2ks	NW	W	Inap.	Inap.	Fair	
Alpena, Mich.	.....	.....	30.12	765.0	10	—12.2	79	Calm	0	0	.....	5cs	Haze	.....	.....	Inap.	Inap.	Fair	
Atlantic City, N. J.	.....	.....	30.16	766.1	29	— 1.7	78	W	4	1.8	.....	1c	0	W	.....	0	0	Clear	
Augusta, Ga.	.....	.....	30.26	768.6	43	6.1	51	NW	5	2.2	.....	5cs	2s	W	W	0	0	Fair	
Baltimore, Md.	.....	.....	30.22	767.6	32	0.0	69	W	3	1.3	.....	2k	Sm'e	.....	.....	0	6	Fair	
Barnegat, N. J.	.....	.....	30.13	765.3	29	— 1.7	78	W	9	4.0	.....	1c	0	W	.....	0	0	Clear	
Benton, Montana	27.42	696.5	30.22	767.6	24	— 4.4	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Bismarck, Dakota	28.28	718.3	30.04	763.0	18	— 7.8	52	NW	27	12.1	.....	1k	Haze	N	.....	0	0	Fair	
Boston, Mass.	.....	.....	30.00	762.0	20	— 6.7	72	SW	10	4.5	.....	5ck	Sm'e	W	.....	Inap.	Inap.	Fair	
Breckenridge, Minn	.....	.....	29.79	756.7	30	— 1.1	78	W	14	6.3	.....	5c	2s	.....	.....	0	0	Cloudy	
Buffalo, N. Y.	.....	.....	30.14	765.5	23	— 5.0	73	W	7	3.1	.....	1c	5s	W	NW	0.02	0.5	Fair	
Burlington, Vt.	.....	.....	30.05	763.3	18	— 7.8	68	Calm	0	0	.....	2k	5s	N	.....	0.07	1.8	Cloudy	
Cairo, Ill.	.....	.....	30.33	770.4	32	0.0	50	SE	7	3.1	.....	0	0	.....	.....	0	0	Clear	
Cape Hatteras, N. C.	.....	.....	30.13	765.3	45	7.2	76	N	12	5.4	.....	.....	10s	.....	W	0	0	Cloudy	
Cape Henry, Va	.....	.....	30.24	768.1	37	2.8	71	N	2	0.9	.....	0	2s	.....	.....	0	0	Clear	
Cape May, N. J.	.....	.....	30.18	766.6	33	0.6	79	NW	14	6.3	.....	.....	10ks	.....	NW	0	0	Cloudy	
Charleston, S. C.	.....	.....	30.24	768.1	48	8.9	48	NW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Cheyenne, Wyoming	24.10	612.1	30.04	763.0	29	— 1.7	67	N	20	8.9	.....	0	2s	.....	.....	0	0	Fair	
Chicago, Ill.	.....	.....	30.18	766.6	30	— 1.1	67	SW	5	3.6	.....	5ck	2s	W	.....	0	0	Fair	
Cincinnati, Ohio	.....	.....	30.29	769.4	38	— 2.8	67	W	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Cleveland, Ohio	.....	.....	30.26	768.6	22.8	— 5.1	86	SW	5	2.2	.....	2c	0	W	.....	Inap.	Inap.	Clear	
Colorado Springs, Col.	24.11	612.4	29.98	761.5	40	4.4	28	NE	14	6.3	.....	.....	10s	.....	N	0	0	Cloudy	
Corsicana, Texas	.....	.....	30.28	769.1	39	3.9	91	SE	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Davenport, Iowa	.....	.....	30.16	766.1	30	— 1.1	67	SW	5	3.6	.....	8ck	0	SW	.....	0	0	Cloudy	
Denison, Tex.	.....	.....	30.22	767.6	45	7.2	60	S	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Denver, Col.	24.85	631.2	30.07	763.8	40	4.4	28	NW	20	8.9	.....	0	0	.....	.....	0	0	Clear	
Detroit, Mich	.....	.....	30.22	767.6	22	— 5.6	86	SW	6	2.7	.....	5cs	Sm'e	.....	.....	0	0	Fair	
Dodge City, Kan.	27.42	696.5	29.80	756.9	29	— 1.7	97	W	3	1.3	.....	2c	0	.....	.....	0	0	Fair	
Dubuque, Iowa	.....	.....	30.12	765.0	29	— 1.7	78	SE	8	3.6	.....	5cs	2s	.....	.....	0	0	Cloudy	
Duluth, Minn.	.....	.....	29.76	755.9	23	— 5.0	73	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Eastport, Me.	.....	.....	29.84	757.9	24	— 4.4	59	NW	10	4.5	.....	5c	5cs	NW	NW	0	0	Fair	
Erie, Pa.	.....	.....	30.18	766.6	24	— 4.4	88	W	10	4.5	.....	4k	Haze	W	W	Inap.	Inap.	Fair	
Escanaba, Mich.	.....	.....	30.36	763.5	17	— 8.3	83	Calm	0	.....	.....	.....	10s	.....	.....	0	0	Cloudy	
Fort Gibson, Indian Terr.	.....	.....	30.20	767.1	41	5.0	65	SE	8	3.6	.....	1c	0	.....	.....	0	0	Clear	
Fort Sill, Indian T.	28.94	735.1	30.10	764.5	35	1.7	52	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Fort Sully, Dakota	28.27	718.0	29.96	761.0	39	3.9	63	W	16	7.2	.....	5cs	2s	W	W	0	0	Cloudy	
Galveston, Tex.	.....	.....	30.25	768.3	49	9.4	74	NE	16	7.2	.....	0	2s	.....	NE	0.56	14.2	Fair	
Grand Haven, Mich.	.....	.....	30.14	765.5	35	1.7	61	SW	11	4.9	.....	2ck	6s	NW	NW	0	0	Cloudy	
Indianapolis, Ind.	.....	.....	30.30	769.6	27	— 2.8	66	W	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Indianola, Tex.	.....	.....	30.30	769.6	47	8.3	62	N	18	8.0	.....	8cs	0	W	.....	0.19	4.8	Cloudy	
Jacksonville, Fla.	.....	.....	30.47	768.8	51	10.6	53	W	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Keokuk, Iowa	.....	.....	30.15	765.8	32	0.0	70	S	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Key West, Fla.	.....	.....	30.13	765.3	67.8	19.9	84	NE	10	4.5	.....	1ck	2s	SW	.....	0	0	Clear	
Kittyhawk, N. C.	.....	.....	30.23	767.8	34	3.3	63	NE	20	8.9	.....	5k	2s	NW	.....	0	0	Fair	
Knoxville, Tenn.	.....	.....	30.39	771.9	25	— 3.9	85	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair	
La Crosse, Wis.	.....	.....	29.97	761.2	31	1.1	61	S	16	7.2	.....	10c	0	S	.....	0	0	Cloudy	
Leavenworth, Kan.	.....	.....	30.08	764.0	35	1.7	70	S	8	3.6	.....	.....	0	.....	.....	0	0	Clear	
Lexington, Ky.	29.20	741.7	30.15	772.1	22	— 5.6	72	W	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Long Branch, N. J.	.....	.....	30.13	765.3	31	0.6	79	NW	10	4.5	.....	5ck	2ks	SW	NW	0	0	Cloudy	
Louisville, Ky.	.....	.....	30.36	770.9	25	— 3.9	62	S	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Lynchburg, Va.	.....	.....	30.26	768.8	32	0.0	55	N	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Malone, N. Y.	.....	.....	30.07	763.5	17	— 8.3	84	SW	3	1.3	.....	.....	10n	.....	W	0.10	2.5	Light s. ow.	
Marquette, Mich.	.....	.....	29.91	760.5	23	— 5.0	86	E	8	3.6	.....	.....	10s	.....	W	0	0	Cloudy	
Memphis, Tenn.	.....	.....	30.37	771.4	34	1.1	90	Calm	0	0	.....	0	Fog	.....	.....	0	0	Clear	
Milwaukee, Wis.	.....	.....	30.17	766.3	23	— 5.0	76	SW	8	3.6	.....	10c	0	NE	.....	0	0	Cloudy	
Mobile, Ala.	.....	.....	30.31	769.9	46	7.8	91	N	10	4.5	.....	.....	10s	.....	.....	0.02	0.5	Cloudy	
Montgomery, Ala.	.....	.....	30.37	771.4	39.5	4.2	99	N	3	1.3	.....	5c	Sm'e	W	.....	0	0	Fair	
Morgantown, W. Va.	.....	.....	30.29	769.4	29	— 1.7	64	SW	8	3.6	.....	0	2s	.....	W	Inap.	Inap.	Fair	
Mt. Washington, N. H.	23.38	593.8	29.74	755.4	6	—14.4	76	N	5	2.2	.....	2s	5s	N	N	0	0	Fair	
Nashville, Tenn.	.....	.....	30.36	771.1	26	— 3.3	88	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Clear	
New Haven, Conn.	.....	.....	30.08	764.	27	— 2.8	67	Calm	0	0	.....	.....	10s	.....	W	Inap.	Inap.	Cloudy	
New London, Conn.	.....	.....	30.06	763.5	27.5	— 2.5	58	W	11	4.9	.....	5ck	0	W	.....	Inap	Inap.	Fair	
New Orleans, La.	.....	.....	30.26	768.6	47.5	8.6	70	NE	10	4.5	.....	8c	0	W	.....	0.44	11.2	Fair	
Newport, R. I.	.....	.....	30.03	762.7	25	— 3.9	75	NW	10	4.5	.....	2cs	0	W	.....	0	0	Fair	
New York, N. Y.	.....	.....	30.11	764.8	30	— 1.1	66	W	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Norfolk, Va.	.....	.....	30.2	768.1	37	2.8	62	NE	2	0.9	.....	0	0	.....	.....	0	0	Clear	
North Platte, Neb.	27.09	687.3	29.65	753.	41	5.0	49	N	12	5.4	.....	0	Haze	.....	.....	0	0	Clear	
Omaha, Neb.	28.81	732.5	29.94	760.5	31	1.1	80	S	5	2.2	.....	Haze	8s	.....	NW	0	0	Cloudy	
Oswego, N. Y.	.....	.....	30.15	765.3	32.5	— 5.3	78	NW	8	3.6	.....	2c	0	.....	.....	0	0	Clear	
Peck's Beach, N. J.	.....	.....	30.19	766.8	31	0.0	68	NW	8	3.6	.....	.....	10s	.....	NW	Inap.	Inap.	Cloudy	
Pembina, Dakota	.....	.....	29.77	756.1	8	—13.3	77	NW	12	5.4	.....	8c	0	.....	.....	0	0	Fair	
Philadelphia, Penn.	.....	.....	30.18	766.6	31	— 0.6	89	NW	8	3.6	.....	10c	0	.....	.....	0	0	Cloudy	
Pike's Peak, Colorado	17.67	448.8	29.88	758.9	5.5	—14.7	51	W	16	7.2	.....	10k	Sm'e	NW	.....	0	0	Cloudy	
Pittsburgh, Penn.	.....	.....	30.24	768.1	27	— 2.8	65	W	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy	
Port Huron, Mich.	.....	.....	30.21	767.3	19	— 7.2	84	SW	6	2.7	.....	10k	0	.....	.....	Inap.	Inap.	Cloudy	
Portland, Me.	.....	.....	29.95	760.7	19	— 7.2	69	NW	4	1.8	.....	2c	2s	.....	.....	0	0	Fair	
Portland, Oregon	.....	.....	30.56	776.2	40	4.4	82	Calm	0	0	.....	5c	Haze	NW	.....	0	0	Fair	
Punta Rassa, Fla.	.....	.....	30.18	766.6	59	15.0	81	NE	12	5.4	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy	
Rochester, N. Y.	.....	.....	30.14	765.5	23	— 5.0	86	W	5	2.2	.....	Haze	5s	SW	SW	0	0	Cloudy	
Salt Lake City, Utah	25.91	658.1	30.24	768.1	30	— 1.1	78	Calm	0	0	.....	.....	10n	.....	.....	0.07	1.8	Light snow.	
Sandy Hook, N. J.	.....	.....	30.10	764.5	31	— 0.6	79	W	16	7.2	.....	0	0	.....	.....	0	0	Clear	
San Diego, Cal.	.....	.....	30.12	765.0	50	10.0	77	Calm	0	0	.....	2c	2s	W	W	Inap.	Inap.	Fair	
San Francisco, Cal.	.....	.....	30.24	768.1	49	9.4	93	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Santa Fe, N. M.	23.30	591.8	29.84	757.9	22	— 5.6	58	NE	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Savannah, Ga.	.....	.....	30.26	768.6	48	8.9	54	N	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Shreveport, La.	.....	.....	30.37	771.4	37	2.8	100	Calm	0	0	.....	.....	10s	.....	.....	0.01	0.3	Cloudy	
Smithville, N. C.	.....	.....	30.22	767.6	43	6.1	42	N	8	3.6	.....	.....	Fog	.....	.....	Inap.	Inap.	Foggy	
Springfield, Mass.	.....	.....	30.22	767.6	43	6.1	42	N	8	3.6	.....	10cs	0	W	.....	0	0	Cloudy	
St. Louis, Mo.	.....	.....	30.05	763.3	28	— 2.2	55	NW	8	3.6	.....	5ck	0	.....	.....	0	0	Fair	
St. Marks, Fla.	.....	.....	30.28	769.1	32	0.0	61	S	4	1.8	.....	0	0	.....	.....	Inap.	Inap.	Clear	
St. Paul, Minn.	.....	.....	30.30	769.6	49	9.4	63	N	4	1.8	.....	5cs	2s	W	.....	0	0	Fair	
St. Paul's Island, Alaska	.....	.....	29.79	756.7	31.5	— 0.3	74	S	8	3.6	.....	10cs	0	W	.....	0	0	Cloudy	
Squan Beach, N. J.	.....	.....	30.24	768.1	8	—13.3	77	ENE	30	16.1	.....	0	2k	.....	.....	Inap.	Inap.	.....	
Thatcher's Island, Mass.	.....	.....	30.07	763.8	27	— 2.8	88	Calm	0	0	.....	2cs	5s	.....	.....	Inap.	Inap.	Cloudy	
Toledo, Ohio	.....	.....	30.01	762.2	21	— 6.1	57	NW	14	6.3	.....	0	0	.....	.....	0	0	Clear	
Tucson, Arizona	.....	.....	30.22	767.6	26	— 3.3	76	SW	1	0.4	.....	5cs	Sm'e	SW	SW	0	0	Fair	
Tybee Island, Ga.	27.09	703.3	30.28	769.1	40	4.4	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Vicksburg, Miss.	.....	.....	30.25	768.3	48	8.9	64	N	2	0.9	.....	.....	.....	.....	.....	0	0	.....	
	.....	.....	30.18	767.1	37	2.8	70	E	6	2.7	.....	2cs	Haze	10n	NW	Inap.	Inap.	Light rain	
														W	.....	0.	0	Fair	

UNITED STATES SERIES.—CONTINUED

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Inches.	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.40	619.8	29.88	758.9	24.5	— 4.2	55	SW	4	1.8	.....	1c	0	NW	.....	Inap.	Inap.	Clear	
Washington, D. C	.....	.....	30.24	768.1	30	— 1.1	74	Calm	0	0	.....	.....	8ks	.....	NW	0	0	Cloudy, smoky	
Wilmington, N. C	.....	.....	30.24	768.1	43	6.1	35	NE	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy	
Wood's Holl, Mass	.....	.....	30.02	762.5	26	— 3.3	51	NW	17	7.6	.....	0	2s	.....	NW	0	0	Clear	
Wytheville, Va	27.82	706.6	30.12	765.0	24	— 4.4	61	W	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.62	726.9	29.94	760.5	36	2.2	45	W	5	2.2	.....	2c	0	NW	.....	0	0	Fair	
Yuma, Arizona	.....	.....	30.14	765.5	56	13.3	.....	NW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.09	764.3	77	25.0	86	NE	9	4.0	.....	2k	2ks	W	N	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.05	763.3	75	23.9	76	E	.....	.....	.....	5c	2c	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.35	770.9	76	24.4	68	ESE	12	5.4	.....	2c	2k	NE	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.29	769.4	75	23.9	72	Calm	0	0	.....	8c	8s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.86	758.4	70	21.1	71	Calm	0	0	.....	0	2s	.....	ENE	0	0	Fair	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.11	764.8	71	21.7	79	Calm	0	0	.....	0	0	.....	.....	0	0	Fair	Charles Hassolbrink
St. Georges, Bermudas	.....	.....	30.09	764.3	64.5	18.1	70	NW	18.0	8.0	.....	2cs	8k	NW	.....	0	0	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.20	690.9	30.01	762.2	64	17.8	83	N	2.0	0.9	.....	0	0	.....	.....	0	0	Fine & clear	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.00	762.0	80	26.7	87	E	.....	.....	3	.....	6k	.....	.....	0.200	5.08	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.06	763.4	80.6	27.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.276	7.00	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.18	639.5	.....	.....	63.5	17.5	79	.....	0	0	.....	0	1s	.....	.....	0.20	5.1	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.37	746.0	25.0	— 3.9	.....	NW	.....	.....	.....	.....	10n	.....	.....	0.12	3.0	Cloudy	John Delaney.
York Factory, B. A	.....	.....	29.83	757.7	11	—11.7	90	Calm	0	0	.....	.....	10s	.....	.....	Blank	Blank	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	30.10	764.5	74.5	23.6	92	NE	.....	.....	7	.....	.....	.....	.....	0	0	.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—
}	.....	.....	.....	.....
}	.....	.....	.....	.....
}	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the CHIEF SIGNAL OFFICER OF THE ARMY, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 19, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:58 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Endeville, Commandant Supérieur du Genie in Algeria.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.28	769.2	64.9	18.3	60	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear	Charnot and Masselot.
Algiers	.....	.....	30.24	768.1	65.5	18.6	59	NW	.....	.....	2	.....	5	.....	.....	0	0	Fair	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.18	766.5	68.0	20.0	44	NW	.....	.....	4	.....	7	.....	.....	0	0	Cloudy	Jacques.
Sfax	.....	.....	30.24	768.0	68.4	20.2	62	S	.....	.....	1	.....	1	.....	.....	0	0	Clear	Chauvey.
Saïda	.....	.....	30.29	769.4	64.4	18.0	33	WNW	.....	.....	1	.....	2	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	30.24	768.0	64.2	17.9	.....	N	.....	.....	4	.....	6	.....	.....	0	0	Fair	Colin.
Geriville	.....	.....	30.27	768.9	55.8	13.2	40	N	.....	.....	2	.....	5	.....	.....	0	0	Fair	Buard.
Laghouat	.....	.....	30.26	768.5	68.0	20.0	40	NW	.....	.....	2	.....	2	.....	.....	0	0	Clear	Delord.
Biskra	.....	.....	30.22	767.5	71.2	21.8	33	NW	.....	.....	3	.....	1	.....	.....	0	0	Clear	Dubois.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	29.79	756.6	50.4	10.2	66	SW	.....	.....	4	.....	3	.....	.....	0	0	.....	Prof. Ivan Stosir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eperies	.....	.....	29.03	752.5	45.0	7.2	77	W	.....	.....	1	.....	10	.....	.....	0.018	0.46	.....	I. R. Observatory.
Gratz	.....	.....	29.77	756.1	36.0	2.2	93	S	.....	.....	3	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Hermannstadt	28.50	723.9	29.71	754.6	47.8	8.8	83	NW	.....	.....	2	.....	10	.....	.....	0	0	.....	Andreas Rospini.
Kremsmünster	28.40	721.3	29.84	757.8	43.7	6.5	81	ESE	.....	.....	3	.....	7	.....	.....	0	0	.....	Prof. Reissenberger.
Lemberg	28.38	720.9	29.73	755.2	45.3	7.4	83	WSW	.....	.....	3	.....	8	.....	.....	0.067	1.7	.....	Prof. C. Wagner.
Nyiregyhaza	.....	.....	29.64	752.9	37.9	3.3	85	S	.....	.....	1	.....	7	.....	.....	0.386	9.8	.....	Dr. T. Stanecki.
Pola	.....	.....	29.80	756.9	36.3	2.4	100	SE	.....	.....	1	.....	10	.....	.....	0.302	7.67	.....	Habzsuda Daniel.
Szegedin	.....	.....	29.89	759.1	53.2	11.8	91	S	.....	.....	0	.....	9cks	.....	.....	0	0	Light fog	I.R. Hydrographic Of'ce
Trieste	.....	.....	29.79	756.7	39.0	3.9	93	S	.....	.....	1	.....	10	.....	.....	0	0	.....	Karl Stancel.
Vienna	.....	.....	29.88	759.0	46.6	8.1	100	Calm	.....	.....	0	.....	10	.....	.....	0.031	0.8	Rain and fog	Prof. V. Farolfi.
	.....	.....	29.69	754.2	37.8	3.2	97	SE	.....	.....	1	.....	10	.....	.....	0.114	2.9	.....	I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	29.47	748.4	49.5	9.7	80	W	.....	.....	5	.....	10	.....	.....	0.122	3.10	.....	Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			28.90	734.0	41.0	5.0		W	30	13.4			4			0.380	9.65	Blue sky	William Boswell.
Ardrossan			29.18	741.1	43.5	6.4		WNW			6		5					Squally	J. Mayes.
Armagh Observatory			29.39	746.5	42.3	5.7		W	16	7.2			3					*D. clouds	S. Call, for Dr. Robinson
Bidston, Liverpool Obs			29.34	745.2	43.3	6.3		W	39	17.4			1					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			29.43	747.5	45.6	7.6		WNW			1		3					*D. clouds	J. Dreyer.
Bradford			29.24	742.7	43.1	6.2		W			6		9			0.04	1.0	Showery	J. McLandsborough.
Bridgetown, (Barbados)			30.06	763.5	79.1	26.2		NE			4		2					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.38	746.2	47.5	8.6		SW			3		7					*D. clouds	H. Todd.
Cardington			29.41	747.0	48.0	8.9		W			3		3					*D. clouds	John McLaren.
Carlisle			29.24	742.7	40.4	4.7		W			8		4			0.07	1.8	*D. clouds	. . Bell, for J. Cartmell.
Chatham, School M. E.			29.45	748.0	50.2	10.1		SW			2		7					*D. clouds	Ca t. J. Fellowes, R. E.
Dartmoor	28.09	713.5	29.59	751.6	42.6	5.9		W			4		10					Showery	R. E. Power.
Donaghadee			29.30	744.2	44	6.7		NW			5		3					*D. clouds	J. Mac Gowan.
Dover			29.46	748.3	47	8.3		WSW			4		5					½ clouded	J. Costello.
Eccles, (near Manchester)			29.38	746.2	44.9	7.2		NW	7.8	3.5			6					Squally	Thomas Mackereth
Falmouth Observatory			29.52	749.8	49.8	9.9		SW	21	9.4			10					Overcast	The Staff.
Fort Napier, (Natal)	27.51	698.7	29.76	755.9	86.0	30.0		E			2		1					*D.clouds	Pvt G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.93	760.2	90.0	32.2		N			0		6						(tic.
Galway, Queen's College			29.39	746.5	46	7.8		N			1		3					*D. clouds	B. G. Clare, for Prof. Cur
Gibraltar, (Mediterranean)			30.25	768.3	66.7	-19.3		W			5		2					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.13	739.9	41.0	5.0		W			5		8					Squally	Lewis Stuart.
Great Yarmouth			29.32	744.7	48	8.9		W			5		5					*D. clouds	G. T. Watson.
Greenwich Royal Obs			29.45	748.0	52.6	11.4		W			7		3			Blank	Blank	*D. clouds	The Staff for G. B. Airy
Guernsey			29.60	751.8	49	9.4		SW			4		8					Gloomy	Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.31	744.5	41.6	5.3		WNW			4		3			Blank	Blank	*D. clouds	L. J. Crossley.
Helston			29.49	749.0	53	11.7		SW			4		8			0.3	7.6	Gloomy	M. P. Moyle.
Holyhead			29.39	746.5	44	6.7		WNW			4		1					Blue sky	John Tilston.
Kew Observatory			29.45	748.0	51.0	10.6		WSW	24	10.7			6					*D. clouds	The Staff.
Kingstown			29.42	747.3	44	6.7		WNW			5		5					*D. clouds	George Mitchell
Leicester Museum			29.41	747.0	47.2	8.4		W			5		4					*D. clouds	William J. Harrison,
Malta, (Mediterranean)			30.04	763.0	68.8	20.4		SW			2		8k						Fred Travis, Pvt A.H.C
Nairn			29.13	739.9	36	2.2		NW			2		10					Sleeting	W. D. Penny.
Nassau, (Bahamas)			30.20	767.1	71.4	21.9		NE			5		6					*D. clouds	Surg.-Maj. Henry.
Nottingham			29.36	745.7	46.1	7.8		NW			3		7k,d		NW	0.023	0.59	*D. clouds	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			29.39	746.5	44.0	6.7		W			5		9					*D. clouds	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			29.42	747.3	50	10.0		WSW			4		3					Blue sky	J. Lucas.
Plymouth			29.52	749.8	51	10.6		SW			4		5					Misty	John Merrifield.
Roche's Point			29.44	747.8	46	7.8		W			1		5					Cloudy	W. Kennedy.
Saint Ann's Head			29.45	748.0	47	8.3		WNW			2		2						John C. Walker.
Saint Helier, (Jersey)			29.62	752.3	48.2	9.0		W			6		10					Overcast	A. P. Amy.
Sandwick Manse (Orkneys)			29.08	738.6	39.8	4.3		NNE	35	15.6			10					Snowing	Rev. Dr. Clouston
Scarborough			29.18	741.1	44.0	6.7		W			5		5					*D. clouds	F. Shaw.
Scutari Cemetery (Turkey)			30.06	763.5	51.8	11.0		SW			1		7					*D. clouds	Sergt. W. H. Lyne.
Sheffield			29.32	744.7	45.2	7.3		W			4		6			0.152	3.86	*D. clouds	W. F. Cooper.
Silloth Rectory			29.23	742.4	42.2	5.7	72	NW			5		3			0.010	0.25	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			29.29	744.0	42.7	5.9		W			6		6			Blank	Blank	Squally	The Staff.
Stornoway, Lews C. (Hebr)			29.19	741.4	34	1.1		NNE			5		10					Snowing	John Smith.
Stratfield Turgiss			29.47	748.5	49.5	9.7		W			2		6					*D. clouds	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.06	738.1	35	1.7		NNE			6		10					Snowing	John Trotter.
Truro, Royal Institution			29.51	749.5	52	11.1		SW			4		10					Gloomy	W. Newcombe.
Valencia Observatory			29.42	747.3	47.1	8.4		NNE	5	2.2			10					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs			30.01	762.2	78.0	25.6	48	S	20	8.9			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					44	6.7		NW			6		3			0	0		
Leith, Restalrig Park			29.07	738.4	42.1	5.6		W			7		3k			0.18	4.6	Fine	Andrew Gibb.
Monach Lt-house, Hebrides			29.14	740.1	38	3.3		N			6		10			0.7	17.8		J. Youngehusb.
North Unst, (Shetland Is)			28.93	734.8	34	1.1		NE			7		10						

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. * Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.00	736.6	39.6	4.2	96	SW			4		10					Rain & fog	
Fanöe			29.02	737.1	38.1	3.4	100	WSW			4		10					Misty	
Godthaab, (Greenland)			29.74	755.3	8.6	—13.0	88	Calm			0		2						
Stykkisholm, (Iceland)			29.71	754.5	11.1	—11.6	89	E			2		5						
Thorshavn, (Faröe)			29.28	743.7	21.9	— 5.6	77	N			4		8						
Vestervig			28.89	733.9	35.6	2.0	100	SSW			6		10					Rain & mist	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.71	754.5	48.2	9	81	SW	.....	.....	1	.....	10	.....	.....	0.197	5.0	Covered	Normal School.
Amiens	.....	.....	29.58	751.3	51.8	11.0	73	W	.....	.....	8	.....	8	.....	SW	0.039	1.0	Very cloudy	Normal School.
Avignon	.....	.....	30.03	762.7	58.5	14.7	78	E	.....	.....	1	.....	8	.....	W	0	0	Very cloudy	Normal School.
Bar-sur-Seine	.....	.....	29.76	755.9	51.4	10.8	79	SW	.....	.....	3	.....	10	.....	SW	0.016	0.4	Covered	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.72	754.8	49.3	9.6	92	SW	14.3	6.4	.....	.....	10	.....	SW	0.146	3.7	Raining.....	Beaumette Observatory
Beauvais	.....	.....	29.65	753.2	50.9	10.5	70	W	.....	.....	3	.....	10	.....	W	0.020	0.5	Covered	Normal School.
Besançon	.....	.....	29.88	758.9	51.8	11	72	S	.....	.....	6	.....	5	.....	SW	0.110	2.8	Cloudy.....	Normal School.
Bourg en Bresse	.....	.....	30.02	762.4	53.1	11.7	85	S	.....	.....	2	..c	5n	... .	SW	.....	.....	Pretty cloudy	Normal School.
Bourges	.....	.....	29.89	759.1	51.1	10.6	95	NW	.....	.....	8	.....	10	.....	NW	0	0	Covered	Normal School.
Brest	.....	.....	29.57	751.0	49.1	9.5	92	SW	.....	.....	4	.....	10	.....	SW	0.226	5.75	Raining.....	Naval Observatory.
Caen	.....	.....	29.63	752.7	51.8	11	80	SW	.....	.....	2	.....	10	.....	NE	0.181	4.6	Covered.....	Normal School
Chartres	.....	.....	29.67	753.5	50.4	10.2	.....	SW	.....	.....	3	.....	10	.....	.....	0.024	0.6	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.89	759.3	56.1	13.4	64	SW	.....	.....	2	.....	5	.....	W	0.059	1.5	Cloudy.....	Puy de Dome, Obs.
Commercy	.....	.....	29.70	754.	48.7	9.3	89	W	.....	.....	8	.....	8k,n	.....	W	0.087	2.2	Very cloudy	Normal School.
Commune de Gréasque*	.....	.....	30.03	762.8	57.2	14.0	48	NW	.....	.....	6	.....	2	.....	NW	0	0	.....	.....
Grenoble	.....	.....	29.96	760.9	59.	15	94	NW	.....	.....	2	.....	2k	.....	S	0	0	Slightly cl'dy	Normal School.
Le Mans	.....	.....	30.16	766.1	49.6	9.8	89	SW	.....	.....	4	.....	5	.....	SW	0.12	3.	Cloudy.....	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	29.87	758.7	52.9	11.6	71	S	.....	.....	6	.....	8	.....	WSW	0.083	2.1	Very cloudy	Normal School.
Mâcon	.....	.....	29.90	759.5	52.2	11.2	96	Calm	.....	.....	0	.....	5	.....	S	0	0	Cloudy.....	Normal School.
Mirecourt	.....	.....	29.68	753.9	50.2	10.1	.....	SSW	.....	.....	2	.....	10	.....	NNE	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.02	762.4	58.1	14.5	81	NW	.....	.....	2	.....	10	.....	W	0	0	Covered	Normal School.
Orleans	.....	.....	29.75	755.6	52.2	11.2	80	WSW	.....	.....	4	.....	8	.....	W	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	29.69	754.2	52.9	11.6	58	SW	.....	.....	3	.....	10	.....	W	0.002	0.06	Covered	National Observatory
Parthenay	.....	.....	29.87	758.6	46.8	8.2	89	W	.....	.....	8	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30.02	762.4	55.2	12.9	.....	W	.....	.....	4	.....	10	.....	.....	0	0	Covered.....	Normal School.
La Roche-sur-Yon	.....	.....	29.80	757.0	51.4	10.8	86	S	.....	.....	4	.....	10	.....	.....	0	0	Covered.....	Normal School.
Rochefort, Observatory	.....	.....	29.91	759.8	52.9	11.6	84	SW	.....	.....	6	.....	10	.....	NE	0.630	16.0	Covered	Naval Observatory.
Rouen	.....	.....	29.94	752.9	51.6	10.9	90	SSW	.....	.....	2	.....	5	.....	S	0	0	Cloudy.....	Normal School.
Saint Lo	.....	.....	29.71	754.6	49.6	9.8	92	NW	.....	.....	2	.....	9	.....	E	0.12	3.	.....	Normal School.
Tarbes	28.96	735.5	30.03	762.7	55.4	13	58	W	.....	.....	2	.....	10	.....	N	0	0	Covered	Normal School.
Toulouse	.....	.....	30.18	766.6	53.8	12.1	78	W	.....	.....	2	.....	0	.....	.....	.....	.....	Clear.....	Normal School.
Villefranche	.....	.....	29.95	760.6	52.7	11.5	73	SE	.....	.....	4	.....	5	.....	SW	0	0	Cloudy.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.96	761.0	78.8	26	72	NE	.....	.....	2	.....	5k	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	29.97	761.1	59.7	15.4	76	W	.....	.....	3	.....	7	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.82	630.3	30.21	767.2	40.8	4.9	76	WSW	14.9	6.66	.....	.....	8	.....	SW	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	29.69	754.0	52.2	11.2	66	SW	.....	.....	3	.....	10	.....	SW	0	0	Rainy.....	Montsouris Observ'tory
Perpignan	.....	.....	30.05	763.2	59.4	15.2	48	N	11.2	5.00	.....	.....	8	.....	SW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.12	536.3	.....	.....	28.4	- 2.0	.....	W	.....	.....	4	.....	4	.....	.....	.....	.....	Fair.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.69	754.2	53.1	11.7	62	WSW	.....	.....	4	.....	10	.....	.....	0	0	Covered	E. Renou.
Toulouse	.....	.....	30.05	763.3	57.7	14.3	48	SE	.....	.....	1	.....	6	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	29.80	756.9	53.1	11.8	71	WNW	.....	.....	5	.....	9	.....	W	0.067	1.7	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.69	754.1	52.2	11.2	65	W	.....	.....	3	.....	8	.....	.....	0.006	0.14	Pretty fine...	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and now are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,201.8 feet; Chaumont, 332 m., or 1,060.9 ft.; lermont 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.50	749.4	54.1	12.3	67	WSW	.....	.....	8	.....	8	.....	.....	0	0	Raining.....	Prof. T. Hoh.
Berlin	.....	.....	29.34	745.1	51.8	11.0	70	SW	.....	.....	4	.....	8	.....	.....	0.020	0.5	Raining.....	Prof. Arndt.
Breslau	.....	.....	29.55	750.6	48.4	9.1	68	SSW	.....	.....	3	.....	9	.....	.....	0	0	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	29.65	753.1	51.8	11.0	76	SW	.....	.....	8	.....	10	.....	.....	0.024	0.6	Raining.....	A. Senz.
Cassel	.....	.....	29.37	746.0	50.0	10.0	75	WSW	.....	.....	6	.....	6	.....	.....	0.217	5.5	.....	Dr. H. Möhn.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.63	752.6	52.9	11.6	75	WSW	.....	.....	6	.....	8	.....	.....	0.008	0.2	.....	Physical Society
Friedrichshafen	.....	.....	29.80	757.0	49.1	9.5	58	W	.....	.....	.....	.....	7	.....	.....	0.083	2.1	.....	M. Wilhelm.
Hamburg	.....	.....	29.22	742.1	45.7	7.6	93	SW	.....	.....	7	.....	10	.....	.....	0.272	6.9	Rain, stormy	Deutsche Seewarte.
Kiel	.....	.....	29.17	740.9	43.3	6.3	94	WSW	.....	.....	4	.....	10	.....	.....	0.280	7.1	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.26	743.3	39.2	4.0	88	SW	.....	.....	5	.....	5	.....	.....	0.122	3.1	.....	Prof. E. Luther.
Köslin	.....	.....	29.22	742.1	46.4	8.0	.....	SSW	.....	.....	4	.....	7	.....	.....	0.059	1.5	.....	H. Müller.
Leipsic	.....	.....	29.44	747.7	53.6	12.0	63	SW	.....	.....	8	.....	9	.....	.....	0	0	.....	Prof. Bruhns.
Münster	.....	.....	29.35	745.0	49.1	9.5	87	SW	.....	.....	5	.....	3	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	29.43	747.4	48.7	9.3	71	SW	.....	.....	5	.....	6	.....	.....	Imap.	Imap.	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.76	755.8	52.5	11.4	66	SW	.....	.....	2	.....	5	.....	.....	0.075	1.9	.....	Dr. Schur.
Stuttgart	.....	.....	29.70	754.3	52.7	11.5	62	SW	.....	.....	.....	.....	8	.....	.....	0	0	.....	Prof. Schoder.
Thorn	.....	.....	29.36	745.8	43.7	6.5	82	W	.....	.....	5	.....	8	.....	.....	0	0	.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	29.53	750.0	50.9	10.5	81	SW	.....	.....	9	.....	10	.....	.....	0.512	13.0	Light mist...	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.16	740.7	41.9	5.5	98	WSW	.....	.....	5	.....	10	.....	.....	0.114	2.9	Rain & snow	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.02	762.6	64.9	18.3	.....	W	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.88	758.9	43.9	6.6	93	Calm	0	0			10			0	0	Foggy	
Padua			29.86	758.5	48.0	8.9	83	ESE	2.5	1.1			6	WSW		0	0		
Vicenza																			
Verona			29.84	758.0	50.0	10.0	75	E			1		10			0	0		
Bergamo			29.92	759.9	46.4	8.0	80	S			1		5			0	0		
Domodossola																			
Milan			29.90	759.5	47.8	8.8	86	WNW			1		10			0	0		
Pavia																			
Moncalieri			29.95	760.7	41.5	5.3	92	ESE	5.6	2.5			10			0.508	12.9		
Mondovi			29.94	760.5	44.2	6.8	87	NNW			2		10			0	0		
Porto Maurizio			29.95	760.7	57.4	14.1		SSE			2		3			0	0		
Genoa			29.88	758.9	54.3	12.4	81	SE	6.3	2.8			10	SE		0	0		
Piacenza			29.90	759.5	47.8	8.8	83	NW	8.7	3.9			10			0	0		
Bologna			29.93	760.3	52.3	11.3	23	NW			1		4	S		0	0		
Florence			29.96	760.9	58.6	14.8	69	S			1		10	S		0	0		
Leghorn			29.92	759.9	57.9	14.4	75	S	7.4	3.3			9			0	0		
Siena			29.96	760.9	55.0	12.8	75	SSW	1.8	0.8			10	SW		0	0		
Urbino																			
Pesaro																			
Ancona			29.90	759.5	47.5	8.6	89	S			2		10			0	0		
Grosseto			29.93	760.3	58.3	14.6	79	SE			4		8	S		0	0		
Rome			29.98	761.6	59.7	15.4	73	SSE	11.9	5.3			8	WSW		0	0		
Naples, O. U			30.04	763.0	60.8	16.0	69	S			4		8	SW		0	0		
Lecce			30.00	762.0	61.9	16.6	54	SSW	16.1	7.1			8			0	0		
Cosenza			30.07	763.6	65.5	18.6	46	NW	3.1	1.4			5			0	0		
Riposto, (Sicily)			30.01	762.3	60.1	15.6	81	ESE			2		0			0	0		
Palermo			30.01	762.2	60.6	15.9	66	NE	1.3	0.6			7			0	0		
Caltanissetta			30.07	763.6	54.0	12.2	83	NW			1		2	SE		0	0		
Sub-Series.																			
Naples, S. R			30.04	763.0	57.6	14.2	79	W	4.9	2.2			..ck	W		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.47	748.4	45.3	7.4		W			5								
Groningen			29.18	741.2	45.5	7.5		W			6								
Helder			29.25	743.0	44.6	7.0		SW			4								
Utrecht			29.32	744.7	48.2	9.0	89	WSW			6		8					Very cloudy	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			28.66	728.0	37.0	2.8	75	N	14.3	6.4			10			0.020	0.5		
Brönö			28.70	729.0	30.6	— 0.8	86	S	9	4			10			0	0		
Christiania			28.76	730.6	28.2	— 2.1	94		0.5	0.2			10			0.327	8.3		
Tromsö			28.67	728.2	21.7	— 5.7	77	SSW	27	12			10			0.047	1.2		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer corrected for instrumental errors. Inches.	Barometer corrected for instrumental errors. Millimeters.	Barometer reduced to sea-level. Inches.	Barometer reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.90	759.5	60.6	15.9	87	W	7.8	3.47	.....	.....	6	.....	.....	0.030	1.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.24	768.2	58.1	14.5	68	SE	5.2	2.33	.....	.....	9	WNW	.....	0.024	0.6	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.31	769.8	62.6	17.0	63	Calm ?	2.07	0.89?	.....	.....	9	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.28	769.2	58.1	14.5	76	SW	15.0	6.7	.....	.....	5	NW	.....	0	0	.....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.45	748.0	41.2	5.1	85	S	20	9	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	29.48	748.8	31.8	— 0.1	93	S	18	8	.....	.....	10	.....	.....	.....	.....	Raining.....	Astronomical Obs.
Dorpat	.....	.....	29.34	745.3	24.1	— 4.4	91	SSE	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.52	749.8	9.3	—12.6	92	SE	18	8	.....	.....	10	.....	.....	.....	.....	Snowing.....	Central Physical Obs.
Kuopio	.....	.....	29.69	754.0	9.0	—12.8	100	ESE	22	10	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kloff	.....	.....	29.97	761.3	22.6	— 5.2	90	SE	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	30.10	764.4	34.7	1.5	74	Calm	0	0	.....	.....	8	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.10	764.4	31.8	— 0.1	98	WNW	7	3	.....	.....	10	.....	.....	.....	.....	Foggy	Lagorio.
Moscow	.....	.....	30.25	768.3	— 1.7	—18.7	77	S	13	6	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.09	764.3	14.2	— 9.9	80	ENE	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.70	754.3	6.8	—14.0	86	SSW	22	10	.....	.....	10	.....	.....	.....	.....	Light snow..	Ogorodnikof.
Tiflis	28.41	721.6	29.84	758.0	45.7	7.6	86	N	31	14	.....	.....	5	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.20	767.1	29.5	— 1.4	88	NE	18	8	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.31	769.9	7.3	—13.7	71	Calm	0	0	.....	.....	4	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	29.93	760.3	1.2	—17.1	69	N	2	1	.....	.....	0	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.98	736.1	30.10	764.5	— 3.5	—19.7	69	NW	13	6	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	29.90	759.5	41.7	5.4	46	ENE	7	3	.....	.....	9	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.00	761.9	13.6	—10.2	73	E	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.42	721.9	30.17	766.4	43.2	6.2	67	NE	13	6	.....	.....	6	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.31	770.5	— 1.8	—18.8	69	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.45	773.3	3.7	—15.7	63	E	4	2	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.47	773.9	31.3	— 0.4	52	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.36	771.2	5.9	—14.5	78	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 401 meters, or 1,411.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the cooperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.22	767.5	52.7	11.5	64	SW	17.9	8.00	.....	3	2	SW	.....	0.012	0.3	Cloudy.....	Royal Observatory.
San Fernando	.....	.....	30.31	769.9	59.9	15.5	89	NW	2.9	1.3	.....	0	4	.....	SE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.19	741.3	11.8	—11.2	100	SE	.....	.....	6	.....	10	.....	.....	0.512	13.0	Snowing.....	
Umea	.....	.....	28.95	735.2	19.4	— 7.0	100	SSE	.....	.....	4	.....	10	.....	.....	0.181	4.6	Snowing.....	
Hernosand	.....	.....	28.74	730.0	29.8	— 1.2	100	SE	.....	.....	2	.....	10	.....	.....	0.051	1.3	Snowing.....	
Stockholm	.....	.....	28.84	732.5	36.3	2.4	98	S	.....	.....	2	.....	10	.....	.....	0.110	2.8	Foggy.....	
Wisby	.....	.....	29.01	736.8	36.7	2.6	96	SSW	.....	.....	6	.....	10	.....	.....	0.488	12.4	Raining.....	
Sub-Series.																			
Upsala	.....	.....	28.84	732.4	37.0	2.8	98	S	16.3	7.3	.....	.....	10	.....	.....	0.161	4.11	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.50	724.0	29.03	760.2	54.0	12.2	53	SSW	.....	.....	8	.....	5	.....	.....	0.020	0.5	Cloudy	The Observatory.
Zurich	28.19	716.1	29.84	757.9	52.0	11.1	62	SW	.....	.....	4	.....	5	.....	SW	0.008	0.2	Cloudy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.1 mm.; Thermometer, +8.2 cent.; Relative Humidity, —17 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.09	764.2	51.4	10.8	44	SE	4	2.0	.....	.....	7	.....	NW	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.04	763.0	66.2	19.0	.....	SE	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.02	762.6	66.9	19.4	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.91	759.7	62.2	16.8	.....	SW	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.96	761.0	46.4	8.0	.....	W	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.01	762.2	58.6	14.8	68	NW	.....	.....	3	.....	0	.....	.....	0.10	2.5	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	30.00	762.0	22.7	— 5.2	85	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.01	762.2	23	— 5.0	.....	Calm	0	0	.....	Haze	Haze	.....	.....	0	0	Cloudy	W. R. Bigg.
*Chatham, N. B.	.....	.....	30.04	763.0	22	— 5.6	85	W	2	0.9	.....	5k	5ks	SW	SW	0	0	Cloudy	G. A. Blair.
Charlottetown, P. E. Island.	.....	.....	30.01	762.2	24	— 4.4	93	N	5	2.2	.....	.....	ks	.....	.....	Inap.	Inap.	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.98	761.5	19.8	— 6.8	88	E	.....	.....	1	.....	10s	.....	.....	0	0	Threatening	James Smith, M. A.
Dalhousie, N. B.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.86	758.4	40.1	4.5	83	W	6	2.7	.....	.....	.....	.....	.....	0.09	2.3	Clear	W. H. Bevis.
Fredericton, N. B.	.....	.....	30.10	764.5	15.5	— 9.2	95	W	1	0.4	.....	.....	.....	.....	.....	Inap.	Inap.	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.37	771.4	—22	—30.0	100	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	James Stewart.
Goderich, Ontario	.....	.....	29.90	759.4	33.6	0.9	80	W	.....	.....	3	7k	.....	W	.....	0	0	Clearing	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.91	759.7	30.0	— 1.1	.....	SW	.....	.....	1	.....	10n	.....	.....	0	0	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	30.02	762.5	28	— 2.2	97	W	4	1.8	.....	.....	8n	.....	.....	0	0	Cloudy	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.00	762.0	27	— 2.8	82	S	21	9.4	.....	.....	10s	.....	S	0	0	Cloudy	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.66	753.4	28.8	— 1.8	.....	W	12	5.4	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.02	762.5	18	— 7.8	84	S	14	6.3	.....	.....	10n	.....	.....	Inap	Inap.	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.96	761.0	13	—10.6	85	E	4	1.8	.....	.....	10n	.....	E	0.02	0.5	Light snow.	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.75	755.6	32	0.0	93	S	21	9.4	.....	2k	8ks	S	S	0.11	2.8	Cloudy	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.94	760.5	33	0.6	80	SW	19	8.5	.....	10k	0	SW	.....	0	0	Cloudy	H. Morgan.
Port Hastings, N. S.	.....	.....	30.16	766.1	16.5	— 8.6	.....	N	3	1.3	.....	.....	.....	.....	.....	0	0	Fair	Peter Grant.
*Port Stanley Ontario	.....	.....	29.96	761.0	32	0.0	89	W	20	8.9	.....	.....	10n	.....	W	Inap.	Inap.	Heavy snow	M. Payne.
*Quebec, Quebec	.....	.....	30.09	764.3	18	— 7.8	92	Calm	0	0	.....	.....	10n	.....	.....	0	0	Cloudy	Capt. Ash, R. N.
St. John, N. B.	.....	.....	30.11	764.8	25	— 3.9	75	N	3	1.3	.....	.....	3ks	.....	.....	0.020	0.51	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.77	756.1	34	— 1.1	85	SW	6	2.7	.....	.....	10n	.....	.....	0.01	0.3	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	29.91	759.7	32	0.0	91	SE	3	1.3	.....	.....	8n	.....	SW	0	0	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	29.91	759.7	29.4	— 1.4	93	SW	11	4.9	.....	.....	10n	.....	.....	0.20	5.1	Snowy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.91	759.7	23	— 5.0	82	N	1	0.4	.....	2k	2ks	N	N	0	0	Clear	T. C. Hill.
*Toronto, Ontario	.....	.....	29.90	759.4	33	0.6	85	SW	12	5.4	.....	.....	10n	.....	.....	0.01	0.3	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.- The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	30.13	765.3	25	— 3.9	87	S	1	0.4	.....	5c	Haze	.....	.....	0	0	Fair.	
Alpena, Mich.	.....	.....	29.75	755.6	29	— 1.7	46	W	30	13.4	.....	0	0	.....	.....	0	0	Clear.	
Atlantic City, N. J.	.....	.....	30.25	768 3	28	— 2.2	77	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Augusta, Ga.	.....	.....	30.31	769.9	33	0.6	89	NW	2	0.9	.....	5cs	Fog	W	.....	0	0	Fair.	
Baltimore, Md.	.....	.....	30.28	769.1	32	0.0	69	Calm	0	0	.....	0	Fog	.....	.....	0	0	Foggy	
Barnegat, N. J.	.....	.....	30.21	767.3	26	— 3.3	65	W	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Benton, Montana	26.88	682.7	29.68	753.9	30	— 1.1	78	E	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Bismarck, Dakota	28.20	716.3	30.02	762.5	0	—17.8	70	NE	7	3.1	.....	.....	10s	.....	.....	0	0	Cloudy.	
Boston, Mass.	.....	.....	30.17	766.3	23	— 5.0	73	SW	2	0.9	.....	Fog	Sm'e	.....	.....	0	0	Smoky.	
Breckenridge, Minn	.....	.....	30.30	771.1	— 8	—22.2	79	W	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Buffalo, N. Y.	.....	.....	29.92	760.0	31	— 0.6	79	SW	8	3.6	.....	Haze	5s	W	SW	0	0	Fair.	
Burlington, Vt.	.....	.....	30.09	764.3	21	— 6.1	71	S	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy.	
Cairo, Ill.	.....	.....	30.23	767.8	42	5.6	58	Calm	0	0	.....	5cs	Haze	.....	.....	0	0	Fair.	
Cape Hatteras, N. C.	.....	.....	30.23	767.8	44	6.7	67	NE	5	2.2	.....	0	1ks	.....	.....	0	0	Clear.	
Cape Henry, Va.	.....	.....	30.30	769.6	41	5.0	41	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Cape May, N. J.	.....	.....	30.26	768.6	35	1.7	70	N	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Charleston, S. C.	.....	.....	30.32	770.1	43	6.1	58	N	4	1.8	.....	5c	0	W	.....	0	0	Fair.	
Cheyenne, Wyoming	23.94	608.1	29.88	758.9	29	— 1.7	48	W	8	3.6	.....	2c	0	W	.....	0	0	Fair.	
Chicago, Ill.	.....	.....	30.17	766.8	32	0.0	50	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Cincinnati, Ohio	.....	.....	30.0	764.3	40	4.	64	SW	7	3.1	.....	5c	0	"	.....	0	0	Fair.	
Cleveland, Ohio	.....	.....	30.00	762.0	35.9	2.2	53	S	11	4.9	.....	.....	10ks	.....	SW	0	0	Cloudy.	
Colorado Springs, Col.	24.10	612.1	29.96	761.0	17	— 8.3	67	N	4	1.8	.....	0	5s	.....	.....	0	0	Fair.	
Corsicana, Tex.	.....	.....	30.21	767 3	44	6.7	75	S	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Davenport, Iowa	.....	.....	30.30	769.6	23	— 5.0	73	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Denison, Tex.	.....	.....	30.13	765.3	47	8.3	69	E	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Denver, Col.	24.76	628.9	29.98	761.5	27	— 2.8	53	NW	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	.....	.....	29.95	760.7	31	— 0.6	65	W	10	4.5	.....	2k	0	W	.....	0	0	Clear.	
Dodge City, Kan.	27.63	701.8	30.10	764.5	21	— 6.1	78	N	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	30.28	769.1	21	— 6.1	71	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Duluth, Minn.	.....	.....	30.12	765.0	— 1	—18.3	68	W	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Eastport, Me.	.....	.....	30.09	764.3	23	— 5.0	73	NW	6	2.7	.....	5c	2s	S	NW	0	0	Fair.	
Erie, Pa.	.....	.....	29.94	76 .5	36	2.2	70	SW	24	10.7	.....	2cs	5s	.....	SW	0	0	Fair.	
Escanaba, Mich.	.....	.....	29.87	758.7	18	— 7.8	68	W	20	8.9	.....	0	0	.....	.....	0	0	Clear.	
Fort Gibson, Indian Terr.	.....	.....	30.19	766.8	41	5.0	72	Calm	0	0	.....	5ck	Haze	W	.....	0	0	Fair.	
Fort Sill, Indian T.	28.94	735.1	30.05	763.3	39	3.9	63	N	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Fort Sully, Dakota	28.43	722.1	30.21	76 .3	20	— 6.7	85	E	10	4.5	.....	0	8s	.....	E	0	0	Cloudy.	
Galveston, Tex.	.....	.....	30.21	767.3	58	14.4	76	E	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Grand Haven, Mich.	.....	.....	30.05	763.3	32	0.0	60	W	24	10.7	.....	0	0	.....	.....	0	0	Clear.	
Indianapolis, Ind.	.....	.....	30.14	765.5	37	2.8	80	NW	12	5.4	.....	.....	10s	.....	NW	0	0	Cloudy.	
Indianola, Tex.	.....	.....	30.24	768.1	55	12.8	80	N	16	7.2	.....	2c	0	W	.....	0	0	Fair.	
Jacksonville, Fla.	.....	.....	30.25	768.3	46	7.2	48	NW	4	1.8	.....	5k	0	SW	.....	0	0	Fair.	
Keokuk, Iowa	.....	.....	30.29	769.4	27	— 2.8	86	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Key West, Fla.	.....	.....	30.12	765.0	69.3	20.7	84	E	12	5.4	.....	.....	10s	.....	E	0	0	Threatening	
Kittyhawk, N. C.	.....	.....	30.30	769.6	39	3.9	82	N	2	0.9	.....	0	Haze	.....	.....	0	0	Clear.	
Knoxville, Tenn.	.....	.....	30.35	770.9	25	— 3.9	88	NE	4	1.8	.....	0	Fog	.....	.....	0	0	Fair.	
La Crosse, Wis.	.....	.....	30.24	768.1	18	— 7.8	52	NW	8	3.6	.....	Haze	0	.....	.....	0	0	Hazy.	
Leavenworth, Kan.	.....	.....	30.32	770.1	29	— 1.7	77	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Lexington, Ky.	29.06	738.	30.21	767.3	34	1.1	89	S	20	8.9	.....	10c	0	SW	.....	0	0	Cloudy.	
Long Branch, N. J.	.....	.....	30.25	768.3	34	1.1	71	SW	3	1.3	.....	2c	0	.....	.....	0	0	Clear.	
Louisville, Ky.	.....	.....	30.17	766.3	37	2.8	62	S	8	3.6	.....	2c	0	.....	.....	0	0	Clear.	
Lynchburg, Va.	.....	.....	30.29	769 4	29	— 1.7	84	Calm	0	0	.....	0	Haze	.....	.....	0	0	Hazy.	
Malone, N. Y.	.....	.....	29.96	761.0	26	— 3.3	76	S	11	4.9	.....	.....	10s	.....	SW	0	0	Cloudy.	
Marquette, Mich.	.....	.....	29.87	758.7	8	—13.3	78	W	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Memphis, Tenn.	.....	.....	30.28	769.1	40	4.4	48	Calm	0	0	.....	2c	Sm'e	.....	.....	0	0	Smoky.	
Milwaukee, Wis.	.....	.....	30.17	766.3	24	— 4.4	74	W	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Mobile, Ala.	.....	.....	30.32	770.1	39	3.9	91	N	5	2.2	.....	0	Sm'e	.....	.....	0	0	Clear.	
Montgomery, Ala.	.....	.....	30.34	770.6	35	1.7	80	N	2	0.9	.....	0	Sm'e	.....	.....	0	0	Smoky.	
Morgantown, W. Va.	.....	.....	30.15	765.8	38	3.3	50	S	11	4.9	.....	8c	0	NW	.....	Inap.	Inap.	Fair.	
Mt. Washington, N. H.	28.50	590.9	29.80	758.4	11	—11.7	80	N	28	12.5	.....	5s	..	NW	.....	0	0	Fair.	
Nashville, Tenn.	.....	.....	30.25	768.3	33	0.6	79	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
New Haven, Conn.	.....	.....	30.21	767.3	27	— 2.8	88	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy.	
New London, Conn.	.....	.....	30.22	767.6	28.	— 1.6	71	Calm	0	0	.....	2c	Haze	W	.....	0	0	Fair.	
New Orleans, La.	.....	.....	30.25	768.3	48	8.9	56	NE	5	2.2	.....	2c	Haze	W	.....	0	0	Clear.	
Newport, R. I.	.....	.....	30.21	767.3	25	— 3.9	75	N	3	1.3	.....	0	0	.....	.....	0	0	Clear.	
New York, N. Y.	.....	.....	30.21	767.3	30	— 1.1	60	SW	2	0.9	.....	0	Fog	.....	.....	Inap.	Inap.	Clear.	
Norfolk, Va.	.....	.....	30.30	769.6	37	2.8	81	S	3	1.3	.....	0	Haze	.....	.....	0	0	Clear.	
North Platte, Neb.	27.19	690.6	29.93	760.2	21	— 6.1	71	SE	5	2.2	.....	5c	0	.....	.....	0	0	Fair.	
Omaha, Neb.	29.19	741.4	30.36	771.1	19	— 7.2	85	N	4	1.8	.....	0	2s	.....	.....	0	0	Clear.	
Oswego, N. Y.	.....	.....	29.99	761.7	13	— 10.3	82	SE	10	4.5	.....	.....	10s	.....	.....	0	0	Threatening	
Peck's Beach, N. J.	.....	.....	30.27	768.8	28	— 2.2	77	NW	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Pembina, Dakota	.....	.....	30.38	771.6	—23	—30.6	100	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Philadelphia, Penn.	.....	.....	30.25	768.3	31	— 0.1	79	SW	9	4.0	.....	0	Sm'e	.....	.....	0	0	Clear.	
Pike's Peak, Colorado	17.56	446.0	29.77	756.1	4	—15.6	52	W	36	16.1	.....	0	5s	.....	W	Inap.	Inap.	Fair.	
Pittsburgh, Penn.	.....	.....	30.12	765.0	31	— 0.6	69	S	4	1.8	.....	2cs	0	.....	.....	0	0	Fair.	
Port Huron, Mich.	.....	.....	29.88	758.9	36	2.2	62	W	12	5.4	.....	.....	10s	.....	W	0	0	Cloudy.	
Portland, Me.	.....	.....	30.18	766.6	19	— 7.2	69	Calm	0	0	.....	0	Haze	.....	.....	0	0	Clear.	
Portland, Oregon	.....	.....	30.14	765.5	40	4.4	82	SW	9	4.0	.....	0	2n	.....	.....	0.20	5.1	Light rain.	
Punta Rassa, Fla.	.....	.....	30.17	766.3	61.6	16.4	77	NE	12	5.4	.....	.....	10ks	.....	NE	0	0	Cloudy.	
Rochester, N. Y.	.....	.....	29.93	760.2	33	0.6	59	S	12	5.4	.....	.....	10s	.....	SW	0.01	0.3	Cloudy.	
Salt Lake City, Utah	25.66	651.8	29.99	761.7	29	— 1.7	67	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Sandy Hook, N. J.	.....	.....	30.21	767.3	30	— 1.1	67	SW	5	2.2	.....	5c	0	SW	.....	0	0	Fair.	
San Diego, Cal.	.....	.....	30.05	763.3	52	11.1	53	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
San Francisco, Cal.	.....	.....	30.15	765.8	49	9.4	89	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Santa Fe, N. M.	23.37	593.6	29.91	759.7	18	— 7.8	52	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Savannah, Ga.	.....	.....	30.29	769.4	40	4.4	71	NW	3	1.3	.....	5cs	5s	.....	.....	0	0	Cloudy.	
Shreveport, La.	.....	.....	30.3	769.6	40	4.4	86	S	2	0.9	.....	.....	Fog	.....	.....	0	0	Foggy.	
Smithville, N. C.	.....	.....	30.33	770.4	34	1.1	61	N	0	2.7	.....	1c	0	W	.....	0	0	Clear.	
Springfield, Mass.	.....	.....	30.20	767.1	27	— 2.8	76	SE	4	1.8	.....	8cs	Sm'e	.....	.....	0	0	Fair.	
St. Louis, Mo.	.....	.....	30.28	769.1	34	1.1	79	N	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
St. Marks, Fla.	.....	.....	30.28	769.1	41	5.0	64	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
St. Paul, Minn.	.....	.....	30.25	768.3	10	—12.2	78	W	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
St. Paul's Island, Alaska	.....	.....	30.22	767.6	0	—17.8	69	NE	63	28.2	.....	0	2k	.....	.....	Inap.	Inap.	.....	
Squan Beach, N. J.	.....	.....	30.17	766.3	28	— 2.2	77	SW	1	0.4	.....	2cs	Haze	SW	.....	Inap.	Inap.	Fair.	
Thatcher's Island, Mass.	.....	.....	30.17	766.3	23	— 5.0	60	NW	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
Toledo, Ohio	.....	.....	29.96	761.0	40	4.4	56	S	12	5.4	.....	5ck	2s	SW	S	0	0	Fair.	
Tucson, Arizona	27.60	701.0	30.19	766.8	38	3.3	SE	.....	.....	.....	.....	0	0	.....	.....	0	0	Clear.	
Tybee Island, Ga.	.....	.....	30.30	769.6	51	10.6	79	NE	2	0.9	.....	2c	Fog	.....	E	0.04	1.0	Foggy.	
Vicksburg, Miss.	.....	.....	30.31	769.9	41	5.0	48	SE	8	3.6	.....	0	Sm'e	.....	.....	0	0	Clear.	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.03	610.4	29.51	749.5	30	— 1.1	64	SW	11	4.9	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow..	
Washington, D. C	.....	.....	30.26	768.6	26.5	— 3.1	88	Calm	0	0	.....	Haze	Fog	.....	.....	0	0	Foggy	
Wilmington, N. C	.....	.....	30.33	770.4	31	— 0.6	89	NE	2	0.9	.....	0	Fog	.....	.....	Inap.	Inap.	Clear.....	
Wood's Holl, Mass	.....	.....	30.19	766.8	28	— 2.2	58	N	8	3.6	.....	0	0	.....	.....	0	0	Clear.....	
Wytheville, Va	27.83	706.9	30.14	765.5	23	— 5.0	60	W	3	1.3	.....	0	0	.....	.....	0	0	Clear, frost...	
Yankton, Dakota	28.98	736.1	30.40	772.1	14	—10.0	63	SE	1	0.4	.....	.....	10s	.....	NW	0	0	Cloudy.....	
Yuma, Arizona	.....	.....	30.05	763.3	54	12.2	.....	E	.....	.....	.....	0	0	.....	.....	0	0	Clear.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.11	764.8	78	25.6	72	NE	4	1.8	.....	0	10s	.....	.....	0	0	Fair.....	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.05	763.3	75	23.9	72	E	.....	.....	.....	10pc	0	.....	.....	0	0	Fair.....	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.31	769.9	76	24.4	72	ESE	9	4.0	.....	2c	8kn	SE	.....	0	0	Threatening	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.21	767.3	72	22.2	81	Calm	0	0	.....	5c	2s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.86	758.4	72	22.2	71	Calm	0	0	.....	4cs	0	.....	.....	0	0	Fair.....	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.11	764.8	71	21.7	85	SE	2.4	1.1	.....	10c	0	.....	.....	0.30	7.6	Fair.....	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.15	765.8	60.5	15.8	63	NW	20.0	8.9	.....	0	2k	.....	.....	0.13	3.3	Fair.....	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.23	691.6	30.05	763.3	63	17.2	88	NE	2.0	0.9	.....	2c	0	NE	.....	0	0	Fine.....	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.03	762.7	80	26.7	82	NE	.....	.....	3	.....	8ks	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.00	762.1	82.4	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.177	4.50	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.18	639.5	.....	.....	67.1	19.5	80	.....	0	0	.....	0	4s	.....	.....	0.07	1.8	Fair.....	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.60	751.8	28.0	-- 2.2	.....	W	.....	.....	.....	5k	5s	.....	.....	0.10	2.5	Fair.....	John Delaney.
York Factory, B. A	.....	.....	30.03	762.7	—18	—27.8	68	N	21	9.4	.....	3k	6s	NW	.....	0.05	1.3	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	30.08	764.0	73	22.8	95	NE	.....	.....	5	.....	.....	.....	.....	0.38	9.7	Cloudy.....	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,816 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,802.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 20, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. entigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.33	770.4	65.1	18.4	55	NNE			1		0			0	0	Clear	Charnot and Masselot.
Aiglers			30.33	770.4	65.1	18.4	60	NW			2		1			0	0	Clear	Peter.
La Calle																			Kuntz.
Tunis			30.31	769.8	65.8	18.8	56	WNW			4		4			0	0	Fair	Jacques.
Sfax			30.32	770.0	68.7	20.4	57	SE			3		1			0	0	Clear	Chauvey.
Saida			30.37	771.4	67.1	19.5	21	NW			1		0			0	0	Clear	Millot.
Tebessa			30.32	770.1	71.1	21.7		S			3		0			0	0	Clear	Colin.
Gerville			30.31	769.8	58.1	14.5	30	NNE			2		1			0	0	Clear	Ruard.
Laghouat			30.32	770.0	66.2	19.0	30	NW			2		2			0	0	Clear	Delord.
Biskra			30.30	769.6	72.7	22.6		NW			1		0			0	0	Clear	Dubois.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. entigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			29.84	757.8	54.9	12.7	65	SW			3		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.68	753.9	45.0	7.2	72	W			2		10			0.028	0.72		I. R. Observatory.
Eperies			29.76	756.0	38.8	3.8	92	Calm			0		8		N	0.089	2.25		Julius Mikolik.
Gratz	28.66	728.0	29.84	758.7	48.2	9.0	80	SW			2		0			0.075	1.9		Andreas Rospini.
Hermannstadt	28.46	722.8	29.88	759.0	51.3	10.7	68	ESE			1		6			0	0		Prof. Reissenberger.
Kremsmünster	28.50	723.8	29.84	758.0	49.3	9.6	65	W			3		8			0.197	5.0		Prof. C. Wagner.
Lemberg			29.65	753.1	41.7	5.4	75	S			1		9			0.177	4.5		Dr. T. Stanecki.
Nyiregyhaza			29.84	757.8	39.2	4.0	93	SE			2		6			0	0		Habzsuda Daniel.
Pola			30.03	762.7	50.4	10.2	90	WSW			1		98			0	0	Dense fog	I.R. Hydrographic Office
Szegedin			29.92	759.9	42.4	5.8	96	S			2		5			0	0		Karl Stancel.
Trieste			30.02	762.5	48.2	9.0	93	Calm			0		10			0.024	0.6	Rain & fog	Prof. V. Farolfi.
Vienna			29.80	756.8	55.2	12.9	55	W			4		4			0.016	0.4		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. entigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.67	753.7	42.4	5.8	97	NNE			1		10			0.295	7.50	Light rain	Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.74	755.4	31.6	— 0.2	.....	WNW	15	6.7	.....	.....	2	.....	.....	0.090	2.29	Blue sky.....	William Boswell.
Ardrossan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Mayes.
Armagh Observatory	.....	.....	29.66	753.4	40.1	4.5	.....	ENE	9	4.0	.....	.....	.....	.....	.....	.....	.....	.....	S. Call, for Dr. Robinson
Bidston, Liverpool Obs	.....	.....	29.66	753.4	43.0	6.1	.....	ESE	10	4.5	.....	.....	10	.....	.....	.....	.....	Misty.....	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.57	751.1	42.6	5.9	.....	ESE	.....	.....	1	.....	10	.....	.....	.....	.....	Misty.....	J. Dreyer.
Bradford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.09	764.3	80.1	26.7	.....	E	.....	.....	4	.....	4	.....	.....	.....	.....	*D. clouds.....	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.69	754.1	47.0	8.3	.....	E	.....	.....	1	.....	4	.....	.....	.....	.....	*D. clouds.....	H. Todd.
Cardington	.....	.....	29.71	754.6	45.0	7.2	.....	SE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	John McLaren.
Carlisle	.....	.....	29.70	754 4	42.2	5.7	.....	E	.....	.....	1	.....	5	.....	.....	0	0	*D. clouds.....	T. Bell, for J. Cartmell.
Chatham, School M. E	.....	.....	29.71	754.6	42.7	5.9	.....	SW	.....	.....	1	.....	.....	.....	.....	.....	.....	Raining.....	Capt. J. Fellowes, R. E.
Dartmoor	28.24	717.3	29.74	755.4	46.6	8.1	.....	W	.....	.....	6	.....	10	.....	.....	.....	.....	Showery.....	R. E. Power.
Donaghadee	.....	.....	29.64	752.8	43	6.1	.....	WNW	.....	.....	3	.....	5	.....	.....	.....	.....	*D. clouds.....	J. Mac Gowan.
Dover	.....	.....	29.69	754.1	41	5.0	.....	NE	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast.....	J. Costello.
Eccles, (near Manchester)	.....	.....	29.66	753.4	42.1	5.6	.....	N	.....	.....	.....	.....	10	.....	.....	.....	.....	Gloomy.....	Thomas Mackereth.
Falmouth Observatory	.....	.....	29.71	754.6	52.0	11.1	.....	WSW	25	11.2	.....	.....	9	.....	.....	.....	.....	Overcast.....	The Staff.
Fort Napier, (Natal)	27.60	701.0	29.84	757.9	80.5	26.9	.....	NE	.....	.....	2	.....	7	.....	.....	.....	.....	*D. clouds.....	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.96	761.0	85.0	29.4	.....	N	.....	.....	1	.....	4	.....	.....	.....	.....	Blue sky.....	(tis.
Galway, Queen's College	.....	.....	29.49	749.0	46	7.8	.....	E	.....	.....	1	.....	10	.....	.....	.....	.....	Misty.....	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)	.....	.....	30.28	769.1	65.5	18.3	.....	S	.....	.....	3	.....	0	.....	.....	.....	.....	Blue sky.....	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.71	754.6	35.7	2.1	.....	NE	.....	.....	3	.....	3	.....	.....	.....	.....	Fine.....	Lewis Stuart.
Great Yarmouth	.....	.....	29.69	754.1	42	5.6	.....	SSE	.....	.....	1	.....	4	.....	.....	.....	.....	*D. cl'ds, fog.	G. T. Watson.
Greenwich Royal Obs	.....	.....	29.70	754.4	41.8	5.4	.....	SE	.....	.....	1	.....	10	.....	.....	.....	.....	Raining.....	The Staff for G. B. Airy
Guernsey	.....	.....	29.74	755.4	51	10.6	.....	SW	.....	.....	4	.....	8	.....	.....	.....	.....	Squally.....	Dr. S. E. Hoskins.
Halifax, Moorside Obs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. J. Crossley.
Helston	.....	.....	29.68	753.9	54	12.2	.....	SW	.....	.....	4	.....	8	.....	.....	3.9	99.1	Gloomy.....	M. P. Moyle.
Holyhead	.....	.....	29.64	752.8	46	7.2	.....	S	.....	.....	2	.....	10	.....	.....	.....	.....	Misty.....	John Tilston.
Kew Observatory	.....	.....	29.71	754.6	41.8	5.4	.....	E	3	1.3	.....	.....	10	.....	.....	.....	.....	Raining.....	The Staff.
Kingstown	.....	.....	29.63	752.6	44	6.7	.....	SSE	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast.....	George Mitchell
Leicester Museum	.....	.....	29.71	754.6	45.0	7.2	.....	S	.....	.....	1	.....	10	.....	.....	.....	.....	Misty.....	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.20	767.1	62.6	17.0	.....	NW	.....	.....	1	.....	6k	.....	.....	.....	.....	.....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	29.75	755.6	36	2.2	.....	Calm	.....	.....	0	.....	0	.....	.....	.....	.....	Blue sky.....	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.07	763.8	74.4	23.6	.....	NE	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds.....	Surg.-Maj. Henry.
Nottingham	.....	.....	29.70	754.4	44.8	7.1	.....	SSW	.....	.....	2	.....	5k	.....	SW	0	0	*D. clouds.....	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	29.70	754.4	42.9	6.1	.....	S	.....	.....	1–2	.....	10	.....	.....	.....	.....	Ove cast.....	Rev. Stephen Whitty.
Oxford, Radcliffe Obs	.....	.....	29.68	753.9	41	5.0	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Raining.....	J. Lucas.
Plymouth	.....	.....	29.68	753.9	52	11.1	.....	WSW	.....	.....	3	.....	10	.....	.....	.....	.....	Overcast.....	John Merrifield.
Roche's Point	.....	.....	29.55	750.8	50	10.0	.....	SE	.....	.....	2	.....	8	.....	.....	.....	.....	Showery.....	W. Kennedy.
Saint Ann's Head	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John C. Walker.
Saint Helier, (Jersey)	.....	.....	29.74	755.4	51.6	10.9	.....	W	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast.....	A. P. Amy.
Sandwick Manse, (Orkneys)	.....	.....	29.71	754.6	26.2	— 3.2	.....	SE	2	0.9	.....	.....	0	.....	.....	.....	.....	Blue sky.....	Rev Dr. Clouston
Scarborough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. Shaw.
Scutari Cemetery, (Turkey)	.....	.....	30.00	762.0	51.0	10.6	.....	S	.....	.....	1	.....	9	.....	.....	.....	.....	Showery.....	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.68	753.9	43.0	6.1	.....	NW	.....	.....	1	.....	7	.....	.....	0	0	Misty.....	W. F. Cooper.
Silloth Rectory	.....	.....	29.68	753.9	42.0	5.6	78	E	.....	.....	2	.....	3	.....	.....	0.240	6.25	*D. clouds.....	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	29.67	753.6	42.2	5.7	.....	N	.....	.....	0	.....	5	.....	.....	Blank	Blank	*D. clouds.....	The Staff.
Stornoway, Lews C. (Heb.)	.....	.....	29.70	754.4	31	— 0.6	.....	N	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky.....	John Smith.
Stratfield Turgiss	.....	.....	29.70	754.4	41.9	5.5	.....	E	.....	.....	0–1	.....	10	.....	.....	.....	.....	Raining.....	Rev Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.70	754.4	31	— 0.6	.....	S	.....	.....	1	.....	10	.....	.....	.....	.....	*D. clouds.....	John Trotter.
Truro, Royal Institution	.....	.....	29.73	755.1	56	13.3	.....	W	.....	.....	7	.....	8	.....	.....	.....	.....	Gloomy.....	W Newcombe
Valencia Observatory	.....	.....	29.55	750.6	52.5	11.4	.....	SSW	20	8.9	.....	.....	8	.....	.....	.....	.....	Misty.....	The staff.
Sub-Series.																			
Cape Good Hope Obs	.....	.....	30.00	762.0	78.8	26.0	43	SSE	22	9.8	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	46	7.8	.....	SE	.....	.....	3	.....	5	.....	.....	0	0	.....	.....
Leith, Restalrig Park	.....	.....	29.77	756.1	35.0	1.7	.....	E	.....	.....	1	.....	5k	.....	.....	0.07	1.8	Fine, cloudy	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	29.64	752.8	36	2.2	.....	SE	.....	.....	4	0	0	.....	.....	0	0	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	29.62	752.3	27	— 2.8	.....	NNW	.....	.....	6	5	5	NW	.....	Blank	Blank	.....	.....

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12; the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. * Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.43	747.6	36.9	2.7	58	NW	.....	.....	6	.....	0	.....	.....	.....	.....	.....	.....
Fanöe	.....	.....	29.61	752.1	37.0	2.8	75	W	.....	.....	6	.....	2	.....	.....	.....	.....	.....	.....
Godthaab, (Greenland)	.....	.....	29.65	753.0	15.8	— 9.0	81	ENE	.....	.....	4	.....	2	.....	.....	.....	.....	.....	.....
Stykkisholm, (Iceland)	.....	.....	29.34	745.1	23.9	— 4.5	95	SW	.....	.....	7	.....	2	.....	.....	.....	.....	.....	.....
Thorshavn, (Faröe)	.....	.....	29.65	753.2	27.1	— 2.7	62	SW	.....	.....	2	.....	8	.....	.....	.....	.....	.....	.....
Vestervig	.....	.....	29.45	748.1	34.5	1.4	93	NW	.....	.....	6	.....	3	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.79	756.7	50.0	10	86	SW	.....	.....	4	.....	10	.....	.....	0.425	10.8	Covered	Normal School.
Amiens	.....	.....	29.67	753.5	52.5	11.4	86	WSW	.....	.....	3	.....	10	.....	.....	0.488	12.4	Covered	Normal School.
Avignon	.....	.....	30.17	766.3	56.5	13.6	61	NW	.....	.....	1	.....	8	.....	WNW	0	0	Very cloudy	Normal School.
Bar-sur-Seine	.....	.....	29.82	757.5	53.4	11.9	89	W	.....	.....	6	.....	10	.....	W	0.417	10.6	Raining.....	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.89	759.2	54.9	12.7	90	SW	35.8	16.0	.....	.....	10	.....	SW	0.201	5.1	Raining	Beaumette Observatory
Beauvais	.....	.....	29.72	754.9	52.7	11.5	86	W	.....	.....	3	.....	10	.....	W	0.280	7.10	Covered	Normal School.
Besançon	.....	.....	29.95	760.6	50.7	10.4	90	S	.....	.....	8	.....	8	.....	S	0.539	13.7	Very cloudy	Normal School.
Bourg en Bresse	.....	.....	30.13	765.2	50.2	10.1	95	S	.....	.....	6	.....	5n	.....	SSW	.....	.....	Cloudy.....	Normal School.
Bourges	.....	.....	29.88	759.0	51.8	11	86	W	.....	.....	8	.....	10	.....	NW	0	0	Covered	Normal School.
Brest	.....	.....	29.78	756.4	54.5	12.5	86	W	.....	.....	4	.....	10	.....	W	0.472	12.00	Misty.....	Naval Observatory.
Caen	.....	.....	29.71	754.7	55.0	12.8	86	SW	.....	.....	2	.....	10	.....	NE	0.131	3.4	Covered	Normal School
Chartres	.....	.....	29.76	756.0	53.1	11.7	.....	SW	.....	.....	2	.....	10	.....	.....	0.209	5.3	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.18	766.6	63.7	17.6	53	SW	.....	.....	10	.....	5	.....	W	0	0	Cloudy.....	Puy de Dome, Obs.
Commercy	.....	.....	29.76	756.0	47.8	8.8	92	SSW	.....	.....	2	.....	10n	.....	SSW	0.260	6.6	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.19	766.9	61.0	16.1	49	NW	.....	.....	4	.....	5	.....	NW	0	0	.....	.....
Grenoble	.....	.....	30.14	765.5	47.3	8.5	86	NNW	.....	.....	2	.....	10	.....	.....	0.08	2.	Raining.....	Normal School.
Le Mans	.....	.....	29.82	757.0	57.7	14.3	78	SW	.....	.....	4	.....	8	.....	SW	0.453	11.5	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.01	762.3	50.4	10.2	92	S	.....	.....	1	.....	10	.....	W	0.400	10.15	Raining.....	Normal School.
Mâcon	.....	.....	30.04	763.0	51.1	10.6	93	SSW	.....	.....	2	.....	5	.....	NW	0.295	7.5	Cloudy.....	Normal School.
Mirecourt	.....	.....	30.20	767.1	49.6	9.8	.....	WSW	.....	.....	2	.....	10	.....	NE	0	0	Covered.....	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.17	766.0	63.3	17.4	80	NW	.....	.....	2	.....	10	.....	W	0	0	Covered	Normal School.
Orleans	.....	.....	29.80	757.0	54.3	12.4	90	W	.....	.....	6	.....	8	.....	W	0.220	5.6	Very cloudy	Normal School.
Paris Observatory	.....	.....	29.75	755.6	55.0	12.8	83	WSW	.....	.....	2	.....	10	.....	W	0.102	2.59	Covered	National Observatory
Parthenay	.....	.....	29.97	761.3	53.4	11.9	88	W	.....	.....	6	.....	10	.....	.....	0.83	21.	Covered	Normal School.
Privas	.....	....	30.17	766.2	54.5	12.5	.....	SW	.....	.....	4	.....	10	.....	.....	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	29.98	761.0	53.6	12.0	98	S	.....	.....	4	.....	10	.....	.....	0.322	8.2	Covered	Normal School.
Rochefort, Observatory	.....	.....	30.07	763.8	54.9	12.7	87	WSW	.....	.....	7	.....	10	.....	.....	0.157	4.0	Covered	Naval Observatory.
Rouen	.....	.....	29.71	754.6	51.3	10.7	86	SSW	.....	.....	3	.....	10	.....	SW	0.354	9.0	Covered	Normal School.
Saint Lo	.....	.....	29.70	754.4	53.6	12	87	W	.....	.....	6	.....	9	.....	E	0.31	8.	.....	Normal School.
Tarbes	29.06	738.2	30.20	767.1	59.0	15	41	SW	.....	.....	2	.....	2	.....	E	0	0	Slightly cl'dy	Normal School.
Toulouse	.....	.....	30.33	770.4	58.0	14.8	66	NW	.....	.....	2	.....	0	.....	.....	.....	.....	Clear.....	Normal Schoo
Villefranche	.....	.....	30.00	763.4	52.2	11.2	85	SE	.....	.....	4	.....	10	.....	SE	0.205	5.20	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.2	75.9	24.4	80	NE	.....	.....	2	.....	5k,n	.....	.....	0.04	1.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.15	765.8	57.9	14.4	55	SW	.....	.....	4	.....	2	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.99	634.8	30.39	771.8	47.1	8.4	61	SSW	11.2	5.00	.....	.....	4	.....	NW	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	29.74	755.5	55.2	12.9	86	W	.....	.....	1	.....	10	.....	W	0.256	6.5	Rainy.....	Montsouris Observ'tory
Perpignan	.....	.....	30.15	765.9	64.4	18.0	47	SE	3.7	1.67	.....	.....	2	.....	NW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.33	541.8	.....	.....	28.4	— 2.0	.....	W	.....	.....	4	.....	10	.....	.....	.....	.....	Fair.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.75	755.6	55.8	13.2	86	WSW	.....	.....	2	.....	10	.....	.....	0.114	2.9	Covered	E. Renou.
Toulouse	.....	.....	30.20	767.1	62.1	16.7	50	NNW	.....	.....	1	.....	3	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	29.86	758.4	56.7	13.7	84	W	.....	.....	6	.....	9	.....	W	0.268	6.8	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.75	755.7	56.1	13.4	86	W	.....	.....	2	.....	10	.....	.....	0.169	4.29	Rainy.....	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 432 m., or 1,980.9 ft; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.61	752.1	48.9	9.4	82	W	.....	.....	6	.....	10	.....	.....	0.394	10.0	Raining.....	Prof. T. Hoh.
Berlin	.....	.....	29.71	754.5	43.3	6.3	64	W	.....	.....	5	.....	4	.....	.....	0.055	1.4	.....	Prof. Arndt.
Breslau	.....	.....	29.71	754.6	42.1	5.6	74	W	.....	.....	6	.....	2	.....	.....	0.106	2.7	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	29.77	756.2	49.6	9.8	84	SW	.....	.....	3	.....	10	.....	.....	0.264	6.7	.....	A. Senz.
Cassel	.....	.....	29.63	752.7	49.3	9.6	61	NW	.....	.....	2	.....	10	.....	.....	0.055	1.4	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe.
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.79	756.7	49.3	9.6	93	SW	.....	.....	2	.....	9	.....	.....	0.230	6.0	Raining.....	Physical Society.
Friedrichshafen	.....	.....	29.94	760.5	43.5	6.4	79	W	.....	.....	8	.....	8	.....	.....	*0.807	*20.5	Raining.....	M. Wilhelm.
Hamburg	.....	.....	29.68	753.8	41.7	5.4	69	NW	.....	.....	4	.....	3	WNW	.....	0.287	7.3	Clear.....	Deutsche Seewarte.
Kiel	.....	.....	29.65	753.1	40.5	4.7	66	W	.....	.....	4	.....	7	.....	.....	0	0	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.41	747.0	37.6	2.0	74	W	.....	.....	9	.....	9	.....	.....	0.063	1.6	.....	Prof. E. Luther.
Koslin	.....	.....	29.53	750.0	37.0	2.8	.....	W	.....	.....	6	.....	2	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	29.78	756.3	43.9	6.6	62	W	.....	.....	2	.....	10	.....	.....	0.224	6.2	Rainy.....	Prof. Bruhns.
Münster	.....	.....	29.71	754.6	43.3	6.3	77	SW	.....	.....	2	.....	3	.....	.....	0.189	4.8	Raining	Prof. E. Heis.
Posen	.....	.....	29.64	752.9	42.1	5.6	72	W	.....	.....	7	.....	9	.....	.....	0.028	0.7	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.81	757.2	50.2	10.1	91	WNW	.....	.....	1	.....	10	.....	.....	0.724	18.4	Raining.....	Dr. Schur.
Stuttgart	.....	.....	29.78	756.4	51.4	10.8	72	W	.....	.....	.....	.....	10	.....	.....	0.319	8.1	Raining.....	Prof. Schoder.
Thorn	.....	.....	29.54	750.2	41.5	5.3	89	W	.....	.....	5	.....	7	.....	.....	0	0	.....	Dr. Hasenbalg.
Treves, (Trier)	.....	.....	29.69	754.1	47.7	8.7	87	SW	.....	.....	7	.....	10	.....	.....	0.346	8.8	Light mist.	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.64	752.8	35.6	2.0	84	WSW	.....	.....	6	.....	6	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet. *Probably rain-fall from 10 a. m. of the 20th until noon of the 21st.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.02	762.6	63.1	17.3	.....	SW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.00	762.0	48.0	8.9	82	Calm	0	0			10			0	0		
Padua			29.99	761.7	48.7	9.3	79	NW	1.3	0.6			10			0	0		
Vicenza																			
Verona			29.98	761.5	54.3	12.4	66	E			1		10			0	0		
Bergamo			29.95	760.7	52.2	11.2	68	S			2		1			0	0		
Domodossola																			
Milan			29.99	761.8	54.0	12.2	43	NNW			2		7	SW		0	0		
Pavia																			
Moncalieri			30.04	763.1	42.4	5.8	91	NNW	1.3	0.6			10			0	0		
Mondovi			30.03	762.7	38.7	3.7	87	NW			2		10			0	0		
Porto Maurizio			30.07	763.7	57.2	14.0		SW			2		9			0	0		
Genoa			30.02	762.5	56.5	13.6	73	SE	8.7	3.9			8	SE		0	0		
Piacenza			29.99	761.8	52.9	11.6	69	N	10.5	4.7			3	NW		0	0		
Bologna			30.01	762.2	49.6	9.8	30	W			1		4	E		0	0		
Florence			30.11	764.9	57.4	14.1	67	SW			1		10	SW		0	0		
Leghorn			30.08	763.9	58.1	14.5	64	S	15.4	6.9			9			0	0		
Siena			30.08	764.1	55.9	13.3	71	SSW	0.7	0.3			6	W		0	0		
Urbino																			
Pesaro																			
Ancona			30.04	763.0	46.0	7.8	83	NW			2		1			0	0		
Grosseto			30.11	764.7	59.7	15.4	72	SW			4		5	E		0	0		
Rome			30.11	764.9	63.3	17.4	57	SSE	3.1	1.4			3	W		0	0		
Naples, O. U.			30.13	765.3	62.1	16.7	69	SSE			2		3	SSW		0	0		
Lecce			30.10	764.6	59.0	15.0	49	NNW	9.8	4.4			6	N		0	0		
Cosenza			30.14	765.6	65.3	18.5	68	W	3.1	1.4			4			0	0		
Riposto, (Sicily)			30.21	767.3	64.0	17.8	78	NE			2		0			0	0		
Palermo			30.11	764.9	62.8	17.1	64	NE	1.8	0.8			2			0	0		
Caltanissetta			30.13	765.4	57.0	13.9	47	WNW			4		0			0	0		
Sub-Series.																			
Naples, S. R.			30.14	765.5	58.1	14.6	75	SW	1.8	0.8			..c	SW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.72	754.8	40.6	4.8		SE			1								
Groningen			29.63	752.7	42.3	5.7		W			1								
Helder			29.70	754.3	42.3	5.7		WSW			1								
Utrecht			29.67	753.5	43.7	6.5	88	WSW			1		8						Very cloudy

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.45	748.1	28.0	— 2.2	87	N	21.5	9.6			2			0	0		
Brönö			29.10	739.0	23.0	— 5.0	88	NW	34	15			9			0	0		Snowing
Christiania			29.23	742.5	34.0	1.1	66	N	2.7	1.2			3			0.131	3.4		
Tromsö			28.72	729.6	25.2	— 3.8	82	NW	7	3			6			0.118	3.0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.68	753.8	58.6	14.8	93	SW	9.4	4.20	.....	.....	10	.....	.....	0.346	8.8	Raining	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.34	770.6	52.7	11.5	88	ESE	1.5	0.67	.....	.....	9	ESE	.....	0.012	0.3	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.28	769.1	61.0	16.1	61	Calm	0	0	.....	.....	0	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.34	770.7	54.9	12.7	92	NE	4.9	2.2	.....	.....	10	SW	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.54	750.4	44.1	4.5	92	WSW	20	9	.....	.....	10	.....	.....	.....	.....	Raining	Astronomical Obs.
Wilna	.....	.....	29.37	745.9	39.7	4.3	68	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	29.04	737.5	34.9	1.6	92	SE	13	6	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	28.93	734.9	36.3	2.4	85	SSW	11	5	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs.
Knopio	.....	.....	28.74	729.0	28.0	— 2.2	100	Calm	0	0	.....	.....	10	.....	.....	.....	.....	Snowing	Ch. Forsten.
Kieff	.....	.....	29.08	753.8	37.8	3.2	92	SW	7	3	.....	.....	9	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	29.97	761.1	37.6	3.1	93	S	20	9	.....	.....	10	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.08	763.9	41.4	6.0	70	SSW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.65	753.2	21.7	— 5.7	82	S	22	10	.....	.....	10	.....	.....	.....	.....	Snowing	Meteorological Obs.
Lugan	.....	.....	30.08	764.0	29.1	— 1.6	82	SE	18	8	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.02	737.2	12.6	—10.8	100	SSE	22	10	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.76	730.5	30.20	767.1	49.5	9.7	41	NNW	9	4	.....	.....	1	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.15	765.8	23.2	— 4.6	84	SE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.27	768.8	— 0.9	—18.3	73	S	16	7	.....	.....	1	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	— 7.4	—21.9	62	E	9	4	.....	.....	0	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.37	745.9	30.50	774.6	— 1.8	—18.8	60	WSW	11	5	.....	.....	2	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.13	765.3	31.5	— 0.3	70	NE	18	8	.....	.....	8	.....	.....	.....	.....	.....	.....
Kasaly	.....	.....	30.31	769.9	3.7	—15.7	67	N	9	4	.....	.....	3	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.38	720.9	30.11	764.9	48.9	9.4	55	Calm	0	0	.....	.....	5	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.12	765.0	12.0	- 11.1	62	W	13	6	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.11	764.9	7.9	—13.4	70	ESE	7	3	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Pekin, (China)	.....	.....	30.36	771.1	31.5	— 0.3	76	Calm	0	0	.....	.....	2	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nikolaievsk, on the Amoor	.....	.....	30.44	773.1	8.2	—13.2	84	N	7	3	.....	.....	0	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.37	771.4	51.6	10.9	77	SW	0.1	0.03	.....	2	2	N	.....	0	0	Light clouds	Royal Observatory.
San Fernando	.....	.....	30.33	770.3	61.2	16.2	81	N	7.2	3.2	.....	0	2	.....	S	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	28.90	734.1	— 1.5	—18.6	89	N	.....	.....	2	.....	10	.....	.....	0.433	11.0	.....	
Umea	.....	.....	28.93	734.9	18.3	— 7.6	100	Calm	.....	.....	0	.....	10	.....	.....	0.220	5.6	.....	
Hernosand	.....	.....	28.97	735.8	30.2	— 1.0	86	NNW	.....	.....	2	.....	8	.....	.....	0.138	3.5	.....	
Stockholm	.....	.....	29.03	737.3	31.5	— 0.3	83	WNW	.....	.....	2	.....	7	.....	.....	0.122	3.1	.....	
Wisby	.....	.....	29.08	738.7	31.3	— 0.4	81	NW	.....	.....	7	.....	10	.....	.....	0.417	10.6	.....	
Sub-Series.																			
Upsala	.....	.....	29.06	738.0	31.5	— 0.3	81	WNW	9.2	4.1	.....	.....	8	W	.....	0.024	0.60	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.61	726.6	30.05	763.2	50.4	10.2	82	SSW			4		10			0.307	7.8	Covered	The Observatory.
Zurich	28.29	718.6	29.95	760.8	47.7	8.4	81	SW			4		10		SW	0	0	Raining	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.6 mm.; Thermometer, +6.1 cent.; Relative Humidity, +12 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Constantinople			30.02	762.5	54.0	12.2	65	SW	3	1.5			10		SW	0	0		
Fao, (Persian Gulf)			30.32	770.0	60.8	16.0		NW			4								
Salonica			30.01	762.2	68.2	20.1		SE			1								
Valona			30.05	763.3	61.3	16.3		S			2								
Varna			29.96	761.0	50.0	10.0		N			3								
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.			30.19	766.7	60.6	15.9	60	NW			1		0			0	0	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Bathurst, N. B.																			Hon. J. Ferguson.
Brockville, Ontario			30.22	767.6	9	—12.8		Calm	0	0		0	28		N	0	0	Fair	W. R. Bigg.
*Chatham, N. B.			29.77	756.1	21	— 6.1	94	SW	1	0.4		8ck	0	SW		0.02	0.5	Fair	G. A. Blair.
Charlottetown, P. E. Island.			29.80	756.9	28	— 2.2	97	S	4	1.8			10s			0.02	0.5	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario			30.11	764.8	11.7	—11.3	86	W			3	1cs				0	0	Bright	James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Esquimault, B. C.																			W. H. Bevis.
Fredericton, N. B.			29.79	756.7	16.1	— 8.8	98	W	1	0.4		3ck				0.050	1.27		Prof. Harrison.
*Fort Garry, Manitoba			30.21	767.3	—10	—23.3	100	SE	4	1.8			10n			0	0	Cloudy	James Stewart.
Goderich, Ontario			30.37	771.4	19.3	— 7.1	83	NW			2	8k		W		0	0	Threatening	H. J. Strang, M. A.
Granton, Ontario			30.30	769.6	15.4	— 9.2		NW			1					0	0	Clear	James Grant.
*Halifax, N. S.			29.85	758.2	32	0.0	96	SW	7	3.1			10n			0.03	0.8	Heavy snow	F. Allison, M. A.
*Kingston, Ontario			30.24	768.1	13	—10.6	93	NW	12	5.4		6ck	0	NW		0	0	Fair	S. Woods, M. A.
Little Current, Ontario			30.30	769.6	7.6	—13.6		W	13	5.8			2s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.04	763.0	10	—12.2	69	W	28	12.5		0	2ks			0.06	1.5	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario			30.11	764.8	6	—14.4	74	W	16	7.2		0	0			0.03	0.8	Clear	J. B. Haney.
*Parry Sound, Ontario			30.29	769.4	5	—15.0	70	NW	8	3.6		0	0			0	0	Clear	Rev. R. Mooley.
*Port Dover, Ontario			30.28	769.1	22	— 5.6	72	NW	5	2.2		0	0			0	0	Clear	H. Morgan.
Port Hastings, N. S.																			Peter Grant.
*Port Stanley, Ontario			30.29	769.4	22	— 5.6	83	NW	5	2.2		0	0			0.04	1.0	Clear	M. Payne.
*Quebec, Quebec			29.85	758.2	18	— 7.8	84	SW	12	5.4		0	0			0.05	1.3	Clear	Capt. Ash, R. N.
St. John, N. B.			29.83	757.7	30	— 1.1	78	S	3	1.3			8ks			0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.24	768.1	20	— 6.7	88	NW	17	7.6			10n			0	0	Light snow	K. Stewart.
Stayner, Ontario																			R. J. Cole.
Stratford, Ontario			30.33	770.4	16.8	— 8.4	85	NW	5	2.2						0	0	Fine	C. J. MacGregor, M. A.
*Sydney, C. B.			29.88	758.9	29	— 1.7	83	SW	8	3.6		5ck	5ks	W	SW	0	0	Fair	T. C. Hill.
*Toronto, Ontario			30.25	768.3	20	— 6.7	82	W	14	6.3		8k	0	NW		0.03	0.8	Cloudy	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10	Clouds. Amount. Lower. 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	30.08	764.0	29	— 1.7	78	NW	4	1.8	.....	5k	0	W	.....	0	0	Fair.	
Alpena, Mich	.....	.....	30.30	769.6	9	—12.8	78	NW	5	2.2	.....	10ck	0	NW	.....	0	0	Cloudy.	
Atlantic City, N. J.	.....	.....	30.19	766.8	34	1.1	79	W	4	1.8	.....	1c	0	W	.....	0	0	Clear.	
Augusta, Ga.	.....	.....	30.26	768.5	35	0.6	95	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Baltimore, Md.	.....	.....	30.25	768.3	39	3.9	46	W	4	1.8	.....	2ck	Fog	.....	.....	0	0	Clear.	
Barnegat, N. J.	.....	.....	30.17	766.3	33	0.6	79	W	4	1.8	.....	5c	0	W	.....	0	0	Fair.	
Benton, Montana	27.36	694.9	30.16	766.1	3	—16.1	100	W	6	2.7	.....	0	0	.....	.....	0.10	2.5	Clear.	
Bismarck, Dakota	28.07	713.0	29.86	758.4	6	—15.0	100	NE	3	1.3	.....	.....	10n	.....	.....	0.06	1.5	Light snow.	
Boston, Mass.	.....	.....	30.00	762.0	33	0.6	69	SW	18	8.0	.....	2k	Haze	W	.....	0	0	Fair.	
Breckenridge, Minn	.....	.....	29.91	759.7	10	—12.2	89	E	20	8.9	.....	.....	10s	.....	E	0	0	Cloudy.	
Buffalo, N. Y.	.....	.....	30.25	768.3	22.5	— 5.3	79	NW	9	4.0	.....	0	1s	.....	NW	0.01	0.3	Clear.	
Burlington, Vt.	.....	.....	30.05	763.3	10	— 7.2	69	N	4	1.8	.....	.....	10s	.....	W	0	0	Cloudy.	
Cairo, Ill.	.....	.....	30.18	766.6	42	5.6	65	SE	4	1.8	.....	1c	0	.....	.....	0	0	Clear.	
Cape Hatteras, N. C.	.....	.....	30.18	766.6	49	9.4	64	.....	6	2.7	.....	Haze	Haze	.....	.....	0	0	Hazy.	
Cape Henry, Va.	.....	.....	30.25	768.3	60	10.0	65	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Cape May, N. J.	.....	.....	30.20	767.1	40	4.4	63	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Charleston, S. C.	.....	.....	30.28	769.1	45	7.2	84	N	4	1.8	.....	Sm'e	Sm'e	.....	.....	0	0	Smoky.	
Cheyenne, Wyoming	23.71	602.2	29.65	753.1	24	— 4.4	72	NW	24	10.7	.....	.....	10s	.....	.....	0	0	Cloudy.	
Chicago, Ill.	.....	.....	30.23	767.8	32	1.1	62	SE	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Cincinnati, Ohio	.....	.....	30.23	769.1	36	— 1.7	68	NW	1	0.4	.....	0	Sm'e	.....	.....	0	0	Clear.	
Cleveland, Ohio	.....	.....	30.31	769.9	33.6	— 0.7	65	W	14	6.3	.....	0	0	.....	.....	0	0	Clear.	
Colorado Springs, Col.	23.68	01.5	29.55	750.6	27	— 2.8	19	ahn	0	0	.....	5k	0	S	.....	0	0	Fair.	
Corsicana, Tex.	.....	.....	30.01	762.7	31	10.6	72	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Davenport, Iowa	.....	.....	30.12	765.-	30	— 1.1	68	E	12	5.4	.....	6cs	0	.....	.....	0	0	Fair.	
Denison, Tex.	.....	.....	29.95	760.7	56	12.8	61	SW	10	4.5	.....	.....	10s	.....	.....	0	0	Cloudy.	
Denver, Col.	24.42	620.3	29.64	752.8	31	— 0.6	48	N	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich	.....	.....	30.30	769.6	27	— 2.8	66	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Dodge City, Kan.	27.14	689.3	29.13	747.5	38	3.3	71	SE	19	8.5	.....	.....	10s	.....	.....	0	0	Cloudy.	
Dubuque, Iowa	.....	.....	30.14	765.5	21	— 4.4	74	SW	4	1.8	.....	0	2s	.....	.....	0	0	Fair.	
Duluth, Minn.	.....	.....	30.24	768.6	4	—15.6	74	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Eastport, Me.	.....	.....	29.81	757.2	31	— 0.6	78	Calm	0	.....	.....	8c	Haze	.....	.....	0.02	0.5	Fair.	
Erie, Pa.	.....	.....	30.25	768.3	24	— 2.8	88	Calm	0	0	.....	1cs	0	.....	.....	0	0	Clear.	
Escanaba, Mich.	.....	.....	30.33	770.4	12	— 9.4	73	W	4	1.8	.....	1c	0	.....	.....	0	0	Clear.	
Fort Gibson, Indian Terr.	.....	.....	30.05	763.3	52	11.1	47	SE	14	6.3	.....	10cs	0	S	.....	0	0	Cloudy.	
Fort Sill, indian T.	28.66	728.	29.79	756.7	41	5.0	83	S	1	0.4	.....	.....	10s	.....	S	0	0	Cloudy.	
Fort Sully, Dakota	28.94	735.1	29.79	756.7	15	— 9.4	82	NW	14	6.3	.....	0	8s	.....	NW	0	0	Cloudy.	
Galveston, Tex.	.....	.....	30.06	763.5	61	16.1	88	E	4	1.8	.....	.....	10s	.....	E	0	0	Cloudy.	
Grand Haven, Mich.	.....	.....	30.20	769.4	30	— 3.9	75	.....	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Indianapolis, Ind.	.....	.....	30.26	768.6	25	— 2.2	67	NE	3	1.3	.....	0	0	.....	.....	0	0	Clear.	
Indianola, Tex.	.....	.....	30.03	762.7	69	17.2	88	SE	16	7.2	.....	.....	10s	.....	SW	0	0	Cloudy.	
Jacksonville, Fla.	.....	.....	30.22	767.6	66	14.4	76	N	6	2.7	.....	8k	0	S	.....	0	0	Fair.	
Keokuk, Iowa.	.....	.....	30.07	763.8	34	— 0.6	89	E	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Key West, Fla.	.....	.....	30.12	765.0	77.0	22.8	85	SE	8	3.6	.....	5k	Haze	SE	SE	0.02	0.5	Fair.	
Kittyhawk, N. C.	.....	.....	30.26	768.6	51	7.2	46	NW	14	6.3	.....	0	Haze	.....	.....	0	0	Clear.	
Knoxville, Tenn.	.....	.....	30.30	769.6	31	— 0.6	89	N	2	0.9	.....	1c	Fog	SW	.....	0	0	Fair.	
La Crosse, Wis.	.....	.....	30.13	765.3	29	— 1.1	67	S	9	4.0	.....	1c	Haze	S	.....	0	0	Fair.	
Leavenworth, Kan.	.....	.....	29.87	758.7	33	3.3	71	S	8	3.6	.....	5c	0	.....	.....	0	0	Fair.	
Lexington, Ky.	29.17	740.9	30.33	770.4	24	1.7	79	E	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Long Branch, N. J.	.....	.....	30.15	765.8	31	2.8	62	NW	12	5.4	.....	5c	0	W	.....	0	0	Fair.	
Louisville, Ky.	.....	.....	30.28	769.1	31	— 0.6	79	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Lynchburg, Va.	.....	.....	30.30	769.6	30	1.7	75	.....	0	0	.....	0	Sm'e	.....	.....	0	0	Smoky	
Malone, N. Y.	.....	.....	30.19	766.5	10	—12.2	79	W	14	6.3	.....	5ck	0	W	.....	0	0	Fair.	
Marquette, Mich	.....	.....	30.33	770.4	1	—17.2	85	W	8	3.6	.....	.....	8s	.....	W	0	0	Cloudy.	
Memphis, Tenn.	.....	.....	30.19	766.8	40	4.4	72	Calm	0	0	.....	2cs	Fog	.....	.....	0	0	Fair.	
Milwaukee, Wis.	.....	.....	30.29	769.4	26	— 2.2	77	E	9	4.0	.....	2c	0	NE	.....	0	0	Clear.	
Mobile, Ala.	.....	.....	30.20	767.1	44	5.0	91	N	1	0.4	.....	0	Haze	.....	.....	0	0	Clear.	
Montgomery, Ala.	.....	.....	30.27	768.8	39	3.9	82	NE	1	0.4	.....	8c	Sm'e	.....	.....	0	0	Fair.	
Morgantown, W. Va.	.....	.....	30.33	770.4	20	— 1.1	60	SW	1	0.4	.....	0	Sm'e	.....	.....	Inap.	Inap.	Clear.	
Mt. Washington, N. H.	23.10	586.7	29.56	748.3	0	—17.8	100	W	84	37.5	.....	.....	Fog	.....	.....	0	0	Foggy	
Nashville, Tenn.	.....	.....	30.21	768.-	35	1.7	90	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
New Haven, Conn.	.....	.....	30.09	764.3	35	3.3	47	NW	14	6.3	.....	Haze	0	.....	.....	0	0	Clear.	
New London, Conn.	.....	.....	30.08	764.0	37.6	3.4	53	W	5	2.2	.....	2c	0	.....	.....	0	0	Clear.	
New Orleans, La.	.....	.....	30.19	766.1	49.6	9.7	85	E	5	2.2	.....	8cs	Fog	W	.....	0	0	Fair.	
Newport, R. I.	.....	.....	30.04	763.0	34	1.1	71	W	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
New York, N. Y.	.....	.....	30.15	765.8	34	1.1	51	NW	20	8.9	.....	0	0	.....	.....	0	0	Clear.	
Norfolk, Va.	.....	.....	30.25	768.3	41	5.6	74	N	4	1.8	.....	0	Haze	.....	.....	0	0	Clear.	
North Platte, Neb.	26.07	677.4	29.28	743.7	21	— 3.9	75	Calm	0	0	.....	2k	2s	SW	SW	0	0	Fair.	
Omaha, Neb.	28.07	728.2	29.75	755.6	31	2.8	62	SE	18	8.0	.....	0	0	.....	.....	0	0	Clear.	
Oswego, N. Y.	.....	.....	30.21	767.3	30	— 5.0	78	NW	20	8.9	.....	Haze	8ks	.....	W	0	0	Cloudy.	
Peck's Beach, N. J.	.....	.....	30.21	767.3	35	1.7	80	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Pembina, Dakota.	.....	.....	30.16	766.1	- 6	—21.1	100	E	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.	
Philadelphia, Penn.	.....	.....	30.22	767.6	36	2.2	61	NW	10	4.5	.....	0	Sm'e	.....	.....	0	0	Clear.	
Pike's Peak, Colorado.	17.29	439.2	29.53	749.3	0	—17.	70	SW	27	12.1	.....	0	2s	.....	.....	0	0	Fair.	
Pittsburgh, Penn.	.....	.....	30.29	769.4	30	— 1.1	59	NW	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Port Huron, Mich.	.....	.....	30.3-	770.1	20	— 6.7	55	N	5	2.2	.....	0	1s	.....	.....	0	0	Clear.	
Portland, Me.	.....	.....	29.92	760.0	30	- 1.1	68	W	16	7.2	.....	1k	0	NW	.....	0	0	Clear.	
Portland, Oregon.	.....	.....	30.35	770.9	42	5.6	74	S	10	4.5	.....	.....	10n	.....	.....	0.05	1.3	Light rain.	
Punta Rassa, Fla.	.....	.....	30.14	765.5	66.3	19.1	94	NE	7	3.1	.....	.....	10s	.....	SW	0.22	5.6	Cloudy.	
Rochester, N. Y.	.....	.....	30.20	767.1	26	— 3.9	63	W	12	5.4	.....	2c	0	N	.....	0	0	Clear.	
Salt Lake City, Utah	25.63	651.0	29.96	761.0	27	— 2.8	66	NE	8	3.6	.....	0	0	.....	.....	0.15	3.8	Clear.	
Sandy Hook, N. J.	.....	.....	30.13	765.3	36	2.2	61	NE	17	7.6	.....	2c	0	SW	.....	0	0	Fair.	
San Diego, Cal.	.....	.....	29.93	760.2	49	9.4	71	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
San Francisco, Cal.	.....	.....	30.17	766.3	51	10.6	58	W	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Santa Fe, N. M.	22.92	582.2	29.16	748.3	30	— 1.1	78	SE	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.	
Savannah, Ga.	.....	.....	30.26	768.6	45	7.2	85	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Shreveport, La.	.....	.....	30.16	766.1	45	7.2	80	Calm	0	0	.....	8ck	0	SW	.....	0	0	Fair.	
Smithville, N. C.	.....	.....	30.28	769.1	41	5.0	87	NW	6	2.7	.....	1cs	Fog	.....	.....	0	0	Fair	
Springfield, Mass.	.....	.....	30.08	764.0	34	1.1	61	NW	8	3.6	.....	0	5ks	.....	NW	0	0	Fair.	
St. Louis, Mo.	.....	.....	30.14	765.5	38	3.3	54	S	10	4.5	.....	0	5s	.....	SW	0	0	Fair.	
St. Marks, Fla.	.....	.....	30.20	767.1	62	11.1	65	N	5	2.2	.....	8k	2s	S	.....	0	0	Cloudy.	
St. Paul, Minn.	.....	.....	30.01	762.2	18.5	— 7.5	68	E	12	5.4	.....	10c,cs	0	W	.....	0	0	Cloudy	
St. Paul's Island, Alaska.	.....	.....	30.18	766.6	7	—13.9	76	NNE	25	11.2	.....	0	1k	.....	.....	0	0	.....	
Squan Beach, N. J.	.....	.....	30.10	764.5	35	— 1.1	68	W	3	1.3	.....	5c	0	NW	.....	0	0	Fair.	
Thatcher's Island, Mass.	.....	.....	29.98	761.5	34	0.6	43	W	21	9.4	.....	0	2k	.....	W	0	0	Clear.	
Toledo, Ohio.	.....	.....	30.27	768.8	32	0.0	60	S	5	2.2	.....	0	Haze	.....	.....	Inap.	Inap.	Clear.	
Tucson, Arizona.	27.46	697.5	30.06	763.5	40	4.4	.....	NE	.....	.....	.....	0	0	.....	.....	0	0	Clear.	
Tybee Island, Ga.	.....	.....	30.25	768.3	50	10.0	86	N	14	6.3	.....	2ks	Haze	SW	.....	0	0	Hazy.	
Vicksburg, Miss.	.....	.....	30.22	767.6	45	7.2	48	SE	10	4.5	.....	5cs	Sm'e	SW	.....	0	0	Fair.	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.15	613.4	29.63	752.6	18	— 7.8	68	SW	16	7.2	.....	5k	0	W	.....	0.10	2.5	Cloudy	
Washington, D. C	.....	.....	30.26	768.6	39	3.9	48	Calm	0	0	.....	0	Haze	.....	.....	0	0	Clear	
Wilmington, N. C	.....	.....	30.28	769.1	38	3.3	90	W	4	1.8	.....	0	Fog	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	30.05	763.3	36	2.2	62	NW	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va	27.85	707.4	30.12	765.0	29	— 1.7	78	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Yankton, Dakota	28.40	721.3	29.72	754.9	28	— 2.2	71	NE	8	3.6	.....	2c	0	NW	.....	0	0	Fair	
Yuma, Arizona	.....	.....	30.02	762.5	58	14.4	.....	NW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.10	764.5	80	26.7	86	NE	7	3.1	.....	2c	5s	E	SE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.04	763.0	75	23.9	81	NE	.....	.....	.....	0	2k	.....	.....	0	0	Clear	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.27	768.8	75	23.9	76	E	3	1.3	.....	2c	8kn	E	.....	0	0	Cloudy	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.24	768.1	73	22.8	71	Calm	0	0	.....	8c	8s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.88	758.9	72	22.2	71	N	4.8	2.1	.....	4c	0	NE	.....	0	0	Fair	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.13	765.3	75	23.9	85	NE	2.4	1.1	.....	0	0	.....	.....	0	0	Clear	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.22	767.6	64.5	18.1	56	NW	12.0	5.4	.....	5ck	2k	.....	.....	0	0	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	25.24	691.9	30.05	763.3	64	17.8	83	NNE	2.0	0.9	.....	2c	0	NE	.....	0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.01	762.2	81	27.2	70	E	.....	.....	4	.....	5k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.06	763.4	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.059	1.50	.....	Dr. H. Groot.
Medellin, Colombia, S. A	27.18	639.6	.....	.....	67.6	19.8	82	.....	0	0	.....	0	2s	.....	.....	0.08	2.0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.88	758.9	26.5	— 3.1	.....	W	.....	.....	.....	Haze	Haze	.....	.....	0	0	Fair	John Delaney.
York Factory, B. A	.....	.....	30.36	771.1	—37	—38.3	.....	W	4	1.8	.....	1c	1s	E	.....	0.03	0.8	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	30.08	764.0	74	23.3	100	NE	.....	.....	5	.....	.....	.....	.....	0.06	1.5	Gloomy	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.0 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric Gen. (Bvt. Assgd.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 21, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time..
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean tim .
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.36	771.2	61.0	16.1	73	ENE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Charnot and Masselot.
Algiers	.....	.....	30.37	771.3	62.6	17.0	75	N	.....	.....	1	.....	2	.....	.....	0	0	Clear	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.35	771.0	67.5	19.7	50	NW	.....	.....	4	.....	0	.....	.....	0	0	Clear	Jacques.
Sfax	.....	.....	30.36	771.2	68.4	20.2	59	S	.....	.....	2	.....	1	.....	.....	0	0	Clear	Chauvey.
Gafda	.....	.....	30.37	771.3	74.8	23.5	11	S	.....	.....	1	.....	0	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	30.38	771.6	73.6	23.1	.....	SW	.....	.....	2	.....	0	.....	.....	0	0	Clear	Colin.
Gerlville	.....	.....	30.38	771.6	63.0	17.2	25	NNW	.....	.....	1	.....	1	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	30.39	772.0	66.2	19.0	38	NW	.....	.....	2	.....	1	.....	.....	0	0	Clear	Delord.
Biskra	.....	.....	30.39	771.9	72.1	22.3	35	NW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Dubois.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fal is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.22	767.6	53.6	12.0	67	Calm	.....	.....	0	.....	0	.....	.....	0	0	.....	Prof. Ivan Stosir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cracow	.....	.....	30.20	768.6	36.3	2.4	79	W	.....	.....	2	.....	5	.....	.....	0.066	1.68	.....	I. R. Cen. M. I., Hungary
Eperies	.....	.....	30.15	765.9	37.8	3.2	75	N	.....	.....	1	.....	6	.....	S	0	0	.....	I. R. Observatory.
Gratz	29.02	737.0	30.24	768.1	46.0	7.8	64	SSW	.....	.....	2	.....	5	.....	.....	0	0	.....	Julius Mikolik.
Hermannstadt	28.53	724.6	29.98	761.4	44.4	6.9	84	ESE	.....	.....	3	.....	10	.....	.....	0.035	0.90	.....	Andreas Rospini.
Kremsmünster	28.86	733.0	30.24	768.0	44.6	7.0	88	W	.....	.....	2	.....	10	.....	.....	0.492	12.5	.....	Prof. Reissenberger.
Lemberg	.....	.....	30.10	764.5	35.2	1.8	77	NW	.....	.....	2	.....	8	.....	.....	0.051	1.3	.....	Prof. C. Wagner.
Nyiregyhaza	.....	.....	30.15	765.8	40.6	4.8	90	NE	.....	.....	3	.....	0	.....	.....	0	0	.....	Dr. T. Stanecki.
Pola	.....	.....	30.23	767.7	49.0	9.8	95	WNW	.....	.....	1	.....	10	.....	.....	0.004	0.11	Dense fog	Habzsuda Daniel.
Szegedin	.....	.....	29.77	756.	46.4	8.0	76	NW	.....	.....	3	.....	5	.....	.....	0.008	0.20	.....	I.R. Hydrographic Of'ce
Trieste	.....	.....	30.23	767.7	51.4	10.8	90	Calm	.....	.....	0	.....	10	.....	.....	0	0	Dense fog	Karl Stancel.
Vienna	.....	.....	30.24	768.0	43.3	6.3	60	NE	.....	.....	1	.....	4	.....	.....	0.283	7.2	.....	Prof. V. Farolfi.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	29.96	760.9	53.1	11.7	94	SW	.....	.....	4	.....	10	.....	.....	0.291	7.40	Raining	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.43	747.5	40.0	4.4	.....	SE	18	8.0	.....	.....	10	.....	.....	0.210	5.33	Raining.....	William Boswell.
Ardrossan	.....	.....	29.40	746.7	40	4.4	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Rain and fog	J. Mayes.
Armagh Observatory	.....	.....	29.42	747.3	51.3	10.7	.....	SSW	18	8.0	.....	.....	10	.....	.....	.....	.....	Squally.....	S. Call, for Dr. Robinson
Bidston, Liverpool Obs	.....	.....	29.53	750.0	55.2	12.9	.....	SW	33	14.8	.....	.....	10	.....	.....	.....	.....	Overcast.....	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.44	747.8	51.8	11.0	.....	SW	.....	.....	1–3	.....	10	.....	.....	.....	.....	Overcast.....	J. Dreyer.
Bradford	.....	.....	29.60	751.8	52.3	11.3	.....	W	.....	.....	2	.....	9	.....	.....	0.36	9.1	Raining.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.08	764.0	81.4	27.4	.....	E	.....	.....	4	.....	2	.....	.....	.....	.....	*D. clouds....	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.75	755.6	54.5	12.5	.....	SSW	.....	.....	2–3	.....	10	.....	.....	.....	.....	Raining.....	H. Todd.
Cardington	.....	.....	29.76	755.9	55.0	12.8	.....	W	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast.....	John McLaren.
Carlisle	.....	.....	29.45	748.0	50.3	10.2	.....	SW	.....	.....	3	.....	10	.....	.....	0.10	2.5	Raining.....	T. Bell, for J. Cartmell.
Chatham, School M. E	.....	.....	29.86	758.4	52.7	11.5	.....	SW	.....	.....	3	.....	.....	.....	.....	.....	.....	Threatening	Capt. J. Fellowes, R. E.
Dartmoor	28.37	720.6	29.88	758.9	48.0	8.9	.....	SW	.....	.....	7	.....	10	.....	.....	.....	.....	Rain and fog	R. E. Power.
Donaghadee	.....	.....	29.39	746.5	48	8.9	.....	SSW	.....	.....	3	.....	10	.....	.....	.....	.....	Raining.....	J. Mac Gowan.
Dover	.....	.....	29.84	757.9	47	8.3	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Rain and fog	J. Costello.
Eccles, (near Manchester)	.....	.....	29.57	751.1	52.2	11.2	.....	SW	3.4	1.5	.....	.....	10	.....	.....	.....	.....	Showery.....	Thomas Mackereth.
Falmouth Observatory	.....	.....	29.79	756.7	52.1	11.2	.....	SSW	43	19.2	.....	.....	10	.....	.....	.....	.....	Overcast,fog	The Staff.
Fort Napier, (Natal)	27.52	699.0	29.76	755.9	88.2	31.2	.....	SE	.....	.....	3	.....	3	.....	.....	.....	.....	*D. clouds....	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.96	761.0	87.0	30.6	.....	N	.....	.....	0	.....	10	.....	.....	.....	.....	Overcast.....	Pvt. C. Aitken, A. H. C.
Galway, Queen's College	.....	.....	29.37	746.0	50	10.0	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Gloomy.....	B. G. Clare, for Prof. Currie.
Gibraltar, (Mediterranean)	.....	.....	30.35	770.9	65.5	18.6	.....	NE	.....	.....	3	.....	1	.....	.....	.....	.....	*D. clouds....	Lewis Stuart.
Glasgow Observatory	.....	.....	29.38	746.2	37.8	3.2	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Threatening	G. T. Watson.
Great Yarmouth	.....	.....	29.75	755.6	52	11.1	.....	SW	.....	.....	4	.....	7	.....	.....	.....	.....	Gloomy.....	The Staff for G. B. Airy
Greenwich Royal Obs	.....	.....	29.83	757.7	53.7	12.1	.....	SW	.....	.....	6	.....	10	.....	.....	Blank	Blank	Overcast.....	Dr. S. E. Hoskins.
Guernsey	.....	.....	29.96	761.0	51	10.6	.....	SSW	.....	.....	4	.....	8	.....	.....	.....	.....	Misty.....	L. J. Crossley.
Halifax, Moorside Obs	.....	.....	29.56	750.8	53.2	11.8	.....	WSW	.....	.....	3	.....	10	.....	.....	.....	.....	Raining.....	M. P. Moyle.
Helston	.....	.....	29.77	756.1	54	12.2	.....	SW	.....	.....	6	.....	10	.....	.....	0.50	12.7	Misty.....	John Tilston.
Holyhead	.....	.....	29.50	749.3	49	9.4	.....	SSW	.....	.....	6	.....	10	.....	.....	.....	.....	Drizzling.....	The Staff.
Kew Observatory	.....	.....	29.83	757.7	52.7	11.5	.....	SW	29	13.0	.....	.....	10	.....	.....	.....	.....	Overcast.....	George Mitchell.
Kingstown	.....	.....	29.47	748.5	55	12.8	.....	W	.....	.....	4	.....	9	.....	.....	.....	.....	Overcast.....	William J. Harrison.
Leicester Museum	.....	.....	29.69	754.1	53.1	11.7	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	Threatening	Fred Travis, Pvt A.H.C
Malta, (Mediterranean)	.....	.....	30.28	769.1	62.6	17.0	.....	NW	.....	.....	1	.....	2k	.....	.....	.....	.....	.....	W. D. Penny.
Nairn	.....	.....	29.31	744.5	42	5.6	.....	Calm	.....	.....	0	.....	10	.....	.....	.....	.....	Raining.....	Surg.-Maj. Henry.
Nassau, (Bahamas)	.....	.....	30.24	768.1	75.2	24.0	.....	NE	.....	.....	4	.....	6	.....	.....	.....	.....	*D. clouds....	E. J. Lowe, F. R. S.
Nottingham	.....	.....	29.66	753.4	54.3	12.4	.....	S	.....	.....	5	.....	10d	.....	SSW	0.381	9.68	Overcast.....	Rev. Stephen Whitty.
Oscott, St. Mary's College	.....	.....	29.67	753.6	53.1	11.7	.....	SSW	.....	.....	5–6	.....	10	.....	.....	.....	.....	Overcast.....	J. Lucas.
Oxford, Radcliffe Obs	.....	.....	29.75	755.6	54	12.2	.....	SW	.....	.....	5	.....	10	.....	.....	.....	.....	Squally.....	John Merrifield.
Plymouth	.....	.....	29.84	757.9	50.9	10.5	.....	SSW	.....	.....	5	.....	10	.....	.....	.....	.....	Overcast.....	W. Kennedy.
Roche's Point	.....	.....	29.49	749.0	50	10.0	.....	SW	.....	.....	6	.....	10	.....	.....	.....	.....	Raining.....	John C. Walker.
Saint Ann's Head	.....	.....	29.64	752.8	49	9.4	.....	SSW	.....	.....	6	.....	10	.....	.....	.....	.....	Misty.....	A. P. Amy.
Saint Helier, (Jersey)	.....	.....	30.10	764.5	51.6	10.9	.....	SW	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast.....	Rev. Dr. Clouston
Sandwick Manse(Orkneys)	.....	.....	29.32	744.7	37.8	3.2	.....	SSE	32	14.3	.....	.....	10	.....	.....	.....	.....	Misty.....	F. Shaw.
Scarborough	.....	.....	29.54	750.3	52.0	11.1	.....	SSW	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast.....	Sergt. W. H. Lyne.
Scutari Cemetery(Turkey)	.....	.....	30.02	762.5	55.4	13.0	.....	S	.....	.....	1	.....	4	.....	.....	Blank	Blank	*D. clouds....	W. F. Cooper.
Sheffield	.....	.....	29.56	750.8	55.2	12.9	.....	SW	.....	.....	5	.....	7	.....	.....	0.446	11.33	Overcast.....	Rev Francis Redford.
Silloth Rectory	.....	.....	29.43	747.5	49.0	9.4	96	SW	.....	.....	4	.....	10	.....	.....	0.835	21.21	Raining.....	The Staff.
Stonyhurst Observatory	.....	.....	29.53	750.0	50.3	10.2	.....	SW	.....	.....	3	.....	10	.....	.....	.....	.....	Raining.....	John Smith.
Stornoway, Lews C. (Hebr)	.....	.....	29.24	742.7	43	6.1	.....	S	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast.....	Rev. Charles H. Griffith
Stratfield Turgiss	.....	.....	29.84	757.9	51.8	11.0	.....	SW	.....	.....	1–2	.....	10	.....	.....	.....	.....	Raining.....	Rev. John Slatter.
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Trotter.
Thurso	.....	.....	29.30	744.2	40	4.4	.....	SSE	.....	.....	6	.....	7	.....	.....	.....	.....	*D. clouds....	W. Newcombe.
Truro, Royal Institution	.....	.....	29.81	757.2	53	11.7	.....	SW	.....	.....	7	.....	10	.....	.....	.....	.....	Raining.....	The Staff.
Valencia Observatory	.....	.....	29.44	747.8	50.9	10.5	.....	SE	15	6.7	.....	.....	10	.....	.....	.....	.....	*D. clouds....	
Sub-Series.																			
Cape Good Hope Obs	.....	.....	30.15	765.8	71.2	21.8	47	SSE	30	13.4	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	46	7.8	.....	S	.....	.....	6	.....	10	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	29.44	747.8	42.8	6.0	.....	W	.....	.....	1	.....	10s	.....	.....	0.14	3.6	Overcast.....	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	29.23	742.4	44	6.7	.....	SSE	.....	.....	4	.....	10	.....	.....	0.2	5.1	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	29.44	747.8	38	3.3	.....	SW	.....	.....	7	.....	10	.....	.....	Blank	Blank	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	30.11	764.7	32.2	0.1	55	SSE	.....	.....	4	.....	0	.....	.....	.....	.....	.....	
Faröe	.....	.....	30.00	762.1	33.4	0.8	78	S	.....	.....	4	.....	10	.....	.....	.....	.....	.....	
Godthaab, (Greenland)	.....	.....	29.62	752.4	9.0	—12.8	84	ENE	.....	.....	2	.....	2	.....	.....	.....	.....	.....	
Stykkisholm, (Iceland)	.....	.....	29.34	745.2	20.7	— 6.3	93	NE	.....	.....	6	.....	5	.....	.....	.....	.....	.....	
Thorshavn, (Faröe)	.....	.....	29.18	741.2	41.0	5.0	84	S	.....	.....	4	.....	10	.....	.....	.....	.....	Raining.....	
Vestervig	.....	.....	29.96	761.0	31.6	— 0.2	85	SE	.....	.....	2	.....	10	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.11	764.8	51.8	11	78	SW	.....	.....	1	.....	8sk	.....	SW	0	0	Very cloudy	Normal School.
Amiens	.....	.....	30.00	762.1	59.0	15.0	80	SW	.....	.....	6	.....	5	.....	SW	0.614	15.6	Cloudy	Normal School.
Avignon	.....	.....	30.26	768.5	67.6	19.8	45	NW	.....	.....	2	.....	.....	.....	.....	0	0	Fine haze ?...	Normal School.
Bar-sur-Seine	.....	.....	30.21	767.3	56.7	13.7	74	WSW	.....	.....	4	.....	8n	.....	WSW	1.035	26.3	Very cloudy	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.14	765.6	56.5	13.6	77	SW	35.6	15.9	.....	.....	.....	.....	SW	0.020	0.5	.....	Beaumette Observatory
Beauvais	.....	.....	30.09	764.2	56.1	13.4	76	WSW	.....	.....	3	.....	8	.....	W	0.390	9.90	Very cloudy	Normal School.
Besançon	.....	.....	30.29	769.3	56.8	13.8	82	S	.....	.....	3	.....	8	.....	SW	0.772	19.6	Very cloudy	Normal School.
Bourg en Bresse	.....	.....	30.36	771.2	61.3	16.3	58	E	.....	.....	1	.....	5k	.....	SSW	.....	.....	Cloudy	Normal School.
Bourges	.....	.....	30.20	767.0	57.0	13.9	84	SW	.....	.....	2	.....	5	.....	SW	0.610	15.5	Cloudy	Normal School.
Brest	.....	.....	29.95	760.6	54.1	12.3	86	SW	.....	.....	6	.....	10	.....	SW	0.108	2.75	Misty	Naval Observatory.
Caen	.....	.....	30.01	762.2	57.2	14	78	SW	.....	.....	2	.....	10	.....	S	0.165	4.2	Covered	Normal School.
Chartres	.....	.....	30.09	764.3	55.8	13.2	.....	SE	.....	.....	2	.....	8	.....	SE	0.130	3.3	....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.14	765.6	63.7	17.6	40	W	.....	.....	2	.....	5	.....	W	0.071	1.8	Cloudy	Puy de Dome, Obs.
Commercy	.....	.....	30.13	765.3	54.5	12.5	83	WNW	.....	.....	2	.....	8ck,n	.....	WNW	1.06	27.	Very cloudy	Normal School.
Commune de Gréasque*	.....	.....	30 30	769.6	62.4	16.9	53	NW	.....	.....	4	.....	2	.....	NW	0	0	....	.....
Grenoble	.....	.....	30.29	769.3	56.3	13.5	83	NNE	.....	.....	1	2c	.....	S	.....	0.200	5.2	Slightly cl'dy	Normal School.
Le Mans	.....	.....	30.16	766.1	56.7	13.7	60	SW	.....	.....	4	.....	8	.....	SW	0.087	2.2	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.08	764.1	58.8	14.9	83	W	.....	.....	1	.....	8	.....	SSW	0.51	13.	Very cloudy	Normal School.
Mâcon	.....	.....	30.26	768.6	57.2	14	90	Calm	.....	.....	0	.....	10	.....	.....	0.14	3.6	Covered	Normal School.
Mirecourt	.....	.....	30.19	766.8	54.3	12.4	.....	SW	.....	.....	4	.....	10	.....	NE	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.26	768.7	60.4	15.8	82	NW	.....	.....	2	.....	2	.....	W	0	0	Slightly cl'dy	Normal School.
Orleans	.....	.....	30.14	765.6	56.5	13.6	82	WSW	.....	.....	3	.....	8	.....	W	0.102	2.6	Very cloudy	Normal School.
Paris Observatory	.....	.....	30.13	765.3	56.7	13.7	74	SW	.....	.....	2	.....	8	.....	WSW	0.216	5.48	Very cloudy	National Observatory
Parthenay	.....	.....	30.19	766.9	57.2	14	77	SW	.....	.....	2	.....	5	.....	SW	0.138	3.5	Cloudy	Normal School.
Privas	.....	.....	30.28	769.2	63.5	17.5	.....	W	.....	.....	1	.....	5	.....	.....	0	0	Cloudy	Normal School.
La Roche-sur-Yon	.....	.....	30.21	767.4	54.7	12.6	81	S	.....	.....	2	.....	8	.....	N	0.059	1.5	Very cloudy	Normal School.
Rochefort, Observatory	.....	.....	30.22	767.6	62.6	17.0	70	SSE	.....	.....	4	.....	2	.....	NW	0	0	¼ covered	Naval Observatory.
Rouen	.....	.....	30.05	763.3	59.9	15.5	71	S	.....	.....	4	.....	5	.....	W	0.575	14.6	Cloudy	Normal School.
Saint Lo	.....	.....	29.97	761.3	57.2	14	67	W	.....	.....	3	.....	5	.....	SE	0.217	5.5	.....	Normal School.
Tarbes	29.17	741.0	30.23	767.7	55.4	13	20	E	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Toulouse	.....	.....	30.40	772.2	61.9	16.6	64	E	.....	.....	1	.....	0	.....	.....	.....	.....	Clear	Normal School.
Villefranche	.....	.....	30.30	769.6	64.9	18.3	70	SE	.....	.....	3	.....	5	.....	S	0	0	Cloudy	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	30.01	762.3	77.0	25	72	NE	.....	.....	2	.....	2k	.....	.....	0.04	1.	.....	L'Abbé Marchésh
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.23	767.7	66.0	18.9	71	WSW	.....	.....	2	.....	8	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	25.11	637.7	30.50	774.7	49.8	9.9	65	SSW	13.0	5.83	.....	.....	5	.....	WNW	0	0	.....	—. Faiguère.
Montsouris, Paris	.....	.....	30.13	765.2	56.5	13.6	68	SW	.....	.....	3	.....	10	.....	WSW	0.087	2.2	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.27	768.8	64.9	18.3	56	SE	1.9	0.83	.....	.....	6	.....	NW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.48	545.5	.....	.....	33.2	4.0	.....	W	.....	.....	2	.....	2	.....	.....	.....	.....	Clear	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.13	765.4	57.2	14.0	75	SW	.....	.....	2	.....	9	.....	.....	0.205	5.2	Covered	E. Renou.
Toulouse	.....	.....	30.28	769.2	64.6	18.1	56	S	.....	.....	1	.....	3	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	30.20	767.1	56.8	13.8	77	WNW	.....	.....	4	.....	10	.....	W	0.016	0.4	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.13	765.3	57.9	14.4	70	W	.....	.....	2	.....	10	.....	.....	0.098	2.50	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,365 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
* Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	30.06	763.5	46.8	8.2	91	W	.....	.....	3	.....	10	.....	.....	0.236	6.0	Raining	Prof. T. Hoh.
Berlin	.....	.....	30.21	767.2	42.8	6.0	60	SW	.....	.....	3	.....	3	.....	.....	0	0	.....	Prof. Arndt.
Breslau	.....	.....	30.29	769.3	37.2	2.9	62	NW	.....	.....	3	.....	2	.....	.....	0.106	2.7	.....	Dr. P. Naumheimer
Carlsruhe	.....	.....	30.12	765.0	51.3	12.4	88	SW	.....	.....	5	.....	10	.....	.....	0.717	18.2	Raining	A. Senz.
Cassel	.....	.....	29.93	760.1	42.8	6.0	80	SSW	.....	.....	2	.....	10	.....	.....	0.169	4.3	.....	Dr. H. Möhn.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.17	766.3	45.5	7.5	99	NE	.....	.....	1	.....	10	.....	.....	0.260	6.6	Fog & rain	Physical Society.
Friedrichshafen	.....	.....	30.26	768.6	48.6	9.2	75	SW	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	M. Wilhelm.
Hamburg	.....	.....	30.10	764.4	36.0	2.2	74	SE	.....	.....	4	.....	10	.....	.....	0.008	0.2	Smoke-haze	Deutsche Seewarte.
Kiel	.....	.....	30.09	764.3	36.1	2.3	67	SE	.....	.....	1	.....	10	.....	.....	0.020	0.5	.....	Prof. G. Karsten.
Königsberg	.....	.....	30.19	766.8	32.5	0.3	40	NW	.....	.....	5	.....	2	.....	.....	Inap.	Inap.	Snowing	Prof. E. Luther.
Köslin	.....	.....	30.20	767.0	32.7	0.4	.....	W	.....	.....	2	.....	0	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	30.19	766.9	42.6	5.9	99	SSE	.....	.....	3	.....	7	.....	.....	0.094	2.4	.....	Prof. Bruhns.
Münster	.....	.....	30.03	762.7	42.8	6.0	97	SW	.....	.....	2	.....	10	.....	.....	0.091	2.3	Raining	Prof. E. Heis.
Posen	.....	.....	30.27	768.9	35.6	2.0	90	W	.....	.....	7	.....	1	.....	.....	0.146	3.7	Snowing	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.17	766.4	55.4	13.0	85	SW	.....	.....	1	.....	10	.....	.....	0	0	.....	Dr. Schur.
Stuttgart	.....	.....	30.15	765.7	56.3	13.5	75	W	.....	.....	.....	.....	10	.....	.....	0.370	9.4	Raining	Prof. Schoder.
Thorn	.....	.....	30.21	767.3	36.5	2.5	48	SW	.....	.....	5	.....	2	.....	.....	0	0	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.03	762.7	52.9	11.6	94	WSW	.....	.....	6	.....	10	.....	.....	0.169	4.3	Heavy mist	Prof. Flesch.
Wustrow, Naval School	.....	.....	30.17	766.7	38.1	3.4	75	S	.....	.....	2	.....	7	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the [illegible] or [illegible] Professor Dr. J. F. Julius Schmidt, Director of the Royal [illegible] at Athens.

Athens	.....	.....	30.07	763.6	62.2	18.8	.....	S	.....	.....	.....	.....	.....	.....	.....	.....	.....	Misty	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.20	767.1	52.3	11.3	94	Calm	0	0			1			0	0		
Padua			29.23	767.9	45.3	7.4	93	N	3.1	1.4			10			0	0		
Vicenza			30.33	767.8	46.0	7.8	94	NE			1		9			0	0		
Verona																			
Bergamo			30.16	766.0	47.3	8.5	89	SE			4		8			0	0		
Domodossola																			
Milan			30.22	767.6	46.8	8.2	79	ESE			1		10			0	0		
Pavia																			
Moncalieri			30.23	767.8	43.5	6.4	82	WSW	1.8	0.8			6	N		0	0		
Mondovi			30.20	767 0	52.3	11.3	71	SE			2		3	NW		0	0		
Porto Maurizio			30.24	768.2	58.5	14.7		E			4		4			0	0		
Genoa			30.22	767.6	59.2	15.1	67	SW	2.5	1.1			4	SE		0	0		
Piacenza			30.23	767.9	43.0	6.1	94	E	1.3	0.6			10			0	0	Dense fog	
Bologna			30.23	767.9	48.2	9.0	32	W			1		7			0	0		
Florence			30.26	768.6	61.7	16.5	60	NE			2		9	W		0	0		
Leghorn			30.23	767.9	58.5	14.7	68	W	1.3	0.6			4			0	0		
Siena			30.22	767.5	59.0	15.0	70	W	0	0			3	W		0	0		
Urbino																			
Pesaro																			
Ancona			30.24	768.2	47.5	8.6	89	NW			4		10			0	0	Foggy	
Grosseto			30.24	768.0	63.3	17.4	63	NW			2		3	SW		0	0		
Rome			30.23	767.8	63.7	17.6	52	WSW	1.8	0.8			0			0	0		
Naples, O. U			30.23	767.8	62.8	17.1	68	SW			2		1	NE		0	0		
Lecce			30.20	767.1	59.7	15.4	59	NW	11.9	5.3			8			0	0		
Cosenza			30.24	768.1	63.3	17.4	65	NW	1.8	0.8			1			0	0		
Riposto, (Sicily)			30.20	767.0	66.8	16.0	73	ESE			2		4	NE		0	0		
Palermo			30.18	766.6	67.1	19.5	51	NE	4.3	1.9			0			0	0		
Caltanissetta			30.23	767.8	55.8	13.2	58	WNW			6		6	SE		0	0		
Sub-Series.																			
Naples, S. R			30.24	768.1	60.8	16.0	74	NW	1.8	0.8			c	NW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.95	760.6	50.9	10.5		W			4								
Groningen			29.86	758.5	37.9	3.3		SE			3								
Helder			29.80	756.9	42.3	5.7		SSE			4								
Utrecht			29.85	758.1	48.4	9.1	99	SSW			4		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.80	756.9	30.9	— 0.6	88	S	29.5	13.2			10			0.031	0.8		
Brönö			29.25	743.0	34.5	1.4	59	WNW	45	20			10			0.402	10.2	Raining	
Christiania			29.94	760.4	21.9	— 5.6	87		0.2	0.1			0			0	0		
Tromsö			29.94	742.6	18.7	— 7.4	69	SW	2	1			5			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer corrected for instrumental errors.		Barometer reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Up'er 0—10.	Low'r 0—10.	Upper. From—	Lower. From—	Inches.	Millimeters.		
Angra, (Azores,)	.....	.....	30.00	762.1	54.7	2.6	83	W	11.4	5.11	.....	.....	3	.....	.....	0.102	2.6	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.30	769.7	65.5	18.6	56	SE	1.2	1.2	.....	.....	1	SE	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.30	769.7	62.1	16.7	66	Calm	0	0	.....	.....	10	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.37	771.5	55.8	13.2	81	SW	7.4	3.3	.....	.....	3	.....	.....	0.012	0.3	.....	The Observatory.

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	30.18	766.5	34.2	1.2	54	NW	22	10	.....	.....	1	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	30.05	763.2	29.3	— 1.5	45	WNW	11	5	.....	.....	1	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	29.82	757.4	24.8	— 4.0	62	W	11	5	.....	.....	6	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.60	751.7	17.2	— 8.2	82	WNW	18	8	.....	.....	0	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	29.37	746.0	15.3	— 9.3	100	W	13	6	.....	.....	0	.....	.....	.....	.....	.....	Ch. Forsten.
Kief	.....	.....	29.93	760.1	34.9	1.6	94	NW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet
Nikolaiev	.....	.....	29.94	760.5	45.7	7.6	79	Calm	0	0	.....	.....	8	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.00	762.0	49.8	9.9	76	S	2	1	.....	.....	6	.....	.....	.....	.....	Smoke-haze.	Lagorio.
Moscow	.....	.....	29.61	752.0	30.7	— 0.7	66	ESE	18	8	.....	.....	7	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.85	758.3	35.4	1.9	90	SSW	34	15	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	28.84	732.6	22.6	— 5.2	96	WNW	34	15	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.69	728.7	30.13	765.2	47.1	8.4	58	SSE	2	1	.....	.....	7	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.36	771.1	22.8	— 5.1	88	SE	18	8	.....	.....	10	.....	.....	.....	.....	Light snow.	Sebastianof.
Kasan	.....	.....	29.73	755.2	11.8	—11.2	91	S	22	10	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	30.55	775.9	3.0	—16.1	60	SE	9	4	.....	.....	5	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.98	736.2	30.06	763.4	15.4	— 9.2	49	SW	20	9	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.29	769.4	6.5	— 8.6	88	N	10	7	.....	.....	10	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.41	772.4	2.8	—16.2	52	N	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.37	720.6	30.15	765.7	37.9	3.3	90	SE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Micholson.
Barnaul	.....	.....	30.15	773.4	—17.1	—27.3	71	W	1	4	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	29.98	761.6	9.5	—12.5	64	ESE	2	1	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.16	766.1	31.3	— 0.4	66	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.30	769.7	13.4	—10.4	77	NW	13	6	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. m eters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, 4? m., or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.37	771.4	59.9	15.5	65	SW	0.8	0.34	.....	0	0	.....	.....	0	0	Clear	Royal Observatory.
San Fernando	.....	.....	30.34	770.7	67.6	19.8	63	S	0.0	0.0	.....	0	3	.....	S	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.28	743.8	14.7	— 9.6	81	W	.....	.....	4	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	29.48	748.9	22.3	— 5.4	96	Calm	.....	.....	0	.....	8	.....	.....	0	0	.....	
Hernosand	.....	.....	29.54	750.4	33.1	0.6	90	W	.....	.....	2	.....	1	.....	.....	0	0	.....	
Stockholm	.....	.....	29.02?	737.1?	26.6	— 3.0	42	SSW	.....	.....	4	.....	0	.....	.....	0	0	.....	
Wisby	.....	.....	30.07	763.7	29.5	— 1.4	96	WNW	.....	.....	4	.....	0	.....	.....	0.035	0.9	.....	
Sub-Series.																			
Upsala	.....	.....	29.86	758.5	27.3	— 2.6	58	WSW	16.1	7.2	.....	.....	0	.....	.....	0.017	0.42	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.86	732.9	30.27	768.8	58.1	14.5	64	N			1		6			0.303	7.7	Cloudy	The Observatory.
Zurich	28.62	727.0	30.28	769.0	49.1	9.5	89	SE			1		10		SW	1.417	36.0	Raining	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +6.9 mm.; Thermometer, +10.3 cent.; Relative Humidity, —6 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			30.00	763.4	59.7	15.4	66	WSW	7	3.0			7		SW	Blank	Blank		
Fao, (Persian Gulf)			30.29	769.3	61.2	16.2		NW			4								
Salonica			30.07	763.7	67.5	19.7		S			1								
Valona			30.07	763.6	57.7	14.3		W			2								
Varna			29.92	760.0	53.6	12.0		N			2								
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.			30.12	765.0	60.1	15.6	64	NE			1		2c			0	0	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.			30.22	767.6	23.7	— 4.6	80	Calm	0	0						0	0		Hon. J. Ferguson.
Brockville, Ontario			30.49	774.4	— 8	—22.2		Calm	0	0		2c	Sm'e	N	N	0	0	Smoky	W. R. Bigg.
*Chatham, N. B.			30.03	762.7	15	— 9.4	82	NW	12	5.4		0	0			0	0	Clear	G. A. Blair.
Charlottetown, P. E. Island.			29.89	759.2	22	— 5.6	86	NW	15	6.7			10s			0.31	7.9	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario			30.43	772.9	5.2	—14.9	95	S			1	1cs				0	0	Bright	James Smith, M. A.
Dalhousie, N. B.																			H. A. Johnson.
Esquimault, B. C.			30.22	767.6	43.8	6.6	96	E	1	0.4			10			0.26	6.6	Rainy	W. H. Bevis.
Fredericton, N. B.			30.15	765.8	12.1	—11.1	79	W	18	8.0						0	0		Prof. Harrison.
*Fort Garry, Manitoba			30.39	771.9	— 2.0	—18.9	100	NW	14	6.3		0	2s		NW	0.152	3.86	Fair	James Stewart.
Goderich, Ontario			30.12	765.0	27.7	— 2.4	61	SE			4	10k		SW		0	0	Threatening	H. J. Strang, M. A.
Granton, Ontario			30.17	766.3	23.3	— 4.8		SE			1		10n			0	0	Cloudy	James Grant.
*Halifax, N. S.			29.91	759.7	19	— 7.2	77	NW	20	8.9			5ks		NW	0.15	3.8	Fair	F. Allison, M. A.
*Kingston, Ontario			30.46	773.7	4	—15.6	77	NE	2	0.9		10cs	0			0	0	Fair	S. Woods, M. A.
Little Current, Ontario			30.10	764.5	17.8	— 7.9		E	23	10.3			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.38	771.6	14	—10.0	69	NW	4	1.8		0	2ks			0	0	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario			30.42	772.7	— 7	—21.7	88	Calm	0	0			Fog			0	0	Foggy	J. B. Haney.
*Parry Sound, Ontario			30.26	768.6	10	— 12.2	79	SE	17	7.6		2ck	5ks	E	W	0	0	Fair	Rev. R. Mooley.
*Port Dover, Ontario			30.25	768.3	24	— 4.4	87	NE	4	1.8		10k	0	W		0	0	Cloudy	H. Morgan.
Port Hastings, N. S.			29.82	757.4	25.7	— 3.5		N	12	5.4						0	0	Stormy	Peter Grant.
*Port Stanley Ontario			30.20	767.1	28	— 2.2	76	E	12	5.4			10n		S	0	0	Cloudy	M. Payne.
*Quebec, Quebec			30.33	770.4	11	—11.7	80	W	7	3.1		0	0			0	0	Clear	Capt. Ash, R. N.
St. John, N. B.			30.12	765.0	15	— 9.4	65	NW	5	2.2						0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.10	764.5	21	— 6.1	85	SE	16	7.2			10ks			0.03	0.8	Cloudy	K. Stewart.
Stayner, Ontario			30.17	766.3	20	— 6.7	91	SE	13	5.8			10n		S	0	0	Cloudy	R. J. Cole.
Stratford, Ontario			30.21	767.3	21.2	— 6.0	84	SE	10	4.5			10s			0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.			29.61	752.1	27	— 2.8	96	N	17	7.6			10n			0.11	2.8	Light snow	T. C. Hill.
*Toronto, Ontario			30.30	769.6	25	— 3.9	81	E	11	4.9			10n		SE	0	0	Cloudy	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery.

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. Fro	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	30.40	772.1	17	— 8.3	75	Calm	0	0	.....	2c	Haze	.....	.....	0	0	Fair.	
Alpena, Mich.	.....	.....	29.95	760.7	29	— 1.7	78	SE	28	12.5	.....	.....	10s	.....	SE	0	0	Cloudy.	
Atlantic City, N. J.	.....	.....	30.39	771.9	27	— 2.8	77	NE	12	5.4	.....	10c	0	.....	.....	0	0	Cloudy.	
Augusta, Ga.	.....	.....	30.20	767.1	53	11.7	64	E	1	0.4	.....	.....	10s	.....	S	0	0	Cloudy.	
Baltimore, Md.	.....	.....	30.42	772.7	33	0.6	61	E	5	2.2	.....	5cs	Sm'e	.....	.....	0	0	Fair.	
Barnegat, N. J.	.....	.....	30.39	771.9	26	— 3.3	76	N	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Benton, Montana	27.47	697.7	30.27	768.8	9	—12.8	100	E	4	1.8	.....	10c	0	.....	.....	0	0	Cloudy.	
Bismarck, Dakota	28.47	723.1	30.40	772.1	14	—25.6	45	NW	8	3.6	.....	.....	10s	.....	NW	0.02	0.5	Cloudy.	
Boston, Mass.	.....	.....	30.32	770.1	18	— 7.8	68	W	18	8.0	.....	1cs	Haze	.....	.....	0	0	Clear.	
Breckenridge, Minn	.....	.....	30.27	768.8	14	—25.6	73	NW	18	8.0	.....	0	0	.....	.....	0.01	0.3	Clear.	
Buffalo, N. Y.	.....	.....	30.24	768.1	20	— 6.7	70	E	8	3.6	.....	Haze	2s	.....	.....	0	0	Fair.	
Burlington, Vt.	.....	.....	30.43	772.9	13	—10.6	62	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair.	
Cairo, Ill.	.....	.....	30.02	762.5	47	8.3	92	S	6	2.7	.....	.....	10n	.....	S	0.31	7.9	Light rain.	
Cape Hatteras, N. C.	.....	.....	30.28	769.1	54	12.2	73	E	12	5.4	.....	2c	2s	W	SW	0	0	Fair.	
Cape Henry, Va.	.....	.....	30.38	771.6	44	— 6.7	88	E	4	1.8	.....	10c	0	W	.....	0	0	Cloudy.	
Cape May, N. J.	.....	.....	30.41	772.4	30	— 1.1	68	NE	2	0.9	.....	5cs	0	W	.....	0	0	Fair.	
Charleston, S. C.	.....	.....	30.23	767.8	58	14.4	81	NE	5	2.2	.....	5k	5s	W	W	0	0	Cloudy.	
Cheyenne, Wyoming	24.14	613.1	30.08	764.0	16	— 8.9	67	W	12	5.4	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
Chicago, Ill.	.....	.....	29.87	758.7	42	5.6	75	S	13	5.8	.....	.....	10n	.....	.....	0.01	0.3	Light rain.	
Cincinnati, Ohio	.....	.....	30.05	763.3	42	5.6	65	E	6	2.7	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.	
Cleveland, Ohio	.....	.....	30.11	764.8	33.7	0.9	76	SE	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.	
Colorado Springs, Col.	24.24	615.7	30.10	764.5	6	—14.4	52	N	8	3.6	.....	0	0	.....	.....	0.02	0.5	Clear.	
Corsicana, Tex.	.....	.....	29.88	758.9	59	15.0	94	W	7	3.1	.....	.....	10n	.....	NW	1.35	34.3	Light rain.	
Davenport, Iowa	.....	.....	29.97	761.2	29	— 1.7	83	NW	16	7.2	.....	.....	10n	.....	.....	0.02	0.5	Light snow.	
Denison, Tex.	.....	.....	29.98	761.5	48	8.9	100	NW	12	5.4	.....	.....	Fog	.....	.....	0.46	11.7	Light rain.	
Denver, Col.	24.92	633.0	30.14	765.5	12	—11.1	42	SE	3	1.3	.....	0	5s	.....	SE	0.02	0.5	Fair.	
Detroit, Mich	.....	.....	30.05	763.3	37	2.8	54	SE	7	3.1	.....	.....	10s	.....	.....	0	0	Cloudy.	
Dodge City, Kan.	27.09	703.3	30.19	766.8	16	— 8.9	83	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	29.96	761.0	8	— 2.2	88	NW	16	7.2	.....	0	10s	.....	.....	0	0	Cloudy.	
Duluth, Minn.	.....	.....	29.94	760.5	10	—12.2	79	NW	16	7.2	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.	
Eastport, Me.	.....	.....	30.16	766.1	15	— 9.4	64	NW	19	8.5	.....	0	Haze	.....	.....	0	0	Clear.	
Erie, Pa.	.....	.....	30.19	766.1	33	0.6	79	SE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Escanaba, Mich.	.....	.....	29.94	760.8	33	0.6	90	S	14	6.3	.....	.....	10n	.....	.....	0.10	2.5	Sleeting.	
Fort Gibson, Indian Terr.	.....	.....	30.04	763.0	39	3.9	90	N	19	8.5	.....	.....	10n	.....	N	Inap.	Inap.	Light rain.	
Fort Sill, Indian T.	28.84	732.5	29.99	761.7	36	2.2	61	N	24	10.7	.....	2ks	5s	N	N	0	0	Cloudy.	
Fort Sully, Dakota	28.56	725.4	30.44	773.2	2	—16.7	86	NE	2	0.9	.....	5c	2s	.....	NE	0	0	Cloudy.	
Galveston, Tex.	.....	.....	29.89	759.2	64	17.8	100	SE	4	1.8	.....	.....	Fog	.....	SE	1.75	44.5	Foggy.	
Grand Haven, Mich.	.....	.....	29.86	758.4	45	7.2	46	S	28	12.5	.....	.....	10s	.....	SW	0	0	Cloudy.	
Indianapolis, Ind.	.....	.....	30.00	762.0	45	7.2	76	SE	7	3.1	.....	.....	10n	.....	S	0.01	0.3	Light rain.	
Indianola, Tex.	.....	.....	29.88	758.9	65	18.3	100	SE	10	4.5	.....	.....	10s	.....	SW	1.08	27.4	Cloudy.	
Jacksonville, Fla.	.....	.....	30.17	766.3	66	18.9	94	E	4	1.8	.....	.....	10s	.....	S	0	0	Cloudy.	
Keokuk, Iowa	.....	.....	29.98	761.5	31	— 0.6	89	NW	16	7.2	.....	.....	10s	.....	NW	0.04	1.0	Cloudy.	
Key West, Fla.	.....	.....	30.13	765.3	76	23.9	76	SE	13	5.8	.....	1k	Haze	SE	SE	0	0	Clear.	
Kittyhawk, N. C.	.....	.....	30.38	771.6	47	8.3	85	NE	6	2.7	.....	5cs	0	NW	.....	0	0	Fair.	
Knoxville, Tenn.	.....	.....	30.14	765.5	43	6.1	83	E	2	0.9	.....	.....	10n	.....	SW	Inap.	Inap.	Light rain.	
La Crosse, Wis.	.....	.....	29.94	760.5	24	— 4.4	87	W	14	6.3	.....	.....	10s	.....	W	0.12	3.0	Cloudy.	
Leavenworth, Kan.	.....	.....	30.20	767.1	22	— 5.6	72	N	24	10.7	.....	0	5s	.....	NW	0.12	3.0	Fair.	
Lexington, Ky.	29 00	736.4	30.12	765 0	26	7.8	69	SE	4	1.8	.....	.....	10n	.....	.....	0.01	0.3	Light rain.	
Long Branch, N. J.	.....	.....	30.41	772.4	35	1.7	61	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Louisville, Ky.	.....	.....	30.07	763.8	45	7.2	76	Calm	0	0	.....	.....	10n	.....	.....	0.02	0.5	Light rain.	
Lynchburg, Va.	.....	.....	30.35	770.9	34	1.1	85	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Malone, N. Y.	.....	.....	30.40	772.1	7	—13.9	77	S	8	3.6	.....	5cs	0	NW	.....	0	0	Fair.	
Marquette, Mich.	.....	.....	29.91	759.1	34	1.1	100	S	12	5.4	.....	.....	10n	.....	S	0.05	1.3	Heavy snow	
Memphis, Tenn.	.....	.....	30.00	762.0	59	10.0	86	Calm	0	0	.....	10s	Sm'e	.....	SE	0.14	3.6	Cloudy.	
Milwaukee, Wis.	.....	.....	29.81	757.2	41	5.0	91	S	19	8.5	.....	.....	10n	.....	.....	0.49	12.4	Heavy rain.	
Mobile, Ala.	.....	.....	30.00	762.0	60	15.6	94	SE	10	4.5	.....	.....	10s	.....	S	0	0	Cloudy.	
Montgomery, Ala.	.....	.....	30.08	764.0	57	13.9	69	E	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.	
Morgantown, W. Va.	.....	.....	30.19	766.8	31	0.0	79	NW	1	0.4	.....	10c	0	.....	.....	Inap.	Inap.	Cloudy.	
Mt. Washington, N. H.	23.53	597.6	29.99	759.2	5	—16.1	73	N	60	26.8	.....	0	5s	.....	N	0	0	Fair.	
Nashville, Tenn.	.....	.....	30.06	763.5	50	10.0	86	SE	4	1.8	.....	.....	10n	.....	SE	0.01	0.3	Light rain.	
New Haven, Conn.	.....	.....	30.39	771.9	24	— 4.4	48	N	8	3.6	.....	Haze	5s	.....	N	0	0	Fair.	
New London, Conn.	.....	.....	30.38	771.6	26	— 3.9	61	NW	12	5.4	.....	2ck	0	W	.....	0	0	Fair.	
New Orleans, La.	.....	.....	29.98	761.5	67	19.4	95	S	8	3.6	.....	.....	10n	.....	.....	Inap.	Inap.	Light rain.	
Newport, R. I.	.....	.....	30.36	771.1	23	— 5.0	60	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
New York, N. Y.	.....	.....	30.41	772.4	27	— 2.8	66	NW	1	0.4	.....	0	Fog	.....	.....	0	0	Clear.	
Norfolk, Va.	.....	.....	30.38	771.6	40	4.4	73	E	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy.	
North Platte, Neb.	27.32	693.9	30.16	766.1	9	—12.8	67	Calm	0	0	.....	0	2s	.....	.....	0	0	Clear.	
Omaha, Neb.	29.16	740.6	30.35	770.9	6	—14.4	88	NW	24	10.7	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
Oswego, N. Y.	.....	.....	30.38	771.6	49	— 7.2	85	SE	7	3.1	.....	Haze	Haze	NW	.....	0	0	Cloudy, frost	
Peok's Beach, N. J.	.....	.....	30.43	772.9	26	— 3.3	88	NE	4	1.8	.....	20s	5s	.....	.....	0	0	Cloudy.	
Pembina, Dakota	.....	.....	30.36	771.1	15	—20.1	100	NW	24	10.7	.....	0	5s	.....	.....	0.25	6.3	Fair.	
Philadelphia, Penn.	.....	.....	30.44	773.2	29	— 1.7	78	E	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Pike's Peak, Colorado	17.55	445.8	29.76	755.9	— 6	—22.2	58	NE	24	10.7	.....	0	0	.....	.....	0.12	3.0	Clear.	
Pittsburgh, Penn.	.....	.....	30.20	767.1	33	0.6	69	NE	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy.	
Port Huron, Mich.	.....	.....	30.08	764.0	30	— 1.1	59	SE	10	4.5	.....	.....	10s	.....	.....	0	0	Cloudy.	
Portland, Me.	.....	.....	30.31	769.9	19	— 7.2	69	Calm	0	0	.....	0	Haze	.....	.....	0	0	Clear.	
Portland, Oregon	.....	.....	30.43	772.9	49	9.4	77	SE	8	3.6	.....	.....	10s	.....	.....	0.05	1.3	Cloudy.	
Punta Rassa, Fla.	.....	.....	30.17	766.3	67.6	19.8	94	E	6	2.7	.....	0	1s	.....	E	0	0	Clear.	
Rochester, N. Y.	.....	.....	30.32	770.1	20	— 6.7	85	SE	8	3.6	.....	5c	5s	W	.....	Inap.	Inap.	Cloudy.	
Salt Lake City, Utah	26.01	660.6	30.34	770.6	30	— 1.1	78	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Sandy Hook, N. J.	.....	.....	30.39	771.9	27.9	— 2.5	77	N	8	3.6	.....	2c	0	SW	.....	0	0	Clear.	
San Diego, Cal.	.....	.....	30.25	768.3	52	11.1	73	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
San Francisco, Cal.	.....	.....	30.25	768.3	53	11.7	73	W	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Santa Fe, N. M.	23.32	592.3	29.86	758.4	14	—10.0	46	NE	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Savannah, Ga.	.....	.....	30.20	767.1	56	13.3	87	Calm	0	0	.....	.....	10n	.....	.....	0.02	0.5	Clear.	
Shreveport, La.	.....	.....	29.98	761.5	54.5	12.6	87	SE	4	1.8	.....	.....	10s	.....	.....	0.06	1.5	Light rain.	
Smithville, N. C.	.....	.....	30.20	767.4	56	13.3	81	N	9	4.0	.....	.....	10ks	.....	SE	0.51	13.0	Cloudy.	
Springfield, Mass.	.....	.....	30.38	771.6	23	— 5.0	65	NW	4	1.8	.....	8cs	0	W	SW	0	0	Cloudy.	
St. Louis, Mo.	.....	.....	29.96	761.0	49	9.4	78	S	4	1.8	.....	.....	10n	.....	W	0	0	Fair.	
St. Marks, Fla.	.....	.....	30.13	765.3	62	16.7	88	E	4	1.8	.....	5c	2s	.....	.....	0.13	3.3	Light rain.	
St. Paul, Minn.	.....	.....	30.00	763.5	8	—13.3	66	W	15	6.7	.....	0	2s	SW	.....	0	0	Fair.	
St. Paul's Island, Alaska	.....	.....	30.41	772.4	8	—13.3	77	NNE	19	8.5	.....	0	1k	.....	NW	0.02	0.5	Fair.	
Squan Beach, N. J.	.....	.....	30.33	770.4	24	— 4.4	74	NW	4	1.8	.....	2cs	0	.....	.....	Inap.	Inap.	.....	
Thatcher's Island, Mass.	.....	.....	30.33	770.4	21	— 6.1	57	NW	20	8.9	.....	0	0	.....	.....	0	0	Clear.	
Toledo, Ohio	.....	.....	30.03	762.7	38	3.3	54	SE	1	0.4	.....	.....	10s	.....	S	0	0	Clear.	
Tucson, Arizona	27.76	705.1	30.35	770.9	37	2.8	.....	SW	.....	.....	.....	0	0	.....	.....	0	0	Cloudy.	
Tybee Island, Ga.	.....	.....	30.21	767.3	56	13.3	87	SW	12	5.4	....	.....	10n	.....	S	0	0	Clear.	
Vicksburg, Miss.	.....	.....	30.00	762.0	52.5	11.4	90	SE	4	1.8	....	10k	Sm'e	SW	.....	0.01	0.3	Light rain.	
																0.69	17.5	Cloudy.	

UNITED STATES SERIES.—CONTINUED

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Inches.	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.41	620.0	29.89	759.2	26	— 3.3	64	Calm	0	0	.....	10ck	0	W	.....	0	0	Cloudy	
Washington, D. C.	.....	.....	30.41	772.4	32.5	0.3	69	E	2	0.9	.....	2cs	8s	.....	W	0	0	Cloudy	
Wilmington, N. C	.....	.....	30.29	769.4	54	12.2	79	E	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Wood's Holl, Mass.	.....	.....	30.34	770.6	23	— 5.0	60	NW	18	8.0	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va	27.85	707.4	30.07	763.8	40	4.4	64	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Yankton, Dakota	29.05	737.9	30.53	775.4	— 1	—18.3	68	NW	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.40	772.1	54	12.2	.....	NW	.....	.....	.....	0	0	.....	.....	0	0	Clear	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.08	764.0	79	26.1	82	NE	4	1.8	.....	2c	5s	W	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.08	764.0	73	22.8	81	NE	.....	.....	.....	0	0	.....	.....	0	0	Clear	L. V. Bigard.
St. Thomas, St. T., W. I.	.....	.....	30.33	770.4	76	24.4	63	E	7	3.1	.....	2c	2k	E	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I.	.....	.....	30.26	768.6	73	22.8	72	Calm	0	0	.....	2c	2s	.....	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I.	.....	.....	29.91	759.7	72	22.2	67	NNW	6.0	2.7	.....	0	0	.....	.....	0	0	Clear	Robert Mason.
Havana, Cuba, W. I.	.....	.....	30.18	766.6	72	22.2	76	SE	7.2	3.2	.....	0	0	.....	.....	0	0	Clear	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.25	768.3	61.5	16.4	72	N	26.0	11.6	.....	0	5k	.....	.....	0	0	.....	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	27.25	692.1	30.06	763.5	63	17.2	83	E	1.5	0.7	.....	2c	0	E	.....	0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.04	763.0	81	27.2	78	NE	.....	.....	4	.....	7ks	.....	.....	0.070	1.78	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.13	765.2	78.8	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.177	4.50	.....	Dr. H. Groot.
Medellin, Colombia, S. A.	25.20	640.1	.....	.....	67.5	19.7	78	.....	0	0	.....	0	2s	.....	.....	0	0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.79	756.8	25.0	— 3.9	.....	E	.....	.....	.....	.....	10n	.....	.....	0	0	Cloudy	John Delaney.
York Factory, B. A.	.....	.....	29.98	761.5	—15	—26.1	72	E	1	0.4	.....	.....	10s	.....	.....	Blank	Blank	.....	J. Fortescue.
Honolulu, Oahu, H. I.	.....	.....	30.01	762.2	73	22.8	95	NE	.....	.....	3	.....	.....	.....	.....	0	0	Unsettled	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—
}	.....	.....	.....	.....
}	.....	.....	.....	.....
}	.....	.....	.....	.....
.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.3 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the CHIEF SIGNAL OFFICER OF THE ARMY, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 22, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean tim
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahren.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.37	771.4	58.5	14.7	76	Calm	.....	.....	0	.....	7	.....	.....	0	0	Cloudy	Charnot and Masselot.
Algiers	.....	.....	30.30	769.6	65.8	18.8	83	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.26	768.7	68.7	20.4	45	N	.....	.....	2	.....	0	.....	.....	0	0	Clear	Jacques.
Sfax	.....	.....	30.32	770.2	69.1	20.6	54	S	.....	.....	2	.....	1	.....	.....	0	0	Clear	Chauvey.
Saida	.....	.....	30.34	770.6	73.4	23.0	18	SSE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	30.32	770.1	77.2	25.1	.....	SW	.....	.....	2	.....	0	.....	.....	0	0	Clear	Colin.
Cherlville	.....	.....	30.35	771.0	66.6	19.2	25	SSW	.....	.....	1	.....	1	.....	.....	0	0	Clear	Ruard.
Laghouat	.....	.....	30.36	771.1	68.0	20.0	40	E	.....	.....	3	.....	0	.....	.....	0	0	Clear	Delord.
Biskra	.....	.....	30.37	771.5	72.1	22.3	6	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear	Dubois.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fal is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahren.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	30.17	766.3	50.5	10.3	61	SW	.....	.....	2	.....	4	.....	.....	0	0	.....	Prof. Ivan Stozir.
Buda-Peath	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	29.99	761.7	44.2	6.8	77	W	.....	.....	1	.....	10	.....	.....	0.014	0.34	.....	I. R. Observatory.
Speries	.....	.....	30.14	765.6	35.1	1.7	80	SE	.....	.....	2	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	28.93	734.8	30.17	766.2	42.8	6.0	70	SW	.....	.....	2	.....	5	.....	.....	0	0	.....	Andreas Rospini.
Germannstadt	28.78	730.9	30.25	768.3	43.0	6.1	57	ESE	.....	.....	1	.....	10	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.73	729.8	30.07	763.6	57.2	14.0	63	NW	.....	.....	4	.....	1	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	.....	.....	30.00	761.9	33.4	0.8	94	S	.....	.....	4	.....	10	.....	.....	0.047	1.2	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	30.23	767.8	34.0	1.6	93	S	.....	.....	1	.....	10	.....	.....	0.089	2.26	Graupelnd	Habzsuda Daniel.
Pola	.....	.....	30.28	769.1	46.0	8.3	99	Calm	.....	.....	0	.....	10s	.....	.....	0.013	0.32	.....	I.R. Hydrographic Of'ce
Szegedin	.....	.....	30.21	767.3	46.2	7.9	75	S	.....	.....	3	.....	7	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.27	768.9	46.4	8.0	100	Calm	.....	.....	0	.....	10	.....	.....	0	0	Cloudy	Prof. V. Faroffi.
Vienna	.....	.....	30.10	764.6	44.8	7.1	84	SSE	.....	.....	1	.....	0	.....	.....	0.131	3.4	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmünster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahren.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	29.97	761.2	53.6	12.0	72	WSW	.....	.....	2	.....	10	.....	.....	0.020	0.50	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.38	746.2	48.4	9.1		SW	19	8.5			4			0.030	0.76	Blue sky	William Boswell.
Ardrossan			29.50	749.3	47	8.3		SW			4		6					Showery	J. Mayes.
Armagh Observatory			29.52	749.8	50.3	10.2		SSW	24	10.7			5					Squally	S. Cab. for Dr. Robinson
Bidston, Liverpool Obs.			29.64	752.8	52.2	11.2		WSW	35	15.6			3					Blue sky	John Hartnup.
Birr Castle, (Parsonstown)			29.58	751.3	51.4	10.8		SW			2–3		8					*D. clouds	J. Dreyer.
Bradford			29.60	751.8	51.1	10.6		SW			4		3			0.16	4.1	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)			30.08	764.0	79.0	26.1		NE			4		6					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.79	756.7	56.2	13.4		SW			4		1					*D. clouds	H. Todd.
Cardington			29.79	756.7	53.4	11.9		SW			6		7						John McLaren.
Carlisle			29.58	751.3	51	10.6		W			5		2			0.52	13.2	*D. clouds	J. Bell, for J. Cartmell.
Chatham, School M. E.			29.90	759.4	54.2	12.3		SW			2		6					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.43	722.1	29.94	760.5	46.2	7.9		W			7		10					Overcast	R. E. Power.
Donaghadee			29.53	750.0	51	10.6		SW			4		8					*D. clouds	J. Mac Gowan.
Dover			29.91	759.7	49	9.4		SW			4		6					½ clouded	J. Costello.
Eccles, (near Manchester)			29.67	753.6	54.5	12.5		SW	10.2	4.6			6					*D. clouds	Thomas Mackereth.
Falmouth Observatory			29.90	759.4	53.4	11.9		SW	36	16.1			9					Squally	The Staff.
Fort Napier, (Natal)	27.70	703.6	29.93	760.2	64.7	18.2		SE			2		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.96	761.0	86.0	30.0		N			1		6						
Galway, Queen's College			29.44	747.8	50	10.0		SW			4		1					Blue sky	R. G. Clare, for Prof. Cur.
Gibraltar, (Mediterranean)			30.33	770.4	63.6	17.6		E			1		0					Blue sky	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.44	747.8	48.0	8.9		WSW			4		4					Fine	Lewis Stuart.
Great Yarmouth			29.79	756.7	53	11.7		W			4		3					Blue sky	G. T. Watson.
Greenwich Royal Obs.			29.87	758.7	54.8	12.7		SW			5		7			Blank	Blank	*D. clouds	The Staff for G. B. Airy
Guernsey			29.99	761.7	52.5	11.4		SW			5		5					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.66	753.4	51.5	10.8		WSW			3		5			Blank	Blank	*D. clouds	L. J. Crossley.
Helston			29.88	758.9	56	13.3		S			6		3			0.4	10.2	*D. clouds	M. P. Moyle.
Holyhead			29.63	752.6	50	10.0		SW			5		5			Blank	Blank	*D. clouds	John Tilston.
Kew Observatory			29.86	758.4	52.7	11.5		SW	22	9.8			9					Overcast	The Staff.
Kingstown			29.63	752.6	52	11.1		SSW			4		7					*D. clouds	George Mitchell
Leicester Museum			29.77	756.1	51.2	10.7		Calm			0		7					*D. clouds	William J. Harrison.
Malta, (Mediterranean)			30.30	769.6	62.0	16.7		NE			2		2k						Fred Travis, Pvt A.H.C
Nairn			29.30	744.2	45	7.2		WSW			1		5					½ clouded	W. D. Penny.
Nassau, (Bahamas)			30.19	766.8	75.4	24.1		E			4		5					*D. clouds	Surg.-Maj. Henry.
Nottingham			29.74	755.4	52.0	11.1		SW			3		7c,k		SW	0.020	0.51	*D. clouds	E. J. Lowe, F. R. S.
Oscott, St Mary's College			29.73	755.1	54.0	12.2		SW			6		9					Raining	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.80	756.9	54	12.2		SW			5		7					*D. clouds	J. Lucas.
Plymouth			29.90	759.4	52.2	11.2		SW			5		10					Overcast	John Merrifield.
Roche's Point			29.68	753.9	49	9.4		WSW			6		5					Cloudy	W. Kennedy.
Saint Ann's Head			29.75	755.6	49	9.4		SW			5		5					*D. clouds	John C. Walker.
Saint Helier, (Jersey)			30.02	762.5	50.8	10.4		SW			6		10					Overcast	A. P. Amy.
Sandwick Manse (Orkneys)			29.19	741.4	44.7	7.1		WSW	21	9.4			5					*D. clouds	Rev. Dr. Clouston
Scarborough			29.62	752.3	51.6	10.9		WSW			4		4					*D. clouds	F. Shaw.
Scutari Cemetery (Turkey			30.36	771.1	44.6	7.0		NNE			3		6					*D. clouds	Sergt. W. H. Lyne.
Sheffield			29.66	753.4	53.4	11.9		W			6		4			0.040	1.02	Blue sky	W. F. Cooper.
Silloth Rectory			29.54	750.3	52.3	11.3	78	WSW			5		2			0.070	1.78	*D. clouds	Rev. Francis Redford.
Stonyhurst Observatory			29.64	752.8	48.9	9.4		W			4		9			Blank	Blank		The Staff.
Stornoway, Lews C. (Hebr.)			29.23	742.4	48	8.9		SW			2		5					*D. clouds	John Smith.
Strathfield Turgiss			29.88	758.9	53.4	11.9		SW			2		4					Squally	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.23	742.4	48	8.9		WSW			3		7					Showery	John Proctor.
Truro, Royal Institution			29.90	759.4	54	12.2		SW			6		8					Gloomy	W. Newcombe
Valencia Observatory			29.61	752.1	47.5	8.6		SW	33	14.8			8					*D. clouds	The Staff
Sub-Series.																			
Cape Good Hope Obs.			30.03	762.7	74.0	23.3	49	SSE	27	12.1			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					47	8.3		SW			4		5			0	0		
Leith, Restalrig Park			29.47	748.5	51.2	10.7		W			5		3k			0.04	1.0	Fine	Andrew Gib
Monach Lt-house, Hebrides			29.25	742.9	46	7.8		SW			4		10			0.2	5.1		J. Youngclause.
North Unst, (Shetland Is)			29.09	738.9	44	6.7		W			7	8	5	NW					

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. * Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.41	747.0	39.9	4.4	93	W			4		10					Raining	
Faröe			29.60	751.8	40.6	4.8	94	W			6		10						
Godthaab, (Greenland)			30.12	765.1	14.2	— 9.9	77	N			2		10						
Stykkisholm, (Iceland)			29.58	751.2	22.8	— 5.1	93	NE			8		5						
Thorshavn, (Faröe)			29.23	742.5	34.7	1.5	72	N			4		10						
Vestervig			29.45	747.9	37.0	2.8	96	SW			4		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols: no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.10	764.6	51.8	11	74	SW	.....	.....	1	.....	8ck	.....	SW	0	0	Very cloudy	Normal School.
Amiens	.....	.....	30.05	763.2	59.0	15.0	78	WSW	.....	.....	3	.....	2	.....	SW	0.181	4.6	Slightly cl'dy	Normal School.
Avignon	.....	.....	30.27	768.8	63.0	17.2	55	NW	.....	.....	1	.....	0	.....	.....	0	0	Very clear...	Normal School.
Bar-sur-Seine	.....	.....	30.21	767.2	54.0	12.2	93	SW	.....	.....	1	.....	10	.....	.....	0	0	Light rain...	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.13	765.3	53.6	12.0	97	SW	16.1	7.2	.....	.....	10	.....	SW	0.130	3.3	Raining.....	Beaumette Observatory
Beauvais	.....	.....	30.07	763.8	58.6	14.8	60	WSW	.....	.....	4	.....	8	.....	WSW	0.010	0.25	Very cloudy	Normal School.
Besançon	.....	.....	30.24	768.0	57.6	14.2	70	SSW	.....	.....	3	.....	5	.....	WSW	0.083	2.1	Cloudy.....	Normal School.
Bourg en Bresse	.....	.....	30.28	769.1	58.1	14.5	72	SSW	.....	.....	1	5c	.....	E	.....	.....	.....	Cloudy.....	Normal School.
Bourges	.....	.....	30.44	773.1	54.9	12.7	90	WNW	.....	.....	6	.....	10	.....	W	0	0	Covered	Normal School.
Brest	.....	.....	29.99	761.8	53.4	11.9	85	SW	.....	.....	4	.....	10	.....	SW	0.030	0.75	Misty.....	Naval Observatory.
Caen	.....	.....	30.03	762.7	55.8	13.2	73	SW	.....	.....	2	.....	10	.....	NE	0	0	Covered	Normal School
Chartres	.....	.....	30.08	764.1	53.8	12.1	.....	ESE	.....	.....	2	.....	5	.....	SE	0	0	.....	Normal School.
Châumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.11	764.8	63.9	17.7	49	N	.....	.....	2	.....	5	.....	.....	0	0	Cloudy.....	Puy de Dome, Obs.
Commercy	.....	.....	30.20	767.0	50.4	10.2	95	W	.....	.....	2	.....	10n	.....	W	0.087	2.2	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.30	769.7	66.4	19.1	39	NW	.....	.....	2	.....	2	.....	NW	0	0	.....	.....
Grenoble	.....	.....	30.26	768.6	58.1	14.5	94	NNE	.....	.....	1	2c	.....	S	.....	0	0	Slightly cl'dy	Normal School.
Le Mans	.....	.....	30.15	765.8	54.9	12.7	81	S-W	.....	.....	4	.....	8	.....	SW	0.020	0.5	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.27	768.9	58.1	14.5	74	W	.....	.....	1	.....	8	.....	W	0	0	Very cloudy	Normal School.
Mâcon	.....	.....	30.27	768.8	55.8	13.2	89	Calm	.....	.....	0	.....	5	.....	NE	0	0	Cloudy.....	Normal School.
Mirecourt	.....	.....	30.11	764.7	53.2	11.8	.....	WSW	.....	.....	4	.....	10	.....	NE	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.28	769.1	64.8	18.2	51	NE	.....	.....	2	.....	2	.....	NE	0	0	Slightly cl'dy	Normal School.
Orléans	.....	.....	30.17	766.3	55.4	13	86	WSW	.....	.....	3	.....	8	.....	W	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	30.10	764.5	58.1	14.5	67	SW	.....	.....	3	.....	5	.....	WSW	0	0	Cloudy.....	National Observatory
Parthenay	.....	.....	30.21	767.4	52.7	11.5	90	W	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30.28	769.1	59.5	15.3	.....	SW	.....	.....	1	.....	8	.....	.....	0	0	Very cloudy	Normal School.
La Roche-sur-Yon	.....	.....	30.21	767.2	51.8	11	100	S	.....	.....	4	.....	10	.....	.....	0.031	0.8	Covered.....	Normal School.
Rochefort, Observatory	.....	.....	30.24	768.2	56.1	13.4	73	SSW	.....	.....	3	.....	10	.....	NE	0.276	7.0	Covered	Naval Observatory.
Rouen	.....	.....	30.08	764.1	59.4	15.2	66	SSE	.....	.....	4	.....	5	.....	W	0.102	2.6	Cloudy.....	Normal School.
Saint Lo	.....	.....	30.01	762.2	56.3	13.5	80	W	.....	.....	2	.....	6	.....	E	0.020	0.5	.....	Normal School.
Tarbes	29.14	740.2	30.19	766.9	59.0	15	35	S	.....	.....	1	.....	0	.....	.....	0	0	Clear.....	Normal School.
Toulouse	.....	.....	30.39	771.8	59.0	15.0	61	SE	.....	.....	1	.....	0	.....	.....	.....	.....	Clear.....	Normal School.
Villefranche	.....	.....	30.32	770.1	60.6	15.9	80	SE	.....	.....	2	.....	5	.....	SW	0	0	Cloudy.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	30.01	762.2	75.9	24.4	83	NE	.....	.....	2	.....	8k,n	.....	.....	0.04	1.	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.24	768.9	57.7	14.3	85	WNW	.....	.....	1	.....	8	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	25.09	637.2	30.46	773.6	53.8	12.1	15	SW	13.0	5.83	.....	.....	6	.....	SW	0	0	.....	—. Faiguère.
Montsouris, Paris	.....	.....	30.10	764.4	58.8	14.9	92	WSW	.....	.....	4	.....	9	.....	WSW	Inap.	Inap.	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.28	769.0	57.6	14.2	78	SE	5.6	2.50	.....	.....	4	.....	NW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.46	545.0	.....	.....	38.3	3.5	.....	W	.....	.....	7	.....	5	.....	.....	.....	.....	Fair.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.10	764.6	59.0	15.0	68	WSW	.....	.....	3	.....	4	.....	.....	0	0	Very cloudy	E. Renou.
Toulouse	.....	.....	30.26	768.6	61.5	16.4	51	SE	.....	.....	1	.....	3	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	30.18	766.5	54.1	12.3	87	SW	.....	.....	3	.....	10	.....	W	0	0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.09	764.3	57.9	14.4	67	S-W	.....	.....	2	.....	8	.....	.....	0	0	Pretty fine....	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Ier mont 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
* Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.97	761.2	50.5	10.3	91	WSW	.....	.....	4	.....	10	.....	.....	0.157	4.0	Raining.....	Prof. T. Hoh.
Berlin	.....	.....	29.81	757.2	53.4	11.9	81	NW	.....	.....	4	.....	8	.....	.....	0.228	5.8	.....	Prof. Arndt.
Breslau	.....	.....	29.90	759.5	51.8	11.0	76	SW	.....	.....	7	.....	8	W	.....	0.043	1.1	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.10	764.6	52.0	11.1	97	SW	.....	.....	5	.....	10	.....	.....	0.181	4.6	Raining.....	A. Senz.
Cassel	.....	.....	29.86	758.5	58.1	14.5	55	WSW	.....	.....	5	.....	5	.....	.....	0.071	1.8	.....	Dr. H. Möhn.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.09	764.2	55.6	13.1	94	SW	.....	.....	3	.....	5	.....	.....	0.016	0.4	.....	Physical Society.
Friedrichshafen	.....	.....	30.19	766.9	50.9	10.5	70	W	.....	.....	.....	.....	2	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	29.76	756.0	48.6	9.2	76	W	.....	.....	8	.....	8	W	.....	0.260	6.6	Stormy.....	Deutsche Seewarte.
Kiel	.....	.....	29.70	754.4	46.1	7.8	82	WSW	.....	.....	7	.....	10	.....	.....	0.299	7.6	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.46	748.2	43.3	6.3	80	SW	.....	.....	9	.....	5	.....	.....	0.157	4.0	.....	Prof. F. Luther.
Köslin	.....	.....	29.53	750.0	45.5	7.5	.....	SW	.....	.....	7	.....	10	.....	.....	0.311	7.9	.....	H. Müller.
Leipsic	.....	.....	29.91	759.7	53.2	11.8	76	W	.....	.....	4	.....	7	.....	.....	0.083	2.1	Rainy.....	Prof. Bruhns.
Münster	.....	.....	29.91	759.6	54.1	12.3	69	SW	.....	.....	4	.....	4	.....	.....	0.035	0.9	Raining.....	Prof. E. Heis.
Posen	.....	.....	29.78	756.5	52.3	11.3	79	W	.....	.....	7	.....	10	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.16	766.0	53.6	12.0	83	SW	.....	.....	2	.....	10	.....	.....	0.213	5.4	Raining.....	Dr. Schur.
Stuttgart	.....	.....	30.12	765.1	50.5	13.6	65	W	.....	.....	.....	.....	10	.....	.....	0.021	0.6	Raining	Prof. Schoder.
Thorn	.....	.....	29.65	753.2	46.0	8.1	91	WSW	.....	.....	6	.....	8	.....	.....	0	0	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	30.02	762.5	53.8	12.1	84	W	.....	.....	6	.....	10	.....	.....	0.067	1.7	.....	Prof. Fiesch.
Wustrow, Naval School	.....	.....	29.64	752.9	40.6	4.8	80	WSW	.....	.....	5	.....	8	.....	.....	0	0	.....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.30	769.5	53.4	11.9	.....	NE	.....	.....	Strong	.....	.....	.....	.....	.....	.....	Half clear ...	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.25	768.3	46.9	8.3	87	S			2		10			0	0		
Padua			30.26	768.6	45.3	7.4	97	WSW	3.8	1.7			10			0	0		
Vicenza			30.24	768.2	48.4	9.1	91	SW			1		5			0	0		
Verona																			
Bergamo			30.21	767.3	48.9	9.4	83	SW			2		4			0	0		
Domodossola																			
Milan			30.28	769.2	48.2	9.0	62	NW			1		10			0	0		
Pavia																			
Moncalieri			30.29	769.4	39.0	3.9	79	NNW	0	0			10			0	0		
Mondovi			30.26	768.5	42.4	5.8	70	N			2		4	NW		0	0		
Porto Maurizio			30.33	770.4	59.9	15.5		S			2		9			0	0		
Genoa			30.27	768.9	53.1	11.7	94	SE	2.5	1.1			10	SE		0.063	1.6		
Piacenza			30.29	769.3	46.4	8.0	89	N	0.7	0.3			10			0	0	Foggy	
Bologna			30.29	769.3	42.8	6.0	57	SW			1		10			0	0		
Florence			30.31	769.8	59.5	15.3	62	NW			1		3			0	0		
Leghorn			30.31	769.8	56.3	13.5	78	SW	3.1	1.4			6			0	0		
Siena			30.28	769.0	59.2	15.1	75	WSW	0	0			3	SW		0	0		
Urbino																			
Pesaro																			
Ancona			30.29	769.3	46.0	7.8	89	NW			4		10			0	0		
Grosseto			30.31	769.9	57.2	14.0	85	SSW			4		3	S		0	0		
Rome			30.33	770.4	59.9	15.5	81	SW	5.6	2.5			3	SW		0	0		
Naples, O. U.			30.34	770.5	61.3	16.3	74	SW			4		10			0	0	Foggy	
Lecce			30.32	770.2	59.9	15.5	46	NNE	8.7	3.9			1			0	0		
Cosenza			30.32	770.1	63.1	17.3	61	S	0	0			0			0	0		
Riposto, (Sicily)			30.32	770.0	61.2	16.2	85	NE			2		0			0	0		
Palermo			30.30	769.7	58.5	14.7	77	NE	4.9	2.2			10			0	0		
Caltanissetta			30.28	769.2	59.2	15.1	56	SW			1		0			0	0		
Sub-Series.																			
Naples, S. R.			30.34	770.6	59.9	15.5	86	NE	3.1	1.4			8	NE		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the cooperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.98	761.4	49.3	9.6		W			5								
Groningen			29.76	756.0	48.2	9.0		WSW			6								
Helder			29.82	757.3	45.3	7.4		SSW			4								
Utrecht			29.87	758.7	52.2	11.2	90	SW			6		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.17	740.9	39.2	4.0	93	S	15.2	6.8			10			0.925	23.5	Raining	
Brönö			28.94	735.1	33.4	0.8	85	S	20	9			10			0	0		
Christiania			29.22	742.3	28.2	— 2.1	90	S	3.8	1.7			10			0.055	1.4		
Tromsö			28.99	736.3	19.8	— 6.8	60	N	2	1			8			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. per cent.	Wind: Direction. From—	Wind: Velocity. Miles per hour.	Wind: Velocity. Meters per second.	Wind: Force. —to.	Clouds: Amount. Upper. —to.	Clouds: Amount. Lower. —to.	Clouds: Direction. Upper. From—	Clouds: Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.28	769.2	58.6	14.8	89	SSW	4.1	1.84	.....	.....	3	.....	.....	0.016	0.4	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.32	770.1	65.3	18.5	64	W	2.4	1.08	.....	.....	3	SW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.34	770.6	63 9	17.7	70	E	0.6	0.28	.....	.....	0	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.40	772.2	58.3	14.6	70	SSE	4.9	2.2	.....	.....	8	SW	.....	0	0	.....	The Observatory.
.....	.....	.....	..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.75	755.6	4 1.3	4.6	97	SW	29	13	.....	.....	10	.....	.....	.....	.....	Raining.....	Astronomical Obs
Wilna	.....	.....	29.57	751.0	30.0	— 1.1	94	S	18	8	.....	.....	10	.....	.....	.....	.....	Snowing.....	Astronomical Obs
Dorpat	.....	.....	29.50	749.3	27.1	— 2.7	77	SSE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.54	750.2	27.9	— 2.3	69	SSW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	29.35	745.4	16.7	— 8.5	100	S	9	4	.....	.....	0	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	30.17	766.3	9.8	— 1.2	76	SSW	13	6	.....	.....	7	.....	.....	.....	.....	Solar corona	Physical Cabinet
Nikolaiev	.....	.....	30.43	772.9	30.0	— 1.1	61	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.27	768.9	36.3	2.4	66	NNE	18	8	.....	.....	0	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.89	759.3	22.6	— 5.2	80	S	13	6	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.10	764.4	25.3	— 3.7	69	WNW	18	8	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.24	742.8	10.0	—12.2	96	WNW	34	15	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.50	723.8	29.92	760.0	52.2	11.2	51	N	13	6	.....	.....	8	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.02	762.6	33.1	0.6	85	S	13	6	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	29.76	756.0	19.0	— 7.2	78	W	2	1	.....	.....	1	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	30.19	766.8	11.3	—11.5	57	SE	9	4	.....	.....	6	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.84	732.6	29.90	759.4	23.4	— 4.8	58	S	13	6	.....	.....	9	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.10	764.4	29.8	— 1.2	73	ENE	4	2	.....	.....	0	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.11	764.9	9.7	—12.4	62	E	11	5	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.43	722.2	30.22	767 6	34.5	1.4	83	Calm	0	0	.....	.....	10	.....	.....	Blank	Blank	.....	Michelson.
Barnaul	.....	.....	30.39	771.9	0.9	—17.3	73	SSW	13	6	.....	.....	10	.....	.....	.....	.....	Snowing.....	Meteorological Obs
Yeniselsk	.....	.....	30.35	771.0	— 0.4	—18.0	77	W	2	1	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzof.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	29.99	761.7	36.3	2.4	55	Calm	0	0	.....	.....	3	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.16	766.1	28.0	— 2.2	79	SE	2	1	.....	.....	10	.....	.....	Blank	Blank	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 401. meters, or 1,411.8 feet; Ekaterinburg, 306.42 m., or 1,005.22 ft.; Tashkend, 494.27, or 1,621.37 ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.07 m., or 1,942.22 ft.; Oorga, 1,281.0 m., or 4,202.67 ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.29	769.3	66.0	18.9	50	E	4.5	2.00	.....	1	0	SW	.....	0	0	Light clouds	Royal Observatory.
San Fernando	.....	.....	30.35	770.9	65.1	18.4	65	W	5.8	2.6	.....	2	1	E	E	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.22	742.1	14.0	—10.0	94	E	.....	.....	2	.....	10	.....	.....	.....	0	0	.....	.....
Umea	.....	.....	29.15	740.5	24.8	— 4.0	91	SW	.....	.....	4	.....	10	.....	.....	.....	0	0	.....	.....
Hernosand	.....	.....	29.11	739.5	30.6	— 0.8	96	SSW	.....	.....	2	.....	5	.....	.....	.....	0	0	.....	.....
Stockholm	.....	.....	29.03	737.3	31.5	— 0.3	96	SE	.....	.....	2	.....	10	.....	.....	.....	0.004	0.1	.....	.....
Wisby	.....	.....	29.10	739.1	37.8	3.2	93	SSW	.....	.....	7	.....	10	.....	.....	.....	0.173	4.4	.....	.....
Sub-Series.																				
Upsala	.....	.....	29.10	739.0	32.0	0.0	88	ENE	6.3	2.8	.....	.....	10	.....	.....	.....	0.512	3.85	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.80	731.4	30.20	767.0	62.6	17.0	48	SSW	.....	.....	2	.....	8	.....	.....	0	0	Vapor	The Observatory.
Zurich	28.55	725.1	30.17	766.4	57.0	13.9	72	SW	.....	.....	2	.....	3	.....	.....	0.433	11.0	Clear	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.5 mm.; Thermometer, +12.4 cent.; Relative Humidity, —21 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.39	771.8	40.6	4.8	48	N	15	6.5	.....	.....	7	.....	NNE	Blank	Blank	.....	
Fao, (Persian Gulf)	.....	.....	30.16	766.0	62.6	17.0	.....	NW	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.37	771.3	67.8	19.9	.....	NW	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	30.17	766.2	60.4	15.8	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	30.39	772.0	42.8	6.0	.....	Calm	.....	.....	0	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.89	759.1	63.3	17.4	62	NW	.....	.....	1	.....	5c	.....	.....	0	0	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	29.83	757.7	11.6	—11.3	90	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.02	762.5	19	— 7.2	.....	W	6	2.7	.....	0	28	.....	NW	0.22	5.6	Fair	W. R. Bigg.
*Chatham, N. B	.....	.....	29.95	760.7	7	—13.9	91	Calm	0	0	.....	.....	10ks	.....	.....	0	0	Cloudy	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	30.00	762.0	20	— 6.7	94	SE	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	29.86	758.4	20.1	— 6.6	71	W	.....	.....	3	.....	1s	.....	.....	0.40	10.2	Bright	James Smith, M. A.
Dalhousie, N. B	.....	.....	29.86	758.4	20.8	— 6.2	85	E	.....	.....	2	10cs	.....	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C	.....	.....	30.19	766.8	43.3	6.3	100	N	2	0.9	.....	.....	10	.....	.....	0	0	Cloudy	W. H. Bevis.
Fredericton, N. B	.....	.....	29.90	759.4	14.4	— 9.8	95	Calm	0	0	.....	.....	10s	.....	.....	0.335	8.51	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.58	776.7	—28	—33.3	100	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	James Stewart.
Goderich, Ontario	.....	.....	30.07	763.8	22.8	— 5.1	92	NW	.....	.....	5	.....	10n	.....	.....	Inap.	Inap.	Threatening	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.07	763.8	20.3	— 6.5	.....	W	.....	.....	1	2cs	.....	SE	.....	0.24	6.1	Clear	James Grant.
*Halifax, N. S	.....	.....	30.08	764.0	19	— 7.2	91	SE	6	2.7	.....	.....	10n	.....	.....	0	0	Threatening	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.02	762.5	20	— 6.7	87	W	1	0.4	.....	.....	10ks	.....	SW	0.07	1.8	Cloudy	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.95	760.7	5.6	—14.7	.....	SW	30	13.4	.....	.....	9s	.....	.....	0.60	15.2	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	29.80	756.9	20	— 6.7	78	W	31	13.9	.....	5ks	5ks	.....	.....	Inap.	Inap.	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	29.85	758.2	15	— 9.4	86	W	28	12.5	.....	2k	0	W	.....	0.20	5.1	Clear	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.99	761.7	12	—11.1	85	W	13	5.8	.....	2ck	2ks	W	W	0.18	4.6	Fair	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.10	764.5	22	— 5.6	72	SW	10	4.5	.....	0	0	.....	.....	0.15	3.8	Clear	H. Morgan.
Port Hastings, N. S	.....	.....	30.02	762.5	23.4	— 4.8	.....	N	2	0.9	.....	.....	.....	.....	.....	0	0	Fine	Peter Grant.
*Port Stanley Ontario	.....	.....	30.12	765.0	24	— 4.4	79	NW	20	8.9	.....	2k	0	W	.....	0.12	3.0	Clear	M. Payne.
*Quebec, Quebec	.....	.....	29.50	749.3	29	— 1.7	93	SW	18	8.0	.....	.....	10n	.....	SW	0.10	2.5	Heavy snow	Capt. Ash, R. N.
St. John, N. B	.....	.....	30.00	762.0	26	— 3.3	75	SE	15	6.7	.....	.....	10n	.....	.....	0.170	4.32	.....	G. Murdoch, C. E.
*Sangeen, Ontario	.....	.....	29.98	761.5	23	— 5.0	73	W	11	4.9	.....	.....	10n	.....	W	0.26	6.6	Light snow	K. Stewart.
Stayner, Ontario	.....	.....	29.95	760.7	20	— 6.7	84	NW	5	2.2	.....	.....	10n	.....	NW	0.18	4.6	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	30.06	763.5	20.9	— 6.2	84	W	14	6.3	.....	10k	.....	W	.....	0.367	9.32	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	30.04	763.0	15	— 9.4	100	NW	1	0.4	.....	.....	Fog	.....	.....	0.13	3.3	Foggy	T. C. Hill.
*Toronto, Ontario	.....	.....	30.06	763.5	22	— 5.6	86	SW	11	4.9	.....	5ck	5s	W	.....	0.17	4.3	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours. Inches	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	29.96	761.0	27	— 2.8	77	W	14	6.3	.....	2k	0	NW	.....	0.10	2.5	Clear	
Alpena, Mich	.....	.....	29.95	760.7	15	— 9.4	82	W	12	5.4	.....	.....	10s	.....	W	0.14	3.6	Cloudy	
Atlantic City, N. J	.....	.....	29.87	758.7	38	3.3	81	NW	20	8.9	.....	10cs	0	SW	.....	0.44	11.2	Cloudy	
Augusta, Ga.	.....	.....	30.07	763.8	49	9.4	93	Calm	0	.....	.....	.....	10n	.....	E	0.30	7.6	Light rain	
Baltimore, Md.	.....	.....	30.05	763.3	37	2.8	48	NW	8	3.6	.....	5k	2s	W	.....	0.55	14.0	Clearing	
Barnegat, N. J.	.....	.....	29.86	758.4	37	2.8	90	NW	22	9.8	.....	5ck	5s	NW	NW	0.74	18.8	Cloudy	
Benton, Montana	27.55	699.8	30.35	770.9	0	—17.8	100	E	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Bismarck, Dakota	28.71	729.2	30.04	778.2	—10	—23.3	54	NW	12	5.4	.....	8k	0	NW	.....	0.34	8.6	Clearing	
Boston, Mass.	.....	.....	29.82	757.4	20	— 1.7	100	SE	8	3.6	.....	.....	10n	.....	.....	0.08	2.0	Heavy snow	
Breckenridge, Minn	.....	.....	30.47	773.9	— 8	—22.2	79	N	12	5.4	.....	.....	10s	.....	N	0.01	0.3	Cloudy	
Buffalo, N. Y.	.....	.....	30.06	763.5	23	— 5.0	46	W	16	7.2	.....	1c	2ks	W	W	0.17	4.3	Fair	
Burlington, Vt.	.....	.....	29.90	759.4	25	— 3.9	62	W	8	3.6	.....	5k	2s	N	.....	0.04	1.0	Cloudy	
Cairo, Ill.	.....	.....	30.42	772.7	31	— 0.6	68	Calm	0	0	.....	0	0	.....	.....	0.11	2.8	Clear	
Cape Hatteras, N. C.	.....	.....	29.89	759.2	52	11.1	93	W	16	7.2	.....	.....	10n	.....	W	1.38	35.1	Light mist	
Cape Henry, Va.	.....	.....	29.97	761.2	45	7.2	80	N	28	12.5	.....	5c	5s	W	.....	1.20	30.5	Cloudy	
Cape May, N. J.	.....	.....	29.93	760.2	37	2.8	71	N	32	14.3	.....	.....	10s	.....	W	0.49	12.4	Cloudy	
Charleston, S. C.	.....	.....	30.07	763.8	57	13.9	87	NW	6	2.7	.....	.....	10n	.....	NW	0.46	11.7	Light rain	
Cheyenne, Wyoming	24.19	614.4	30.13	765.3	31	— 0.6	48	W	28	12.5	.....	0	0	.....	.....	0	0	Clear	
Chicago, Ill.	.....	.....	30.09	764.3	28	— 2.2	65	SW	9	4.0	.....	2k	5s	W	.....	0.21	5.3	Fair	
Cincinnati, Ohio	.....	.....	30.26	768.6	30	— 1.1	63	NW	6	2.7	.....	0	0	.....	.....	0.04	1.0	Clear	
Cleveland, Ohio	.....	.....	30.18	766.9	23.8	— 4.6	78	S	10	4.5	.....	2k	0	W	.....	0.02	0.5	Clear	
Colorado Springs, Col.	24.30	617.2	30.17	766.3	21	— 6.1	43	N	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Corsicana, Tex.	.....	.....	30.35	770.9	38	3.3	80	N	12	5.4	.....	.....	10n	.....	.....	0.15	3.8	Light rain	
Davenport, Iowa	.....	.....	30.07	763.8	32	0.0	60	SW	16	7.2	.....	6k	0	NW	.....	Inap.	Inap.	Fair	
Denison, Tex.	.....	.....	30.40	772.1	33	0.6	69	NW	8	3.6	.....	2c	5s	N	.....	0.30	7.6	Fair	
Denver, Col.	25.01	635.2	30.29	769.4	23	— 5.0	47	S	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Detroit, Mich	.....	.....	30.12	765.0	25	— 3.3	75	W	9	4.0	.....	8k	0	NW	.....	0.07	1.8	Fair	
Dodge City, Kan.	27.09	703.3	30.16	766.1	22	— 5.6	72	S	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Dubuque, Iowa	.....	.....	30.05	763.3	21	— 1.7	78	SW	2	0.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Duluth, Minn.	.....	.....	30.33	770.4	— 6	—21.1	61	NW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Eastport, Me.	.....	.....	29.87	758.7	31	— 0.6	100	S	16	7.2	.....	.....	10s	.....	S	0	0	Threatening	
Erie, Pa.	.....	.....	30.10	764.5	26	— 3.3	83	W	19	8.5	.....	0	5ks	.....	W	0.17	4.3	Fair	
Escanaba, Mich	.....	.....	30.11	764.8	4	—15.6	74	NW	20	8.9	.....	.....	10s	.....	.....	0.16	4.1	Cloudy	
Fort Gibson, Indian Terr.	.....	.....	30.43	772.9	27	— 2.8	66	N	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Fort Sill, Indian T.	29.17	740.9	30.38	771.6	25	— 3.9	60	N	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Fort Sully, Dakota	28.56	725.4	30.43	772.9	5	—15.0	62	NE	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Galveston, Tex.	.....	.....	30.23	767.8	55	12.8	93	N	12	5.4	.....	.....	10s	.....	N	1.00	25.4	Cloudy	
Grand Haven, Mich.	.....	.....	30.06	763.5	29	— 1.7	83	W	24	10.7	.....	.....	10s	.....	W	0.35	8.9	Cloudy	
Indianapolis, Ind.	.....	.....	30.27	768.8	29	— 1.7	78	SW	2	0.9	.....	0	0	.....	.....	0.07	1.8	Clear	
Indianola, Tex.	.....	.....	30.34	770.6	45	7.2	84	NW	22	9.8	.....	.....	10s	.....	NW	0.02	0.5	Cloudy	
Jacksonville, Fla.	.....	.....	30.06	763.5	68	20.0	90	S	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Keokuk, Iowa	.....	.....	30.20	767.1	31	— 0.6	65	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Key West, Fla.	.....	.....	30.10	764.5	74.3	23.5	76	S	8	3.6	.....	1c	2s	S	SE	0	0	Fair	
Kittyhawk, N. C.	.....	.....	29.95	760.7	40	0.4	78	NW	25	11.2	.....	.....	10ks	.....	NW	0.97	24.6	Cloudy	
Knoxville, Tenn	.....	.....	30.27	768.8	36	1.7	52	N	16	7.2	.....	9cs	0	SW	.....	0.63	16.0	Cloudy	
La Crosse, Wis.	.....	.....	30.18	766.0	15	— 9.4	82	NW	6	2.7	.....	.....	10s	.....	NW	0	0	Cloudy	
Leavenworth, Kan	.....	.....	30.29	769.4	30	— 1.1	68	S	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Lexington, Ky.	29.19	741.4	30.37	771.1	27	— 2.8	77	NW	4	1.8	.....	0	0	.....	.....	0.10	2.5	Clear	
Long Branch, N. J.	.....	.....	29.89	759.2	41	5.0	82	NW	16	7.2	.....	0	8ks	.....	NW	0.75	19.1	Cloudy	
Louisville, Ky.	.....	.....	30.33	770.4	33	0.6	75	Calm	0	0	.....	0	0	.....	.....	0.07	1.8	Clear	
Lynchburg, Va.	.....	.....	30.04	763.0	41	5.0	88	W	8	3.6	.....	.....	10s	.....	W	0.62	15.7	Cloudy	
Malone, N. Y.	.....	.....	29.86	758.4	22	— 5.6	72	SW	16	7.2	.....	2k	0	NW	.....	0.15	3.8	Fair	
Marquette, Mich.	.....	.....	30.14	765.5	— 1	—17.2	84	W	12	5.4	.....	.....	10s	.....	W	0.03	0.8	Cloudy	
Memphis, Tenn.	.....	.....	30.40	772.1	34	1.1	61	NW	.....	.....	.....	0	0	.....	.....	0.33	8.4	Clear	
Milwaukee, Wis.	.....	.....	30.07	763.8	24	— 4.4	74	SW	6	2.7	.....	.....	10ks	.....	SW	0.17	4.3	Cloudy	
Mobile, Ala.	.....	.....	30.14	765.5	56	13.3	93	N	9	4.0	.....	.....	10s	.....	N	1.71	43.4	Cloudy	
Montgomery, Ala.	.....	.....	30.19	766.8	53	11.7	86	N	8	3.6	.....	.....	10s	.....	N	1.19	30.2	Cloudy	
Morgantown, W. Va.	.....	.....	30.24	768.1	32	0.0	60	SW	14	6.3	.....	0	0	.....	.....	0.24	6.1	Clear	
Mt. Washington, N. H.	23.21	589.5	29.57	751.1	15	— 9.4	100	NW	48	21.5	.....	.....	Fog	.....	.....	0	0	Foggy	
Nashville, Tenn.	.....	.....	30.34	770.6	33	0.6	69	NW	2	0.9	.....	0	0	.....	.....	0.23	5.8	Clear	
New Haven, Conn.	.....	.....	29.84	757.9	36	1.7	90	N	4	1.8	.....	.....	10n	.....	.....	0.60	15.2	Light rain	
New London, Conn.	.....	.....	29.83	757.7	35.5	1.9	85	N	3	1.3	.....	.....	10s	.....	.....	0.57	14.5	Cloudy	
New Orleans, La.	.....	.....	30.12	765.1	59	15.0	91	NE	12	5.4	.....	.....	10n	.....	NE	1.62	41.1	Light rain	
Newport, R. I.	.....	.....	29.84	757.9	34	1.1	89	N	4	1.8	.....	.....	10n	.....	N	0.51	13.0	Heavy snow	
New York, N. Y.	.....	.....	29.91	759.4	36	2.2	80	NW	12	5.4	.....	0	5ks	.....	W	0.53	13.5	Fair	
Norfolk, Va.	.....	.....	29.98	761.5	45	7.2	76	N	16	7.2	.....	.....	10s	.....	N	1.58	40.1	Cloudy	
North Platte, Neb.	27.26	692.4	29.98	761.5	26	— 3.3	75	SW	4	1.8	.....	2c	0	.....	.....	0	0	Clear	
Omaha, Neb.	29.00	736.6	30.11	764.8	24	— 4.4	61	SW	19	8.5	.....	2cs	0	W	.....	0	0	Clear	
Oswego, N. Y.	.....	.....	30.01	762.2	26.5	— 3.1	67	NW	20	8.9	.....	.....	10ks	.....	W	Inap.	Inap.	Cloudy	
Peck's Beach, N. J.	.....	.....	29.90	759.4	38	3.3	81	NW	24	10.7	.....	8c	2s	W	.....	0.78	19.8	Cloudy	
Pembina, Dakota	.....	.....	30.60	777.2	—20	—28.9	100	NW	16	7.2	.....	2c	0	.....	.....	0	0	Clear	
Philadelphia, Penn.	.....	.....	29.95	760.7	36	2.2	62	NW	35	15.6	.....	5k	1s	W	NW	0.64	16.3	Clearing	
Pike's Peak, Colorado	17.80	452.1	30.01	762.2	3	—16.1	46	N	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Pittsburgh, Penn.	.....	.....	30.21	767.3	26	— 3.3	64	NW	6	2.7	.....	2k	0	NW	.....	0.06	1.5	Fair	
Port Huron, Mich.	.....	.....	30.11	764.8	22	— 5.6	72	SW	11	4.9	.....	.....	10s	.....	SW	0.16	4.1	Cloudy	
Portland, Me.	.....	.....	29.84	757.9	32	0.0	90	S	10	4.5	.....	.....	10n	.....	.....	0.24	6.1	Heavy snow	
Portland, Oregon	.....	.....	30.32	770.1	45	7.2	92	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Punta Rassa, Fla.	.....	.....	30.12	765.0	66.3	19.1	94	E	4	1.8	.....	Haze	1s	.....	SW	0	0	Hazy	
Rochester, N. Y.	.....	.....	30.01	762.2	24	— 4.4	87	W	20	8.9	.....	.....	10s	.....	W	0.08	2.0	Cloudy	
Salt Lake City, Utah	26.04	661.4	30.37	771.4	29	— 1.7	78	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Sandy Hook, N. J.	.....	.....	29.88	758.9	38	3.3	80	NW	30	13.4	.....	0	5ks	.....	NW	0.69	17.5	Fair	
San Diego, Cal.	.....	.....	30.31	769.9	54	12.2	53	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear	
San Francisco, Cal.	.....	.....	30.30	769.6	53	11.7	80	N	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Santa Fe, N. M.	23.47	596.1	30.01	762.2	20	— 6.7	55	N	12	5.4	.....	0	0	.....	.....	0	0	Clear	
Savannah, Ga.	.....	.....	30.08	764.0	61	16.1	88	N	4	1.8	.....	.....	10n	.....	.....	0.22	5.6	Light rain	
Shreveport, La.	.....	.....	30.38	771.6	39	3.9	68	N	8	3.6	.....	10k	0	S	.....	1.16	29.5	Cloudy	
Smithville, N. C.	.....	.....	30.06	763.5	55	12.8	87	W	6	2.7	.....	.....	10n	.....	NW	0.74	18.8	Light rain	
Springfield, Mass.	.....	.....	29.89	759.2	34	1.1	69	NW	8	3.6	.....	5k	0	N	.....	0.53	13.5	Fair	
St. Louis, Mo.	.....	.....	30.33	770.4	3	— 0.6	68	W	8	3.6	.....	0	0	.....	.....	0.01	0.3	Clear	
St. Marks, Fla.	.....	.....	30.10	764.5	61	16.1	94	N	6	2.7	.....	5cs	5s	W	.....	0.02	0.5	Cloudy	
St. Paul, Minn.	.....	.....	30.28	769.1	1	—17.2	84	NW	12	5.4	.....	.....	10s	.....	NW	0.08	2.0	Cloudy	
St. Paul's Island, Alaska	.....	.....	30.52	775.2	15	— 9.4	82	E	14	6.3	.....	1c	1k	.....	.....	0	0	.....	
Squan Beach, N. J.	.....	.....	29.85	758.2	36	2.2	80	NW	12	5.4	.....	5c	2ks	NW	NW	0.86	21.8	Fair	
Thatcher's Island, Mass.	.....	.....	29.83	757.2	33	0.6	89	S	27	12.1	.....	.....	.....	.....	.....	0.25	6.3	Snowing	
Toledo, Ohio	.....	.....	30.13	765.3	28	— 2.2	77	SW	11	4.9	.....	5ck	0	SW	.....	0.06	1.5	Fair	
Tucson, Arizona	27.99	708.6	30.49	774.4	39	3.9	.....	SE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Tybee Island, Ga.	.....	.....	30.08	764.0	58	14.4	93	NW	4	1.8	.....	.....	10n	.....	.....	0.04	1.0	Light rain	
Vicksburg, Miss.	.....	.....	30.30	769.6	43	6.1	51	NE	5	2.2	.....	2ck	2s	Sw	.....	2.18	55.4	Fair	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10	Clouds. Amount. Up'er 0–10	Clouds. Amount. Low'r 0–10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.47	621.5	29.95	760.7	39	3.9	47	S	16	7.2	.....	2k	0	.....	.....	Inap.	Inap.	Fair	
Washington, D. C	.....	.....	30.05	763.3	36	2.2	52	NW	10	4.5	.....	.....	8s	.....	NW	0.58	14.7	Clearing	
Wilmington, N. C	.....	.....	30.04	763.0	52	11.1	86	NW	12	5.4	.....	.....	10n	.....	NW	0.80	20.3	Light rain	
Wood's Holl, Mass	.....	.....	29.83	757.7	34	1.1	79	NW	3	1.3	.....	.....	10n	.....	.....	0.30	7.6	Light snow	
Wytheville, Va	27.70	703.6	29.93	760.2	32	0.0	50	NW	10	4.5	.....	.....	10s	.....	.....	0.63	16.0	Cloudy	
Yankton, Dakota	28.90	734.0	30.30	769.6	16	— 8.9	66	NW	11	4.9	.....	0	5s	.....	NW	0	0	Fair	
Yuma, Arizona	.....	.....	30.41	772.4	48	8.9	.....	NE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.12	765.0	77	25.0	90	E	5	2.2	.....	2c	5ks	W	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.10	764.5	74	23.3	81	NE	.....	.....	.....	8c	0	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I.	.....	.....	30.33	770.4	76	24.4	59	ESE	2	0.9	.....	2c	2k	E	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I.	.....	.....	30.27	768.8	74	23.3	76	Calm	0	0	.....	2c	2s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I.	.....	.....	29.85	758.2	73	22.8	76	Calm	0	0	.....	0	2k	.....	W	0	0	Fair	Robert Mason.
Havana, Cuba, W. I.	.....	.....	30.13	765.3	73	22.8	55	SE	2.4	1.1	.....	2c	0	.....	.....	Inap.	Inap.	Fair	Charles Hasselbrink.
St. Georges, Bermudas	.....	.....	30.13	765.3	61.5	16.4	64	S	7.6	3.4	.....	.....	10s	.....	NW	0	0	Threatening	C. F. Allen.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	27.25	692.1	30.06	763.5	64	17.8	83	E	1.0	0.4	.....	2c	2k	E	.....	0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A.	.....	.....	30.04	763.0	82	27.8	83	E	.....	.....	3	.....	5k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A.	.....	.....	30.13	765.4	78.8	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A.	25.20	640.1	.....	.....	68.0	20.0	80	.....	0	0	.....	Haze	3s	.....	.....	0	0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	30.00	762.0	31.0	— 0.6	.....	NE	.....	.....	.....	.....	10n	.....	.....	0	0	Cloudy	John Delaney.
York Factory, B. A.	.....	.....	30.09	764.3	—33	—36.1	.....	NW	30	13.4	.....	.....	10n	.....	.....	0.09	2.3	.....	J. Fortescue.
Honolulu, Oahu, H. I.	.....	.....	30.05	763.3	73	22.8	100	NE	.....	.....	5	.....	.....	.....	.....	0.89	22.6	Gloomy	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 *p. m. on the same day.* The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.4 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the CHIEF SIGNAL OFFICER OF THE ARMY, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 23, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean tim .
2:39 P. M. CONSTANTINOPLE mean time.
4:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Genie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. [illegible]	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	.....	30.35	771.0	61.9	16.6	64	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear	Charnot and Masselot.
Algiers	.....	.....	.....	30.31	769.8	60.8	16.0	87	ENE	.....	.....	1	.....	2	.....	.....	0	0	Clear	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	.....	30.23	767.9	73.0	22.8	47	WSW	.....	.....	2	.....	0	.....	.....	0	0	Clear	Jacques.
Sfax	.....	.....	.....	30.24	768.0	64.8	18.2	66	S	.....	.....	4	.....	1	.....	.....	0	0	Clear	Chauvey.
Gafsa	.....	.....	.....	30.32	770.1	69.8	21.0	27	N	.....	.....	2	.....	0	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	.....	30.26	768.6	76.5	24.7	.....	S	.....	.....	4	.....	0	.....	.....	0	0	Clear	Colin.
Geriville	.....	.....	.....	30.31	769.8	66.2	19.0	25	NW	.....	.....	2	.....	1	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	.....	30.30	769.6	69.8	21.0	41	W	.....	.....	2	.....	0	.....	.....	0	0	Clear	Delord.
Biskra	.....	.....	.....	30.33	770.3	75.4	24.1	28	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear	Dubois.
[illegible]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
[illegible]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	29.87	758.8	50.9	10.5	32	SW	.....	.....	4	.....	10	.....	.....	0.492	12.5	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Observatory.
Eperies	.....	.....	29.84	757.9	51.1	10.6	70	W	.....	.....	1	.....	5	.....	.....	0.006	0.14	.....	Julius Mikolik.
Gratz	.....	.....	29.87	758.7	35.2	1.8	100	S	.....	.....	2	.....	10	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.61	726.7	29.82	757.3	49.3	9.6	65	S	.....	.....	2	.....	8	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.48	723.3	29.91	759.6	49.3	9.6	62	SE	.....	.....	1	.....	5	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	28.50	724.0	29.87	758.6	44.2	6.8	91	W	.....	.....	2	.....	10	.....	.....	0.472	12.0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	29.75	755.6	41.0	5.0	78	SW	.....	.....	1	.....	6	.....	.....	0.071	1.8	.....	Habzsuda Daniel.
Pola	.....	.....	29.91	759.7	38.5	3.6	93	SW	.....	.....	1	.....	7	.....	.....	0.035	0.90	.....	I.R. Hydrographic Office
Szegedin	.....	.....	29.98	761.6	49.1	9.5	98	SE	.....	.....	1	.....	10s	.....	.....	0.032	0.81	.....	Karl Stancel.
Trieste	.....	.....	29.89	759.1	49.5	9.7	80	S	.....	.....	2	.....	10	.....	.....	0	0	.....	Prof. V. Farolfi.
Vienna	.....	.....	29.97	761.3	45.5	7.5	100	W	.....	.....	1	.....	10	.....	.....	2.417	61.4	Raining	I. R. Central Institute.
[illegible]	.....	.....	29.84	758.0	41.0	5.0	97	ESE	.....	.....	1	.....	10	.....	.....	0.449	11.4	.....	.....
[illegible]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
[illegible]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	29.71	754.6	50.0	10.0	76	W	.....	.....	6	.....	10	.....	.....	0.039	1.00	.....	Royal Observatory.
[illegible]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
[illegible]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
[illegible]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
[illegible]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.40	746.7	40.7	4.8		NNW	18	8.0			7			0.010	0.25	*D. clouds	William Boswell.
Ardrossan			29.61	752.1	45	7.2		WNW			4		7					*D. clouds	J. Mayes.
Armagh Observatory			29.78	756.4	42.1	5.6		W	21	9.4			9					Gloomy	S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.			29.62	752.3	44.3	6.8		W	44	19.7			8					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			29.91	759.7	46.4	8.0		WNW			4–5		3					*D. clouds	J. Dreyer.
Bradford			29.51	749.5	45.6	7.6		NW			4		9			0.32	8.1	Drizzling	J. McLandsborough.
Bridgetown, (Barbados)			30.03	762.7	79.6	26.4		NE			2		4					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.63	752.6	48.0	8.9		SW			3		10					Overcast	H. Todd.
Cardington			29.67	753.6	48.0	8.9		W			5		9					Overcast	John McLaren.
Carlisle			29.55	750.6	46.3	7.9		W			3		10			0.07	1.8	Threatening	J. Bell, for J. Cartmell.
Chatham, School M. E.			29.69	754.1	50.2	10.1		SW			3		5					*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.52	724.4	30.04	763.0	41.7	5.4		NW			7		5					*D. clouds	R. E. Power.
Donaghadee			29.66	753.4	45	7.2		NW			5		3					*D. clouds	J. Mac Gowan.
Dover			29.71	754.6	49	9.4		W			5		6					½ clouded	J. Costello.
Eccles, (near Manchester)			29.59	751.6	46.7	8.2		WNW	6.4	2.9			10					Squally	Thomas Mackereth.
Falmouth Observatory			30.04	763.0	48.0	8.9		W	40	17.9			4					Squally	The Staff.
Fort Napier, (Natal)	27.76	705.1	29.99	761.7	64.7	18.2		E			1		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.96	761.0	86.0	30.0		N			0		5						[tis.
Galway, Queen's College			29.77	756.1	49	9.4		S			5		10					Gloomy	B. G. Clare, for Prof. Cur.
Gibraltar, (Mediterranean)			30.28	769.1	66.6	19.2		W			5		1					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.56	750.8	44.2	6.8		W			1		3					Fine	Lewis Stuart.
Great Yarmouth			29.57	751.1	48	8.9		W			5		5					*D. clouds	G. T. Watson.
Greenwich Royal Obs.			29.72	754.9	48.3	9.1		W			6		10					Overcast	The Staff for G. B. Airy
Guernsey			29.98	761.5	50	10.0		WNW			6		5					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.58	751.3	45.1	7.3		WNW			4		10			Blank	Blank	Threatening	L. J. Crossley.
Helston			30.02	762.5	53	11.7		W			7		4			0.03	7.6	*D. clouds	M. P. Moyle.
Holyhead			29.75	755.6	45	7.2		WNW			6		5					*D. clouds	John Tilston.
Kew Observatory			29.72	754.9	48.8	9.3		W	26	11.6			10					*D. clouds	The Staff.
Kingstown			29.80	756.9	43	6.1		WNW			6		9					Overcast	George Mitchell.
Leicester Museum			29.64	752.8	47.2	8.4		W			4		10					Threatening	William J. Harrison.
Malta, (Mediterranean)			30.26	768.6	62.6	17.0		NW			2		4k						Fred Travis, Pvt A.H.C
Nairn			29.41	747.0	40	4.4		NNW			2								W. D. Penny.
Nassau, (Bahamas)			30.04	763.0	73.4	23.0		SW			4		5					*D. clouds	Surg.-Maj. Henry.
Nottingham			29.56	750.8	46.1	7.8		WNW			4		7k,d		NW	0.015	0.38	*D. clouds	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			29.62	752.3	47.0	8.3		W			6		9					Threatening	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.70	754.4	48	8.9		W			6		10					Overcast	J. Lucas.
Plymouth			29.97	761.2	51.6	10.9		NW			5		3					*D. clouds	John Merrifield.
Roche's Point			29.97	761.2	46	7.8		WNW			6		2					Fine	W. Kennedy.
Saint Ann's Head			29.89	759.2	45	7.2		WNW			6		6					Squally	John C. Walker.
Saint Helier, (Jersey)			30.01	762.2	51.0	10.6		W			6		5					½ clouded	A. P. Amy.
Sandwick Manse (Orkneys)			29.53	750.0	37.6	3.1		N	19	8.5			2					*D. clouds	Rev. Dr. Clouston
Scarborough			29.45	748.0	48.0	8.9		WNW			4		8					Overcast	F. Shaw.
Scutari Cemetery (Turkey			30.12	765.0	45.4	7.4		S			1		2					*D. clouds	Sergt. W. H. Lyne.
Sheffield			29.53	750.0	48.8	9.3		NW			6		7			0.168	4.26	Overcast	W. F. Cooper.
Silloth Rectory			29.55	750.6	46.5	8.1	88	NW			3		8			0.010	0.25	*D. clouds	Rev. Francis Redford.
Stonyhurst Observatory			29.46	748.3	43.8	6.6		W			6		8			Blank	Blank		The Staff.
Stornoway, Lews C. (Hebr)			29.57	751.1	40	4.4		NW			1		5					*D. clouds	John Smith.
Stratfield Turgiss			29.85	758.2	47.0	8.3		W			2–3		9					Squally	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.51	749.5	40	4.4		NNE			4		6					*D. clouds	John Trotter.
Truro, Royal Institution			30.06	763.5	53	4.7		NW			8		6					*D. clouds	W. Newcombe.
Valencia Observatory			30.07	763.8	4.75	8.6		W	20	8.9			7					*D. clouds	The Staff
Sub-Series.																			
Cape Good Hope Obs.			29.94	760.5	90.5	32.5	30	SE	8	3.6			0						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					46	7.8		W			6		2			0	0		
Leith, Restalrig Park			29.57	751.1	45.2	7.3		NW			2		6k			0.07	1.8	Fine, cloudy	Andrew Gib
Monach Lt-house, Hebrides			29.52	749.8	45	7.2		NW			6		0			0.4	10.2		J. Youngclause.
North Unst, (Shetland Is)			29.42	747.3	38	3.3		NNW			6	1	2	NW					

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.39	746.5	40.6	4.8	97	WSW			2		10					Foggy	
Fanöe			29.39	746.4	31.1	3.4	97	SW			4		10					Raining	
Godthaab, (Greenland)			30.29	762.5	10.4	—12.0	63	ESE			2		0						
Stykkisholm, (Iceland)			30.90	759.5	19.2	— 7.1	93	NE			2		0						
Thorshavn, (Faröe)			29.53	750.0	34.9	1.6	63	Calm			0		7					Snowing	
Vestervig			29.29	743.9	36.0	2.2	100	SSW			2		10					Foggy	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.02	762.6	51.8	11	70	NW	.....	.....	4	.....	8nk	.....	NW	0.083	2.1	Very cloudy	Normal School.
Amiens	.....	.....	29.92	759.9	51.8	11.0	90	NW	.....	.....	6	.....	0	.....	.....	0.031	0.8	Clear	Normal School.
Avignon	.....	.....	30.13	765.2	55.0	12.8	76	N	.....	.....	1	5	2n	W	N	0.031	0.8	Clearing	Normal School.
Bar-sur-Seine	.....	.....	29.96	760.9	52.0	11.1	76	SW	.....	.....	3	.....	8	.....	W	0.110	2.8	Very cloudy	C. Saillard.
Beaumette, (near Angers)	.....	.....	30.11	764.8	51.4	10.8	58	W	43.4	19.4	.....	.....	.....	.....	W	0.008	0.2	.....	Beaumette Observatory
Beauvais	.....	.....	29.90	759.4	50.0	10.0	62	WNW	.....	.....	6	.....	8	.....	WNW	0.028	0.70	Very cloudy	Normal School.
Besançon	.....	.....	30.07	763.8	47.8	8.8	82	S	.....	.....	3	.....	5	.....	W	1.028	26.1	Cloudy	Normal School.
Bourg en Bresse	.....	.....	30.27	768.8	49.1	9.5	73	W	.....	.....	2	5c	.....	E	.....	.....	.....	Cloudy	Normal School.
Bourges	.....	.....	30.42	772.6	48.2	9	92	W	.....	.....	6	.....	10	.....	W	0.181	4.6	Covered	Normal School.
Brest	.....	.....	30.12	765.0	53.8	12.1	65	W	.....	.....	5	.....	5n	.....	WNW	0.020	0.50	.. ..	Naval Observatory.
Caen	.....	.....	29.94	760.5	52.3	11.3	97	W	.....	.....	2	.....	10	.....	NE	0.071	1.8	Covered	Normal School
Chartres	.....	.....	29.91	759.8	49.6	9.8	.....	SSW	.....	.....	2	.....	9	.....	SSW	0.004	0.1	.....	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.07	763.7	51.1	10.6	50	W	.....	.....	5	.....	5	.....	W	0.028	0.7	Cloudy	Puy de Dome, Obs.
Commercy	.....	.....	29.95	760.6	48.9	9.4	84	W	.....	.....	6	.....	8ck	.....	W	0.169	4.3	Very cloudy	Normal School.
Commune de Gréasque*	.....	.....	30.11	764.8	49.6	9.8	86	NW	.....	.....	4	.....	8	.....	NW	0	0	.....	
Grenoble	.....	.....	30. 2	767.5	44.2	6.8	93	NNW	.....	.....	2	.....	10	.....	S	0	0	Raining	Normal School.
Le Mans	.....	.....	30.08	764.0	49.1	9.7	86	NW	.....	.....	4	.....	2	.....	NW	0.04	1.	Slightly cl'dy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.10	764.5	49.3	9.6	79	SSW	.....	.....	1	.....	8	.....	SSW	0.51	13.	Very cloudy	Normal School.
Mâcon	.....	.....	30.10	764.5	50.5	10.3	82	W	.....	.....	4	.....	5	.....	NE	0.12	3.	Cloudy	Normal School.
Mirecourt	.....	.....	30.01	762.3	49.1	9.7	.....	W	.....	.....	4	.....	10	.....	ESE	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.16	766.1	53.8	12.1	84	W	.....	.....	4	.....	5	.....	NE	0	0	Cloudy	Normal School.
Orleans	.....	.....	30.02	762.6	51.1	10.6	77	W	.....	.....	3	.....	5	.....	W	0	0	Cloudy	Normal School.
Paris Observatory	.....	.....	29.94	760.4	51.6	10.9	66	W	.....	.....	3	.....	8	.....	W	0	0	Very cloudy	National Observatory
Parthenay	.....	.....	30.19	766.8	51.4	10.8	77	W	.....	.....	6	.....	5	.....	W	0.04	1.	Cloudy	Normal School.
Privas	.....	.....	30.15	765.9	51.3	10.7	.....	W	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	30.22	767.6	52.9	11.6	78	SW	.....	.....	6	.....	5	.....	E	0	0	Cl udy	Normal School.
Rochefort, Observatory	.....	.....	30.28	769.2	57.7	14.3	60	W	.....	.....	4	.....	2	.....	E	0	0	¼ covered	Naval Observatory.
Rouen	.....	.....	30.00	761.9	53.4	11.9	56	SW	.....	.....	4	.....	5	.....	W	0	0	Cloudy	Normal School.
Saint Lo	.....	.....	29.97	761.3	52.2	11.2	75	W	.....	.....	1	.....	3	.....	E	0.020	0.5	.....	Normal School.
Tarbes	29.26	743.1	30.29	769.3	53.1	12	79	W	.....	.....	8	.....	8	.....	SE	0.307	7.8	Very cloudy	Normal School.
Toulouse	.....	.....	30.45	773.3	55.0	12.8	55	W	.....	.....	4	.....	10	.....	.....	.....	.....	Covered	Normal School.
Villefranche	.....	.....	30.18	766.6	50.7	10.4	93	NW	.....	.....	6	.....	10	.....	.....	0.16	4.	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.92	760.0	72.	22.4	91	Calm	.....	.....	0	.....	8k,n	.....	.....	0	0	.....	L'Abbé Marchesi.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.11	764.9	55.	13.	70	NW	.....	.....	4	.....	7	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.99	633.9	30.41	772.3	35.6	2.	68	N	5.4	2.50	.....	.....	5	.....	W	0	0	.....	—. Faiguère.
Montsouris, Paris	.....	.....	29.94	760.	50.	10.	90	W	.....	.....	5	.....	9	.....	NW	0.016	0.4	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.20	767.1	55.	13.3	50	NW	28.0	12.50	.....	.....	1	.....	NW	Inap.	Inap.	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.31	541.2	.....	.....	14.	— 9.	.....	.....	.....	.....	7	.....	10	.....	.....	(†)	(†)	Snowy	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.94	760.4	51.4	10.8	60	W	.....	.....	3	.....	9	.....	.....	0	0	Cloudy	. Benou.
Toulouse	.....	.....	30.32	770.1	51.8	11.0	56	W	.....	.....	4	.....	7	.....	.....	0.189	4.8	.....	Toulouse Observatory
Tours	.....	.....	30.08	764.0	54.0	12.	56	NW	.....	.....	5	.....	5	.....	NW	0.098	2.5	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.94	760.4	51.8	11.0	68	W	...	.....	3	.....	8	.....	.....	0	0	Pretty fine	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,36 m., or 7,762.5 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles. †Snow, 90 millimeters, or 3.51 inches.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Blumberg	.....	.....	29.73	755.1	48.6	9.2	81	WSW	.....	.....	3	.....	10	.....	.....	0.012	0.3	Raining	Prof. T. Hoh.
Berlin	.....	.....	29.61	752.8	50.5	10.3	72	NW	.....	.....	3	.....	8	.....	.....	0.059	1.5	.....	Prof. Arndt.
Breslau	.....	.....	29.75	755.7	50.9	10.5	72	SW	.....	.....	5	.....	10	.....	.....	0.028	0.7	Raining	Dr. P. Nenge auer
Carlsruhe	.....	.....	29.87	758.6	50.7	1 .4	64	SW	.....	.....	8	.....	10	.....	.....	0.059	1.5	Raining	A. Senz.
Cassel	.....	.....	29.63	752.5	51.4	10.8	56	SW	.....	.....	7	.....	6	.....	.....	0.091	2.3	.....	Dr. H. Möm.
Cologn	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Linden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.87	758.8	48.2	9.0	78	SW	.....	.....	2	.....	5	.....	.....	0.067	1.7	Raining	Physical Society
Friedrichshafen	.....	.....	30.00	762.1	43.3	6.3	73	W	.....	.....	.....	.....	10	.....	.....	0.213	5.4	.....	M. Wilhelm.
Hamburg	.....	.....	29.56	750.7	45.3	7.4	82	WSW	.....	.....	6	.....	8	WSW	.....	0.059	1.5	Squally	Deutsche Seewarte.
Kiel	.....	.....	29.52	749.9	44.6	7.0	87	WSW	.....	.....	3	.....	10	.....	.....	0.098	2.5	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.51	749.5	37.0	2.8	100	W	.....	.....	2	.....	10	.....	.....	0.358	9.1	.....	Prof. F. Luther.
Kostin	.....	.....	29.52	749.7	46.2	7.9	.....	SW	.....	.....	4	.....	8	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	29.73	755.1	46.9	8.3	82	WSW	.....	.....	4	.....	9	.....	.....	0.012	0.3	Rainy	Prof. Bruhns.
Münster	.....	.....	29.66	753.3	48.2	9.0	75	W	.....	.....	2	.....	5	.....	.....	0	0	.....	Prof. E. Heis.
Posen	.....	.....	29.70	754.3	51.8	11.0	73	WSW	.....	.....	2	.....	10	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.93	760.1	51.1	10.6	67	WSW	.....	.....	2	.....	10	.....	.....	0.319	8.1	.....	Dr. Schur.
Stuttgart	.....	.....	29.91	759.8	48.6	9.2	78	W	.....	.....	.....	.....	8	.....	.....	0.177	4.5	.....	Prof. Schoder.
Thorn	.....	.....	29.60	751.8	48.0	8.9	77	WSW	.....	.....	5	.....	8	.....	.....	0.177	4.5	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	29.80	756.8	50.5	10.3	69	SW	.....	.....	7	.....	6	.....	.....	0.382	9.7	Light mist	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.54	750.4	40.3	4.6	92	SW	.....	.....	5	.....	8	.....	.....	0	0	Rain & snow	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.15	765.8	58.1	14.5	.....	S	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.97	761.1	44.6	7.0	94	E			2		10			0.024	0.6	Light rain	
Padua			29.96	761.0	44.8	7.1	96	ESE	1.8	0.8			10			0	0		
Vicenza			29.95	760.7	44.6	7.0	97	E			1		10	E		0	0		
Verona																			
Bergamo			29.90	759.4	44.6	7.0	97	E			1		10			0	0		
Domodossola																			
Milan			29.99	761.8	47.3	8.5	79	ESE			1		10			0	0		
Pavia																			
Moncalieri			29.97	761.2	38.8	3.8	81	NNW	1.8	0.8			10			0	0		
Mondovi			29.93	760.3	47.3	8.5	75	WSW			2		9			0	0		
Porto Maurizio			29.99	761.8	55.4	13.0		SW			4		10			0	0		
Genoa			29.94	760.4	52.2	11.2	93	SE	9.4	4.2			10	S		0.083	2.1		
Piacenza			29.94	760.5	46.0	7.8	90	E	8.1	3.6			10			0	0	Foggy	
Bologna			29.98	761.5	51.4	10.8	36	S			1		8	E		0	0		
Florence			29.98	761.4	57.2	14.0	21	SE			4		10			0	0		
Leghorn			30.02	762.6	56.5	13.6	78	SW	9.4	4.4			10			0	0		
Siena			30.01	762.3	52.3	11.3	80	S	1.3	0.6			10	SW		0	0		
Urbino																			
Pesaro																			
Ancona			30.01	762.3	48.9	9.4	82	ESE			4		6			0	0		
Grosseto			30.05	763.3	61.9	16.6	73	SE			6		8	SW		0	0		
Rome			30.11	764.8	57.7	14.3	74	SSE	14.3	6.4			10	SW		0	0		
Naples, O. U			30.16	766.1	59.4	15.2	70	WSW			2		10	S		0	0		
Lecce			30.11	764.8	64.8	18.2	48	WSW	3.8	1.7			4	S		0	0		
Cosenza			30.16	766.0	62.2	16.8	61	ESE	6.3	2.8			3			0	0		
Riposto, (Sicily)			30.13	765.2	61.2	16.2	85	S			2		0			0	0		
Palermo			29.97	761.2	60.4	15.8	46	WSW	17.4	7.8			1			0	0		
Caltanissetta			30.19	766.8	56.3	13.5	49	SSW			4		0			0	0		
Sub-Series.																			
Naples, S. R			30.17	766.2	55.0	12.8	80	WSW	3.8	1.7			..cs	WSW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.71	754.7	45.9	7.7		W			5								
Groningen			29.48	748.7	45.7	7.6		WSW			5								
Helder			29.52	749.7	44.2	6.8		SW			5								
Utrecht			29.58	751.4	49.6	9.8	80	SW			5		8					Very cloudy	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.24	742.7	39.2	4.0	48	NNW	19.2	8.6			10			0	0		
Brönö			29.26	743.2	32.0	0.0	78	Calm	0	0			1			0	0		
Christiania			29.20	741.7	33.1	0.6	85	E	5.8	2.6			8			0	0		
Tromsö			29.11	739.3	18.7	— 7.4	78	SE	2	1			2			0.122	3.1		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	29.94	757.9	59.2	15.1	93	SSW	13.1	5.86	.....	.....	10	.....	.....	0.315	8.0	Raining.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.35	770.8	62.2	16.8	50	NNW	8.3	3.69	.....	.....	3	NW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.31	769.8	66.2	19.0	65	SE	6.0	2.69	.....	.....	0	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.42	772.7	59.9	15.5	44	NNE	16.1	7.2	.....	.....	5	W	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.64	752.9	47.7	8.7	76	WSW	16	7	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	29.59	749.2	38.3	3.5	95	SW	11	5	.....	.....	10	.....	.....	.....	.....	Raining	Astronomical Obs.
Dorpat	.....	.....	29.26	743.1	33.4	0.8	93	SW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.20	741.7	22.3	— 5.4	93	WNW	7	3	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	29.23	742.4	18.9	— 7.3	100	SE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	29.72	755.0	39.2	4.0	78	WSW	9	4	.....	.....	3	.....	.....	.....	.....	.....	Physical Cabinet
Nikolaiev	.....	.....	30.08	764.0	38.3	3.5	77	SSW	43	19	.....	.....	4	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.14	765.5	41.5	5.3	60	S	2	1	.....	.....	9	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.32	744.6	34.3	1.3	85	S	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.98	761.4	25.3	— 3.7	65	WSW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.35	745.5	7.5	—13.6	92	ESE	13	6	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.76	730.4	30.22	767.6	43.5	6.4	46	NNE	9	4	.....	.....	8	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.36	771.1	22.3	— 5.4	73	NNW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	29.68	753.8	16.3	— 8.7	97	SSW	11	5	.....	.....	10	.....	.....	.....	.....	Snowing.....	Physical Cabinet.
Orenburg	.....	.....	30.24	768.1	5.9	—14.5	82	SW	4	2	.....	.....	3	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.95	735.4	30.02	762.6	16.2	— 8.8	51	SW	2	1	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.11	764.9	43.9	6.6	39	W	4	2	.....	.....	9	.....	.....	.....	.....	.....	
Kasaly	.....	.....	29.58	751.4	21.7	— 5.7	90	S	4	2	.....	.....	5	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.60	726.3	30.35	770.8	43.5	6.4	83	Calm	0	0	.....	.....	4	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.48	774.2	0.1	—17.7	73	Calm	0	0	.....	.....	1	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.36	771.2	— 2.0	—18.9	77	SE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzof.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.11	764.9	38.7	3.7	49	Calm	0	0	.....	0	.....	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.13	765.2	28.2	— 2.1	94	Calm	0	0	.....	.....	10	.....	.....	Blank	Blank	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 401 meters, or 1,311.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.37	771.4	58.8	14.9	44	NE	6.0	2.67	.....	0	1	.....	.....	0	0	Almost clear	Royal Observatory.
San Fernando	.....	.....	30.36	771.1	59.4	15.2	85	WNW	0.0	0.0	.....	2	4	NE	NE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.13	739.9	15.8	— 9.0	94	W	.....	.....	2	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	29.15	740.4	25.9	— 3.4	95	N	.....	.....	2	.....	2	.....	.....	0	0	.....	
Hernosand	.....	.....	29.16	740.6	31.6	— 0.2	98	NW	.....	.....	4	.....	8	.....	.....	0	0	.....	
Stockholm	.....	.....	29.21	741.2	37.4	3.0	85	W	.....	.....	2	.....	8	.....	.....	0.055	1.4	.....	
Wisby	.....	.....	29.31	744.4	37.0	2.8	86	W	.....	.....	6	.....	10	.....	.....	0.402	10.2	.....	
Sub-Series.																			
Upsala	.....	.....	29.22	742.1	34.9	1.6	74	WNW	3.6	1.6	.....	.....	5	.....	WNW	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.65	727.8	30.11	764.8	45.0	7.2	88	SSW	.....	.....	1	.....	10	.....	.....	0	0	Covered	The Observatory.
Zurich	28.37	720.7	30.06	763.4	41.7	5.4	88	W	.....	.....	2	.....	10	.....	SW	0.299	7.6	Raining	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.9 mm.; Thermometer, +2.5 cent.; Relative Humidity, +20 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.15	765.7	42.8	6.0	51	SSW	3	1.5	.....	.....	2	.....	WNW	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.04	763.0	60.8	16.0	.....	SE	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.24	768.2	63.5	17.5	.....	SE	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.99	761.8	63.1	17.3	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	30.12	765.0	44.6	7.0	.....	N	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.87	758.8	66.7	19.3	70	SW	.....	.....	2	.....	3k	.....	SW	0	0	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	29.52	749.8	10.9	—11.7	67	NW	3.0	1.3	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.23	767.8	— 7	—21.7	.....	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.57	751.1	10	—12.2	84	W	3	1.3	.....	8ck	0	W	.....	0.20	5.1	Fair	G. A. Blair.
Charlottetown, P. E. Island.	.....	.....	29.47	748.5	21	— 6.1	96	W	10	4.5	.....	.....	10n	.....	.....	0.30	7.6	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.08	764.0	— 6.2	—21.2	.....	NW	.....	.....	2	.....	.....	.....	.....	0.05	1.3	Bright	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.56	750.8	7.5	—13.6	54	W	.....	.....	2	10cs	.....	.....	.....	0.10	2.5	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.83	757.7	43.3	6.3	92	Calm	0	0	.....	6k	.....	.....	.....	0.81	20.6	Cloudy	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.58	751.3	1.1	—17.2	100	W	1	0.4	.....	.....	10s	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.71	780.0	—24	—31.1	100	SW	3	1.3	.....	10k	10ks	SW	SW	0	0	Cloudy	James Stewart.
Goderich, Ontario	.....	.....	30.32	770.1	37	2.8	95	NW	.....	.....	5	.....	10n	.....	.....	0	0	Stormy	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.27	768.8	1.7	—16.8	.....	W	.....	.....	2	1cs	.....	SE	.....	0.30	7.6	Fair	James Grant.
*Halifax, N. S.	.....	.....	29.70	749.5	23	— 5.0	84	W	23	10.3	.....	.....	5ks	.....	W	0.54	13.7	Fair	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.18	766.6	— 5	—20.6	78	N	1	0.4	.....	8c	0	.....	.....	0.04	1.0	Fair	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.30	769.6	—11.4	—24.1	.....	S	10	4.5	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.04	763.0	— 6	—21.1	61	NW	20	8.9	.....	0	2ks	.....	NE	0.02	0.5	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.12	765.0	—12	—24.4	86	W	9	4.0	.....	0	0	.....	.....	0.05	1.3	Clear	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.29	769.4	—13	—25.6	73	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.28	769.1	3	—16.1	90	NW	9	4.0	.....	5ck	0	NW	.....	0.05	1.3	Fair	H. Morgan.
Port Hastings, N. S.	.....	.....	29.50	749.3	29.7	— 1.3	.....	N	3	1.3	.....	.....	.....	.....	.....	0.60	15.2	Snowing	Peter Grant.
*Port Stanley Ontario	.....	.....	30.33	770.4	0	—17.8	94	NW	20	8.9	.....	0	0	.....	.....	0.03	0.8	Clear	M. Payne.
*Quebec, Quebec	.....	.....	29.80	756.9	— 5	—20.6	63	W	14	6.3	.....	0	0	.....	.....	0.05	1.3	Clear	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.60	751.8	15	— 9.4	91	Calm	0	0	.....	.....	7ks	.....	.....	0.10	0.25	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.26	768.6	1	—17.2	88	N	6	2.7	.....	.....	10n	.....	.....	0.32	8.1	Light snow	K. Stewart.
Stayner, Ontario	.....	.....	30.27	768.8	— 3	—19.4	90	N	10	4.5	.....	.....	10n	.....	N	0.39	9.9	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	30.29	769.4	— 1.1	—18.4	94	NE	3	1.3	.....	.....	10n	.....	.....	0.250	6.35	Snowing	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.43	747.5	13	—10.6	94	SE	3	1.3	.....	.....	10n	.....	.....	0.05	1.3	Heavy snow	T. C. Hill.
*Toronto, Ontario	.....	.....	29.27	743.4	0	—17.8	85	NW	8	3.6	.....	0	0	.....	.....	0.01	0.3	Clear	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.

Note.- The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. Fro —	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	29.95	760.7	9	—12.8	57	NW	20	8.9	.....	2k	0	NW	.....	Inap.	Inap.	Clear.	
Alpena, Mich.	.....	.....	30.34	770.6	— 5	—20.6	63	NW	15	6.7	.....	0	0	.....	.....	0.01	0.3	Clear.	
Atlantic City, N. J.	.....	.....	29.96	761.0	22	— 5.6	59	N	27	12.1	.....	0	8ks	.....	SW	0	0	Cloudy.	
Augusta, Ga.	.....	.....	30.10	764.5	39	3.9	95	NW	4	1.8	.....	0	Fog	.....	.....	Inap.	Inap.	Clear.	
Baltimore, Md.	.....	.....	30.02	762.5	28	— 2.2	54	NW	12	5.4	.....	5k	Sm'e	W	.....	0	0	Fair.	
Barnegat, N. J.	.....	.....	29.93	760.2	21	— 6.1	72	NW	50	22.4	.....	2ck	2ks	.....	NW	0	0	Fair.	
Benton, Montana	27.23	691.6	30.03	762.7	10	—12.2	100	NE	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
Bismarck, Dakota	28.59	726.2	30.49	774.4	— 4	—20.0	64	SE	7	3.1	.....	.....	10s	.....	.....	0	0	Cloudy.	
Boston, Mass.	.....	.....	29.74	755.4	17	— 8.3	83	SW	22	9.8	.....	0	8ks	.....	W	0.01	0.3	Cloudy.	
Breckenridge, Minn	.....	.....	30.82	782.8	—20	—28.9	64	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Buffalo, N. Y.	.....	.....	30.22	767.6	3	—16.1	73	W	13	5.8	.....	1c	2s	NW	NW	0.04	1.0	Fair.	
Burlington, Vt.	.....	.....	30.03	762.7	— 3	—19.4	66	N	12	5.4	.....	2c	5s	.....	N	0.03	0.8	Cloudy.	
Cairo, Ill.	.....	.....	30.47	773.9	27	— 2.8	66	N	21	9.4	.....	0	0	.....	.....	0	0	Clear.	
Cape Hatteras, N. C.	.....	.....	29.86	758.4	47	8.3	62	W	11	4.9	.....	5cs	0	SW	.....	Inap.	Inap.	Fair.	
Cape Henry, Va.	.....	.....	29.90	759.4	45	7.2	61	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Cape May, N. J.	.....	.....	29.95	760.7	28	— 2.2	67	NW	24	10.7	.....	.....	10s	.....	.....	0	0	Cloudy.	
Charleston, S. C.	.....	.....	30.14	765.9	48	8.9	62	NW	4	1.8	.....	0	Sm'e	.....	.....	0.01	0.3	Clear.	
Cheyenne, Wyoming	24.25	615.9	30.19	766.8	22	— 5.6	72	W	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Chicago, Ill.	.....	.....	30.56	776.2	8	—13.3	78	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Cincinnati, Ohio	.....	.....	30.34	770.6	22	— 5.6	72	N	16	7.2	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
Cleveland, Ohio	.....	.....	30.39	771.9	5.1	—14.9	90	NW	20	8.9	.....	8k	0	NW	.....	Inap.	Inap.	Fair.	
Colorado Springs, Col.	24.33	612.9	30.20	767.1	27	— 2.8	53	N	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Corsicana, Tex.	.....	.....	30.16	773.7	35	1.7	70	NW	6	2.7	.....	0	0	.....	.....	0.10	2.5	Clear.	
Davenport, Iowa	.....	.....	30.68	779.3	5	—15.0	76	N	14	6.3	.....	0	0	.....	.....	0	0	Clear.	
Denison, Tex.	.....	.....	30.47	773.9	40	4.4	47	N	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Denver, Col.	25.10	637.5	30.32	770.1	27	— 2.8	41	S	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	.....	.....	30.42	772.7	4	—15.6	74	NW	8	3.6	.....	0	0	.....	.....	0.01	0.3	Clear.	
Dodge City, Kan.	27.85	707.4	30.38	771.6	16	— 8.9	83	N	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	30.68	779.3	4	—15.6	48	NW	4	1.8	.....	0	Haze	.....	.....	0	0	Clear.	
Duluth, Minn.	.....	.....	30.76	781.3	—15	—26.1	.....	SE	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Eastport, Me.	.....	.....	29.55	750.6	22	— 5.6	72	Calm	0	0	.....	2c	5s	W	W	0.08	2.0	Fair.	
Erie, Pa.	.....	.....	30.28	769.1	4	—15.6	87	W	24	10.7	.....	Haze	8ks	.....	W	Inap.	Inap.	Cloudy.	
Escanaba, Mich.	.....	.....	30.57	776.5	— 8	—22.2	56	W	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Fort Gibson, Indian Terr.	.....	.....	30.46	773.7	33	0.6	79	N	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Fort Sill, Indian T.	29.23	742.4	30.43	772.9	31	— 0.6	59	N	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Fort Sully, Dakota	28.71	729.2	30.63	777.2	4	—15.6	74	E	20	8.9	.....	2cs	2s	NE	E	Inap.	Inap.	Fair.	
Galveston, Tex.	.....	.....	30.40	772.1	47	8.3	77	N	22	9.8	.....	0	0	.....	.....	0.10	2.5	Clear.	
Grand Haven, Mich.	.....	.....	30.46	773.7	8	—13.3	89	N	14	6.3	.....	1ck	8n	NW	NW	0.02	0.5	Light snow.	
Indianapolis, Ind.	.....	.....	30.45	773.4	16	— 8.9	83	NW	14	6.3	.....	5k	0	W	.....	0	0	Fair.	
Indianola, Tex.	.....	.....	30.48	774.2	44	6.7	67	N	14	6.3	.....	0	0	.....	.....	0	0	Clear.	
Jacksonville, Fla.	.....	.....	30.06	763.5	55	12.8	93	N	4	1.8	.....	.....	10s	.....	.....	0.22	5.6	Cloudy.	
Keokuk, Iowa	.....	.....	30.65	778.5	10	—12.2	79	N	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Key West, Fla.	.....	.....	30.01	762.2	74.4	23.6	81	W	14	6.3	.....	2ck	2ks	W	W	0	0	Fair.	
Kittyhawk, N. C.	.....	.....	29.9	759.4	44	6.7	52	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Knoxville, Tenn.	.....	.....	30.19	766.8	34	1.1	90	NW	4	1.8	.....	0	Fog	.....	.....	0	0	Fair.	
La Crosse, Wis.	.....	.....	30.73	780.5	— 2	—18.9	67	NW	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
Leavenworth, Kan.	.....	.....	30.69	779.5	15	— 9.4	65	NE	8	3.6	.....	0	2s	.....	NW	0	0	Clear.	
Lexington, Ky.	29.08	738.6	30.26	768.3	23	— 5.0	73	NW	20	8.9	.....	0	2ks	.....	W	0	0	Clear.	
Long Branch, N. J.	.....	.....	30.00	762.0	21	— 6.1	65	NW	35	15.6	.....	2ck	0	NW	.....	0	0	Clear.	
Louisville, Ky.	.....	.....	30.42	772.7	22	— 5.6	46	NW	24	10.7	.....	2k	0	NW	.....	0	0	Clear.	
Lynchburg, Va.	.....	.....	29.93	760.0	41	5.0	42	W	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Malone, N. Y.	.....	.....	29.96	761.0	— 6	—21.1	81	NW	8	3.6	.....	5k	0	NW	.....	0.30	7.6	Fair.	
Marquette, Mich.	.....	.....	30.54	775.7	—10	—23.3	77	W	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Memphis, Tenn.	.....	.....	30.38	771.6	41	5.0	48	N	4	1.8	.....	0	Sm'e	.....	.....	0	0	Clear.	
Milwaukee, Wis.	.....	.....	30.61	777.5	— 3	—19.4	66	NW	21	9.4	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
Mobile, Ala.	.....	.....	30.19	766.8	44	6.7	75	N	8	3.6	.....	.....	10s	.....	NE	0.26	6.6	Cloudy.	
Montgomery, Ala.	.....	.....	30.21	767.3	45	7.2	53	N	6	2.7	.....	8cs	0	W	.....	0	0	Fair.	
Morgantown, W. Va.	.....	.....	30.28	769.1	13	—10.6	71	N	17	7.6	.....	0	10s	.....	NW	0.01	0.3	Cloudy.	
Mt. Washington, N. H.	22.85	580.4	29.21	741.9	—15	—26.1	100	NW	68	30.4	.....	.....	Fog	.....	.....	0	0	Foggy.	
Nashville, Tenn.	.....	.....	30.34	770.6	31	0.6	79	N	10	4.5	.....	5k	0	NW	.....	0	0	Fair.	
New Haven, Conn.	.....	.....	29.93	760.2	14	—10.0	41	N	20	8.9	.....	0	0	.....	.....	0	0	Clear.	
New London, Conn.	.....	.....	29.86	758.4	17.5	— 8.1	59	NW	21	9.4	.....	2cs	0	SW	.....	0.02	0.5	Clear.	
New Orleans, La.	.....	.....	30.27	768.8	49	9.4	65	N	12	5.4	.....	.....	10n	.....	N	0.33	8.4	Light rain.	
Newport, R. I.	.....	.....	29.78	756.4	18	— 7.8	68	NW	32	14.3	.....	0	0	.....	.....	0.01	0.3	Clear.	
New York, N. Y.	.....	.....	29.99	761.7	16	— 8.9	50	NW	25	11.2	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
Norfolk, Va.	.....	.....	29.91	759.4	40	4.4	56	NW	6	2.7	.....	0	Haze	.....	.....	0	0	Clear.	
North Platte, Neb.	27.43	696.7	30.27	768.8	14	—10.0	63	S	4	1.8	.....	2c	0	.....	.....	0	0	Clear.	
Omaha, Neb.	29.51	749.5	30.74	780.8	5	—15.0	87	N	10	4.5	.....	0	5s	.....	.....	0	0	Fair.	
Oswego, N. Y.	.....	.....	30.12	765.0	5.5	—14.7	88	NW	12	5.4	.....	.....	10s	.....	NW	0.16	4.1	Cloudy.	
Peck's Beach, N. J.	.....	.....	29.98	761.5	23	— 5.0	73	N	28	12.5	.....	0	5ks	.....	W	0	0	Fair.	
Pembina, Dakota	.....	.....	30.72	780.3	—18	—27.8	100	Calm	0	0	.....	10c	0	.....	.....	0	0	Cloudy.	
Philadelphia, Penn.	.....	.....	30.03	762.7	19	— 7.2	54	N	31	13.9	.....	0	0	.....	.....	0.01	0.3	Clear.	
Pike's Peak, Colorado	17.90	454.6	30.11	764.8	12	—11.1	42	N	21	9.4	.....	0	0	.....	.....	0	0	Clear.	
Pittsburgh, Penn.	.....	.....	30.30	769.6	10	—12.2	58	N	12	5.4	.....	5k	0	N	.....	Inap.	Inap.	Fair.	
Port Huron, Mich.	.....	.....	30.40	772.1	— 3	—19.4	66	W	8	3.6	.....	0	1s	.....	.....	0.17	4.3	Clear.	
Portland, Me.	.....	.....	29.68	753.9	19	— 7.2	71	NW	12	5.4	.....	2k	0	NW	.....	0.04	1.0	Fair.	
Portland, Oregon	.....	.....	30.12	765.0	46	7.8	92	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Punta Rassa, Fla.	.....	.....	30.00	762.0	67.1	19.5	94	E	4	1.8	.....	.....	10ks	.....	E	0.17	4.3	Cloudy.	
Rochester, N. Y.	.....	.....	30.15	765.8	6.5	—14.2	86	W	18	8.0	.....	.....	10n	.....	.....	0.05	1.3	Light snow.	
Salt Lake City, Utah	25.98	659.9	30.31	769.9	32	0.0	79	N	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Sandy Hook, N. J.	.....	.....	29.97	761.2	18	— 7.8	67	NW	43	19.2	.....	1c	1ks	SW	NW	0	0	Clear.	
San Diego, Cal.	.....	.....	30.18	766.6	58	14.4	44	NE	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
San Francisco, Cal.	.....	.....	30.25	768.3	50	10.0	89	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair.	
Santa Fe, N. M.	23.55	598.2	30.09	764.3	26	— 3.3	64	NE	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Savannah, Ga.	.....	.....	30.06	763.5	50	10.0	86	Calm	0	0	.....	2k	2s	.....	.....	0.06	1.5	Fair.	
Shreveport, La.	.....	.....	30.43	772.9	30.5	4.2	82	W	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Smithville, N. C.	.....	.....	30.00	762.0	42	5.6	67	NW	5	2.2	.....	1cs	0	W	.....	0	0	Clear.	
Springfield, Mass.	.....	.....	29.87	758.7	15	— 9.4	46	NW	16	7.2	.....	1k	0	N	.....	0.02	0.5	Clear.	
St. Louis, Mo.	.....	.....	30.01	777.5	17	— 8.3	67	N	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
St. Marks, Fla.	.....	.....	30.08	764.0	49	9.4	77	N	10	4.5	.....	5ck	5s	W	.....	0.14	3.6	Cloudy.	
St. Paul, Minn.	.....	.....	30.75	781.0	— 8	—22.2	77	W	1	0.4	.....	0	0	.....	.....	0	0	Clear.	
St. Paul's Island, Alaska	.....	.....	30.21	767.3	30	— 1.1	78	SSE	16	7.2	.....	10c	1k	.....	.....	0	0	.....	
Squan Beach, N. J.	.....	.....	29.92	760.0	19	— 7.2	53	NW	30	13.4	.....	5cs	0	NW	.....	0	0	Fair.	
Thatcher's Island, Mass.	.....	.....	29.72	754.9	19	— 7.2	54	NW	28	12.5	.....	5c	2ks	NW	NW	0	0	Clearing.	
Toledo, Ohio.	.....	.....	30.41	772.4	0	12.8	57	N	10	4.5	.....	5c	2s	NW	W	0	0	Fair.	
Tucson, Arizona	27.79	705.8	30.38	771.6	38	3.3	.....	SE	.....	.....	.....	0	0	.....	.....	0	0	Clear.	
Tybee Island, Ga.	.....	.....	30.08	764.0	53	11.7	79	NW	4	1.8	.....	0	2s	.....	.....	0.70	17.8	Fair.	
Vicksburg, Miss.	.....	.....	30.38	771.6	45.5	7.5	57	N	4	1.8	.....	0	2s	.....	N	Inap.	Inap.	Fair.	

UNITED STATES SERIES.—CONTINUED

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Inches.	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Virginia City	24.42	620.3	29.90	759.4	30	— 1.1	68	SE	4	1.8	.....	1c	0	NW	.....	0	0	Clear	
Washington, D. C	.....	.....	30.04	763.0	27.5	— 2.5	59	NW	30	13.4	.....	0	1ks	.....	W	0	0	Clear	
Wilmington, N. C	.....	.....	29.98	761.5	41	5.0	64	NW	5	2.2	.....	1cs	0	W	.....	0.02	0.5	Clear	
Wood's Holl, Mass	.....	.....	29.84	757.9	23	— 5.0	60	NW	28	12.5	.....	0	5s	.....	NW	0.04	1.0	Fair	
Wytheville, Va	27.57	700.3	29.68	753.9	33	0.6	61	NW	12	5.4	.....	2k	0	NW	.....	0	0	Fair	
Yankton, Dakota	29.33	745.0	30.83	783.1	— 1	—18.3	68	E	2	0.9	.....	.....	10s	.....	NW	0	0	Cloudy	
Yuma, Arizona	.....	.....	30.26	768.6	52	11.1	.....	E	.....	.....	.....	2c	0	NE	.....	0	0	Fair	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.09	764.3	77	25.0	82	NE	4	1.8	.....	2ck	5s	N	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.04	763.0	75	23.9	76	E	.....	.....	.....	0	2k	.....	.....	0	0	Clear	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.28	769.1	75	23.9	72	ESE	1	0.4	.....	2c	2k	SE	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.23	767.8	74	23.3	76	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.85	758.2	73	22.8	76	Calm	0	0	.....	0	2k	.....	W	0	0	Fair	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.07	763.8	74	23.3	85	SW	2.4	1.1	.....	0	0	.....	.....	0.07	1.8	Clear	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	29 86	758.4	63.0	17.2	72	N	12.0	5.4	.....	10ck	0	.....	.....	0.19	4.8	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	25.25	692.1	30.06	763.5	64	17.8	83	E	1.5	0.7	.....	2c	0	E	.....	0	0	Fine & clear	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	29.92	760.0	79	26.1	87	NE	.....	.....	2	.....	7ks	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.09	764.3	78.8	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.089	2.25	.....	Dr. H. Groot.
Medellin, Colombia, S. A	27.19	639.7	.....	.....	68.9	20.5	84	.....	0	0	.....	2ck	5s	N	.....	0.12	3.0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.68	753.9	28.0	— 2.2	.....	NE	.....	.....	.....	10k	10s	.....	.....	0	0	Cloudy	John Delaney.
York Factory, B. A	.....	.....	30.36	771.1	—28	—33.3	.....	NW	11	4.9	.....	0	Fog	.....	.....	0.08	2.0	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	30.06	763.5	73	22.8	95	NE	.....	.....	7	.....	.....	.....	.....	0	0	Clear	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—
}	.....	.....	.....	.....
}	.....	.....	.....	.....
}	.....	.....	.....	.....
	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the CHIEF SIGNAL OFFICER OF THE ARMY, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 24, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Genie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.25	768.3	63.3	17.4	72	Calm	.....	.....	0	.....	2	.....	.....	0	0	Clear	Charnot and Masselot.
Algiers	.....	.....	30.28	769.2	60.1	15.6	85	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.19	766.8	61.2	16.2	49	NW	.....	.....	6	.....	4	.....	.....	0	0	Fair	Jacques.
Sfax	.....	.....	30.23	767.7	68.7	20.4	25	N	.....	.....	5	.....	1	.....	.....	0	0	Clear	Chauvey.
Saida	.....	.....	30.28	769.0	68.0	20.0	30	SSW	.....	.....	1	.....	1	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	30.25	768.3	59.2	15.1	.....	N	.....	.....	4	.....	0	.....	.....	0	0	Clear	Colin.
Gerlville	.....	.....	30.26	768.6	63.0	17.2	20	ESE	.....	.....	2	.....	2	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	30.28	769.2	62.6	17.0	66	S	.....	.....	1	.....	3	.....	.....	0	0	Fair	Delord.
Biskra	.....	.....	30.29	769.4	73.8	23.2	27	NE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Dubois.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fal is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram	.....	.....	29.71	754.7	45.9	7.4	82	SW	.....	.....	1	.....	7	.....	.....	0	0	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	29.58	751.4	43.2	6.2	74	W	.....	.....	2	.....	9	.....	.....	0.014	0.36	.....	I. R. Observatory.
Eperies	.....	.....	29.55	750.9	42.3	5.7	85	Calm	.....	.....	0	.....	10	.....	S	0.484	12.30	.....	Julius Mikolik.
Gratz	28.46	722.9	29.07	753.7	44.6	7.0	58	NW	.....	.....	5	.....	8	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	27.97	710.4	29.37	746.0	49.8	9.9	64	SE	.....	.....	1	.....	5	.....	.....	0	0	.....	Prof. Reissenberger.
Kremsmünster	28.49	723.6	29.88	759.0	34.9	1.6	93	W	.....	.....	5	.....	10	.....	.....	0.256	6.5	.....	Prof. C. Wagner.
Lemberg	.....	.....	29.51	749.6	37.2	2.9	98	NW	.....	.....	1	.....	10	.....	.....	0.295	7.5	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	29.53	750.0	40.6	4.8	87	N	.....	.....	2	.....	10	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	29.79	756.6	48.2	9.0	84	WNW	.....	.....	3	.....	8ks	.....	.....	0.136	3.46	.....	I.R. Hydrographic Of'ce
Szegedin	.....	.....	29.53	750.0	43.2	6.2	90	NW	.....	.....	3	.....	10	.....	.....	0.469	11.90	.....	Karl Stancel.
Trieste	.....	.....	29.79	756.6	47.1	8.4	89	N	.....	.....	1	.....	1	.....	.....	0	0	Clear	Prof. V. Farolfi.
Vienna	.....	.....	29.68	753.8	41.0	5.0	70	W	.....	.....	4	.....	10	.....	.....	0.230	6.6	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels	.....	.....	29.98	761.6	41.7	5.4	93	WNW	.....	.....	5	0	7	.....	.....	0.268	6.80	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.85	758.2	35.2	1.8	.....	NW	32	14.3	.....	.....	6	.....	.....	0.050	1.27	*D. clouds	William Boswell.
Ardrossan	.....	.....	29.99	761.7	43	6.1	.....	NW	.....	.....	5	.....	5	.....	.....	.....	.....	*D. clouds	J. Mayes.
Armagh Observatory	.....	.....	30.09	764.3	42.5	5.8	.....	WNW	11	4.9	.....	.....	3	.....	.....	.....	.....	*D. clouds	S. Call, for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	30.04	763.0	42.4	5.8	.....	W	30	13.4	.....	.....	3	.....	.....	.....	.....	Blue sky	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	30.11	764.8	43.4	6.3	.....	SSE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	J. Dreyer.
Bradford	.....	.....	30.06	763.5	41.0	5.0	.....	NW	.....	.....	4	.....	3	.....	.....	0.18	3.3	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	30.06	763.5	79.6	26.4	.....	NE	.....	.....	2	.....	6	.....	.....	.....	.....	*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	30.00	762.0	46.5	8.1	.....	WNW	.....	.....	3	.....	7	.....	.....	.....	.....	*D. clouds	H. Todd.
Cardington	.....	.....	30.05	763.3	43.4	6.3	.....	NW	.....	.....	4	.....	6	.....	.....	.....	.....	*D. clouds	John McLaren.
Carlisle	.....	.....	29.97	761.2	44	6.7	.....	W	.....	.....	3	.....	2	.....	.....	0.03	0.8	*D. clouds	T. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	30.03	762.7	44.2	6.8	.....	NW	.....	.....	2	.....	6	.....	.....	.....	.....	*D. clouds	Capt. J. Fellowes, R. E.
Dartmoor	28.69	728.7	30.23	767.8	41.0	5.0	.....	NW	.....	.....	1	.....	5	.....	.....	.....	.....	*D. clouds	R. E. Power.
Donaghadee	.....	.....	30.04	763.0	42	5.6	.....	NW	.....	.....	3	.....	5	.....	.....	.....	.....	*D. clouds	J. Mac Gowan.
Dover	.....	.....	30.04	763.0	43	6.1	.....	WNW	.....	.....	2	.....	3	.....	.....	.....	.....	¼ clouded	J. Costello.
Eccles, (near Manchester)	.....	.....	30.01	762.2	43.0	6.1	.....	NW	5.2	2.3	.....	.....	3	.....	.....	.....	.....	*D. clouds	Thomas Mackereth.
Falmouth Observatory	.....	.....	30.19	766.8	47.0	8.3	.....	SW	5	2.2	.....	.....	10	.....	.....	.....	.....	Ove cast	The Staff.
Fort Napier, (Natal)	27.66	702.6	29.89	759.2	75.2	24.0	.....	E	.....	.....	3	.....	1	.....	.....	.....	.....	*D. clouds	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.94	760.5	84.0	28.9	.....	N	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast	[tis.
Galway, Queen's College	.....	.....	30.01	762.2	50	10.0	.....	S	.....	.....	1	.....	10	.....	.....	.....	.....	Cloudy	B.G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)	.....	.....	30.28	769.1	62.3	16.8	.....	E	.....	.....	3	.....	4	.....	.....	.....	.....	*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.92	760.0	41.4	5.2	.....	NW	.....	.....	1	.....	1	.....	.....	.....	.....	Fine	Lewis Stuart.
Great Yarmouth	.....	.....	29.91	759.7	42	5.6	.....	NW	.....	.....	5	.....	4	.....	.....	.....	.....	*D. clouds	G. T. Watson.
Greenwich Royal Obs.	.....	.....	30.06	763.5	44.3	6.8	.....	WNW	.....	.....	4	.....	3	.....	.....	Blank	Blank	*D. clouds	The Staff for G. B. Airy
Guernsey	.....	.....	30.20	767.1	47.5	8.6	.....	WSW	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	30.00	762.0	41.4	5.2	.....	WNW	.....	.....	4	.....	5	.....	.....	Blank	Blank	*D. clouds	L. J. Crossley.
Helston	.....	.....	30.11	764.8	52	11.1	.....	SW	.....	.....	2	.....	5	.....	.....	0	0	*D. clouds	M. P. Moyle.
Holyhead	.....	.....	30.04	763.0	43	6.1	.....	WNW	.....	.....	4	.....	3	.....	.....	.....	.....	Blue sky	John Tilston.
Kew Observatory	.....	.....	30.07	763.8	44.3	6.8	.....	WNW	24	10.7	.....	.....	5	.....	.....	.....	.....	*D. clouds	The Staff.
Kingstown	.....	.....	30.12	765.0	42	5.6	.....	WNW	.....	.....	4	.....	8	.....	.....	.....	.....	Overcast	George Mitchell.
Leicester Museum	.....	.....	30.05	763.3	43.6	6.4	.....	W	.....	.....	3	.....	2	.....	.....	.....	.....	*D. clouds	William J. Harrison.
Malta, (Mediterranean)	.....	.....	30.09	764.3	59.8	15.4	.....	NW	.....	.....	2	.....	6k	.....	.....	.....	.....	.....	Fred Travis, Pvt A.H.C
Nairn	.....	.....	29.92	760.0	37	2.8	.....	NNW	.....	.....	3	.....	0	.....	.....	.....	.....	Blue sky	W. D. Penny.
Nassau, (Bahamas)	.....	.....	30.10	764.5	69.6	20.9	.....	N	.....	.....	6	.....	10	.....	.....	.....	.....	Overcast	Surg.-Maj. Henry.
Nottingham	.....	.....	30.01	762.2	44.0	6.7	.....	WNW	.....	.....	4	.....	2c	.....	W	0.032	0.81	Blue sky	E. J. Lowe, F. R. S.
Oscott, St. Mary's College	.....	.....	30.05	763.3	44.0	6.7	.....	WNW	.....	.....	3	.....	5	.....	.....	.....	.....	*D. clouds	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.	.....	.....	30.06	763.5	43	6.1	.....	WNW	.....	.....	3	.....	5	.....	.....	.....	.....	*D. clouds	J. Lucas.
Plymouth	.....	.....	30.17	766.3	46.9	8.3	.....	WSW	.....	.....	2	.....	10	.....	.....	.....	.....	Overcast	John Merrifield.
Roche's Point	.....	.....	30.12	765.0	45	7.2	.....	NNW	.....	.....	1	.....	8	.....	.....	.....	.....	Hailing	W. Kennedy.
Saint Ann's Head	.....	.....	30.15	765.8	47	8.3	.....	NW	.....	.....	1	.....	2	.....	.....	.....	.....	.....	John C. Walker.
Saint Helier, (Jersey)	.....	.....	30.20	767.1	49.0	9.4	.....	WSW	.....	.....	3	.....	5	.....	.....	.....	.....	½ clouded	A. P. Amy.
Sandwick Manse (Orkneys	.....	.....	29.88	758.9	30.3	— 1.0	.....	NNW	30	13.4	.....	.....	5	.....	.....	.....	.....	*D. clouds	Rev. Dr. Clouston
Scarborough	.....	.....	29.86	758.4	44.0	6.7	.....	NW	.....	.....	5	.....	2	.....	.....	.....	.....	Blue sky	F. Shaw.
Scutari Cemetery (Turkey	.....	.....	29.74	756.7	56.0	13.3	.....	SSW	.....	.....	1	.....	6	.....	.....	.....	.....	*D. clouds	Sergt. W. H. Lyne.
Sheffield	.....	.....	29.97	761.2	43.5	6.4	.....	NW	.....	.....	5	.....	2	.....	.....	0.089	2.26	Blue sky	W. F. Cooper.
Silloth Rectory	.....	.....	29.96	761.0	45.8	7.7	63	NW	.....	.....	3	.....	0	.....	.....	0	0	Blue sky	Rev Francis Redford.
Stonyhurst Observatory	.....	.....	30.00	762.0	40.9	4.9	.....	W	.....	.....	4	.....	6	.....	.....	Blank	Blank	.....	The Staff.
Stornoway, Lews C. (Hebr.)	.....	.....	29.92	760.0	36	2.2	.....	NNW	.....	.....	4	.....	2	.....	.....	.....	.....	Blue sky	John Smith.
Stratfield Turgiss	.....	.....	30.10	764.5	44.8	7.1	.....	NW	.....	.....	1	.....	2	.....	.....	.....	.....	Blue sky	Rev. Charles H. Griffith
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. John Slatter.
Thurso	.....	.....	29.86	758.4	35	1.7	.....	N	.....	.....	5	.....	5	.....	.....	.....	.....	*D. clouds	John Trotter.
Truro, Royal Institution	.....	.....	30.17	766.3	50	10.0	.....	SE	.....	.....	2	.....	8	.....	.....	.....	.....	Gloomy	W. Newcombe.
Valencia Observatory	.....	.....	30.07	763.8	45.8	7.7	.....	SE	15	6.7	.....	.....	10	.....	.....	.....	.....	*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.	.....	.....	29.92	760.0	77.0	25.0	53	SE	30	13.4	.....	.....	0	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	46	7.8	.....	NW	.....	.....	6	.....	0	.....	.....	0	0	.....	
Leith, Restalrig Park	.....	.....	29.97	761.2	42.0	5.6	.....	NW	.....	.....	3	.....	.....	.....	.....	0	0	Fine	Andrew Gibb.
Monach Lt-house, Hebrides	.....	.....	29.96	761.0	38	3.3	.....	NE	.....	.....	4	.....	10	.....	.....	0.2	5.1	.....	J. Youngehause.
North Unst, (Shetland Is)	.....	.....	29.73	755.1	33	0.6	.....	NNW	.....	.....	7	1	5	NW	.....	Blank	Blank	.....	

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.39	746.5	34.5	1.4	89	NW	.....	.....	4	.....	10	.....	.....	.....	.....	.....	.....
Fanöe	.....	.....	29.60	751.7	38.7	3.5	58	NNW	.....	.....	4	.....	5	.....	.....	.....	.....	.....	.....
Godthaab, (Greenland)	.....	.....	29.66	753.3	18.9	— 7.3	72	E	.....	.....	2	.....	10	.....	.....	.....	.....	.....	.....
Stykkisholm, (Iceland)	.....	.....	30.34	770.5	19.9	— 6.7	92	NE	.....	.....	8	.....	2	.....	.....	.....	.....	.....	.....
Thorshavn, (Faröe)	.....	.....	29.99	761.8	23.4	— 4.8	86	N	.....	.....	4	.....	5	.....	.....	.....	.....	Snowing	.....
Vestervig	.....	.....	29.55	750.5	34.5	1.4	78	N	.....	.....	2	.....	0	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.19	766.9	53.6	12	54	NW			4		5nk		NW	0	0	Cloudy	Normal School.
Amiens			30.08	764.1	45.7	7.6	54	NW			8		0			0.024	0.6	Clear	Normal School.
Avignon			30.23	767.8	56.1	13.4	42	NNW			2		2n		NNW	0	0	Very clear	Normal School.
Bar-sur-Seine			30.14	765.5	44.8	7.1	61	NNE			3		8		NW	0.122	3.1	Very cloudy	C. Saillard.
Beaumette, (near Angers)			30.20	767.0	50.4	10.2	62	NW	2.0	0.9					W	0.012	0.3		Beaumette Observatory
Beauvais			30.15	765.7	44.1	6.7	43	NW			3		8		NW	0.055	1.40	Very cloudy	Normal School.
Besançon			30.18	766.6	43.9	6.6	80	SSW			3		2		SW	0.346	8.8	Slightly cl'dy	Normal School.
Bourg en Bresse			30.27	768.9	41.9	5.5	91	W			4		10		E			Raining	Normal School.
Bourges			30.13	765.2	48.2	9	73	NW			6		1		W	0.110	2.8	Clear	Normal School.
Brest			30.16	766.0	52.0	11.1	72	WSW			3		9		W	0.020	0.50	Raining	Naval Observatory.
Caen			30.19	766.7	48.2	9	71	S			1		1		E	0.006	0.16	Clear	Normal School
Chartres			30.09	764.3	43.7	6.5		WSW			6		7		E	0.071	1.8		Normal School.
Chaumont																			Normal School.
Clermont			30.17	766.3	47.8	8.8	59	W			2		10		W	0.154	3.9	Covered	Puy de Dome, Obs.
Commercy			30.08	764.1	39.9	4.4	80	W			4		8kn		W	0.059	1.5	Very cloudy	Normal School.
Commune de Gréasque*			30.14	765.5	51.1	10.6	20	NW			8		2		NW	0	0		
Grenoble			30.27	768.8	43.9	6.6	74	WNW			2		5k		NE	0.817	20.75	Pretty cloudy	Normal School.
Le Mans			30.22	767.6	46.0	7.8	77	N			3		5		NW	0.035	0.9	Cloudy	Normal School.
Loches																			
Lons-Le-Saulnier			30.22	767.5	39.4	4.1	97	W			1		5		W	0.335	8.5	Cloudy	Normal School.
Mâcon			30.24	768.0	46.0	7.8	75	W			4		10			0.150	3.8	Covered	Normal School.
Mirecourt			30.04	763.1	40.8	4.9		NW			6		10		SE	0	0	Covered	Normal School.
Metz																			
Nismes			30.24	768.0	54.5	12.5	85	W			6		5		W	0	0	Pretty cloudy	Normal School.
Orleans			30.16	766.1	46.4	8	64	NNW			3		2		NNW	0.031	0.8	Slightly cl'dy	Normal School.
Paris Observatory			30.15	765.8	45.1	7.3	42	WNW			3		5		WNW	0.032	0.82	Cloudy	National Observatory
Parthenay			30.26	768.6	50.0	10	82	W			2		5		W	0	0	Cloudy	Normal School.
Privas			30.26	768.6	47.7	8.7		NW			2		8			0	0	Very cloudy	Normal School.
La Roche-sur-Yon			30.26	768.6	49.6	9.8	81	W			2		5		E	0	0	Cloudy	Normal School.
Rochefort, Observatory			30.30	769.5	53.1	11.7	83	NW			3		10		SE	0	0	Covered	Naval Observatory.
Rouen			30.17	766.3	45.5	7.4	91	NE			6		5		W	0.138	3.5	Cloudy	Normal School.
Saint Lo			30.20	767.0	50.0	10	70	W			1		1		NW	0.031	0.8		Normal School.
Tarbes	29.24	742.7	30.37	771.3	60.8	16	57	S			2		0			0	0	Clear	Normal School.
Toulouse			30.44	773.2	55.0	12.8	48	NE			2		..k						Normal School
Villefranche			30.31	769.8	52.0	11.1	81	SE			1		10			0.110	2.80	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique			30.01	762.2	75.9	24.4	82	NE			2		2k			0	0		L'Abbé Marchési.
Gorée																			
Marseilles																			
Mont-Louis			30.16	766.0	54.9	12.7	46	NW			5		0			0	0		Marseilles Observatory.
Montsouris, Paris	24.07	634.2	30.38	771.6	43.7	6.5	47	SE	1.9	0.83			0			0	0		—. Faiguère.
Perpignan			30.14	765.5	45.3	7.4	49	W			4		8		NW	0.047	1.2		Montsouris Observ'tory
Pic du Midi, (Summit) H. P.			30.28	769.0	57.6	14.2	40	NW	14.9	6.66			1		SE	0	0		Dr. Fines.
Saint Maur, (near Paris)	21.35	542.2			27.5	— 2.5		NW			4		1					Clear	M. Baylac.
Toulouse			30.15	765.7	45.9	7.7	49	NW			2		7			0.106	2.7	Cloudy	L. Renou.
Tours			30.32	770.2	51.8	11.0	56	NW			2		5			0	0		Toulouse Observatory
Versailles, (near Paris)			30.22	767.5	48.9	9.4	58	NW			3		10		WNW	0.012	0.3		C. Marquet.
Zi-Ka-Wei, (near Shanghai)			30.14	765.6	44.6	7.0	53	NW			3		7			0.023	0.58	Pretty fine	Dr. A. Bérigny.
																			H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			29.70	754.4	39.6	4.2	87	W			9					0.394	10.0	Rain & snow	Prof. T. Hoh.
Berlin			29.60	751.7	43.3	6.3	65	NW			4		8			0.252	6.4		Prof. Arndt.
Breslau			29.60	751.7	41.2	5.1	77	W			9		10			0.016	0.4	Raining	Dr. P. Neugebauer
Carlsruhe			29.97	761.3	38.1	3.4	76	NW			3		10			0.161	4.1		A. Senz.
Cassel			29.69	754.1	43.3	6.3	57	W			4		6			0.059	1.5		Dr. H. Möhn.
Cologne																			Dr. Garthe
Emden																			
Frankfort on the Main			29.96	761.0	40.1	4.5	81	W			5		7			0.118	3.0		Prof. Prestel.
Friedrichshafen			30.07	763.7	35.6	2.0	89	W					6			0.177	4.5	Light rain	Physical Society.
Hamburg			29.57	751.0	39.6	4.2	74	WNW			6		8		WNW	0.189	4.8	Squally	M. Wilhelm.
Kiel			29.57	751.1	39.7	4.3	82	W			4		10			0.201	5.1		Deutsche Seewarte.
Königsberg			29.38	746.3	39.4	4.1	90	SW			2		9			0.055	1.4		Prof. G. Karsten.
Köslin			29.39	746.6	35.2	1.8		W			4		10			0	0	Misty	Prof. E. Luther.
Leipsic			29.70	754.4	43.0	6.1	62	W			6		9			0.126	3.2	Stormy	H. Müller.
Münster			29.85	758.1	38.8	3.8	91	NW			5		5			0.220	5.6	Rain & snow	Prof. Bruhns.
Posen			29.52	749.9	41.2	5.1	72	W			5		10			0.083	2.1	Raining	Prof. E. Heis.
Strassburg, (in Alsace)			30.04	763.1	42.0	5.9	66	W			3		8			0	0		Dr. Magener.
Stuttgart			29.97	761.3	42.3	5.7	93	NW					5			0.201	5.1	Rain & snow	Dr. Schur.
Thorn			29.42	747.3	39.9	4.4	94	W			5		10			0.087	2.2		Prof. Schoder.
Treves, (Trier)			29.93	760.2	42.3	5.7	50	W			9		4			0.004	0.1		Dr. Hasenbalg
Wustrow, Naval School			29.47	748.6	35.6	2.0	98	NW			6		10			0.098	2.5	Rain & snow	Prof. Flesch.
																			E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			29.73	755.1	64.9	18.3		S										Clear	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	29.75	755.7	50.5	10.3	55	SW	.....	.....	4	.....	5	.....	.....	0	0	.....	
Padua	.....	.....	29.77	756.1	54.1	12.3	21	NW	19.2	8.6	.....	.....	0	.....	.....	0	0	.....	
Vicenza	.....	.....	29.78	756.4	55.6	13.1	17	NW	.....	.....	6	.....	0	.....	.....	0	0	.....	
Verona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bergamo	.....	.....	29.87	758.8	48.2	9.0	29	SW	.....	.....	6	.....	1	.....	.....	0	0	.....	
Domodossola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Milan	.....	.....	29.92	760.0	53.1	11.7	36	NW	.....	.....	6	.....	0	.....	.....	0	0	.....	
Pavia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Moncalieri	.....	.....	29.96	761.0	51.1	10.6	28	NNW	12.5	5.6	.....	.....	0	.....	.....	0	0	.....	
Mondovi	.....	.....	30.00	761.9	44.8	7.1	29	NW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Porto Maurizio	.....	.....	29.98	761.4	55.4	13.0	.....	SSW	.....	.....	4	.....	0	.....	.....	0	0	.....	
Genoa	.....	.....	29.95	760.6	57.4	14.1	19	N	3.8	1.7	.....	.....	0	.....	.....	0	0	.....	
Piacenza	.....	.....	29.92	760.0	53.8	12.1	20	NW	37.4	16.7	.....	.....	0	.....	.....	0	0	.....	
Bologna	.....	.....	29.89	759.2	53.4	11.9	22	W	.....	.....	1	.....	3	E	.....	0.433	11.0	.....	
Florence	.....	.....	29.90	759.4	54.7	12.6	50	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	
Leghorn	.....	.....	29.89	759.3	55.8	13.2	47	W	13.0	5.8	.....	.....	0	.....	.....	0	0	.....	
Siena	.....	.....	29.86	758.4	53.2	11.8	41	W	4.9	2.2	.....	.....	2	NW	.....	0	0	.....	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ancona	.....	.....	29.95	760.7	48.6	9.2	81	NNW	.....	.....	4	.....	1	.....	.....	0.433	11.0	.....	
Grosseto	.....	.....	29.91	759.8	57.6	14.2	51	WNW	.....	.....	8	.....	5	NW	.....	0	0	.....	
Rome	.....	.....	29.89	759.1	59.0	15.0	47	WNW	16.8	7.5	.....	.....	5	NW	.....	0.004	0.1	Rain & hail.	
Naples, O. U	.....	.....	29.91	758.8	60.1	15.6	48	W	.....	.....	6	.....	4	NE	.....	0.055	1.4	.....	
Lecce	.....	.....	29.77	756.1	57.2	14.0	48	W	12.5	5.6	.....	.....	2	.....	.....	0	0	.....	
Cosenza	.....	.....	29.90	759.5	56.1	13.4	66	NW	18.1	8.1	.....	.....	10	.....	.....	0	0	Rain & hail.	
Riposto, (Sicily)	.....	.....	29.83	757.7	65.1	18.4	42	SE	.....	.....	2	.....	1	.....	.....	0	0	.....	
Palermo	.....	.....	29.97	761.2	60.6	15.9	42	WSW	13.0	5.8	.....	.....	1	.....	.....	0	0	.....	
Caltanissetta	.....	.....	29.99	761.7	54.0	12.2	40	WNW	.....	.....	8	.....	0	.....	.....	0	0	.....	
Sub-Series.																			
Naples, S. R	.....	.....	29.86	758.5	57.9	14.4	58	SW	18.1	8.1	.....	.....	..cs	SW	.....	0	0	.....	Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	30.01	762.3	40.6	4.8	.....	NW	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	29.71	754.5	38.5	3.6	.....	NW	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	29.82	757.3	39.9	4.4	.....	W	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	29.85	758.1	42.6	5.9	93	W	.....	.....	5	.....	8	.....	.....	.....	.....	Very cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	29.58	751.3	32.4	0.2	89	SSE	0.9	0.4	.....	.....	10	.....	.....	0.094	2.4	.....	
Brönö	.....	.....	29.41	747.0	27.5	— 2.5	74	S	11	5	.....	.....	8	.....	.....	0	0	Snowing	
Christiania	.....	.....	29.54	750.4	31.8	— 0.1	65	E	0.9	0.4	.....	.....	4	.....	.....	0.031	0.8	.....	
Tromsö	.....	.....	29.23	742.5	28.9	— 1.7	68	N	0	0	.....	.....	10	.....	.....	0.173	4.4	Snowing	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer corrected for instrumental errors.		Barometer reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Upper. 0—10.	Lower. 0—10.	Upper. From—	Lower. From—	Inches.	Millimeters.		
Angra, (Azores,)	.....	.....	30.04	762.9	59.4	15.2	82	W	8.6	3.83	.....	.....	2	.....	.....	0.591	15.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.24	768.9	62.6	17.0	45	ESE	7.1	3.17	.....	.....	4	.....	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.24	768.1	64.6	18.1	72	SSE	1.8	0.81	.....	.....	1	.....	.....	0	0	.....	Capt D. A. da Cunha.
Lisbon	.....	.....	30.25	768.4	61.0	16.1	64	ESE	3.8	1.7	.....	.....	2	WSW	.....	0	0	.....	The Observatory.
.....	.....	.....	..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.48	748.8	43.5	6.4	81	WSW	11	5	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	29.45	747.9	37.6	3.1	91	S	9	4	.....	.....	10	.....	.....	...	.....	.....	Astronomical Obs.
Dorpat	.....	.....	29.46	748.2	30.2	— 1.0	91	ENE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.48	748.7	26.8	— 2.9	83	ENE	2	1	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	29.52	749.8	12.6	—10.8	100	NW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	29.51	749.5	34.5	1.4	96	S	7	3	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet
Nikolaiev	.....	.....	29.71	754.7	40.5	4.7	81	SSW	25	11	.....	.....	5	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	29.88	759.0	43.9	6.6	67	S	13	6	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.58	751.2	36.0	2.2	85	SSW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.85	758.2	35.2	1.8	78	SW	13	6	.....	.....	6	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.37	746.0	19.4	— 7.0	94	S.E.	13	6	.....	.....	10	.....	.....	.....	.....	Heavy snow	Ogorodnikof.
Tiflis	28.65	727.8	30.09	764.2	47.1	8.4	55	SW	4	2	.....	.....	2	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.30	769.7	30.6	— 0.8	58	S	2	1	.....	.....	3	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	29.68	753.9	32.4	0.2	85	WSW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	8.4	—13.1	76	SE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.86	733.1	29.92	760.0	21.2	— 6.0	69	SW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.15	765.7	33.4	0.8	82	N	4	2	.....	.....	2	.....	.....	.....	.....	.....	.....
Kasaly	.....	.....	30.10	764.5	18.5	— 7.5	55	N	4	2	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.58	725.9	30.30	769.7	50.0	10.0	56	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.41	772.3	— 3.8	—19.9	70	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.37	771.5	4.8	—15.1	64	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.19	766.9	29.8	— 1.2	61	NW	11	5	.....	.....	5	.....	.....	Blank	Blank	.....	Physical Observatory.
Nertchinsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.20	767.1	22.1	— 5.5	73	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 401 m eters, or 1,311.8 feet; Ekaterinburg, 304.47 m., or 1,005.22 ft.; Tashkend, m 494.27, or 1,621.37 ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.07 m., or 1,942.27 ft.; Oorga, 1,281.06 m., or 4,202.67 ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.32	770.2	57.0	13.9	42	NE	2.2	1.00	.....	1	0	S	.....	0	0	Almost clear	Royal Observatory.
San Fernando	.....	.....	30.25	768.4	67.8	19.9	52	SE	14.5	6.5	.....	2	3	SE	SE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Raparanda	.....	.....	29.45	748.0	6.4	—14.2	92	SW	.....	.....	2	.....	0	.....	.....	0.12	3.	.....	
Umea	.....	.....	29.53	750.1	13.5	—10.3	83	SW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	29.54	750.3	18.5	— 7.5	92	Calm	.....	.....	0	.....	3	.....	.....	0	0	.....	
Stockholm	.....	.....	29.41	747.1	25.9	— 3.4	95	NNE	.....	.....	4	.....	10	.....	.....	0.028	0.7	Snowing	
Wisby	.....	.....	29.33	744.9	33.1	0.6	92	ESE	.....	.....	2	.....	10	.....	.....	0.031	0.8	.....	
Sub-Series.																			
Upsala	.....	.....	29.30	744.3	31.5	— 0.3	67	NE	11.6	5.2	.....	.....	10	.....	.....	0	0	.....	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.72	729.5	30.19	766.8	40.6	4.8	72	SSW	.....	.....	8	.....	9	.....	.....	0.461	11.7	Raining	The Observatory.
Zurich	28.39	721.1	30.08	764.0	39.0	3.9	77	W	.....	.....	6	.....	8	.....	.....	0.811	20.6	Cloudy	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +3.7 mm.; Thermometer, 0.0 cent.; Relative Humidity, +4 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,642 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Constantinople	.....	.....	29.73	755.1	55.8	13.2	48	SSW	7	3.0	.....	.....	7	.....	WNW	0.425	10.8	.....	
Fao, (Persian Gulf)	.....	.....	30.00	762.0	62.6	17.0	.....	SE	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.62	752.4	55.8	13.2	.....	W	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.68	753.8	53.1	11.7	.....	W	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.57	751.0	54.5	12.5	.....	NW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.07	763.7	63.0	17.2	72	WNW	.....	.....	2	.....	2k	.....	SW	0	0	Fair	Prof. C. V. A. Van Dyck.

NOTE.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Bathurst, N. B.	.....	.....	29.39	746.5	—13.5	—25.3	73	NW	10.0	4.5	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.20	767.1	— 9	—22.8	.....	SW	5	2.2	.....	0	2s	.....	N	0	0	Fair	W. R. Bigg.
*Chatham, N. B.	.....	.....	29.45	748.0	—16	—26.7	88	W	6	2.7	.....	0	0	.....	.....	0	0	Clear	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	29.41	747.0	—13	—25.0	90	NW	13	5.8	.....	0	0	.....	.....	0.02	0.5	Clear	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.04	763.0	—10.1	—23.4	100	W	.....	.....	2	10c	.....	.....	.....	0	0	Threatening	James Smith, M. A.
Dalhousie, N. B.	.....	.....	29.45	748.0	—10.7	—27.1	69	W	.....	.....	4	5cs	.....	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.65	753.1	42.1	5.6	92	NE	1	0.4	.....	.....	10	.....	.....	0.04	1.0	Cloudy	W. H. Bevis.
Fredericton, N. B.	.....	.....	29.59	751.6	—17.6	—27.6	74	W	21	9.4	.....	.....	.....	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.03	762.7	— 4	—20.0	96	E	3	1.3	.....	0	2s	.....	S	0	0	Fair	James Stewart.
Goderich, Ontario	.....	.....	30.32	770.1	9.6	—12.4	92	Calm	.....	.....	0	.....	10n	.....	.....	*0.20	*5.1	Threatening	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.29	769.4	6.6	—14.1	.....	W	.....	.....	1	.....	10n	.....	.....	0	0	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	29.44	747.8	—11	—23.9	52	NW	14	6.3	.....	0	0	.....	.....	1.08	27.4	Clear	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.21	767.3	— 7	—21.7	80	W	6	2.7	.....	0	0	.....	.....	0	0	Clear	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.30	769.6	— 5.4	—20.8	.....	S	3	1.3	.....	.....	9s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.02	762.5	—11	—23.9	76	W	21	9.4	.....	5cs	5ks	NW	NW	0	0	Cloudy	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.09	764.3	—12	—24.4	85	W	12	5.4	.....	2c	0	W	.....	0	0	Clear	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.30	769.6	— 9	—22.8	76	NW	5	2.2	.....	2cs	0	NW	.....	0	0	Fair	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.32	770.1	7	—13.9	77	W	12	5.4	.....	.....	10ks	.....	W	0	0	Cloudy	H. Morgan.
Port Hastings, N. S.	.....	.....	29.30	744.2	0.8	—17.3	.....	NW	40	17.9	.....	.....	.....	.....	.....	0.50	12.7	Stormy	Peter Grant.
*Port Stanley Ontario	.....	.....	30.33	770.4	8	—13.3	87	W	10	4.5	.....	.....	10n	.....	W	0	0	Light snow	M. Payne.
*Quebec, Quebec	.....	.....	29.85	758.2	—15	—26.1	42	SW	20	8.9	.....	0	0	.....	.....	0	0	Clear	Capt. Ash, R. N.
St. John, N. B.	.....	.....	29.62	752.3	—17	—27.2	100	NW	16	7.2	.....	.....	.....	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.28	769.1	1	—17.2	74	NE	1	0.4	.....	.....	10s	.....	.....	0.13	3.3	Light snow	K. Stewart.
Stayner, Ontario	.....	.....	30.27	768.8	1	—17.2	77	N	5	2.2	.....	10cs	0	N	.....	0	0	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	30.28	769.1	6.2	—14.3	84	NW	10	4.5	.....	.....	10s	.....	.....	0.050	1.27	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.19	741.4	3	—16.1	100	NW	11	4.9	.....	.....	10n	.....	.....	1.03	26.2	Light snow	T. C. Hill.
*Toronto, Ontario	.....	.....	30.27	768.8	5	—15.0	85	NW	5	2.2	.....	.....	10n	.....	NW	0.01	0.3	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m. *Rain-fall in 48 hours.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. Fro	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters	Weather.	Observer
Albany, N. Y.	.....	.....	30.05	763.3	0	—17.8	69	NW	7	3.1	.....	0	Haze	.....	.....	0	0	Clear.	
Alpena, Mich.	.....	.....	30.28	769.1	1	—17.2	85	W	4	1.8	.....	.....	10n	.....	.....	0.03	0.8	Light snow.	
Atlantic City, N. J.	.....	.....	30.20	767.1	14	—10.0	63	W	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Augusta, Ga.	.....	.....	30.41	772.4	33	0.6	51	N	2	0.9	.....	0	Sm'e	.....	.....	0	0	Clear.	
Baltimore, Md.	.....	.....	30.27	768.8	19	— 7.2	54	W	6	2.7	.....	0	Sm'e	.....	.....	0	0	Clear.	
Barnegat, N. J.	.....	.....	30.15	765.8	14	—10.0	64	NW	24	10.7	.....	0	0	.....	.....	0	0	Clear.	
Benton, Montana	26.92	683.8	29.72	754.9	36	2.2	45	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Bismarck, Dakota	27.97	710.4	29.73	755.1	10	—12.2	58	E	2	0.9	.....	0	Haze	.....	.....	0	0	Fair.	
Boston, Mass.	.....	.....	29.91	759.7	— 1	—18.3	68	W	14	6.3	.....	0	5ks	.....	.....	0	0	Fair.	
Breckenridge, Minn	.....	.....	29.76	755.9	5	—15.0	75	SE	12	5.4	.....	0	Haze	.....	.....	0	0	Clear.	
Buffalo, N. Y.	.....	.....	30.26	768.6	7	—13.9	54	W	16	7.2	.....	Haze	2ks	.....	W	Inap.	Inap.	Fair.	
Burlington, Vt.	.....	.....	30.02	762.5	7	—21.7	80	N	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy.	
Cairo, Ill.	.....	.....	30.36	771.1	28	— 2.2	57	S	9	4.0	.....	0	0	.....	.....	0	0	Clear.	
Cape Hatteras, N. C.	.....	.....	30.28	769.1	26	— 3.3	76	N	14	6.3	.....	.....	2ks	.....	NE	0	0	Fair.	
Cape Henry, Va.	.....	.....	30.35	770.9	27	— 2.8	53	SW	7	3.1	.....	0	0	.....	.....	0	0	Clear.	
Cape May, N. J.	.....	.....	30.23	767.8	17	— 8.3	50	NW	22	9.8	.....	5k	0	NW	.....	0	0	Fair.	
Charleston, S. C.	.....	.....	30.40	772.1	33	0.6	33	NE	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
Cheyenne, Wyoming	24.02	610.1	29.96	761.0	38	3.3	18	W	20	8.9	.....	5c	5s	.....	.....	0	0	Cloudy.	
Chicago, Ill.	.....	.....	30.22	767.6	25	— 3.9	62	S	7	3.1	.....	2c	Haze	.....	.....	0	0	Fair.	
Cincinnati, Ohio	.....	.....	30.34	770.6	25	— 3.9	63	SW	6	2.7	.....	2ck	0	N	.....	0	0	Clear.	
Cleveland, Ohio	.....	.....	30.34	770.6	12.0	—10.6	91	W	9	4.0	.....	.....	10n	.....	W	Inap.	Inap.	Light snow.	
Colorado Springs, Col.	24.09	611.9	29.96	761.0	33	0.6	26	N	8	3.6	.....	0	5s	.....	NE	0	0	Fair.	
Corsicana, Tex.	.....	.....	30.36	771.1	42	5.6	75	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Davenport, Iowa	.....	.....	30.12	765.0	21	— 6.1	71	SE	8	3.6	.....	2cs	0	.....	.....	0	0	Clear.	
Denison, Tex.	.....	.....	30.24	768.1	58	14.4	41	S	9	4.0	.....	0	0	.....	.....	0	0	Clear.	
Denver, Col.	24.77	629.2	29.99	761.7	38	3.3	54	S	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich	.....	.....	30.32	770.1	11	—11.7	89	SW	3	1.3	.....	.....	10n	.....	.....	0.02	0.5	Heavy snow	
Dodge City, Kan.	27.40	696.0	29.74	755.4	35	1.7	61	S	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	30.09	764.3	20	— 6.7	55	SE	8	3.6	.....	0	2s	.....	.....	0	0	Fair.	
Duluth, Minn.	.....	.....	30.04	763.0	7	—13.9	77	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Eastport, Me.	.....	.....	29.66	753.4	16.5	—26.9	69	NW	18	8.0	.....	0	8s	.....	NW	0.25	6.3	Fair.	
Erie, Pa.	.....	.....	30.30	769.6	9	—12.8	89	W	12	5.4	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.	
Escanaba, Mich.	.....	.....	30.22	767.6	6	—14.4	76	NE	4	1.8	.....	.....	1on	.....	.....	0.04	1.0	Light snow	
Fort Gibson, Indian Terr.	.....	.....	30.21	767.3	44	6.7	67	SE	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Fort Sill, Indian T.	28.90	736.3	30.16	766.1	34	1.1	61	S	1	0.4	.....	2cs	0	S	.....	0	0	Clear.	
Fort Sully, Dakota	28.09	713.5	29.84	757.9	19	— 7.2	84	NE	2	0.9	.....	0	2s	.....	NE	0	0	Fair.	
Galveston, Tex.	.....	.....	30.40	772.1	52	11.1	86	NW	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Grand Haven, Mich.	.....	.....	30.21	767.3	16	— 8.9	92	E	1	0.4	.....	.....	10s	.....	W	0.01	0.3	Cloudy.	
Indianapolis, Ind.	.....	.....	30.32	770.1	23	— 5.1	73	S	7	3.1	.....	.....	10s	.....	W	0	0	Cloudy.	
Indianola, Tex.	.....	.....	30.43	772.9	50	10.0	78	NW	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Jacksonville, Fla.	.....	.....	30.31	769.9	44	6.7	60	NW	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
Keokuk, Iowa	.....	.....	30.08	764.0	22	— 5.6	72	S	9	4.0	.....	8c	0	SW	.....	0	0	Fair.	
Key West, Fla.	.....	.....	30.12	765.0	66.2	19.0	78	NE	28	12.5	.....	8k	Haze	NE	NE	0.03	0.8	Cloudy.	
Kittyhawk, N. C.	.....	.....	30.36	771.1	20	— 6.7	85	N	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Knoxville, Tenn.	.....	.....	30.47	773.9	22	— 5.6	72	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair.	
La Crosse, Wis.	.....	.....	30.01	762.2	1	— 6.1	71	S	5	2.2	.....	2c	2s	.....	.....	0	0	Fair.	
Leavenworth, Kan.	.....	.....	30.09	762.4	34	1.1	69	S	12	5.4	.....	0	2s	.....	SW	0	0	Clear.	
Lexington, Ky.	29.24	742.7	30.44	773.2	18	— 7.8	52	SW	2	0.9	.....	0	0	.....	.....	Inap.	Inap.	Clear.	
Long Branch, N. J.	.....	.....	30.14	765.5	14	—10.0	63	NW	14	6.3	.....	5k	0	NW	.....	0	0	Fair.	
Louisville, Ky.	.....	.....	30.38	771.6	25	— 3.9	62	S	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Lynchburg, Va.	.....	.....	30.34	770.6	23	— 5.0	48	SW	3	1.3	.....	0	0	.....	.....	0	0	Clear.	
Malone, N. Y.	.....	.....	30.05	763.3	— 8	—22.2	79	W	12	5.4	.....	.....	10s	.....	W	0	0	Cloudy.	
Marquette, Mich.	.....	.....	30.22	767.6	8	—13.3	78	SE	6	2.7	.....	.....	8n	.....	.....	0.01	0.3	Light snow.	
Memphis, Tenn.	.....	.....	30.41	772.4	31	— 0.6	69	SE	2	0.9	.....	0	Sm'e	.....	.....	0	0	Clear.	
Milwaukee, Wis.	.....	.....	30.24	768.1	16	— 8.9	83	S	3	1.3	.....	4c	Fog	NW	.....	0	0	Fair.	
Mobile, Ala.	.....	.....	30.42	772.7	39	3.9	71	N	1	0.4	.....	0	Sm'e	.....	.....	0	0	Clear.	
Montgomery, Ala.	.....	.....	30.47	773.9	34	1.1	56	N	5	2.2	.....	0	0	.....	.....	0	0	Clear.	
Morgantown, W. Va.	.....	.....	30.35	770.9	20	— 6.7	70	W	8	3.6	.....	10c	0	W	.....	0	0	Cloudy.	
Mt. Washington, N. H.	22.40	571.2	29.85	732.8	—38	—38.9	100	NW	15.6	7.0	.....	.....	Fog	.....	.....	0	0	Foggy	
Nashville, Tenn.	.....	.....	30.39	771.9	26	— 3.3	76	E	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
New Haven, Conn.	.....	.....	30.05	763.3	5	—15.0	50	N	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
New London, Conn.	.....	.....	30.03	762.7	5	—15.0	48	NW	17	7.6	.....	0	0	.....	.....	0	0	Clear.	
New Orleans, La.	.....	.....	30.41	772.4	46	7.8	47	NE	9	4.0	.....	0	0	.....	.....	0.02	0.5	Clear.	
Newport, R. I.	.....	.....	29.98	761.5	4	—15.6	61	W	24	10.7	.....	0	0	.....	.....	0	0	Clear.	
New York, N. Y.	.....	.....	30.11	764.8	10	—12.2	58	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Norfolk, Va.	.....	.....	30.35	770.9	22	— 5.6	86	W	4	1.8	.....	0	Haze	.....	.....	0	0	Clear.	
North Platte, Neb.	26.99	685.5	29.64	752.8	29	— 1.7	56	Calm	0	0	.....	2c	0	.....	.....	0	0	Clear.	
Omaha, Neb.	28.79	731.2	29.91	759.4	27	— 2.8	88	S	4	1.8	.....	5c	0	.....	.....	0	0	Fair.	
Oswego, N. Y.	.....	.....	30.20	767.1	5	—15.0	61	NW	20	8.9	.....	.....	10s	.....	NW	Inap.	Inap.	Cloudy.	
Peck's Beach, N. J.	.....	.....	30.24	768.1	15	— 9.4	83	W	12	5.4	.....	5k	0	.....	.....	0	0	Fair.	
Pembina, Dakota	.....	.....	29.86	758.4	0	—17.8	85	E	8	3.6	.....	5c	0	.....	.....	0	0	Fair.	
Philadelphia, Penn.	.....	.....	30.21	767.3	14	—10.0	46	NW	24	10.7	.....	0	0	.....	.....	0	0	Clear.	
Pike's Peak, Colorado	17.80	452.1	30.00	762.0	18	— 7.8	52	NW	10	4.5	.....	0	2s	.....	.....	0	0	Fair.	
Pittsburgh, Penn.	.....	.....	30.35	770.9	15	— 9.4	48	W	6	2.7	.....	5k	0	.....	.....	Inap.	Inap.	Fair.	
Port Huron, Mich.	.....	.....	30.33	770.4	8	—13.3	89	W	5	2.2	.....	.....	10n	.....	.....	0.02	0.5	Light snow.	
Portland, Me.	.....	.....	29.84	757.9	— 4	—20.0	64	NW	3	1.3	.....	2c	Haze	NW	.....	0	0	Fair.	
Portland, Oregon	.....	.....	29.82	757.4	48	8.9	77	SW	6	2.7	.....	.....	10n	.....	.....	0.79	20.1	Heavy rain.	
Punta Rassa, Fla.	.....	.....	30.19	766.8	53.0	11.7	68	N	18	8.0	.....	Haze	2s	.....	.....	0.04	1.0	Hazy.	
Rochester, N. Y.	.....	.....	30.21	767.3	7.5	—13.6	89	W	17	7.6	.....	.....	10n	.....	.....	0.07	1.8	Light snow.	
Salt Lake City, Utah	25.62	650.7	29.95	760.7	37	2.8	71	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Sandy Hook, N. J.	.....	.....	30.12	765.0	13.5	—10.3	61	W	29	13.0	.....	0	5ks	.....	W	0	0	Fair.	
San Diego, Cal.	.....	.....	30.04	763.0	54	12.2	62	E	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
San Francisco, Cal.	.....	.....	30.04	763.0	52	11.1	86	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Santa Fe, N. M.	23.38	593.8	29.92	760.0	21	— 6.1	71	Calm	0	0	.....	0	0	.....	.....	0	0	Clear.	
Savannah, Ga.	.....	.....	30.40	772.1	36	2.2	61	NE	8	3.6	.....	0	0	.....	.....	0	0	Clear.	
Shreveport, La.	.....	.....	30.43	772.9	42.5	5.8	92	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair.	
Smithville, N. C.	.....	.....	30.40	772.1	25	— 3.9	60	N	6	2.7	.....	0	0	.....	.....	0	0	Clear.	
Springfield, Mass.	.....	.....	30.01	762.2	4	—15.6	44	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
St. Louis, Mo.	.....	.....	30.23	767.8	27	— 2.8	77	S	12	5.4	.....	0	0	.....	.....	0	0	Clear.	
St. Marks, Fla.	.....	.....	30.36	771.1	38	3.3	55	N	10	4.5	.....	0	0	.....	.....	0	0	Clear.	
St. Paul, Minn.	.....	.....	29.90	759.4	15	— 9.4	73	SE	22	9.8	.....	8cs	Haze	.....	.....	0	0	Fair.	
St. Paul's Island, Alaska	.....	.....	29.67	753.6	33	0.6	80	SW	25	11.2	.....	1c	8k	.....	.....	0.24	6.1	snow flurries.	
Squan Beach, N. J.	.....	.....	30.09	764.3	12	—11.1	61	NW	21	9.4	.....	0	Haze	.....	.....	0	0	Clear.	
Thatcher's Island, Mass.	.....	.....	29.90	759.4	— 1	—18.3	37	NW	20	8.9	.....	0	2k	.....	NW	0	0	Clear.	
Toledo, Ohio	.....	.....	30.28	769.1	20	— 6.7	85	SW	8	3.6	.....	.....	10n	.....	SW	0.01	0.3	Light snow.	
Tucson, Arizona	27.61	701.3	30.20	767.1	46	7.8	.....	SE	.....	.....	.....	2c	0	.....	.....	0	0	Fair.	
Tybee Island, Ga.	.....	.....	30.40	772.1	40	4.4	56	NE	18	8.0	.....	Haze	0	.....	.....	0	0	Clear.	
Vicksburg, Miss.	.....	.....	30.46	773.7	39	3.9	59	SE	6	2.7	.....	0	0	.....	.....	0	0	Clear.	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	24.14	613.1	29.62	752.3	33	0.6	61	Calm	0	0	.....	10ck	0	NW	.....	0	0	Cloudy	
Washington, D. C.	.....	.....	30.30	769.6	19	— 7.2	45	SW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Wilmington, N. C	.....	.....	30.38	771.6	26	— 3.3	40	N	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Wood's Holl, Mass.	.....	.....	29.96	761.0	6	—14.4	52	NW	27	12.1	.....	0	0	.....	.....	0	0	Clear	
Wytheville, Va.	27.85	707.4	30.20	767.1	17	— 8.3	68	W	6	2.7	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Yankton, Dakota	28.54	724.9	29.90	759.4	18	— 7.8	68	W	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Yuma, Arizona	.....	.....	30.01	762.2	57	13.9	.....	E	.....	.....	.....	.....	10s	.....	SE	0	0	Cloudy	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.11	764.8	78	25.6	90	E	6	2.7	.....	5c	10s	NE	NE	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.02	762.5	74	23.3	81	E	.....	.....	.....	10pc	0	.....	.....	0.04	1.0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I.	.....	.....	30.27	768.8	76	24.4	76	Calm	0	0	.....	2c	8ks	.....	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I.	.....	.....	30.19	766.8	74	23.3	81	Calm	0	0	.....	2c	0	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I.	.....	.....	29.81	757.2	73	22.8	76	Calm	0	0	.....	4cs	0	W	.....	Inap.	Inap.	Fair	Robert Mason.
Havana, Cuba, W. I.	.....	.....	30.11	764.8	71	21.7	71	NE	10.8	4.8	.....	5k, fk	2n	NE	.....	0.16	4.1	Cloudy	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	29.90	759.4	52.0	11.1	79	NW	46.0	20.6	.....	.....	10k	.....	.....	0.70	17.8	Squally & stormy	C. F. Allen.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	27.25	692.1	30.06	763.5	64	17.8	83	SE	2.0	0.9	.....	5c	0	SE	.....	0	0	Fine & clear	C. Partridge.
Paramaribo, D. Guiana, S. A.	.....	.....	29.98	761.5	81	27.2	79	E	.....	.....	2	.....	6ks	.....	.....	0.050	1.27	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A.	.....	.....	30.07	763.7	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.049	1.25	.....	Dr. H. Groot.
Medellin, Colombia, S. A.	25.21	640.4	.....	.....	65.8	18.8	85	.....	0	0	.....	0	5s	.....	.....	0	0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.13	739.9	28.0	— 2.2	.....	SE	.....	.....	.....	.....	10n	.....	.....	0.36	9.1	Threatening	John Delaney.
York Factory, B. A.	.....	.....	30.38	771.6	—32	—35.6	.....	NW	7	3.1	.....	5c	0	NW	.....	0	0	.....	J. Fortescue.
Honolulu, Oahu, H. I.	.....	.....	30.09	764.3	73	22.8	95	NE	.....	.....	7	.....	.....	.....	.....	0.23	5.8	Clear, squally	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric Gen. (Bvt. Assg'd,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 25, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:58 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean tim .
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Genie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. entigrade	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.19	766.8	63.5	17.5	63	Calm	.....	.....	0	.....	3	.....	.....	0	0	Fair	Charnot and Masselot.
Algiers	.....	.....	30.17	766.3	62.2	16.8	69	E	.....	.....	1	.....	0	.....	.....	0	0	Clear	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.11	764.8	64.8	18.2	48	NW	.....	.....	3	.....	0	.....	.....	0	0	Clear	Jacques.
Sfax	.....	.....	30.20	767.0	69.4	20.8	55	S	.....	.....	4	.....	1	.....	.....	0	0	Clear	Chauvey.
Saïda	.....	.....	30.21	767.3	72.5	22.5	17	SSE	.....	.....	3	.....	0	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	30.17	766.3	68.2	20.1	.....	W	.....	.....	2	.....	0	.....	.....	0	0	Clear	Colin.
Geriville	.....	.....	30.18	766.5	61.7	16.5	14	S	.....	.....	2	.....	2	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	30.24	768.0	64.4	18.0	28	NE	.....	.....	3	.....	0	.....	.....	0	0	Clear	Delord.
Biskra	.....	.....	30.23	767.9	70.0	21.1	20	NW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Dubois.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fal is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	30.04	763.0	47.5	8.6	25	SW	.....	.....	3	.....	3	.....	.....	Inap.	Inap.	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	29.86	759.3	32.4	0.2	85	WNW	.....	.....	3	.....	10	.....	.....	0	0	.....	I. R. Observatory.
Sperles	.....	.....	29.79	756.6	37.0	2.8	64	NW	.....	.....	5	.....	6	.....	SE	0	0	.....	Julius Mikolik.
Gratz	28.79	731.3	30.02	762.6	42.4	5.8	36	NE	.....	.....	5	.....	0	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.24	717.4	29.70	754.3	36.7	2.6	64	WNW	.....	.....	4	.....	10	.....	.....	0.165	4.20	.....	Prof. Reissenberger.
Kremsmünster	28.72	729.4	30.11	764.7	38.1	3.4	63	WNW	.....	.....	5	.....	3	.....	.....	0	0	.....	Prof. C. Wagner.
Lemberg	.....	.....	29.63	752.5	34.0	1.1	73	NW	.....	.....	3	.....	10	.....	.....	0.008	0.2	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	29.80	756.8	40.3	4.6	59	N	.....	.....	2	.....	6	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	30.10	764.4	47.5	8.6	58	SSW	.....	.....	1	.....	4c	.....	.....	0	0	.....	I.R. Hydrographic Office
Szegedin	.....	.....	29.90	759.5	39.9	4.4	63	NW	.....	.....	4	.....	5	.....	.....	0	0	.....	Karl Stancel.
Trieste	.....	.....	30.10	764.5	47.1	8.4	73	WNW	.....	.....	1	.....	0	.....	.....	0	0	.....	Prof. V. Farolfi.
Vienna	.....	.....	29.95	760.8	41.0	5.0	47	W	.....	.....	6	.....	2	.....	.....	0.244	6.2	.....	I. R. Central Institute.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	29.97	761.2	44.2	6.8	74	SSW	.....	.....	2	.....	10	.....	.....	0.010	0.25	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.73	755.1	35.0	1.7		SW	21	9.4			9			0.020	0.51	*D. clouds	William Boswell.
Ardrossan			29.52	749.8	33	0.6		ENE			4		10					Heavy snow	J. Mayes.
Armagh Observatory			29.43	747.5	48.0	8.9		SSW	15	6.7			10					Raining	S. Cali, for Dr. Robinson
Bidston, Liverpool Obs.			29.57	751.1	40.2	4.6		SE	24	10.7			10					Misty	John Hartnup.
Birr Castle, (Parsonstown)			29.48	748.8	57.5	10.8		W			1		10					*D. clouds	J. Dreyer.
Bradford			29.60	751.8	36.9	2.7		SE			1		10			0.09	2.3	Threatening	J. McLandsborough.
Bridgetown, (Barbados)			30.07	763.8	81.0	27.2		NE			2		6					*D. clouds	Sergt. G. H Hunt.
Cambridge Observatory			29.74	755.4	44.1	6.7		S			1		10					Raining	H. Todd.
Cardington			29.79	756.7	45.0	7.2		SW			2		10					Overcast	John McLaren.
Carlisle			29.53	750.0	34.8	1.6		S			6		10			0	0	Snowing	Bell, for J. Cartmell.
Chatham, School M. E.			29.87	758.7	45.2	7.3		WNW			1		6					Light rain	Capt. J. Fellowes, R. E.
Dartmoor	28.21	716.5	29.72	754.9	44.6	7.0		S			3		10					Raining	R. E. Power.
Donaghadee			29.41	747.0	49	9.4		SSE			6		10					Raining	J. Mac Gowan.
Dover			29.84	757.9	43	6.1		S			4		7					¾ clouded	J. Costello.
Eccles, (near Manchester)			29.61	752.1	40.3	4.6		S	3.8	1.7			10					Raining	Thomas Mackereth.
Falmouth Observatory			29.67	753.6	49.6	9.8		SSW	22	9.8			10					Rain and fog	The Staff.
Fort Napier, (Natal)	27.55	699.8	29.79	756.7	79.6	26.4		E			1		2					*D. clouds	Pvt G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.94	760.5	86.0	30.0		N			0		7					*D. clouds	
Galway, Queen's College			29.43	747.5	49	9.4		S			2		10					Raining	B. G. Clare, for Prof. Orr.
Gibraltar, (Mediterranean)			30.10	764.5	65.0	18.3		W			2		8					Overcast	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.52	749.8	31.6	— 0.2		ENE			3		10					Snowing	Lewis Stuart.
Great Yarmouth			29.84	757.9	38	3.3		SSE			3		7					Misty	G. T. Watson.
Greenwich Royal Obs.			29.80	756.9	44.8	7.1		SSW			1		10			Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey			29.81	757.2	46.5	8.1		SSE			3		8					Overcast	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.68	753.9	36.4	2.4		SE			1		10					Raining	E. J. Cr sley..
Helston			29.65	753.1	51	10.6		SW			4		10			0.3	7.6	Raining	M. P. Moyle.
Holyhead			29.18	748.8	48	8.9		SSW			3		10					Raining	John Tilston.
Kew Observatory			29.49	756.7	45.7	7.6		SSW	19	8.5			10					R ining	The Staff.
Kingstown			29.48	748.8	50	10.0		W			4		9					Overcast	George Mitchell
Leicester Museum			29.73	755.1	41.2	5.1		SE			1		10					Raining	William J. Harrison.
Malta, (Mediterranean)			30.14	765 5	60.6	15.9		NW			2		6k						Fred Travis, Pvt A.H.C
Nairn			29.69	754.1	35	1.7		NE			1		5					½ c ouded	W. D. Penny.
Nassau, (Bahamas)			30.24	768.1	67.6	19.8		N			6		7					*D. clouds	Surg.-Maj. Henry.
Nottingham			29.69	754.1	40.0	4.4		ESE			2		10n		ESE	0.230	5.84	Raining	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			29.68	753.9	41.2	5.1		S			2		10					Raining	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.73	755.1	46	7.8		S			2		10					Drizzling	J. Lucas.
Plymouth			29.70	754.4	48.5	9.2		S			3		10					Raining	John Merrifield.
Roche's Point			29.54	750.3	51	10.6		WSW			3		8					Raining	W. Kennedy.
Saint Ann's Head			29.60	751.8	47	8.3		SW			3		10					Raining	John C. Walker.
Saint Helier, (Jersey)			29.82	757.4	47.0	8.3		SSW			5		10					Raining	A. P. Amy.
Sandwick Manse (Orkneys			29.78	756.4	31.6	— 0.2		E	11	4.9			10					Misty	Rev. Dr. Clouston
Scarborough			29.71	754.6	36.2	2.3		SSE			5		10					Raining	F. Shaw.
Scutari Cemetery (Turkey			29.70	754.4	46.4	8.0		SW			3		10					Showery	Sergt. W. H. Lyne.
Sheffield			29.69	754.1	38.7	3.7		S			1		10			0	0	Raining	W. F. Cooper.
Silloth Rectory			29.51	749.5	38.0	3.3	91	SE			2		10			0.500	12.70	Raining	Rev Francis Redford.
Stonyhurst Observatory			29.60	751.8	38.6	3.7		S			4		10					Raining	The Staff.
Stornoway, Lews C. (Hebr)			29.67	753.6	34	1.1		ESE			5		10					Overcast	John Smith.
Strathfield Turgiss			29.80	756.9	45.8	7.7		S			1		10					Drizzling	Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.70	754.4	33	0.6		Calm			0		10					Overcast	John Trotter.
Truro, Royal Institution			29.62	752.3	51	10.6		SW			4		10					Raining	W. Newcombe.
Valencia Observatory			29.53	750.0	52.2	11.2		SW	20	8.9			10					*D. clouds	The Staff
Sub-Series.																			
Cape Good Hope Obs.			29.94	760.5	74.9	23.8	50	SSE	32	14.3			6						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					46	7.8		S			6		10			0	0		
Leith, Restalrig Park			29.62	752.3	33.1	0.6		E			4		10n			0	0	Snowing	Andrew Gibb.
Monach Lt-house, Hebrides			29.45	748.0	35	1.7		E			4		10			0	0	Snow-show'rs	J. Youngclause.
North Unst, (Shetland Is)			29.80	756.9	34	1.1		NW			4	5	3	NE		0	0		

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 1. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. * Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.73	755.2	33.8	1.0	81	WNW			4		10						
Fanöe			29.88	758.9	35.8	2.1	80	WNW			4		5						
Godthaab, (Greenland)			29.78	756.4	26.6	— 3.0	53	ENE			4		5						
Stykkisholm, (Iceland)			29.16	766.0	20.3	— 6.5	95	NE			7		8						
Thorshavn, (Faroe)			29.80	757.0	32.2	0.1	78	E			4		5						
Vestervig			29.78	756.5	31.6	— 0.2	81	W			4		8						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alengon	.....	.....	29.66	753.4	51.8	11	69	SW	.....	.....	1	.....	5nk	.....	SW	0.378	9.6	Cloudy	Normal School.
Amiens	.....	.....	29.94	760.5	43.5	6.4	85	NW	.....	.....	6	.....	10	.....	.....	0	0	Covered	Normal School.
Avignon	.....	.....	30.08	763.9	55.8	13.2	38	N	.....	.....	2	.....	0	.....	.....	0	0	Very cloudy	Normal School.
Bar-sur-Seine	.....	.....	30.03	762.7	48.2	9	40	S	.....	.....	3	.....	8	.....	.....	0	0	Misty	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.88	759.0	54.0	12.2	57	S	6.7	3.0	.....	.....	.....	.....	S	0	0	.....	Beaumette Observatory
Beauvais	.....	.....	29.96	760.9	47.8	8.8	63	S	.....	.....	1	.....	10	.....	SW	0	0	Covered	Normal School.
Besançon	.....	.....	30.08	763.9	45.7	7.6	56	ENE	.....	.....	3	.....	0	.....	.....	0	0	Clear	Normal School.
Bourg en Bresse	.....	.....	30.11	764.7	47.3	8.5	65	S	.....	.....	6	5c	.....	E	.....	.....	.....	Cloudy	Normal School.
Bourges	.....	.....	29.89	759.1	49.3	9.6	92	SE	.....	.....	2	.....	5	.....	SE	0	0	Cloudy	Normal School.
Brest	.....	.....	29.72	754.8	50.2	10.1	86	SW	.....	.....	4	.....	10	.....	SW	0.010	0.25	Raining	Naval Observatory.
Caen	.....	.....	30.26	768.5	51.1	10.6	72	S	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Chartres	.....	.....	30.04	763.1	47.5	8.6	.....	S	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.93	760.2	48.2	9.0	67	W	.....	.....	2	.....	10	.....	.....	0.063	1.6	Covered	Puy de Dome, Obs.
Commercy	.....	.....	30.05	763.2	41.0	5	77	ESE	.....	.....	2	.....	10n	.....	ESE	0	0	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.10	764.6	53.6	12.0	36	NW	.....	.....	2	.....	0	.....	.....	0	0	.....	.....
Grenoble	.....	.....	30.08	764.1	46.9	8.3	59	ENE	.....	.....	2	..e	2s	.....	S	0.04	1.	Slightly cl'dy	Normal School.
Le Mans	.....	.....	29.97	761.2	51.1	10.6	60	S	.....	.....	3	.....	5	.....	S	0	0	Cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.04	763.0	48.4	9.1	73	SW	.....	.....	1	.....	5	.....	.....	0.089	2.25	Cloudy	Normal School.
Mâcon	.....	.....	30.16	766.0	38.5	3.6	92	Calm	.....	.....	0	.....	0	.....	.....	0.08	2.	Clear	Normal School.
Mirecourt	.....	.....	30.02	762.5	43.5	6.4	.....	NW	.....	.....	2	.....	2	.....	SE	0	0	Slightly cov.	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.08	764.0	58.8	14.9	72	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Orleans	.....	.....	29.98	761.5	50.0	10	74	SE	.....	.....	3	.....	8	.....	SE	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	29.97	761.2	48.2	9.0	61	SSW	.....	.....	1	.....	10	.....	.....	0	0	Covered	National Observatory
Parthenay	.....	.....	29.93	760.2	52.5	11.4	71	SW	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
Privas	.....	.....	30 08	764.0	51.1	10.6	.....	N	.....	.....	2	.....	2	.....	.....	0	0	Slightly cl'dy	Normal School.
La Roche-sur-Yon	.....	.....	29.91	759 8	53.6	12.0	72	S	.....	.....	2	.....	5	.....	N	0	0	Cloudy	Normal School.
Rochefort, Observatory	.....	.....	29.95	760.7	53.1	11.7	75	S	.....	.....	3	.....	8	.....	NE	0.157	4.0	¾ covered	Naval Observatory.
Rouen	.....	.....	30.01	762.3	48.4	9.1	61	SE	.....	.....	3	.....	5	.....	W	0	0	Cloudy	Normal School.
Saint Lo	.....	.....	29.87	758.7	50.5	10.5	82	SW	.....	.....	2	.....	9	.....	SE	0	0	.....	Normal School.
Tarbes	28.88	733.6	29.94	760.4	55.4	13	25	SSW	.....	.....	2	.....	0	.....	.....	0	0	Clear	Normal School.
Toulouse	.....	.....	30.13	765.4	56.1	13.4	62	SE	.....	.....	2	.....	k	.....	.....	.....	.....	.....	Normal School.
Villefranche	.....	.....	30.38	771.6	48.2	9	92	SSE	.....	.....	1	.....	0	.....	.....	0	0	Clear	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.2	75.9	24.4	82	NE	.....	.....	2	.....	5k	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.07	763.6	55.9	13.3	55	NW	.....	.....	3	.....	0	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.84	630.9	30.18	766.6	49.1	9.5	29	SW	24.2	10.83	.....	.....	2	.....	W	0	0	.....	—. Faiguère.
Montsouris, Paris	.....	.....	29.95	760.6	46.8	8.2	65	SSW	.....	.....	1	.....	10	.....	S	0	0	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.03	762.8	53.1	11.7	69	E	5.4	2.50	.....	.....	6	SE	NW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.20	538.6	.....	.....	32.9	0.5	.....	W	.....	.....	4	.....	8	.....	.....	.....	.....	Cloudy	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.97	761.2	48.7	9.3	57	S	.....	.....	1	.....	10	.....	.....	0	0	Covered	E. Renou.
Toulouse	.....	.....	30.02	762.6	56.1	13.4	62	SE	.....	.....	1	.....	5	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	30.13	765.2	55.9	13.3	57	SW	.....	.....	3	.....	8	.....	SW	0	0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.94	760.5	49.6	9.8	62	S	.....	.....	2	.....	10	.....	.....	0	0	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

* Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.99	761.7	39.4	4.1	69	NW	.....	.....	5	.....	7	.....	.....	0.118	3.0	.....	Prof. T. Hoh.
Berlin	.....	.....	29.92	759.9	39.7	4.3	62	NW	.....	.....	3	.....	8	.....	.....	0.016	0.4	.....	Prof. Arndt.
Breslau	.....	.....	29.91	759.8	36.3	2.4	78	WNW	.....	.....	6	.....	10	.....	.....	0.071	1.8	Graupelnd	Dr. P. Neugebauer
Carlsruhe	.....	.....	30.07	763.8	42.6	5.9	50	SW	.....	.....	3	.....	5	.....	.....	0.028	0.7	.....	A. Senz.
Cassel	.....	.....	29.95	760.8	42.5	5.8	56	W	.....	.....	3	.....	6	.....	.....	0.083	2.1	.....	Dr. H. Möhl.
Cologn	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	30.15	765.7	44.8	7.1	63	SW	.....	.....	1	.....	9	.....	.....	0.008	0.2	.....	Physical Society.
Friedrichshafen	.....	.....	30.13	765.2	41.4	5.2	39	SE	.....	.....	.....	.....	8	.....	.....	0.083	2.1	.....	M. Wilhelm.
Hamburg	.....	.....	29.95	760 6	38.1	3.4	56	NW	.....	.....	5	.....	5	NW	.....	0.008	0.2	Fair	Deutsche Seewarte.
Kiel	.....	.....	29.91	759.6	38.5	3.5	62	NW	.....	.....	4	.....	8	.....	.....	0.028	0.7	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.73	755.2	29.3	— 1.5	71	NW	.....	.....	5	.....	9	.....	.....	0.071	1.8	.....	Prof. E. Luther.
Köslin	.....	.....	29.79	756.7	30.9	— 0.6	.....	W	.....	.....	2	.....	7	.....	.....	0.366	9.3	.....	H. Müller.
Leipsic	.....	.....	30.00	761.9	37.9	3.3	66	NW	.....	.....	3	.....	8	.....	.....	0.016	0.4	.....	Prof. Bruhns.
Münster	.....	.....	30.30	769.7	43.7	6.5	76	W	.....	.....	4	.....	10	.....	.....	0.154	3.9	Raining	Prof. E. Heis.
Posen	.....	.....	29.86	758.5	35.2	1.8	65	NW	.....	.....	5	.....	2	.....	.....	0.047	1.2	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	30.08	764.0	44.2	6.8	57	S	.....	.....	2	.....	8	.....	.....	0	0	.....	Dr. Schür.
Stuttgart	.....	.....	30.11	764.9	41.5	5.3	54	SE	.....	.....	.....	.....	2	.....	.....	0	0	.....	Prof. Schoder.
Thorn	.....	.....	29.79	756.6	33.1	0.6	69	NW	.....	.....	5	.....	10	.....	.....	0.031	0.8	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	29.99	761.7	42.8	6.	51	W	.....	.....	4	.....	10	.....	.....	0	0	.....	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.86	758.5	34.3	1.3	86	WNW	.....	.....	5	.....	5	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.88	758.9	56.5	13.6	.....	W	.....	.....	Strong	.....	.....	.....	.....	.....	.....	Clear	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.07	763.7	47.3	8.5	29	SW			8		0			0	0		
Padua			30.07	763.7	48.7	9.3	38	S	6.8	2.8			1			0	0		
Vicenza			30.06	763.3	48.9	9.4	43	SE			4		1			0	0		
Verona																			
Bergamo			30.01	762.2	48.2	9.0	29	SE			2		1			0	0		
Domodossola																			
Milan			30.07	763.6	53.6	12.0	23	ENE			1		3	SSW		0	0		
Pavia																			
Moncalieri			30.08	764.1	47.5	8.6	55	ESE	3.1	1.4			1			0	0		
Mondovi			30.07	763.6	43.7	6.5	41	NW			2		2			0	0		
Porto Maurizio			30.09	764.3	55.4	13.0		E			4		2			0	0		
Genoa			30.07	763.6	55.9	13.3	57	SE	9.8	4.4			4	SW		0	0		
Piacenza			30.08	763.9	50.5	10.3	39	SE	3.1	1.4			1			0	0		
Bologna			30.08	764.0	53.4	11.9	28	W			1		2	S		0	0		
Florence			30.10	764.4	54.1	12.3	51	NE			2		1	SE		0	0		
Leghorn			30.08	764.0	57.0	13.9	71	W	2.5	1.1			7			0	0		
Siena			30.07	763.6	51.6	10.9	57	WSW	0	0			5	W		0	0		
Urbino																			
Pesaro																			
Ancona			30.11	764.7	48.9	9.4	45	SE			4		0			0	0		
Grosseto			30.08	764.1	58.3	14.6	40	SE			2		3	S		0	0		
Rome			30.11	764.9	57.6	14.2	32	N	2.5	1.1			0			0	0		
Naples, O. U.			30.14	765.4	59.4	15.2	29	NW			2		0			0	0		
Lecce			30.08	764.1	50.9	10.5	64	N	12.5	5.6			2	N		0	0		
Cosenza			30.11	764.8	57.0	13.9	61	NW	9.4	4.2			5			0	0		
Riposto, (Sicily)			30.13	765.2	62.2	16.8	58	SE			2		1			0	0		
Palermo			30.10	764.4	59.4	15.2	53	NNW	9.8	4.4			2			0	0		
Caltanissetta			30.09	764.3	52.2	11.2	55	NW			6		2	SE		0	0		
Sub-Series.																			
Naples, S. R.			30.13	765.3	57.2	14.0	39	W	2.5	1.1						0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 550 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.97	761.3	42.3	5.7		S			3								
Groningen			29.92	759.9	39.9	4.4		SW			1								
Helder			29.94	760.4	41.4	5.2		S			2								
Utrecht			29.95	760.7	43.0	6.1	89	WSW			3		10						Overcast.

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.74	755.4	32.4	0.2	92	SSE	8.9	4.0			5			0.047	1.2		
Brönö			29.45	748.1	27.5	— 2.5	72	Calm	0	0			5			0	0		
Christiania			29.65	753.2	28.2	— 2.1	83	Calm	0	0			0			0.079	2.0		
Tromsö			29.67	753.5	21.2	— 6.0	71	N	9	4			0			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer corrected for instrumental errors.		Barometer reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Up'er 0—10.	Low'r 0—10.	Upper. From—	Lower. From—	Inches.	Millimeters.		
Angra, (Azores,)			30.15	765.8	59.2	15.1	93	WSW	9.8	4.39			7			0	0		Dr. J. A. N. Sampaio.
Campo Major			30.09	764.2	57.7	14.3	64	SSW	11.0	4.91			10	WSW		0	0		Dr. A. M. R. dos Santos.
Funchal, (Madeira,)			30.26	768.6	65.1	18.4	73	SE	6.6	2.95			3			0	0		Capt. D. A. da Cunha.
Lisbon			30.08	763.9	59.7	15.4	70	SW	8.7	3.9			6			0	0		The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			29.74	755.4	31.1	— 0.5	88	NW	27	12			10						Astronomical Obs
Wilna			29.51	749.5	33.4	0.8	92	W	9	4			10						Astronomical Obs.
Dorpat			29.41	747.0	35.1	1.7	94	S	4	2			10						Physical Cabinet.
St. Petersburg			29.47	748.4	26.4	— 3.1	98	E	9	4			10						Central Physical Obs
Kuopio			29.66	753.3	13.1	—10.5	100	NE	9	4			10				Snowing		Ch. Forsten.
Kieff			29.34	745.2	32.7	0.4	96	NE	7	3			10				Snow & mist		Physical Cabinet
Nikolaiev			29.34	745.3	43.3	6.3	79	SE	25	11			10						Kurdakof.
Kertch			29.52	749.9	55.6	13.1	64	SSW	9	4			4						Lagorio.
Moscow			29.64	752.9	34.3	1.3	89	S	18	8			10						Meteorological Obs.
Lugan			29.59	751.5	28.9	— 1.7	64	ENE	29	13			3						Meteorological Obs.
Archangel			29.77	756.2	7.5	—13.6	77	Calm	0	0			0						Ogorodnikof.
Tiflis	28.51	724.1	29.93	760.2	49.1	9.5	50	Calm	0	0			0						Physical Obs.
Astrakhan			30.14	765.6	22.6	— 5.2	83	SE	18	8			6			Blank	Blank		Sebastianof.
Kasan			29.88	759.0	32.9	0.5	96	SW	9	4			10					Light snow.	Physical Cabinet.
Orenburg			30.32	770.2	17.1	— 8.3	76	SE	2	1			2						Tschernischef.
Ekaterinburg	29.03	737.4	30.08	764.0	26.6	— 3.0	57	S	2	1			10						Meteorological Obs.
Nukuss			30.17	766.3	29.8	— 1.2	84	N	7	3			9						
Kasaly			30.12	765.0	19.4	— 7.0	54	Calm	0	0			10						Bobrof.
Tashkend	28.46	722.9	30.20	767.1	46.9	8.3	63	N	13	6			2						Michelson.
Barnaul			30.41	772.3	3.0	—16.1	76	Calm	0	0			5						Meteorological Obs
Yeniseisk			30.17	766.2	7.3	—13.7	73	SE	4	2			7						Marks.
Irkutsk																			Usoizef.
Oorga																			Mossin.
Peking, (China)			30.28	769.0	31.3	— 0.4	52	NNW	7	3			0						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock			29.65	753.0	30.0	— 1.1	84	E	18	8			10			Blank	Blank		
Nikolaievsk, on the Amoor																			

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 300.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0? m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			30.08	763.9	57.6	14.2	47	E	0.8	0.34		5	0	SW		0	0	Light clouds	Royal Observatory.
San Fernando			30.13	765.4	60.6	15.9	84	S	6.5	2.9			10		SSW	0	0		The Naval Observatory.

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda			29.65	753.0	— 1.5	—18.0	89	S			2		5			0	0		
Umea			29.03	752.5	11.5	—11.4	93	SW			2		6			0	0		
Hernosand			29.58	751.3	19.8	— 6.8	92	Calm			0		3			0	0		
Stockholm			29.62	752.4	23.4	— 4.8	64	W			2		3			0.098	2.5		
Wisby			29.61	752.0	24.4	— 4.2	91	NNW			4		5			0.098	2.5		
Sub-Series.																			
Upsala			29.49	749.1	25.2	— 3.8	63	Calm	0	0			3	W		0	0		Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.64	727.4	30.11	764.7	41.0	5.0	61	N			1		7			0.024	0.6	Vapor	The Observatory.
Zurich	28.43	722.1	30.11	764.8	41.2	5.1	62	SW					7			0.209	5.3	Covered	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.7 mm.; Thermometer, +0.1 cent.; Relative Humidity, —7 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople			29.71	754.5	48.2	9.0	72	WNW	15	6.5			10		SW	0	0		
Fao, (Persian Gulf)			30.10	766.0	64.4	18.0		NW			4								
Salonica			29.87	758.7	53.2	11.8		W			6								
Valona			29.90	759.5	50.9	10.5		NW			3								
Varna			29.57	751.0	39.2	4.0		N			10								
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y.			30.04	763.0	64.9	18.3	77	SW			3		9n		SW	0	0	Fair	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B			29.12	739.6	6.5	—14.2	90	NW	13.7	6.1						0	0		Hon. J. Ferguson.
Brockville, Ontario			30.34	770.6	— 4	—20.0		Calm	0	0		0	2s		NW	0	0	Fair	W. R. Bigg.
*Chatham, N. B			29.21	741.9	6	—14.4	63	W	23	10.3		8c	0	W		0	0	Fair	G. A. Blair.
Charlottetown, P. E. Island			29.17	740.9	— 2	—18.9	87	W	14	6.3		0	0			0	0	Clear	H. J. Cundall, C. E.
Cornwall, Ontario			30.24	768.1	0.2	—17.7	94	W			1	10ck				0	0	Clearing	James Smith, M. A.
Dalhousie, N. B			29.20	741.7	4.0	—15.6	73	W			5	10cs				0	0		H. A. Johnson.
Esquimault, B. C			29.65	753.1	35.1	1.7	92	Calm	0	0			10			0	0	Cloudy	W. H. Bevis.
Fredericton, N. B			29.48	748.8	0.1	—17.7	85	W	23	10.3						0	0		Prof. Harrison.
*Fort Garry, Manitoba			30.16	766.1	— 4	—20.0	96	N	18	8.0		10k	10ks	N	N	0	0	Cloudy	James Stewart.
Goderich, Ontario			30.20	767.1	13.6	—10.2	89	SE			2	2c	2s			0	0	Pleasant	H. J. Strang, M. A.
Granton, Ontario			30.19	766.8	11.6	—11.3		E			1	1cs				0	0	Clear	James Grant.
*Halifax, N. S			29.36	745.7	2	—16.7	74	NW	18	8.0		0	2ks		NW	0.02	0.5	Fair	F. Allison, M. A.
*Kingston, Ontario			30.33	770.4	3	—16.1	67	Calm	0	0		10ck	0	NW		0	0	Cloudy	S. Woods, M. A.
Little Current, Ontario			30.22	767.6	6.6	—14.1		N	4	1.8			10s			0	0		G. B. Abrey, C. E.
*Montreal, Quebec			30.20	767.1	— 5	—20.6	63	W	22	9.8		0	2ks			0	0	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario			30.25	768.3	— 4	—20.0	83	W	10	4.5		5ck	0	W		0	0	Fair	J. B. Haney.
*Parry Sound, Ontario			30.29	769.4	4	—15.6	87	E	2	0.9			10n		E	0	0	Cloudy	Rev. R. Mooley.
*Port Dover, Ontario			30.22	767.6	14	—10.0	82	NE	5	2.2		5ck	0	N		0	0	Fair	H. Morgan.
Port Hastings, N. S			29.23	742.4	— 4.5	—20.3		NW	18	8.0						0.30	7.6	Fine	Peter Grant.
*Port Stanley, Ontario			30.17	766.3	15	— 9.4	85	E	7	3.1		5ck	0	W		0.01	0.3	Fair	M. Payne.
*Quebec, Quebec			30.01	762.2	— 6	—21.1	61	SW	21	9.4		0	0			0	0	Clear	Capt. Ash, R. N.
St. John, N. B			29.51	749.5	1	—17.2	69	NW	12	5.4		1cs				0	0		G. Murdoch, C. E.
*Saugeen, Ontario			30.18	766.6	12	—11.1	71	SE	5	2.2			10n			0.04	1.0	Cloudy	K. Stewart.
Stayner, Ontario			30.24	768.1	8	—13.3	75	Calm	0	0			Haze			0	0	Hazy	R. J. Cole.
Stratford, Ontario			30.21	767.3	11.7	—11.3	92	E	7	3.1		3cs				0	0	Fine	C. J. MacGregor, M. A.
*Sydney, C. B			29.11	739.4	— 6	—21.1	96	SW	21	9.4		8cs	2s	W	SW	0.01	0.3	Cloudy	T. C. Hill.
*Toronto, Ontario			30.26	768.6	10	—12.2	77	N	9	4.0			10n			0	0	Cloudy	Magnetic Observatory.
Woodstock, Ontario																			J. Montgomery

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force 0—10	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10	Clouds. Direction. Upper.	Clouds. Direction. Lower. From—	Rain-fall or melted snow the past 24 hours. Inches	Rain-fall or melted snow the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	30.18	766.6	8	−13.3	78	NW	1	0.4	.....	5k	0	W	.....	0	0	Fair	
Alpena, Mich.	.....	.....	30.10	764.5	18	− 7.8	68	SE	12	5.4	.....	Haze	Haze	.....	.....	Inap.	Inap.	Hazy	
Atlantic City, N. J.	.....	.....	30.23	767.8	21	− 6.1	71	NW	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Augusta, Ga.	.....	.....	30.29	769.4	37	2.8	81	Calm	0	0	.....	1cs	Sm'e	.....	.....	0	0	Clear	
Baltimore, Md.	.....	.....	30.26	768.6	25	− 3.9	62	NW	3	1.3	.....	Haze	Sm'e	.....	.....	0	6	Smoky	
Barnegat, N. J.	.....	.....	30.21	767.3	19	− 7.2	69	N	12	5.4	.....	2c	0	NW	.....	0	0	Fair	
Benton, Montana	27.10	688.3	29.90	759.4	2	−16.7	100	NE	6	2.7	.....	10c	0	.....	.....	0	0	Cloudy	
Bismarck, Dakota	28.15	715.0	29.95	760.7	3	−16.1	59	NE	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Boston, Mass.	.....	.....	30.01	763.0	8	−13.3	78	SW	15	6.7	.....	5cs	Sm'e	NW	.....	0	0	Fair	
Breckenridge, Minn.	.....	.....	29.89	759.2	5	−15.0	87	N	24	10.7	.....	Haze	Haze	.....	.....	0	0	Hazy	
Buffalo, N. Y.	.....	.....	30.20	767.1	15	− 9.4	65	E	8	3.6	.....	Haze	9ks	.....	W	Inap.	Inap.	Cloudy	
Burlington, Vt.	.....	.....	30.21	767.3	− 1	−18.3	68	NE	3	1.3	.....	0	0	.....	.....	0	0	Clear	
Cairo, Ill.	.....	.....	30.08	764.0	46	7.8	61	S	4	1.8	.....	2c	Haze	.....	.....	0	0	Fair	
Cape Hatteras, N. C.	.....	.....	30.17	766.3	45	7.2	67	W	8	3.6	.....	Haze	Haze	.....	.....	0	0	Hazy	
Cape Henry, Va.	.....	.....	30.23	767.8	39	3.9	55	E	8	3.6	.....	0	Haze	.....	.....	0	0	Clear	
Cape May, N. J.	.....	.....	30.24	768.1	24	− 4.4	74	N	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Charleston, S. C.	.....	.....	30.32	770.1	44	6.7	75	SW	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Cheyenne, Wyoming	23.78	604.0	29.72	754.9	37	2.8	26	W	16	7.2	.....	0	0	.....	.....	0	0	Clear	
Chicago, Ill.	.....	.....	29.92	760.	35	1.7	62	SE	3	1.3	.....	2c	2s	.....	.....	0	0	Fair	
Cincinnati, Ohio	.....	.....	29.99	761.7	35	1.7	7	SE	2	0.9	.....	0	Sm'e	.....	.....	0	0	Clear	
Cleveland, Ohio	.....	.....	30.11	764.8	16 7	− 8.5	83	SE	12	5.4	.....	5c	Sm'e	W	SE	Inap.	Inap.	Fair	
Colorado Springs, Col.	23.88	606.5	29.75	755.6	39	3.9	26	Calm	0	0	.....	5cs	0	.....	.....	0	0	Fair	
Corsicana, Tex.	.....	.....	30.09	764.3	46	7.8	92	S	6	2.7	.....	5c	0	.....	.....	0	0	Fair	
Davenport, Iowa	.....	.....	29.86	758.4	32	0.0	79	E	4	1.8	.....	5c	0	.....	.....	0	0	Fair	
Denison, Tex.	.....	.....	29.96	761.0	55	12.8	68	S	16	7.2	.....	5c	0	.....	.....	0	0	Fair	
Denver, Col.	24.58	624.3	29.79	756.7	29	− 1.7	45	S	6	2.7	.....	5c	5s	SW	.....	0	0	Cloudy	
Detroit, Mich.	.....	.....	30.08	764.0	19	− 7.2	84	E	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Dodge City, Kan.	27.09	688.1	29.32	744.7	47	8.3	48	NE	4	1.8	.....	5ck	0	.....	.....	0.08	2.0	Fair	
Dubuque, Iowa	.....	.....	29.85	75 .2	26	− 3.3	76	SE	2	0.9	.....	5c	0	.....	.....	0	0	Fair	
Duluth, Minn.	.....	.....	29.86	758.4	20	− 6.7	70	NE	4	1.8	.....	2cs	Haze	.....	.....	0	0	Fair	
Eastport, Me.	.....	.....	29.96	760.8	1	−17.2	72	NW	19	8.5	.....	.....	10s	.....	.....	0	0	Cloudy	
Erie, Pa.	.....	.....	30.15	765.8	16	− 8.9	83	SE	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Escanaba, Mich.	.....	.....	29.97	761.2	22	− 5.6	85	Calm	0	0	.....	1c	Sm'e	.....	.....	0.03	0.8	Clear	
Fort Gibson, Indian Terr.	.....	.....	29.93	760.2	53	11.7	54	SE	12	5.4	.....	.....	10s	.....	.....	0	0	Cloudy	
Fort Sill, Indian T.	28.07	728.2	29.79	756.7	42	5.6	67	SW	8	3.6	.....	8cs	0	.....	.....	0	0	Fair	
Fort Sully, Dakota	28.06	712.7	29.79	756.7	21	− 6.1	85	N	20	8.9	.....	5k	2s	SW	S	0	0	Cloudy	
Galveston, Tex.	.....	.....	30.16	766.1	57	13.9	81	SE	3	1.3	.....	.....	10s	.....	N	0	0	Threatening	
Grand Haven, Mich.	.....	.....	29.99	761.7	22	− 5.6	78	E	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Indianapolis, Ind.	.....	.....	29.97	761.2	38	3.3	71	S	2	0.9	.....	5cs	0	NW	.....	0	0	Fair	
Indianola, Tex.	.....	.....	30.16	766.1	59	15.0	81	SE	10	4.5	.....	2cs	Fog	.....	.....	0	0	Fair	
Jacksonville, Fla.	.....	.....	30.32	770.1	42	5.6	83	NE	1	0.4	.....	8k	0	SW	.....	0	0	Cloudy	
Keokuk, Iowa	.....	.....	29.83	757.7	42	5.6	58	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Key West, Fla.	.....	.....	30.17	766.3	69.5	20.8	79	E	20	8.9	.....	0	0	.....	.....	0	0	Clear	
Kittyhawk, N. C.	.....	.....	30.24	767.8	35	1.7	80	NW	2	0.9	.....	2c	2s	W	E	0	0	Cloudy	
Knoxville, Tenn.	.....	.....	30.24	768.1	41	5.0	48	SW	2	0.9	.....	0	Haze	.....	.....	0	0	Clear	
La Crosse, Wis.	.....	.....	29.84	757.9	29	− 1.7	67	S	4	1.8	.....	0	Fog	.....	.....	0	0	Clear	
Leavenworth, Kan.	.....	.....	29.79	756.7	43	7.8	54	S	10	4.5	.....	10c	0	.....	.....	0	0	Cloudy	
Lexington, Ky.	28.93	736.1	30.11	764.8	42	5.6	65	S	16	7.2	.....	0	5s	.....	.....	0	0	Fair	
Long Branch, N. J.	.....	.....	30.20	767.1	22	− 5.6	72	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Louisville, Ky.	.....	.....	30.03	762.7	45	7.2	61	S	11	4.9	.....	0	0	.....	.....	0	0	Clear	
Lynchburg, Va.	.....	.....	30.27	768.8	28	− 2.2	72	Calm	0	0	.....	0	Sm'e	.....	.....	0	0	Clear	
Malone, N. Y.	.....	.....	30.22	767.6	− 1	−18.3	70	W	2	0.9	.....	0	Haze	.....	.....	0	0	Hazy	
Marquette, Mich.	.....	.....	29.95	760.7	24	− 4.4	87	SE	8	3.6	.....	2ck	0	NW	.....	0	0	Fair	
Memphis, Tenn.	.....	.....	30.16	766.1	50	10.0	58	SW	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Milwaukee, Wis.	.....	.....	29.99	761.7	28	− 2.2	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Mobile, Ala.	.....	.....	30.31	769.9	4	5.6	91	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	
Montgomery, Ala.	.....	.....	30.34	770.6	39	3.9	81	Calm	0	0	.....	5c	Sm'e	.....	.....	0	0	Fair	
Morgantown, W. Va.	.....	.....	30.12	765.0	23	− 5.0	60	Calm	0	0	.....	2c	Fog	.....	.....	0	0	Fair	
Mt. Washington, N. H.	23.14	587.8	29.50	749.3	− 7	−21.7	100	NW	78	34.8	.....	1c	Haze	W	.....	0	0	Clear	
Nashville, Tenn.	.....	.....	30.15	76 .8	45	7.2	60	S	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	
New Haven, Conn.	.....	.....	30.15	765.8	14	−10.0	44	NW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
New London, Conn.	.....	.....	30.15	765.8	13.5	−10.3	53	NW	18	8.1	.....	5c	0	N	.....	0	0	Fair	
New Orleans, La.	.....	.....	30.26	768.6	49	9.4	71	SE	3	1.3	.....	2cs	2ck	NW	NW	0	0	Fair	
Newport, R. I.	.....	.....	30.11	764.8	13	−10.6	62	W	12	5.4	.....	5cs	Haze	W	.....	0	0	Fair	
New York, N. Y.	.....	.....	30.24	767.1	18	− 7.8	68	NW	5	2.2	.....	2ck	0	SW	.....	0	0	Fair	
Norfolk, Va.	.....	.....	30.21	767.3	34	1.1	62	NE	5	2.2	.....	0	0	.....	.....	0	0	Clear	
North Platte, Neb.	26.78	680.2	29.40	746.7	26	− 3.3	75	W	4	1.8	.....	0	Haze	.....	.....	0	0	Clear	
Omaha, Neb.	28.58	725.9	29.64	752.8	38	3.3	63	S	4	1.8	.....	0	2s	.....	W	0	0	Clear	
Oswego, N. Y.	.....	.....	30.27	768.8	11.7	−11.3	74	SE	8	3.6	.....	10c	Sm'e	W	.....	0	0	Cloudy	
Peck's Beach, N. J.	.....	.....	30.24	768.1	20	− 6.7	70	NW	4	1.8	.....	8c	2s	NW	.....	0	0	Cloudy	
Pembina, Dakota	.....	.....	30.12	765.0	0	−17.8	100	NW	20	8.9	.....	0	0	.....	.....	0	0	Clear	
Philadelphia, Penn.	.....	.....	30.25	768.3	20	− 6.7	55	NW	11	4.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Pike's Peak, Colorado	17.58	446.5	29.70	756.7	10.5	−11.9	40	W	34	15.2	.....	0	0	.....	.....	0	0	Clear	
Pittsburgh, Penn.	.....	.....	30.15	765.8	18	− 7.8	52	Calm	0	0	.....	0	2s	.....	.....	0	0	Fair	
Port Huron, Mich.	.....	.....	30.14	765.5	16	− 8.9	83	SE	6	2.7	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy	
Portland, Me.	.....	.....	29.91	759.7	4	−15.6	83	W	7	3.1	.....	0	5s	.....	.....	0.05	1.3	Fair	
Portland, Oregon	.....	.....	29.75	755.6	39	3.9	91	S	10	4.5	.....	0	Haze	.....	.....	0	0	Clear	
Punta Rassa, Fla.	.....	.....	30.25	768.3	60.0	15.6	82	NE	16	7.2	.....	.....	8n	.....	.....	0.86	21.8	Light rain	
Rochester, N. Y.	.....	.....	30.23	767.8	12	−11.1	62	E	4	1.8	.....	10cs	Haze	SW	.....	0	0	Cloudy	
Salt Lake City, Utah	25.34	643.6	29.66	753.4	43	6.1	35	SE	8	3.6	.....	2c	2s	W	.....	0.01	0.3	Fair	
Sandy Hook, N. J.	.....	.....	30.19	766.8	19	− 7.2	67	NW	15	6.7	.....	.....	10s	.....	.....	0	0	Cloudy	
San Diego, Cal.	.....	.....	30.02	762.5	55	12.8	93	E	4	1.8	.....	0	1s	.....	.....	0	0	Clear	
San Francisco, Cal.	.....	.....	29.96	761.0	50	10.0	75	SW	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Santa Fe, N. M.	23.15	588.0	29.69	754.1	27	− 2.8	66	SW	2	0.9	.....	0	5s	.....	E	0.38	9.7	Fair	
Savannah, Ga.	.....	.....	30.41	772.4	43	6.1	75	W	6	2.7	.....	0	Fog	.....	.....	0	0	Fair	
Shreveport, La.	.....	.....	30.20	767.1	47	8.3	89	S	3	1.3	.....	10c	0	.....	SW	0	0	Clear	
Smithville, N. C.	.....	.....	30.28	769.1	49	9.4	64	W	9	4.0	.....	0	0	W	.....	0	0	Clear	
Springfield, Mass.	.....	.....	30.12	765.0	16	− 8.9	3	W	8	3.6	.....	2cs	0	.....	.....	0	0	Clear	
St. Louis, Mo.	.....	.....	29.96	761.0	49	9.4	63	SW	12	5.4	.....	0	0	.....	.....	0	0	Clear	
St. Marks, Fla.	.....	.....	30.32	770.1	36	2.2	90	N	3	1.3	.....	5c	0	.....	.....	0	0	Clear	
St. Paul, Minn.	.....	.....	29.72	754.9	9.5	− 1.4	73	E	5	2.2	.....	10cs	0	W	.....	0	0	Fair	
St. Paul's Island, Alaska	.....	.....	29.58	751.3	24	− 4.4	86	N	45	20.1	.....	.....	10k	.....	.....	0	0	Cloudy	
Squan Beach, N. J.	.....	.....	30.14	765.5	17	− 8.3	67	NW	6	2.7	.....	0	0	.....	.....	0.10	2.5	.....	
Thatcher's Island, Mass.	.....	.....	30.01	762.2	8	−13.3	55	NW	15	6.7	.....	0	0	.....	.....	0	0	Clear	
Toledo, Ohio	.....	.....	30.03	762.7	24	− 4.4	74	N	8	3.6	.....	0	Sm'e	.....	.....	0	0	Clear	
Tucson, Arizona	27.50	698.5	30.09	764.3	53	11.8	.....	SE	.....	.....	.....	.....	10s	.....	.....	0.02	0.5	Clear	
Tybee Island, Ga.	.....	.....	30.43	772.9	45	7.2	85	Calm	0	0	.....	0	0	.....	.....	0	0	Cloudy	
Vicksburg, Miss.	.....	.....	30.28	769.1	47	8.3	66	S	9	4.0	.....	2cs	0	.....	.....	0	0	Clear	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Virginia City	23.83	605.3	29.31	744.5	39	3.9	55	SW	8	3.6	.....	9ck	0	W	.....	0	0	Cloudy	
Washington, D. C	.....	.....	30.26	768.6	21.5	— 5.8	85	Calm	0	0	.....	Haze	Fog	.....	.....	0	0	Foggy	
Wilmington, N. C	.....	.....	30.26	768.6	40	4.4	63	SW	8	3.6	.....	0	Haze	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	30.05	763.3	14	—10.0	63	NW	24	10.7	.....	5c	0	NW	.....	0	0	Fair	
Wytheville, Va	27.77	705.4	29.99	761.7	38	3.3	54	W	8	3.6	.....	Haze	0	W	.....	0	0	Hazy	
Yankton, Dakota	28.36	720.3	29.68	753.9	28	— 2.2	71	Calm	0	0	.....	5cs	0	NW	.....	0	0	Fair	
Yuma, Arizona	.....	.....	29.93	760.2	57	13.9	.....	S	.....	.....	.....	.....	10ks	.....	W	0	0	Cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.08	764.0	80	26.7	86	E	7	3.1	.....	5c	8ks	NE	SE	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.06	763.5	74	23.3	76	NE	.....	.....	.....	0	5k	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.29	769.4	76	24.4	72	E	4	1.8	.....	4cs	4k	W	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.22	767.6	73	22.8	81	Calm	0	0	.....	8c	8s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.84	757.9	76	24.4	76	Calm	0	0	.....	.....	8n	.....	S	0	0	Cloudy	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.13	765.3	72	22.2	81	E	9.6	4.3	.....	2c	2ks	.....	NE	0.47	11.9	Cloudy	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.17	766.3	57.0	13.9	64	NW	30.0	13.4	.....	0	5k	.....	.....	0.05	1.3	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.24	691.9	30.05	763.3	64	17.8	88	E	2.0	0.9	.....	2c	0	E	.....	0	0	Fine & clear	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.00	762.0	81	27.2	78	E	.....	.....	2	.....	5k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.05	763.3	84.2	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.18	639.6	.....	.....	68.0	20.0	78	.....	0	0	.....	1cs	1ks	.....	.....	0.02	0.5	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.11	739.4	4.0	--15.6	.....	SE	.....	.....	.....	.....	10n	.....	.....	0.25	6.3	Threatening	John Delaney.
York Factory, B. A	.....	.....	30.61	777.5	—34	—36.7	.....	NW	8	3.6	.....	1c	Haze	NW	.....	0	0	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	30.14	765.5	72	22.2	95	NE	.....	.....	7	.....	.....	.....	.....	0	0	Cl'dy, squally	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.5 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 26, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time
2:18 P M. ATHENS mean time
2:39 P. M. CONSTANTINOPLE mean time
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.24	768.2	65.3	18.5	50	Calm			0		1			0	0	Clear	Charnot and Masselot.
Algiers			30.19	766.9	64.8	18.2	67	SW			1		9			0	0	Hidden	Peter.
La Calle																			Kuntz.
Tunis			30.10	764.6	71.6	22.0	28	W			4		0			0	0	Clear	Jacques.
Sfax			30.18	766.5	68.7	20.4	40	S			5		1			0	0	Clear	Chauvey.
Saida			30.23	767.9	58.1	14.5	53	N			1		1			0	0	Clear	Millot.
Tebessa			30.15	765.9	68.0	20.0		NW			4		1			0	0	Clear	Colin.
Geriville			30.19	766.9	59.9	15.5	24	NNW			1		2			0	0	Clear	Buard.
Laghouat			30.23	767.9	64.4	18.0	36	S			1		2			0	0	Clear	Delord.
Biskra			30.21	767.3	72.1	22.3	23	NW			1		1			0	0	Clear	Dubois.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Agram			29.82	757.5	47.3	8.5	62	SW			4		9			Inap.	Inap.		Prof. Ivan Stosir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.75	755.6	39.9	4.4	65	W			1		7			0	0		I. R. Observatory.
Eperies			29.80	757.0	36.7	2.6	72	SE			2		8			0	0		Julius Mikolik.
Gratz	28.53	724.7	29.75	755.7	42.8	6.0	44	S			2		8			0	0		Andreas Rospini.
Hermannstadt	28.46	722.8	29.92	759.9	40.3	4.6	61	WNW			3		8			0	0		Prof. Reissenberger.
Kremsmünster	28.39	721.0	29.76	755.8	38.8	3.8	83	NW			2		10			0.118	3.0		Prof. C. Wagner.
Lemberg			29.76	755.9	34.0	1.1	77	NW			1		3			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.88	759.0	38.1	3.4	73	S			2		5			0.142	3.61		Habzsuda Daniel.
Pola			29.91	759.8	52.2	11.2	80	S			3		10ks			0	0		I.R. Hydrographic Office
Szegedin			29.85	758.1	44.1	6.7	93	S			2		10			0	0		Karl Stancel.
Trieste			29.90	759.4	47.8	8.8	93	WSW			1		10			0	0	Dense fog	Prof. V. Farolfi.
Vienna			29.76	755.8	35.1	1.7	78	SSE			1		10			0	0		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.60	751.8	47.8	8.8	97	W			2		10			0.051	1.30		Royal Observatory.

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the coöperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Cloud. Amount. Up'er. 0—10.	Cloud. Amount. Low'r. 0—10.	Cloud. Direction. Upper. From—	Cloud. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.30	744.2	40.1	4.5		SE	15	6.7			10			0.370	9.40	Raining	William Boswell.
Ardrossan			29.23	742.4	40.3	4.6		E			1		8					Rain and fog	J. Mayes.
Armagh Observatory			29.17	740.9	50.2	10.1		SSW	16	7.2			5					*D. clouds	S. Call, for Dr. Robinson
Bidston, Liverpool Obs			29.30	744.2	49.3	9.6		S	15	6.7			10					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			29.17	740.9	47.7	8.7		SW			1–3		10					Raining	J. Dreyer.
Bradford			29.31	744.5	47.2	8.4		NW			1		10			0.43	10.9	Overcast	J. McLandsborough.
Bridgetown, (Barbados)			30.06	763.5	81.0	27.2		NE			5		4					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.50	749.3	50.0	10.0		SSW			1		10			Blank	Blank	Ove cast	H. Todd.
Cardington			29.52	749.8	50.0	10.0		SW			2		9					Overcast	John McLaren.
Carlisle			29.25	742.9	46	7.8		S			1		10			0.43	10.9	Raining	. . Bell, for J. Cartmell.
Chatham, School M. E.			29.65	753.1	49.7	9.8		WNW			1		9					Overcast	Capt. J. Fellowes, R. E.
Dartmoor	28.15	715.0	29.66	753.4	46.2	7.9		S			5		10					Rain & fog	R. E. Power.
Donaghadee			29.19	741.4	49	9.4		S			3		10					Raining	J. Mac Gowan.
Dover			29.58	751.3	47	8.3		WSW			5		7					¾ clouded	J. Costello.
Eccles, (near Manchester)			29.35	745.5	48.0	8.9		S	9.6	4.3			10					Snow & mist	Thomas Mackereth.
Falmouth Observatory			29.59	751.6	51.4	10.8		WSW	30	13.4			4					*D. clouds	The Staff.
Fort Napier, (Natal)	27.59	700.8	29.83	757.7	71.8	22.1		E			1		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.86	758.4	83.0	28.3		N			2		9					*D. clouds	
Galway, Queen's College			29.38	746.2	51	10.6		S			8		10					Raining	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.22	767.6	66.0	18.9		W			5		4					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.59	751.6	37.0	2.8		NE			1		10					Snowing	Lewis Stuart.
Great Yarmouth			29.49	749.0	49	9.4		W			3		5					*D. clouds	G. T. Watson.
Greenwich Royal Obs			29.56	750.8	50.9	10.5		WSW			4		10			Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey			29.65	753.1	50	10.0		SSW			4		10					Drizzling	Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.38	746.2	47.3	8.5		SW			2		10			Blank	Blank	*D. clouds	L. J. Crossley.
Helston			29.55	750.6	54	12.2		W			4		8			0.30	7.6	Gloomy	M. P. Moyle.
Holyhead			29.26	743.2	48	8.9		SSW			4		10					Raining	John Tilston.
Kew Observatory			29.56	750.8	50.4	10.2		WSW	18	8.0			10					Raining	The Staff.
Kingstown			29.25	742.9	50	10.0		W			3		9					Overcast	George Mitchell
Leicester Museum			29.36	745.7	49.0	9.4		SW			2		10					Drizzling	William J. Harrison.
Malta, (Mediterranean)			30.15	765.8	62.0	16.7		SW			2		2k						Fred Travis, Pvt A.H.C
Nairn			29.50?	749.3?	37	2.8		Calm			0		10					Raining	W. D. Penny.
Nassau, (Bahamas)			30.19	766.8	70.2	21.2		NE			6		6					*D. clouds	Surg.-Maj. Henry.
Nottingham			29.42	747.3	50.0	10.0		SSW			2		10k,d		SSW	0.098	2.49	Overcast	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			29.42	747.3	47.9	8.8		S			3		10					Overcast	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			29.50	749.3	51	10.6		SW			2		10					Overcast	J. Lucas.
Plymouth			29.56	750.8	51.5	10.8		SW			3		10					Overcast	John Merrifield.
Roche's Point			29.35	745.5	50	10.0		WSW			7		10					Raining	W. Kennedy.
Saint Ann's Head			29.40	746.7	49	9.4		SW			5		2					Foggy	John C. Walker.
Saint Helier, (Jersey)			29.68	753.9	48.8	9.3		SW			6		10					Raining	A. P. Amy.
Sandwick Manse (Orkneys)			29.38	746.2	33	0.6		E	40	17.9			10					Snowing	Rev. Dr. Clouston
Scarborough			29.37	746.0	49.5	9.7		WSW			2		10					Overcast	F. Shaw.
Scutari Cemetery (Turkey)			30.07	763.8	47.0	8.3		SW			3		4					*D. clouds	Sergt. W. H. Lyne.
Sheffield			29.44	747.8	52.8	11.6		SW			2		9			0.270	6.86	Overcast	W. F. Cooper.
Silloth Rectory			29.26	743.2	47.0	8.3	93	SW			2		10			0.285	7.24	Raining	Rev Francis Redford.
Stonyhurst Observatory			29.31	744.5	47.3	8.5		S			3		10					Raining	The Staff.
Stornoway, Lews C. (Hebr.)			29.20	741.7	38	3.3		E			4		10					Raining	John Smith.
Stratfield Turgiss			29.58	751.3	49.0	9.4		SW			1		10					Raining	Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.33	745.0	36	2.2		ESE			4		10					Snowing	John Trotter.
Truro, Royal Institution			29.59	751.6	57	13.9		W			8		5					*D. clouds	W. Newcombe
Valencia Observatory			29.26	743.2	50.6	10.3		WSW	25	11.2			10					Misty	The Staff
Sub-Series.																			
Cape Good Hope Obs.			29.44	760.5	73.0	22.8	53	S	28	12.5			1						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					45	7.2		SW			3		10			0	0		
Leith, Restalrig Park			29.28	743.7	44.0	6.7		S			1		10s			0.38	9.7	Fine, cloudy	Andrew Gibb.
Monach Lt-house, Hebrides			29.11	739.4	45	7.2		S			3		10			0.4	10.2		J. Youngclause.
North Unst, (Shetland Is)			29.52	749.8	37	2.8		E			6	3	5	SE		Blank	Blank		

NOTE.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. * Detached clouds.

DANISH SERIES.

Furnished by the coöperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Stations.	Corrected Inches	Corrected Millimeters	Reduced Inches	Reduced Millimeters	Fahrenheit	Centigrade	Per cent	Wind From—	Miles per hour	Meters per second	Force 0—10	Cloud Upper 0—10	Cloud Lower 0—10	Upper From—	Lower From—	Rain Inches	Rain Millimeters	Weather
Copenhagen			29.56	750.7	32.0	0.0	85	SE			4		10					Snowing
Fanöe			29.42	747.2	33.1	0.6	96	SE			6		10					
Godthaab, (Greenland)			29.73	755.2	23.9	−4.5	63	ENE			4		10					
Stykkisholm, (Iceland)			29.91	759.8	24.6	−4.1	96	E			2		0					
Thorshavn, (Faröe)			29.59	751.6	37.8	3.2	63	NE			6		5					
Vestervig			29.41	747.0	30.6	−0.8	96	SE			6		10					Snowing

NOTE.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.78	756.5	51.8	11	63	W	.....	.....	3	.....	10	.....	.....	0.122	3.1	Covered.....	Normal School.
Amiens	.....	.....	29.58	751.4	46.8	8.2	71	WSW	.....	.....	6	.....	2	.....	SW	0.110	2.8	Slightly cl'dy	Normal School.
Avignon	.....	.....	30.02	762.5	56.7	13.7	58	WNW	.....	.....	2	.....	10	.....	.....	0	0	Covered.....	Normal School.
Bar-sur-Seine	.....	.....	29.82	757.4	51.3	10.2	76	W	.....	.....	2	.....	8	.....	W	0.307	7.8	Very cloudy	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.82	757.4	52.2	11.2	93	W	21.5	9.6	.....	.....	10	.....	W	0.130	3.3	Raining.....	Beaumette Observatory
Beauvais	.....	.....	29.74	755.4	52.0	11.1	77	W	.....	.....	4	.....	10	.....	W	0.126	3.20	Covered	Normal School.
Besançon	.....	.....	29.91	759.7	48.2	9	86	SW	.....	.....	3	.....	8	.....	SW	0.35	9.	Very cloudy	Normal School.
Bourg en Bresse	.....	.....	30.02	762.6	49.1	9.5	84	SSW	.....	.....	2	.....	5ck	.....	E.	.....	.....	Cloudy..	Normal School.
Bourges	.....	.....	29.84	757.8	50.4	10.2	100	W	.....	.....	6	.....	10	.....	W	0.16	4.	Covered	Normal School.
Brest	.....	.....	29.68	753.9	52.7	11.5	93	W	.....	.....	4	.....	1on	.....	WSW	0.197	5.00	.....	Naval Observatory.
Caen	.....	.....	29.72	754.9	50.7	10.4	93	SW	.....	.....	2	.....	10	.....	E	0.031	0.8	Covered	Normal School.
Chartres	.....	.....	29.94	760.4	50.2	10.1	.....	WSW	.....	.....	6	.....	10	.....	.....	0.224	5.7	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	29.74	755.4	57.4	4.1	67	SW	.....	.....	4	.....	8	.....	W	0.024	0.6	Very cloudy	Puy de Dome, Obs.
Commercy	.....	.....	30.00	762.1	46.4	8	94	W	.....	.....	2	.....	10kn	.....	W	0.39	10.	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.03	762.8	53.2	11.8	61	NW	.....	.....	4	.....	8	.....	NW	0	0	.....	
Grenoble	.....	.....	30.00	762.0	57.6	14.2	44	WNW	.....	.....	2	.....	5k	.....	S	0.049	1.25	Pretty cl'dy.	Normal School.
Le Mans	.....	.....	29.85	758.2	50.6	10	89	SW	.....	.....	3	.....	8	.....	SW	0.264	6.7	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lons-Le-Saulnier	.....	.....	29.93	760.3	52.3	11.3	71	S	.....	.....	1	.....	10	.....	W	0.283	7.20	Covered	Normal School.
MÂcon	.....	.....	29.95	760.6	51.4	10.8	72	N	.....	.....	2	.....	5	.....	NE	0.165	4.2	Cloudy.....	Normal School.
Mirecourt	.....	.....	29.76	755.9	46.0	7.8	.....	W	.....	.....	6	.....	10	.....	E	0.43	11.	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Nismes	.....	.....	30.05	763.3	56.8	13.8	92	SW	.....	.....	2	.....	10	.....	NE	0.028	0.7	Covered	Normal School.
Orleans	.....	.....	29.81	757.1	51.8	11	83	WSW	.....	.....	3	.....	8	.....	W	0	0	Very cloudy	Normal School.
Paris Observatory	.....	.....	29.77	756.2	53.1	11.7	69	SW	.....	.....	3	.....	10	.....	W	0.260	6.61	Covered	National Observatory
Parthenay	.....	.....	29.94	760.4	50.0	10	89	SW	.....	.....	4	.....	10	.....	.....	0.28	7.	Covered	Normal School.
Privas	.....	.....	30.02	762.6	54.0	12.2	.....	SW	.....	.....	2	.....	8	.....	.....	0.008	0.2	Very cloudy	Normal School.
La Roche-sur-Yon	.....	.....	29.93	760.1	51.1	10.6	93	SW	.....	.....	4	.....	5	.....	E	0	0	Cloudy.....	Normal School.
Rochefort, Observatory	.....	.....	29.99	761.7	53.6	12.0	83	WSW	....	.....	5	.....	10	.....	NE	0.315	8.0	Covered	Naval Observatory.
Rouen	.....	.....	29.74	755.3	52.7	11.5	85	S	.....	.....	3	.....	10	.....	SW	0.138	3.5	Covered.....	Normal School.
Saint Lo	.....	.....	29.71	754.7	50.5	10.3	95	NW	.....	.....	1	.....	10	.....	SW	0.12	3.	.....	Normal School.
Tarbes	29.01	736.9	30.09	764.2	55.4	13	52	WNW	.....	.....	4	.....	2	.....	SE	0	0	Slightly cl'dy	Normal School.
Toulouse	.....	.....	30.24	767.9	57.4	14.1	60	SW	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Villefranche	.....	.....	30.08	763.9	53.2	11.8	81	SE	.....	.....	1	.....	10	.....	.....	0.256	6.50	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.1	77.4	25.2	82	NE	.....	.....	2	.....	2k	.....	.....	0	0	.....	L'Abbé Marchésl.
Gorée	.....	.....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Marseilles	.....	.....	29.98	761.4	56.7	13.7	58	NW	.....	.....	6	.....	8	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	24.83	630.6	30.20	767.1	43.7	6.5	67	NNW	9.3	4.17	.....	.....	8	.....	W	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	29.76	756.0	52.7	11.5	65	W	.....	.....	3	.....	10	.....	W	0.283	7.2	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.02	762.6	60.6	15.9	47	N	16.8	7.50	.....	.....	9	.....	SW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.19	538.2	.....	.....	38.3	3.5	.....	W	.....	.....	6	.....	8	.....	.....	.....	.....	Cloudy.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.77	756.2	53.1	11.7	69	WSW	.....	.....	3	.....	10	.....	.....	0.322	8.2	Covered	E. Renou.
Toulouse	.....	.....	30.09	764.3	55.8	13.2	55	NW	.....	.....	3	.....	10	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	29.86	758.5	55.6	12.8	70	W	.....	.....	4	.....	8	.....	W	0.122	3.1	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.77	756.2	51.8	11.0	71	W	.....	.....	3	.....	9	.....	.....	0.161	4.09	Almost cv'd.	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,7[illegible]2.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.55	750.5	41.5	5.3	98	SW	.....	.....	2	.....	10	.....	.....	0.157	4.0	Rain & snow	Prof. T. Hoh.
Berlin	.....	.....	29.55	750.5	42.4	5.8	66	S	.....	.....	1	.....	10	.....	.....	0.020	0.5	Snowing.....	Prof. Arndt.
Breslau	.....	.....	29.71	754.5	39.0	3.9	66	SE	.....	.....	4	.....	10	.....	.....	0.035	0.9	.....	Dr. P. Naugebauer
Carlsruhe	.....	.....	29.67	753.6	47.1	8.4	86	SW	.....	.....	8	.....	10	.....	.....	0.114	2.9	Raining.....	A. Senz.
Cassel	.....	.....	29.43	747.6	43.5	6.4	84	SW	.....	.....	4	.....	10	.....	.....	0.126	3.2	.....	Dr. H. Möll.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.65	753.2	43.3	6.3	100	SW	.....	.....	1	.....	10	.....	.....	0.154	3.9	Rain & fog...	Physical Society
Friedrichshafen	.....	.....	29.61	752.1	43.7	6.5	78	W	.....	.....	.....	.....	10	.....	.....	0.083	2.1	Raining.....	M. Wilhelm.
Hamburg	.....	.....	29.46	748.3	34.0	1.1	98	SE	.....	.....	4	.....	10	.....	.....	0.098	2.5	Snowing.....	Deutsche Seewarte.
Kiel	.....	.....	29.49	749.1	34.9	1.6	86	ESE	.....	.....	2	.....	10	.....	.....	0.091	2.3	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.69	754.1	32.2	0.1	67	W	.....	.....	2	.....	4	.....	.....	0.024	0.6	Snowing.....	Prof. E. Luther.
Köslin	.....	.....	29.61	752.2	35.2	1.8	.....	S	.....	.....	2	.....	5	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	29.55	750.6	40.6	4.8	90	S	.....	.....	2	.....	10	.....	.....	0.043	1.1	Raining.....	Prof. Bruhns.
Münster	.....	.....	29.91	759.6	45.1	7.3	94	SW	.....	.....	1	.....	10	.....	.....	0.035	0.9	Raining.....	Prof. E. Heis.
Posen	.....	.....	29.71	754.5	40.1	4.5	70	S	.....	.....	2	.....	4	.....	.....	0	0	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.76	755.8	47.7	8.7	82	WSW	.....	.....	2	.....	10	.....	.....	0.094	2.4	.....	Dr. Schur.
Stuttgart	.....	.....	29.69	754.2	48.6	9.2	74	W	.....	.....	.....	.....	8	.....	.....	0.024	0.6	Raining.....	Prof. Schoder.
Thorn	.....	.....	29.69	754.2	37.0	2.8	75	SW	.....	.....	4	.....	4	.....	.....	0.012	0.3	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	29.62	752.3	50.7	10.4	72	W	.....	.....	8	.....	8	.....	.....	0.189	4.8	.....	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.65	750.7	36.5	2.5	78	SSE	.....	.....	3	.....	10	.....	.....	0	0	.....	E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.14	765.6	54.0	12.2	.....	S	.....	.....	.....	.....	.....	.....	.....	.....	.....	Very clear...	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.88	759.0	45.7	7.6	72	SE			4		10			0	0		
Padua			29.90	759.4	43.3	6.3	61	NNE	1.8	0.8			10	W		0	0		
Vicenza			29.89	759.2	45.0	7.2	60	SE			2		9			0	0		
Verona																			
Bergamo			29.87	758.6	42.8	6.0	65	SE			1		9			0	0		
Domodossola																			
Milan			29.93	760.2	48.2	9.0	54	SSE			1		4	SSW		0	0		
Pavia																			
Moncalieri			29.95	760.6	46.6	8.1	73	S	3.1	1.4			3	E		0	0		
Mondovi			29.93	760.3	41.4	5.2	58	NW			2		0			0	0		
Porto Maurizio			29.94	760.5	57.0	13.9		SW			4		8	S		0	0		
Genoa			29.93	760.2	51.1	10.6	82	SE	5.6	2.5			10	S		0.016	0.4		
Piacenza			29.94	760.5	42.3	5.7	83	NW	5.6	2.5			10			0	0		
Bologna			29.95	760.8	51.6	10.9	26	SE			1		6	E		0	0		
Florence			29.95	760.8	56.5	13.6	64	W			2		9	SW		0	0		
Leghorn			29.95	760.6	55.2	12.0	65	WSW	4.3	1.9			8			0	0		
Siena			29.95	760.6	52.7	11.5	68	SW	4.9	2.2			10	SW		0	0		
Urbino																			
Pesaro																			
Ancona			29.95	760.8	50.0	10.0	74	SE			4		6			0	0		
Grosseto			29.98	761.4	55.9	13.3	80	SSE			6		9	SW		0	0		
Rome			30.02	762.6	59.2	15.1	60	SSE	15.0	6.7			4	S		0	0		
Naples, O. U			30.09	764.2	61.3	16.3	57	SW			4		7	SW		0	0		
Lecce			30.15	765.7	55.4	13.0	52	S	12.5	5.6			2			0	0		
Cosenza			30.10	764.4	61.5	16.4	62	ESE	6.3	2.8			0			0	0		
Riposto, (Sicily)			30.15	765.8	58.6	14.8	76	NE			2		0			0	0		
Palermo			30.02	762.5	60.1	15.6	54	NE	5.6	2.5			0			0	0		
Caltanissetta			30.13	765.3	54.7	12.6	68	SSW			4		1	N		0	0		
Sub-Series.																			
Naples, S. R			30.10	764.5	56.5	13.6	67	SW	4.9	2.2			..ck	N		0.028	0.7		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.60	751.9	44.8	7.1		W			5								
Groningen			29.38	746.3	42.1	5.6		WSW			1								
Helder			29.45	748.0	42.8	6.0		W			2								
Utrecht			29.48	748.8	45.3	7.4	97	W			4		10					Overcast	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.52	749.7	30.9	— 0.6	73	S	2.5	1.1			0			0	0		
Brönö			29.64	752.9	24.8	— 4.0	37	NE	25	11			7			0.134	3.4		
Christiania			29.56	750.8	21.2	— 6.0	74	Calm	0	0			3			0	0	Light fog	
Tromsö			29.98	761.5	19.9	— 6.7	73	E	2	1			0			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. —10.	Clouds. Amount. Lower. —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.11	764.9	61.3	16.3	90	SW	9.8	4.39	.....	.....	8	.....	.....	0.039	1.0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.25	768.3	59.9	15.5	66	NW	8.9	4.00	.....	.....	7	SW	.....	0	0	Solar halo.	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.35	771.0	64 0	17.8	62	SE	3.6	1.61	.....	.....	6	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.30	769.7	60.4	15.8	69	SW	3.8	1.7	.....	.....	4	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.73	755.2	35.2	1.8	84	SW	4	2	.....	.....	4	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	29.65	753.0	30.7	— 0.7	56	W	9	4	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	29.63	752.6	21.6	— 5.8	77	SE	4	2	.....	.....	2	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.53	750.1	12.6	—10.8	84	NW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs
Kuopio	.....	.....	29.47	748.5	15.8	— 9.0	100	SE	18	8	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	29.69	754.1	28.4	— 2.0	72	NW	25	11	.....	.....	8	.....	.....	.....	.....	.....	Physical Cabinet
Nikolaiev	.....	.....	29.89	759.1	32.5	0.3	73	W	20	9	.....	.....	8	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	29.84	757.8	39.9	4.4	82	WNW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.39	746.4	32.2	0.1	89	S	18	8	.....	.....	10	.....	.....	.....	.....	Light snow.	Meteorological Obs.
Lugan	.....	.....	29.55	750.6	35.6	2.0	85	SW	34	15	.....	.....	10	.....	.....	Blank	Blank	.....	Meteorological Obs.
Archangel	.....	.....	29.81	757.2	9.0	—12.8	92	E	29	13	.....	.....	10	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.35	720.2	29.75	755.7	56.8	13.8	37	N	4	2	.....	.....	9	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.03	762.7	28.0	— 2.2	79	ESE	22	10	.....	.....	10	.....	.....	.....	.....	.....	Sobastianof.
Kasan	.....	.....	29.97	761.1	16.5	— 8.6	88	S	11	5	.....	.....	7	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.11	739.4	30.17	766.2	28.4	— 2.0	58	WSW	9	4	.....	.....	7	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.08	764.1	27.7	— 2.4	96	NE	18?	8?	.....	.....	10	.....	.....	.....	.....	.....	.....
Kasaly	.....	.....	30.10	764.4	20.1	— 6.6	87	N	9	4	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.63	727.3	30.41	772.4	37.8	3.2	87	S	13	6	.....	.....	10	.....	.....	Blank	Blank	.....	Michelson.
Barnaul	.....	.....	30.26	768.6	6.3	—14.3	79	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.04	763.1	9.9	—12.3	79	SSW	2	1	.....	.....	6	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.28	769.1	28.4	— 2.0	44	NNW	9	4	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.95	709.9	30.28	769.0	—11.2	—24.0	64	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.03	762.8	11.3	—11.5	82	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.17	766.3	59.4	15.2	52	SW	8.2	3.67	.....	1	0	W	.....	0	0	Light clouds.	Royal Observatory.
San Fernando	.....	.....	30.30	769.5	60.6	15.9	83	WNW	7.6	3.4	.....	3	5	NW	N	0	0	.....	The Naval Observatory
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.68	753.9	15.4	— 9.2	94	NE	.....	.....	7	.....	10	.....	.....	0	0	.....	
Umea	.....	.....	29.48	748.9	14.7	— 9.6	100	NE	.....	.....	7	.....	10	.....	.....	0	0	Snowing	
Hernosand	.....	.....	29.54	750.2	17.2	— 8.2	97	NNE	.....	.....	2	.....	9	.....	.....	0	0	.....	
Stockholm	.....	.....	29.55	750.5	18.3	— 7.6	89	WSW	.....	.....	2	.....	10	.....	.....	0	0	.....	
Wisby	.....	.....	29.64	752.9	27.0	— 2.8	96	W	.....	.....	2	.....	5	.....	.....	0	0	.....	
Sub-Series.																			
Upsala	.....	.....	29.65	753.0	27.7	— 2.4	51	NNW	5.4	2.4	.....	.....	10	.....	.....	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —to.	Clouds. Amount. Up'er —to.	Clouds. Amount. Low'r —to.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.52	724.4	29.97	761.2	47.1	8.4	84	SSW	.....	.....	2	.....	9	.....	.....	0.114	2.9	Raining	The Observatory.
Zurich	28.20	716.2	29.87	758.8	42.3	5.7	91	SW	.....	.....	4	.....	10	.....	.....	0	0	Raining	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.3 mm.; Thermometer, +3.4 cent.; Relative Humidity, +16 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.09	764.3	47.3	8.5	57	SW	9	4.0	.....	.....	7	.....	NW	0	0	Light rain	
Fao, (Persian Gulf)	.....	.....	30.25	768.3	63.1	17.3	.....	S	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.07	763.8	57.9	14.4	.....	W	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.99	761.7	55.0	12.8	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.96	761.0	44.6	7.0	.....	NW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	29.89	759.3	54.5	12.5	76	W	.....	.....	6	.....	9n	.....	W	0.72	18.3	Rainy	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B	.....	.....	29.62	752.3	11.6	—11.3	86	NW	8.5	3.8	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.37	771.4	6	—14.4	.....	Calm	0	0	.....	0	5s	.....	N	0	0	Fair	W. R. Bigg.
*Chatham, N. B	.....	.....	29.63	752.6	8	—13.3	77	NW	18	8.0	.....	2c	0	NW	.....	0	0	Fair	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	29.51	749.5	13	—10.6	89	NW	16	7.2	.....	.....	10n	.....	.....	0.04	1.0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.27	768.8	8.2	—13.2	55	N	.....	.....	1	6ck	.....	.....	.....	0	0	Fair	James Smith, M. A.
Dalhousie, N. B	.....	.....	29.72	754.9	8.4	—13.1	78	NW	.....	.....	4	1c	.....	.....	.....	0.10	2.5	.....	H. A. Johnson.
Esquimault, B. C	.....	.....	29.95	760.7	30.0	— 1.1	89	N	1	0.4	.....	.....	.....	.....	.....	0	0	Clear	W. H. Bevis.
Fredericton, N. B	.....	.....	29.75	755.6	9.1	—12.7	55	W	18	8.0	.....	9c,8	.....	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.23	767.8	1	—17.2	100	E	16	7.2	.....	10k	10k8	NE	NE	0	0	Cloudy	James Stewart.
Goderich, Ontario	.....	.....	30.12	765.0	21.5	— 5.8	82	NE	.....	.....	3	8ck	.....	W	.....	0	0	Pleasant	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.07	763.8	19.3	— 7.1	.....	E	.....	.....	3	.....	10n	.....	.....	0	0	Cloudy	James Grant.
*Halifax, N. S	.....	.....	29.56	750.8	15	— 9.4	70	NW	17	7.6	.....	2ck	2k8	NW	NW	0	0	Fair	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.34	770.6	9	—12.8	59	NE	6	2.7	.....	10c8	0	.....	.....	0	0	Fair	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.35	770.9	6.6	—14.1	.....	NE	10	4.5	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.24	768.1	5	—15.0	50	W	16	7.2	.....	0	0	.....	.....	0	0	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.33	770.4	0	—17.8	91	NW	15	6.7	.....	5c8	0	NW	.....	0	0	Fair	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.32	770.1	10	—12.2	96	NE	15	6.7	.....	.....	10n	.....	NE	0.03	0.8	Light snow	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.09	764.3	20	— 6.7	70	NE	18	8.0	.....	10ck	0	W	.....	0	0	Fair	H. Morgan.
Port Hastings, N. S	.....	.....	29.43	747.5	14.9	— 9.5	.....	NW	20	8.9	.....	.....	.....	.....	.....	0.20	5.1	Blustrous	Peter Grant.
*Port Stanley Ontario	.....	.....	30.07	763.8	23	— 5.0	75	E	10	4.5	.....	5ck	0	W	.....	0	0	Fair	M. Payne.
*Quebec, Quebec	.....	.....	30.06	763.5	— 1	—18.3	66	SW	10	4.5	.....	2c	0	SW	.....	0	0	Clear	Capt. Ash, R. N.
St. John, N. B	.....	.....	29.75	755.6	10	—12.2	79	NW	13	5.8	.....	1k	.....	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.15	765.8	18	— 7.8	84	E	10	4.5	.....	.....	10k8	.....	W	0	0	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	30.27	768.8	11	—11.7	77	SE	3	1.3	.....	0	0	.....	.....	0	0	Clear	R. J. Cole.
Stratford, Ontario	.....	.....	30.13	765.3	19.4	— 7.0	91	E	18	8.0	.....	.....	10s	.....	.....	0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	29.33	745.0	20	— 6.7	73	NW	10	4.5	.....	2k	5k8	NW	NW	0	0	Fair	T. C. Hill.
*Toronto, Ontario	.....	.....	30.23	767.8	22	— 5.6	70	E	15	6.7	.....	2ck	8k8	W	E	Inap.	Inap.	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,035 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	30.19	766.8	14	—10.0	72	Calm	0	0	.....	2ck	Haze	W	.....	0	0	Fair.	
Alpena, Mich.	.....	.....	30.16	766.1	23	— 5.0	86	NE	30	13.4	.....	.....	10s	.....	NE	0	0	Cloudy.	
Atlantic City, N. J.	.....	.....	30.19	766.8	26	— 3.3	88	Calm	0	0	.....	5cs	Haze	W	.....	0	0	Fair.	
Augusta, Ga.	.....	.....	30.21	767.3	42	5.6	83	Calm	0	0	.....	2cs	Fog	NE	.....	0	0	Fair.	
Baltimore, Md.	.....	.....	30.16	766.1	33	0.6	79	SE	2	0.9	.....	8ck	Sm'e	W	.....	0	0	Cloudy.	
Barnegat, N. J.	.....	.....	30.15	765.8	27	— 2.8	77	N	5	2.2	.....	10cs	0	NW	.....	0	0	Cloudy.	
Benton, Montana	27.12	688.8	29.92	760.0	1	—17.2	100	NE	1	0.4	.....	2c	0	.....	.....	0	0	Cloudy.	
Bismarck, Dakota	28.15	715.0	29.96	761.0	1	—17.2	72	N	13	5.8	.....	.....	10s	.....	.....	0.11	2.8	Fair.	
Boston, Mass.	.....	.....	30.09	764.3	16	— 8.9	49	W	15	6.7	.....	10cs	Fog	NW	.....	0	0	Cloudy.	
Breckenridge, Minn	.....	.....	29.90	759.4	17	— 8.3	83	NE	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
Buffalo, N. Y.	.....	.....	30.13	765.3	18	— 7.8	68	E	16	7.2	.....	2c	Sm'e	NW	.....	0	0	Fair.	
Burlington, Vt.	.....	.....	30.25	768.3	8	—13.3	66	NE	3	1.3	.....	0	2s	.....	.....	0	0	Fair.	
Cairo, Ill.	.....	.....	29.90	759.4	54	12.2	55	S	8	3.6	.....	2c	8s	.....	.....	0	0	Cloudy.	
Cape Hatteras, N. C.	.....	.....	30.10	764.5	52	11.1	66	W	11	4.9	.....	Haze	Sm'e	.....	.....	0	0	Hazy.	
Cape Henry, Va.	.....	.....	30.13	765.3	46	7.8	92	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair.	
Cape May, N. J.	.....	.....	30.16	766.1	35	1.7	80	SW	4	1.8	.....	Haze	Haze	.....	.....	0	0	Fair.	
Charleston, S. C.	.....	.....	30.23	767.8	51	10.6	78	S	4	1.8	.....	0	Sm'e	.....	.....	0	0	Fair.	
Cheyenne, Wyoming	23.63	600.2	29.57	751 1	27	— 2.8	59	NW	4	1.8	.....	0	1s	.....	.....	0	0	Clear.	
Chicago, Ill.	.....	.....	29.77	756.1	43	6.1	57	SW	7	3.1	.....	5c	Haze	W	.....	0	0	Fair.	
Cincinnati, Ohio	.....	.....	29.93	760.2	45	7.2	60	SE	2	0.9	.....	5ck	0	W	.....	0	0	Fair.	
Cleveland, Ohio	.....	.....	29.96	761.0	32.8	0.4	84	NE	3	1.3	.....	5c	Sm'e	SW	NE	0	0	Fair.	
Colorado Springs, Col.	23.68	601.5	29.56	750.8	44	6.7	10	NE	8	3.6	.....	0	2s	.....	.....	0	0	Clear.	
Corsicana, Tex.	.....	.....	29.85	758.2	60	15.6	66	S	12	5.4	.....	.....	10s	.....	S	0	0	Cloudy.	
Davenport, Iowa	.....	.....	29.72	751.9	44	6.7	66	SE	4	1.8	.....	.....	10s	.....	SE	0	0	Cloudy.	
Denison, Tex.	.....	.....	29.72	751.9	66	18.9	68	S	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy.	
Denver, Col.	24.40	619.2	29.62	752.3	35	1.7	45	W	2	0.9	.....	0	0	.....	.....	0	0	Clear.	
Detroit, Mich.	.....	.....	29.97	761.2	25	— 3.9	75	E	10	4.5	.....	5cs	Haze	W	.....	0	0	Fair.	
Dodge City, Kan.	26.98	685.3	29.30	744.2	27	— 2.8	66	NW	14	6.3	.....	0	0	.....	.....	0	0	Clear.	
Dubuque, Iowa	.....	.....	29.75	755.6	37	2.8	80	S	1	0.4	.....	8k	Fog	S	.....	0	0	Cloudy.	
Duluth, Minn.	.....	.....	30.13	765.3	9	—12.8	78	NE	50	22.4	.....	.....	10s	.....	.....	0	0	Cloudy.	
Eastport, Me.	.....	.....	29.76	755.9	10	—12.2	79	NW	16	7.2	.....	0	0	.....	.....	0	0	Clear.	
Erie, Pa.	.....	.....	30.02	762.5	25	— 3.9	88	NE	8	3.6	.....	7c	Haze	W	.....	0	0	Fair.	
Escanaba, Mich.	.....	.....	30.11	764.8	19	— 7.2	84	NE	22	9.8	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy.	
Fort Gibson, Indian Terr.	.....	.....	29.67	753.6	62	16.7	66	S	14	6.3	.....	.....	10s	.....	SW	0	0	Cloudy.	
Fort Sill, Indian T.	28.44	722.4	29.51	749.5	55	12.8	68	SW	12	5.4	.....	.....	10s	.....	SW	0	0	Cloudy.	
Fort Sully, Dakota	28.19	716.0	30.00	762.0	6	—14.4	88	N	12	5.4	.....	.....	10s	.....	N	Inap.	Inap.	Cloudy.	
Galveston, Tex.	.....	.....	29.96	761.0	61	16.1	88	SE	4	1.8	.....	0	0	.....	.....	0	0	Clear.	
Grand Haven, Mich.	.....	.....	29.86	758.4	30	— 1.1	79	E	11	4.9	.....	8cs	Haze	W	.....	0	0	Fair.	
Indianapolis, Ind.	.....	.....	29.87	758.7	46	7.8	61	SE	6	2.7	.....	5ck	0	.....	.....	0	0	Fair.	
Indianola, Tex.	.....	.....	29.93	760.2	63	17.2	88	S	14	6.3	.....	2cs	0	W	.....	0	0	Fair.	
Jacksonville, Fla.	.....	.....	30.22	767.6	46	7.8	92	Calm	0	0	.....	5c	0	.....	.....	0	0	Fair.	
Keokuk, Iowa	.....	.....	29.79	754.1	48	8.9	63	SE	2	0.9	.....	.....	10s	.....	SE	0	0	Cloudy.	
Key West, Fla.	.....	.....	30.11	764.8	68.8	20.4	90	E	11	4.9	.....	2ck	8ks	SW	E	0.02	0.5	Cloudy.	
Kittyhawk, N. C.	.....	.....	30.16	766.1	42	5.6	91	W	2	0.9	.....	Haze	Haze	.....	.....	0	0	Hazy.	
Knoxville, Tenn.	.....	.....	30.16	766.1	36	2.2	90	SE	4	1.8	.....	2ck	Fog	W	.....	0	0	Fair.	
La Crosse, Wis.	.....	.....	29.78	755.9	35	1.7	80	E	8	3.6	.....	.....	10s	.....	E	0	0	Cloudy.	
Leavenworth, Kan.	.....	.....	29.56	750 8	54	10.0	78	S	6	2.7	.....	.....	10s	.....	SW	0	0	Cloudy.	
Lexington, Ky.	28.92	734.6	30.03	762.7	47	8.3	62	S	16	7.2	.....	8cs	0	SW	.....	0	0	Cloudy.	
Long Branch, N. J.	.....	.....	30.18	766.6	32	0.6	79	NE	6	2.7	.....	10cs	0	.....	.....	0	0	Cloudy.	
Louisville, Ky.	.....	.....	29.95	760.7	50	10.0	58	S	3	1.3	.....	.....	10ks	.....	SW	0	0	Cloudy.	
Lynchburg, Va.	.....	.....	30.15	765.8	36	2.2	85	Calm	0	0	.....	10c	Sm'e	.....	.....	0	0	Cloudy.	
Malone, N. Y.	.....	.....	30.29	769.4	9	—12.8	67	SW	1	0.4	.....	2cs	0	NW	.....	0	0	Fair.	
Marquette, Mich.	.....	.....	30.18	766.6	18	— 7.8	84	NE	24	10.7	.....	.....	10s	.....	NE	0	0	Cloudy.	
Memphis, Tenn.	.....	.....	29.97	761.2	55	12.8	60	S	8	3.6	.....	.....	10 s	.....	SW	0	0	Cloudy.	
Milwaukee, Wis.	.....	.....	29.84	757.9	34	1.1	95	NE	13	5.8	.....	.....	Fog	.....	.....	0	0	Foggy	
Mobile, Ala.	.....	.....	30.13	765.3	51	10.6	93	Calm	0	0	.....	10k	Sm'e	SW	.....	0	0	Cloudy.	
Montgomery, Ala.	.....	.....	30.19	766.8	45.5	7.5	80	Calm	0	0	.....	5c	Fog	.....	.....	0	0	Fair.	
Morgantown, W. Va.	.....	.....	30.04	763.0	38	3.3	71	NW	2	0.9	.....	8c	Haze	W	.....	0	0	Fair.	
Mt. Washington, N. H.	23.20	589.3	29.56	750.8	— 7	—21.7	59	NW	118	52.7	.....	0	0	.....	.....	0	0	Clear.	
Nashville, Tenn.	.....	.....	30.00	762.0	53	11.7	48	SE	4	1.8	.....	5k	0	W	.....	0	0	Fair.	
New Haven, Conn.	.....	.....	30.18	766.6	24	— 4.4	60	N	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy.	
New London, Conn.	.....	.....	30.19	766.8	21.5	— 5.8	70	NW	5	2.2	.....	5cs	5s	NW	NW	0	0	Cloudy.	
New Orleans, La.	.....	.....	30.06	763.5	53	11.7	86	SE	6	2.7	.....	8ck	Haze	W	.....	0	0	Fair.	
Newport, R. I.	.....	.....	30.15	765.8	21	— 6.1	71	W	12	5.4	.....	.....	10s	.....	W	0	0	Cloudy.	
New York, N. Y.	.....	.....	30.19	766.8	28	— 2.2	77	NE	6	2.7	.....	0	Fog	.....	.....	0	0	Fair.	
Norfolk, Va.	.....	.....	30.14	765.5	38	3.3	81	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair.	
North Platte, Neb.	26.73	678.9	29.38	746.2	21	— 6.1	73	NE	4	1.8	.....	.....	10s	.....	NE	0	0	Cloudy.	
Omaha, Neb.	28.57	725.7	29.68	753.9	20	— 6.7	85	N	12	5.4	.....	5ck	0	W	.....	0	0	Fair.	
Oswego, N. Y.	.....	.....	30.28	769.1	15.6	— 9.1	75	NE	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy.	
Pembina, Dakota	.....	.....	30.12	765.0	6	—14.4	100	NE	12	5.4	.....	.....	10n	.....	.....	0.04	1.0	Light snow.	
Philadelphia, Penn.	.....	.....	30.21	767.3	28	— 2.2	77	E	5	2.2	.....	10ck	Sm'e	.....	.....	0	0	Cloudy.	
Pike's Peak, Colorado	17.32	439.9	29.53	750.0	5	—15.6	100	SW	36	16.1	.....	0	5s	.....	SW	0	0	Fair.	
Pittsburgh, Penn.	.....	.....	30.00	762.0	33	0.6	69	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy.	
Port Huron, Mich.	.....	.....	30.05	763.3	22	— 5.6	72	NE	8	3.6	.....	2c	2s	W	.....	0	0	Fair.	
Portland, Me.	.....	.....	30.04	763.0	14	—10.0	64	W	2	0.9	.....	0	Haze	.....	.....	0	0	Clear.	
Portland, Oregon	.....	.....	30.08	764.0	39	3.9	81	Calm	0	0	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.	
Punta Rassa, Fla.	.....	.....	30.17	766.3	61.0	16.1	70	NE	12	5.4	.....	Haze	0	.....	.....	0	0	Hazy.	
Rochester, N. Y.	.....	.....	30.24	768.1	15	— 9.4	65	E	8	3.6	.....	2ck	8s	W	.....	0	0	Cloudy.	
Salt Lake City, Utah	25.19	639.8	29.52	749.8	35	1.7	90	Calm	0	0	.....	.....	10n	.....	.....	0.12	3.0	Light snow.	
Sandy Hook, N. J.	.....	.....	30.16	766.1	28	— 2.2	77	SE	12	5.4	.....	10cs	Haze	SW	.....	0	0	Cloudy.	
San Diego, Cal.	.....	.....	30.08	764.0	51	10.6	79	NW	20	8.9	.....	0	0	.....	.....	0.03	0.8	Clear.	
San Francisco, Cal.	.....	.....	30.11	764.8	43	6.1	51	W	8	3.6	.....	0	0	.....	.....	0.05	1.3	Clear.	
Santa Fe, N. M.	23.04	585.2	29.58	751.3	35	1.7	90	SW	3	1.3	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow.	
Savannah, Ga.	.....	.....	30.23	767.8	49	9.4	77	Calm	0	0	.....	0	Fog	.....	.....	0	0	Clear.	
Shreveport, La.	.....	.....	29.97	761.2	58.5	14.7	87	S	9	4.0	.....	.....	10ks	.....	SW	0	0	Cloudy.	
Smithville, N. C.	.....	.....	30.21	767.3	52	11.1	73	W	6	2.7	.....	8cs	0	W	.....	0	0	Cloudy.	
Springfield, Mass.	.....	.....	30.16	766.1	19	— 7.2	52	N	4	1.8	.....	2ck	2s	.....	.....	0	0	Fair, hazy.	
St. Louis, Mo.	.....	.....	29.80	756 0	51	10.6	65	S	4	1.8	.....	0	5s	.....	SW	0	0	Fair.	
St. Marks, Fla.	.....	.....	30.19	766.8	42	5.6	83	N	3	1.3	.....	2c	0	.....	.....	0	0	Fair.	
St. Paul, Minn.	.....	.....	29.76	755.9	25	— 3.9	69	N	13	5.8	.....	.....	10s	.....	N	0	0	Cloudy.	
St. Paul's Island, Alaska	.....	.....	30.60	777.2	— 8	—22.2	57	NNE	18	8.0	.....	0	2k	.....	.....	0.06	1.5	.....	
Squan Beach, N. J.	.....	.....	30.11	764.8	26	— 3.3	76	Calm	0	0	.....	10cs	0	.....	.....	0	0	Cloudy.	
Thatcher's Island, Mass.	.....	.....	30.06	763.5	17	— 8.3	34	NW	25	11.2	.....	5ck	0	NW	.....	0	0	Fair.	
Toledo, Ohio	.....	.....	29.93	760 2	28	— 2.2	88	NE	8	3.6	.....	5ck	0	N	.....	0	0	Fair.	
Tucson, Arizona.	27.40	696.0	29.98	761.5	57	13.9	.....	Calm	.....	.....	.....	0	5ks	.....	W	0	0	Fair.	
Tybee Island, Ga.	.....	.....	30.21	767.3	50	10.0	86	Calm	0	0	.....	2ck	Sm'e	.....	.....	0	0	Smoky.	
Vicksburg, Miss.	.....	.....	30.07	763.8	57	13.9	75	S	1	0.4	.....	.....	10s	.....	SW	0	0	Cloudy.	
Virginia City	23.90	607.0	29.38	746.2	21	— 6.1	85	Calm	0	0	.....	.....	10n	.....	W	0.24	6.1	Light snow.	

UNITED STATES SERIES.—CONTINUED

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Washington, D. C.	.....	.....	30.16	766.1	31	— 0.6	79	Calm	0	0	.....	5c	Fog	W	.....	0	0	Foggy	
Wilmington, N. C	.....	.....	30.20	767.1	50	10.0	44	SW	8	3.6	.....	8c	Haze	NW	.....	0	0	Hazy	
Wood's Holl, Mass.	.....	.....	30.12	765.0	22	— 5.6	44	NW	22	9.8	.....	5c	5s	W	NW	0	0	Cloudy	
Wytheville, Va.	27.75	704.8	29.99	761.7	33	0.6	89	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair	
Yankton, Dakota	28.52	724.4	29.92	760.0	6	—14.4	64	NW	11	4.9	.....	2c	0	NW	.....	0	0	Fair	
Yuma, Arizona	.....	.....	29.90	759.4	53	11.7	.....	NE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Bridgetown, B'b'dos, W. I.	.....	.....	30.10	764.5	80	26.7	86	NE	6	2.7	.....	5ck	8s	NE	E	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.06	763.5	75	23.9	85	E	.....	.....	.....	0	5k	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I.	.....	.....	30.30	769.6	76	24.4	63	E	1	0.4	.....	4cs	2k	E	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I.	.....	.....	30.20	767.1	73	22.8	81	Calm	0	0	.....	2c	2s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I.	.....	.....	29.83	757.7	74	23.3	76	Calm	0	0	.....	8ck	8s	NW	SW	0	0	Cloudy	Robert Mason.
Havana, Cuba, W. I.	.....	.....	30.18	766.6	71	21.7	85	E	6.0	2.7	.....	0	ks,hz	.....	N	0	0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.19	766.8	62.0	16.7	80	W	23.0	10.3	.....	.....	10k	.....	.....	0.03	0.8	Raining	C. F. Allen.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	27.24	691.9	30.05	763.3	64	17.8	83	E	2.0	0.9	.....	2c	0	E	.....	0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.00	762.0	81	27.2	78	E	.....	.....	2	.....	5k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.05	763.3	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A.	25.18	639.6	.....	.....	67.1	19.5	84	.....	0	0	.....	3cs	3s	.....	.....	0	0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.07	738.4	16	— 8.9	.....	Calm	.....	.....	.....	.....	10n	.....	.....	0.15	3.8	Threatening	John Delaney.
York Factory, B. A.	.....	.....	30.88	784.3	—45	—42.8	.....	Calm	0	0	.....	0	Fog	.....	.....	0	0	.....	J. Fortescue.
Honolulu, Oahu, H. I.	.....	.....	30.14	765.5	72	22.2	95	NE	.....	.....	6	.....	.....	.....	.....	0	0	Cloudy	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
}	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft.. or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,672 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.5 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Bric Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 27, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time
2:39 P. M. CONSTANTINOPLE mean time
2:14 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.30	769.7	68.4	20.2	47	Calm	.....	.....	0	.....	0	.....	.....	0	0	Clear	Charnot and Masselot.
Algiers	.....	.....	30.20	768.0	66.2	19.0	52	NW	.....	.....	2	.....	3	.....	.....	0	0	Fair	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.17	766.4	68.0	20.0	43	NW	.....	.....	3	.....	3	.....	.....	0	0	Fair	Jacques.
Sfax	.....	.....	30.20	767.0	66.6	19.2	61	E	.....	.....	4	.....	1	.....	.....	0	0	Clear	Chauvey.
Saida	.....	.....	30.29	769.3	65.3	18.5	34	N	.....	.....	1	.....	0	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	30.22	767.5	66.4	19.1	.....	N	.....	.....	4	.....	3	.....	.....	0	0	Fair	Colin.
Geriville	.....	.....	30.29	769.4	59.4	15.2	24	NNW	.....	.....	2	.....	2	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	30.28	769.0	62.6	17.0	52	SE	.....	.....	2	.....	0	.....	.....	0	0	Clear	Delord.
Biskra	.....	.....	30.25	768.3	73.8	23.2	20	NW	.....	.....	1	.....	0	.....	.....	0	0	Clear	Dubois.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	29.75	755.7	53.1	11.7	55	SW	.....	.....	2	.....	3	.....	.....	0	0	.....	Prof. Ivan Stozir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	29.60	751.7	47.1	8.4	87	W	.....	.....	3	.....	10	.....	.....	0.054	1.38	.....	I. R. Observatory.
Eperies	.....	.....	29.70	754.4	41.0	5.0	83	S	.....	.....	3	.....	9	.....	N	0.007	0.18	.....	Julius Mikolik.
Gratz	28.52	724.4	29.73	755.1	46.9	8.3	56	SW	.....	.....	1	.....	7	.....	.....	0.004	0.10	.....	Prof. Reissenberger.
Hermannstadt	28.36	720.4	29.80	756.9	45.0	7.2	75	ESE	.....	.....	2	.....	0	.....	.....	0.051	1.3	.....	Andreas Rospini.
Kremsmünster	28.29	718.6	29.62	752.4	50.7	10.4	72	WSW	.....	.....	6	.....	8	.....	.....	0.138	3.5	.....	Prof. C. Wagner.
Lemberg	.....	.....	29.60	751.8	41.0	5.0	78	SW	.....	.....	1	.....	3	.....	.....	0.020	0.5	.....	Dr. T. Stanecki.
Nyíregyháza	.....	.....	29.76	755.8	48.6	9.2	81	W	.....	.....	1	.....	6	.....	.....	0	0	.....	Habzsuda Daniel.
Pola	.....	.....	29.88	758.9	51.6	10.9	85	S	.....	.....	1	.....	4cks	.....	.....	0.004	0.11	.....	I.R. Hydrographic Of'ce
Szegedin	.....	.....	29.78	756.4	54.3	12.4	64	SW	.....	.....	2	.....	3	.....	.....	0.138	3.50	.....	Karl Stancel.
Trieste	.....	.....	29.88	758.9	48.0	8.9	77	Calm	.....	.....	0	.....	7	.....	.....	0	0	Cloudy	Prof. V. Farolfi.
Vienna	.....	.....	29.02	752.4	53.1	11.7	48	W	.....	.....	3	.....	8	.....	.....	0.272	6.9	.....	I. R. Central Institute
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	29.55	750.5	50.2	10.1	85	WSW	.....	.....	4	.....	10	.....	.....	0.087	2.20	.....	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.26	743.2	39.0	3.9		SE	26	11.6			10			0.770	19.56	Raining	William Boswell.
Ardrossan																			J. Mayes.
Armagh Observatory			29.26	743.2	48.6	9.2		SW	21	9.4									S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.			29.35	745.5	52.2	11.2		WSW	23	10.7			5					*D. clouds	John Hartnup.
Birr Castle, (Parsonstown)			29.33	745.0	51.8	11.0		SW			2–4		8					*D. clouds	J. Dreyer.
Bradford																			J. McLandsborough.
Bridgetown, (Barbados)			30.03	762.7	81.4	27.4		NE			2		6					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.44	747.8	53.0	11.7		S-W			1		7			Blank	Blank	*D. clouds	H. Todd.
Cardington			29.42	747.3	50.0	10.0		SW			1		4					*D. clouds	John McLaren.
Carlisle			29.27	743.4	50.1	10.1		SW			3		9			0.16	4.1	*D. clouds	, Bell, for J. Cartmell.
Chatham, School M. E.			29.74	755.4	50.2	10.1		WNW			1							Overcast	Capt. J. Fellowes, R. E.
Dartmoor	28.16	715.3	29.66	753.4	47.0	8.3		NW			7		8					Gloomy	R. E. Power.
Donaghadee			29.24	742.7	51	10.6		SSW			5		5					*D. clouds	J. Mac Gowan.
Dover			29.49	749.0	46	7.8		WSW			4		10					Raining	J. Costello.
Eccles, (near Manchester)			29.35	745.5	51.4	10.8		SW	2.6	1.2			7					*D.clouds	Thomas Mackereth.
Falmouth Observatory			29.62	752.3	52.6	11.4		W	24	10.7			10					Overcast	The Staff.
Fort Napier, (Natal)	27.64	702.0	29.87	758.7	72.8	22.7		E			1		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.85	758.2	90.0	32.2		N			0		6						[tis.
Galway, Queen's College			29.24	742.7	51	10.6		S			4		2					*D. clouds	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.27	768.8	65.0	18.3		W			5		3					*D. clouds	Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.23	742.4	42.9	6.1		NE			1		10					Raining	Lewis Stuart.
Great Yarmouth			29.45	748.0	49	9.4		WSW			2		5					Misty	G. T. Watson.
Greenwich Royal Obs.			29.48	748.8	48.2	9.0		SW			1		10					Raining	The Staff for G. B. Airy
Guernsey			29.62	752.3	51.5	10.8		WSW			3		7					*D. clouds	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.27	743.4	49.0	9.4		W-W			2		10			Blank	Blank	*D. clouds	L. J. Cr sley.
Helston			29.59	751.6	54	12.2		SW			4		8			0.3	7.6	Foggy	M. P. Moyle.
Holyhead			29.38	746.2	50	10.0		SW			4		3			Blank	Blank	Blue sky	John Tilston.
Kew Observatory			29.47	748.5	48.1	8.9		SSW	3	1.3			10					Raining	The Staff.
Kingstown			29.31	744.5	51	10.6		W			5		3					Blue sky	George Mitchell.
Leicester Museum			29.44	747.8	51.0	10.6		SW			1		3					*D. clouds	William J. Harrison.
Malta, (Mediterranean)			30.15	765.8	61.0	16.1		NW			6		6k						Fred Travis, Pvt A.H.C
Nairn			29.22	742.2	37	2.8		Calm			0		10					Raining	W. D. Penny.
Nassau, (Bahamas)			30.15	765.8	71.2	21.8		NE			3		6					*D. clouds	Surg.-Maj. Henry.
Nottingham			29.40	746.7	42.7	5.9		SW			4		5k,d		WSW	0.028	0.71	*D. clouds	E. J. Lowe, F. R. S.
Oscott, St. Mary's College			29.40	746.7	52.0	11.1		SW			3		7					*D. clouds	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.43	747.5	52	11.1		SW			1		10					Misty	J. Lucas.
Plymouth			29.58	751.3	53.2	11.8		W			2		10					Overcast	John Merrifield.
Roche's Point			29.50	749.3	50	10.0		W			5		5					Cloudy	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			29.63	752.6	50.8	10.4		WNW			4		10					Overcast	A. P. Amy.
Sandwick Manse (Orkneys)			29.39	746.5	36	2.2		E	25	11.2			10					Misty	Rev. Dr. Clouston
Scarborough																			F. Shaw.
Scutari Cemetery (Turkey)			29.98	761.5	50.6	10.3		SSW			2		2			Blank	Blank	*D. clouds	Sergt. W. H. Lyne.
Sheffield			29.35	745.5	52.9	11.6		W			1		7			0.105	2.67	Overcast	W. F. Cooper.
Silloth Rectory			29.25	742.9	50.5	10.3	87	WSW			3		4			0.055	1.40	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			29.32	744.7	49.7	9.8		SW			4		10			Blank	Blank	Threatening	The Staff.
Stornoway, Lews C. (Hebr.)			29.17	740.9	38	3.3		E			6		10					Raining	John Smith.
Strathfield Turgiss			29.47	748.5	51.7	10.9		SW			1–2		10					Squally	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.32	744.7	36	2.2		E			5		10					Snowing	John Trotter.
Truro, Royal Institution			29.63	752.6	55	12.8		W			7		10					Raining	W Newco mbe.
Valencia Observatory			29.46	748.3	50.7	10.4		WSW	37	16.5			8					Threatening	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.90	759.4	82.2	27.9	45	SSE	11	4.9			0						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					45	7.2		SW			4		5						
Leith, Restalrig Park			29.25	742.9	42.1	5.6		E			1		10s			0.17	4.3	Showery	Andrew Gib
Monach Lt-house, Hebrides			29.07	738.4	45	7.2		S			4		10			0.2	5.1		J. Youngclause.
North Unst, (Shetland Is)			29.48	748.8	35	1.7		NE			4	0	1			Blank	Blank		

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.29	744.0	34.7	1.5	98	SW			2		10					Foggy	
Fanöe			29.38	746.2	36.0	2.2	96	NW			2		10						
Godthaab, (Greenland)			29.73	755.1	25.9	— 3.4	56	E			2		2						
Stykkisholm, (Iceland)			29.80	757.0	27.5	— 2.5	94	E			4		8						
Thorshavn, (Faröe)			29.55	750.5	36.7	2.6	63	ENE			6		4						
Vestervig			29.41	747.1	28.8	— 1.8	96	NE			2		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper Low 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	29.67	753.5	50.0	10	83	SW	.....	.....	6	.....	10	.....	.....	0.173	4.4	Covered	Normal School.
Amiens	.....	.....	29.54	750.4	50.0	10.0	86	WSW	.....	.....	3	.....	10	.....	.....	0.181	4.6	Covered	Normal School.
Avignon	.....	.....	30.00	762.1	50.0	10	92	WNW	.....	.....	1	.....	8	.....	W	0.059	1.5	Rainy	Normal School.
Bar-sur-Seine	.....	.....	29.69	754.0	50.7	10.4	92	S	.....	.....	2	.....	10	.....	WSW	0.028	0.7	Raining.....	C. Saillard.
Beaumette, (near Angers)	.....	.....	29.72	754.9	54.5	12.5	87	SW	21.0	9.4	.....	.....	10	.....	SW	0.602	15.3	Raining.....	Beaumette Observatory
Beauvais	.....	.....	29.65	753.1	51.8	11.0	85	W	.....	.....	1	.....	10	.....	W	0.014	0.35	Covered	Normal School.
Besançon	.....	.....	29.83	757.7	49.3	9.6	79	S	.....	.....	6	.....	8	.....	SW	0.386	9.8	Very cloudy	Normal School.
Bourg en Bresse	.....	.....	29.92	760.0	47.5	8.6	92	S	.....	.....	4	.....	10	.....	.....	.....	.....	Raining.....	Normal School.
Bourges	.....	.....	29.71	754.7	50.0	10	98	NW	.....	.....	6	.....	10	.....	W	0.24	6.	Covered	Normal School.
Brest	.....	.....	29.67	753.6	54.1	12.3	86	W	.....	.....	4	.....	10	.....	W	0.187	4.75	Misty.....	Naval Observatory.
Caen	.....	.....	29.62	752.4	54.5	12.5	81	.....	.....	.....	2	.....	10	.....	E	0	0	Covered	Normal School.
Chartres	.....	.....	29.60	751.7	52.9	11.6	.....	SSW	.....	.....	6	.....	10	.....	.....	0.028	0.7	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.15	765.8	54.7	12.6	52	W	.....	.....	8	.....	8	.....	W	0.240	6.1	Very cloudy	Puy de Dome, Obs.
Commercy	.....	.....	29.73	755.1	49.8	9.9	94	SW	.....	.....	2	.....	10n	.....	SW	0.059	1.5	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.04	763.0	55.4	13.0	68	NW	.....	.....	2	.....	8	.....	NW	0	0	Light rain....	
Grenoble	.....	.....	30.00	762.0	47.8	8.8	93	ENE	.....	.....	2	.....	10	.....	.....	0	0	Light rain....	Normal School.
Le Mans	.....	.....	29.71	754.5	55.4	13.1	95	W	.....	.....	3	.....	8	.....	W	0.205	5.2	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	29.83	757.6	46.9	8.3	94	SSW	.....	.....	6	.....	10	.....	.....	0.252	6.40	Raining.....	Normal School.
Mâcon	.....	.....	29.84	757.9	48.0	8.9	92	N	.....	.....	2	.....	10	.....	.....	0.12	3.	Covered.....	Normal School.
Mirecourt	.....	.....	29.74	755.4	48.0	8.9	.....	SSW	.....	.....	4	.....	10	.....	NW	0	0	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	29.94	760.4	49.1	9.5	84	SW	.....	.....	2	.....	10	.....	NW	0.091	2.3	Covered	Normal School.
Orleans	.....	.....	29.65	753.0	54.3	12.4	82	WSW	.....	.....	4	.....	8	.....	W	0.08	2.	Very cloudy	Normal School.
Paris Observatory	.....	.....	29.64	752.9	52.9	11.6	89	WSW	.....	.....	2	.....	10	.....	W	0.008	0.20	Raining.....	National Observatory.
Parthenay	.....	....	29.87	758.7	53.6	12	86	SW	.....	.....	4	.....	10	.....	.....	0.16	4.	Covered.....	Normal School.
Privas	.....	.....	30.00	761.9	48.7	9.3	.....	S	.....	.....	2	.....	10	.....	.....	0	0	Covered	Normal School.
La Roche-sur-Yon	.....	.....	29.82	757.3	53.6	12	95	SW	.....	.....	2	.....	8	.....	E	0.47	12.	Very cloudy	Normal School.
Rochefort, Observatory	.....	.....	29.89	759.3	54.5	12.7	90	WSW	.....	.....	7	.....	10	.....	NE	0.039	1.0	Covered	Naval Observatory.
Rouen	.....	.....	29.65	753.1	51.8	11.0	78	S	.....	.....	2	.....	10	.....	SW	0	0	Covered	Normal School.
Saint Lo	.....	.....	29.65	753.2	50.9	10.5	98	NW	.....	.....	2	.....	9	.....	SW	0.12	3.	.....	Normal School.
Tarbes	29.00	736.6	30.07	763.6	55.4	13	63	NW	.....	.....	6	.....	10	.....	E	0	0	Covered	Normal School.
Toulouse	.....	.....	30.21	767.3	56.7	13.7	84	W	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Villefranche	.....	.....	29.97	761.1	50.0	10	94	SE	.....	.....	3	.....	10	.....	S	0.453	11.50	Covered	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.97	761.1	77.7	25.4	74	NE	.....	.....	3	.....	2k	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	29.98	761.4	56.7	13.7	75	WSW	.....	.....	1	.....	10	.....	.....	0.004	0.10	Rainy.....	Marseilles Observatory.
Mont-Louis	24.85	631.3	30.23	767.8	45.7	7.6	69	WSW	11.2	5.00	.....	.....	7	.....	W	0	0	.....	—. Falguère.
Montsouris, Paris	.....	.....	29.64	752.9	52.3	11.3	96	WSW	.....	.....	1	.....	10	.....	SW	0.150	3.8	Light rain ...	Montsouris Observ'tory
Perpignan	.....	.....	30.00	762.1	60.1	15.6	62	W	7.4	3.3	.....	.....	8	.....	SW	0.028	0.7	.....	Dr. Fines.
Pic du Midi,(Summit) H. P.	21.31	541.3	.....	.....	27.1	— 2.7	.....	SW	.....	.....	4	.....	10	.....	.....	(†)	(†)	Snowy.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	29.65	753.0	52.2	11.2	97	S	.....	.....	1	.....	10	.....	.....	0	0	Rainy.....	L. Renou.
Toulouse	.....	.....	30.04	763.0	54.1	14.5	73	W	.....	.....	4	.....	10	.....	.....	0.157	4.0	.....	Toulouse Observatory
Tours	.....	.....	29.73	755.2	57.0	13.9	80	W	.....	.....	4	.....	9	.....	WNW	0.354	9.0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.64	752.8	52.9	11.6	97	W	.....	.....	1	.....	10	.....	.....	0.189	4.80	Light rain...	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7, 8, or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,060.9 ft.; Clermont 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,76[illegible] feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
* Near Marseilles. † Snow, 50 millimeters, or 1.97 inches.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.49	749.1	47.5	8.6	79	W	.....	.....	7	.....	9	.....	.....	0.079	2.0	Raining.....	Prof. T. Holt.
Berlin	.....	.....	29.46	748.3	47.5	8.6	85	S	.....	.....	1	.....	7	.....	.....	0.362	9.2	Rainy.....	Prof. Arndt.
Breslau	.....	.....	29.9	749.1	48.9	9.4	73	WSW	.....	.....	7	.....	9	W	.....	0	0	.....	Dr. P. Naugebauer
Carlsruhe	.....	.....	29.65	753.1	54.1	12.3	53	SW	.....	.....	10	.....	9	.....	.....	0.039	1.0	Raining.....	A. Senz.
Cassel	.....	.....	29.46	748.3	53.6	10.3	69	SW	.....	.....	4	.....	8	.....	.....	0.047	1.2	.....	Dr. H. Möns.
Cologn	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	29.67	753.6	50.9	10.5	74	SW	.....	.....	3	.....	9	.....	.....	0.051	1.3	Raining.....	Physical Society
Friedrichshafen	.....	.....	29.80	756.9	48.2	9.0	51	W	.....	.....	.....	.....	9	.....	.....	0.882	22.4	.....	M. Wilhelm.
Hamburg	.....	.....	29.39	746.6	44.4	6.9	87	WNW	.....	.....	3	.....	9	.....	.....	0.197	5.0	Cloudy.....	Deutsche Seewarte.
Kiel	.....	.....	29.41	746.9	42.8	6.0	94	W	.....	.....	1	.....	10	.....	.....	0.114	2.9	.....	Prof. G. Karsten.
Königsberg	.....	.....	29.44	747.7	34.7	1.5	73	SE	.....	.....	5	.....	9	.....	.....	0.004	0.1	.....	Prof. E. Luther.
Köslin	.....	.....	29.32	744.8	39.2	4.0	.....	S	.....	.....	1	.....	10	.....	.....	0	0	.....	H. Müller.
Leipsic	.....	.....	29.50	749.2	48.2	9.0	76	WSW	.....	.....	5	.....	9	.....	.....	0.213	5.4	Rainy.....	Prof. Bruhns.
Münster	.....	.....	29.49	749.0	48.2	9.0	85	SW	.....	.....	2	.....	10	.....	.....	0.213	5.4	Raining.....	Prof. E. Heis.
Posen	.....	.....	29.43	747.6	49.6	9.8	78	SW	.....	.....	7	.....	9	.....	.....	0.004	0.1	.....	Dr. Magener.
Strassburg, (In Alsace)	.....	.....	29.71	754.7	54.0	12.2	60	SW	.....	.....	4	.....	10	.....	.....	0.291	7.4	.....	Dr. Schur.
Stuttgart	.....	.....	29.69	754.1	54.5	12.5	42	W	.....	.....	.....	.....	5	.....	.....	0.008	0.2	.....	Prof. Schoder.
Thorn	.....	.....	29.39	746.5	42.8	6.0	93	WSW	.....	.....	6	.....	9	.....	.....	0.126	3.2	.....	Dr. Hasenbalg
Treves, (Trier)	.....	.....	29.59	751.6	50.5	10.3	64	SW	.....	.....	8	.....	10	.....	.....	0.031	0.8	.....	Prof. Flesch.
Wustrow, Naval School	.....	.....	29.30	745.7	38.5	3.6	96	SW	.....	.....	3	.....	10	.....	.....	0	0	Misty.....	E. F. Schütz.

NOTE.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	30.04	762.9	57.6	14.2	.....	SW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Cloudy.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			29.87	758.7	45.7	7.6	63	Calm			0		5			0	0		
Padua			29.85	758.3	44.4	6.9	81	NNE	3.1	1.4			5	NW		0	0		
Vicenza			29.86	758.5	45.3	7.4	66	E			2		1			0	0		
Verona																			
Bergamo			29.80	756.8	49.1	9.5	67	SW			1		4			0	0		
Domodossola																			
Milan			29.85	758.2	59.5	15.3	46	ESE			1		2			0	0		
Pavia																			
Moncalieri			29.86	758.5	48.6	9.2	76	S	1.8	0.8			3	NW		0	0		
Mondovi			29.88	758.9	42.8	6.0	70	NW			2		2			0	0		
Porto Maurizio			29.93	760.1	53.6	12.0		SW			2		7	ENE		0	0		
Genoa			29.88	758.9	55.9	13.3	74	SE	8.7	3.9			10	SE		0	0		
Piacenza			29.87	758.7	48.4	9.1	76	E	3.8	1.7			7			0	0		
Bologna			29.91	759.8	51.4	10.8	24	SW			1		4	S		0	0		
Florence			29.98	761.5	52.0	11.1	86	S			1		10			0	0		
Leghorn			29.96	760.9	54.7	12.6	81	SW	12.5	5.6			10			0	0		
Siena			29.94	760.4	48.9	9.4	85	SW	0	0			10	W		0	0		
Urbino																			
Pesaro																			
Ancona			29.94	760.4	51.4	10.8	63	SE			4		1			0	0		
Grosseto			29.93	761.6	59.4	15.2	62	SSE			4		7	NW		0	0		
Rome			30.01	762.2	61.5	16.4	56	S	3.8	1.7			7	W		0	0		
Naples, O. U			30.03	762.7	63.0	17.2	57	SW			4		6	NNW		0	0		
Lecce			29.99	761.8	58.3	14.6	53	WNW	8.7	3.9			2			0	0		
Cosenza			30.06	763.5	57.9	14.4	76	NW	1.8	0.8			10			0.075	1.9		
Riposto, (Sicily)			30.06	763.5	60.4	15.8	71	SE			2		0			0	0		
Palermo			30.05	763.2	61.7	16.5	50	WNW	14.3	6.4			1			0	0		
Caltanissetta			30.07	763.8	56.8	13.8	48	WNW			4		1	ESE		0	0		
Sub-Series.																			
Naples, S. R			30.04	762.9	58.6	14.8	56	WSW	6.9	3.1			..k,c	NW		0.177	4.5		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.54	750.5	46.8	8.2		W			4								
Groningen			29.39	746.5	42.3	5.7		W			1								
Helder			29.45	747.9	42.1	5.6		WSW			2								
Utrecht			29.46	748.3	47.1	8.4	94	WSW			4		8					Very cloudy	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.48	748.8	30.6	— 0.8	81	W	2.0	0.9			0			0	0		
Brönö			29.83	757.6	23.4	— 4.8	67	NE	18	8			8			0	0		
Christiania			29.18	741.1	21.9	— 5.6	65	NNE	4.0	1.8			5			0	0		
Tromsö			29.90	759.5	14.0	—10.0	61	E	2	1			0			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.12	765.1	61.9	16.6	94	SW	13.1	5.86	.....	.....	5	.....	.....	0	0	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.30	769.5	59.9	15.5	71	WSW	8.0	3.58	.....	.....	9	WNW	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.34	770.7	64.9	18.3	61	ESE	4.0	1.78	.....	.....	0	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.37	771.4	57.4	14.1	88	SW	9.8	4.4	.....	.....	10	.....	.....	0	0	Light rain....	The Observatory.

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.47	748.5	43.3	6.3	87	S	13	6	.....	.....	9	.....	.....	.....	.....	.....	Astronomical Obs
Wilna	.....	.....	29.57	751.0	31.5	— 0.3	81	S	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs
Dorpat	.....	.....	29.69	754.0	25.9	— 3.4	77	SE	4	2	.....	.....	9	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.69	754.0	18.3	— 7.6	81	W	2	1	.....	.....	10	.....	.....	.....	.....	Light snow..	Central Physical Obs
Kuopio	.....	.....	29.02	762.4	14.0	—10.0	100	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	29.75	755.6	35.4	1.9	82	S	16	7	.....	.....	9	.....	.....	.....	.....	.....	Physical Cabinet
Nikolaiev	.....	.....	30.00	762.0	40.5	4.7	78	SSE	20	9	.....	.....	6	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	30.10	764.5	48.0	8.9	58	SSE	2	1	.....	.....	3	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.90	759.5	21.7	— 5.7	75	SSE	18	8	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	30.02	762.4	30.0	— 1.1	73	WSW	9	4	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.45	747.9	6.1	—14.4	82	ENE	22	10	.....	.....	10	.....	.....	.....	.....	Light snow..	Ogorodnikof.
Tiflis	28.62	726.7	30.07	763.6	39.0	3.9	72	NNW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Physical Obs.
Astrakhan	.....	.....	30.21	767.3	32.7	0.4	89	SW	4	2	.....	.....	10	.....	.....	Blank	Blank	.....	Sebastianof.
Kasan	.....	.....	29.87	758.8	21.9	— 5.6	93	S	11	5	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.14	740.2	30.19	766.8	32.4	0.2	62	SSE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.19	766.9	39.2	4.0	55	E	13	6	.....	.....	0	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.22	767.6	8.8	—12.9	76	NE	4	2	.....	.....	0	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.65	727.6	30.40	772.1	42.3	5.7	74	Calm	0	0	.....	.....	9	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.34	770.7	10.6	—11.9	74	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs
Yeniseisk	.....	.....	30.09	764.3	4.8	—15.1	73	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.31	769.9	28.8	— 1.8	56	NW	4	2	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.92	709.1	30.26	768.6	—13.2	—25.1	63	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.23	767.7	14.7	— 9.7	74	NW	4	2	.....	.....	1	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. meters, or 1,341.8 feet; Ekaterinburg, 306.4? m., or 1,005.2? ft.; Tashkend, m. 4?4.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.6 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.17	766.4	64.8	18.2	52	SW	11.2	5.00	.....	0	8	.....	.....	0	0	Cloudy.....	Royal Observatory.
San Fernando	.....	.....	30.35	771.0	60.4	15.8	86	W	0.0	0.0	.....	2	5	W	W	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	29.80	756.8	6.8	—14.0	91	NE	.....	.....	6	.....	5	.....	.....	0	0	.....	
Umea	.....	.....	29.71	754.5	10.0	—12.2	93	NE	.....	.....	6	.....	10	.....	.....	0.110	2.8	Snowing.....	
Hernosand	.....	.....	29.67	753.5	12.9	—10.6	97	NNE	.....	.....	2	.....	10	.....	.....	0.020	0.5	Snowing.....	
Stockholm	.....	.....	29.51	749.6	20.8	— 6.2	82	NE	.....	.....	4	.....	10	.....	.....	0.004	0.1	Snowing.....	
Wisby	.....	.....	29.48	748.9	30.9	— 0.6	90	E	.....	.....	6	.....	10	.....	.....	0	0	Snowing.....	
Sub-Series.																			
Upsala	.....	.....	29.59	751.5	19.4	— 7.0	88	NE	9.4	4.2	.....	.....	10	.....	.....	0.069	1.74	Snowing.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.47	723.0	29.92	759.9	46.0	7.8	86	SSW	.....	.....	1	.....	10	.....	.....	0.276	7.0	Raining	The Observatory.
Zurich	28.19	716.0	29.85	758.2	46.6	8.1	89	SW	.....	.....	2	.....	10	.....	SW	0.630	16.0	Raining	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer. —2.6 mm.; Thermometer, +2.7 cent.; Relative Humidity, +19 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	30.02	762.4	50.4	10.2	47	SW	11	5.0	.....	.....	5	.....	W	0	0	.....	
Fao, (Persian Gulf)	.....	.....	30.24	768.0	66.2	19.0	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.97	761.3	57.7	14.3	.....	S	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.86	758.5	62.6	17.0	.....	S	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.84	758.0	51.8	11.0	.....	N	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.15	765.7	63.9	17.7	62	S	.....	.....	2	.....	4k	.....	SW	0.21	5.3	Fair	Prof. C. V. A. Van Dyck

NOTE.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	30.49	774.4	— 3	—19.4	.....	Calm	0	0	.....	0	2s	.....	N	0	0	Fair	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.11	764.8	0	—17.8	84	SW	2	0.9	.....	0	0	.....	.....	0	0	Clear	W. R. Bigg.
*Chatham, N. B.	.....	.....	30.05	763.3	11	—11.7	88	W	10	4.5	.....	.....	10s	.....	.....	0	0	Cloudy	G. A. Blair.
Charlottetown, P. E. Island.	.....	.....	30.22	767.6	— 2.0	—18.9	100	S	.....	.....	1	2c	.....	.....	.....	0	0	Fair	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James Smith, M. A.
Dalhousie, N. B.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.82	757.4	35.1	1.7	91	N	4	1.8	.....	.....	.....	.....	.....	0	0	Clear	W. H. Bevis.
Fredericton, N. B.	.....	.....	30.18	766.6	3.1	—16.1	84	W	12	5.4	.....	.....	.....	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.24	768.1	4	—15.6	100	E	11	4.9	.....	.....	10n	.....	.....	0.626	15.90	Light snow	James Stewart.
Goderich, Ontario	.....	.....	30.18	766.6	17.5	— 8.1	74	NE	.....	.....	3	.....	10n	.....	.....	0	0	Threatening	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.13	765.3	17.4	— 8.1	.....	E	.....	.....	3	.....	10n	.....	.....	0	0	Cloudy	James Grant.
*Halifax, N. S.	.....	.....	30.07	763.8	12	—11.1	86	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.44	773.2	2	—16.7	71	NE	11	4.9	.....	10cs	0	W	.....	0	0	Cloudy	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.44	773.2	10.1	—12.2	.....	E	12.0	5.4	.....	.....	9s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.44	773.2	0	—17.8	48	N	12	5.4	.....	0	0	.....	.....	0	0	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.43	772.9	— 7	—21.7	88	N	6	2.7	.....	2c	0	N	.....	0	0	Clear	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.39	771.9	4	—15.6	77	NE	20	8.9	.....	2ck	5ks	NE.	NE	0.62	0.5	Fair	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.14	765.5	19	— 7.2	84	NE	13	5.8	.....	10k	0	E	.....	0	0	Cloudy	H. Morgan.
Port Hastings, N. S.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Peter Grant.
*Port Stanley, Ontario	.....	.....	30.10	764.5	21	— 6.1	82	NE	22	9.8	.....	.....	10 s	.....	E	0	0	Sleeting	M. Payne.
*Quebec, Quebec	.....	.....	30.35	770.9	2	—16.7	73	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	Capt. Ash, R. N.
St. John, N. B.	.....	.....	30.20	767.1	5	—15.0	75	NW	8	3.6	.....	.....	.....	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.22	767.6	12	—11.1	80	E	12	5.4	.....	.....	10n	.....	.....	0	0	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. J. Cole.
Stratford, Ontario	.....	.....	30.14	765.5	16.7	— 8.5	86	E	20	8.9	.....	.....	10s	.....	.....	0	0	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	29.91	759.7	21	— 6.1	81	W	14	6.3	.....	8k	0	N	.....	0	0	Fair	T. C. Hill.
*Toronto, Ontario	.....	.....	30.30	769.6	15	— 9.4	53	NE	13	5.8	.....	.....	10n	.....	NE	0	0	Cloudy	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,[illegible] feet, or 3[illegible].1 m.; Stratford, 1,182 feet, or 36[illegible].3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer
Albany, N. Y.	.....	.....	30.31	769.9	13	—10.6	80	NW	9	4.0	.....	.....	10s	.....	.....	0	0	Cloudy	
Alpena, Mich.	.....	.....	30.22	767.6	13	—10.6	81	E	24	10.7	.....	.....	10s	.....	E	Inap.	Inap.	Cloudy	
Atlantic City, N. J.	.....	.....	30.20	767.1	35	1.7	70	NE	23	10.3	.....	2cs	8s	.....	W	0	0	Cloudy	
Augusta, Ga.	.....	.....	30.12	765.0	52	11.1	83	Calm	0	0	.....	8cs	Sm'e	W	.....	0	0	Cloudy	
Baltimore, Md.	.....	.....	30.23	767.8	34	1.1	52	NE	7	3.1	.....	.....	10s	.....	.....	0	0	Cloudy	
Barnegat, N. J.	.....	.....	30.25	768.3	34	1.1	61	E	18	8.0	.....	.....	10s	.....	.....	0	0	Cloudy	
Benton, Montana	27.14	689.3	29.94	760.5	— 2	—18.9	100	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Bismarck, Dakota	28.27	718.0	30.09	764.3	2	16.7	78	NE	5	2.2	.....	.....	10s	.....	.....	0.09	2.3	Cloudy	
Boston, Mass.	.....	.....	30.30	769.6	14	—10.0	63	W	10	4.5	.....	10cs	Haze	W	.....	0	0	Cloudy	
Breckenridge, Minn	.....	.....	29.97	761.2	12	—11.1	90	N	18	8.0	.....	.....	10s	.....	.....	0.05	1.3	Cloudy	
Buffalo, N. Y.	.....	.....	30.17	766.3	18	— 7.8	68	E	20	8.9	.....	.....	10s	.....	.....	0	0	Cloudy	
Burlington, Vt.	.....	.....	30.42	772.7	2	—16.7	72	N	4	1.8	.....	2c	2s	.....	.....	0	0	Fair	
Cairo, Ill.	.....	.....	29.78	756.4	60	15.6	65	S	15	6.7	.....	5k	5s	S	S	0	0	Cloudy	
Cape Hatteras, N. C.	.....	.....	30.07	763.8	56	13.3	68	W	2	0.9	.....	Haze	Sm'e	.....	.....	0	0	Hazy	
Cape Henry, Va.	.....	.....	30.09	764.3	46	7.8	92	SE	1	0.4	.....	0	Fog	.....	.....	0	0	Fair	
Cape May, N. J.	.....	.....	30.19	766.8	39	3.9	72	E	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy	
Charleston, S. C.	.....	.....	30.14	765.5	56	13.3	80	Calm	0	0	.....	0	Fog	.....	.....	0	0	Fair	
Cheyenne, Wyoming	23.70	602.0	29.64	752.8	19	— 7.2	85	NW	20	8.9	.....	.....	10s	.....	.....	0.05	1.3	Cloudy	
Chicago, Ill.	.....	.....	29.71	754.6	35	1.7	90	E	12	5.4	.....	.....	10n	.....	.....	0.48	12.2	Heavy rain	
Cincinnati, Ohio	.....	.....	29.77	756.1	54	12.2	80	S	7	3.1	.....	.....	10s	.....	.....	0.05	1.3	Cloudy	
Cleveland, Ohio	.....	.....	30.02	762.5	26.8	— 2.9	97	N	4	1.8	.....	.....	10n	.....	.....	0.25	6.3	Light rain	
Colorado Springs, Col.	23.75	603.2	29.02	754.3	17	— 8.3	83	NE	8	3.6	.....	.....	10ks	.....	W	0.04	1.0	Cloudy	
Corsicana, Tex.	.....	.....	29.80	756.9	66	18.9	84	S	14	6.3	.....	.....	10s	.....	S	0	0	Cloudy	
Davenport, Iowa	.....	.....	29.59	751.6	39	3.9	81	NE	16	7.2	.....	.....	10s	.....	.....	0.25	6.3	Cloudy	
Denison, Tex.	.....	.....	29.73	755.1	65	18.3	48	W	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Denver, Col.	24.52	622.8	29.76	755.9	23	— 5.0	60	Calm	0	0	.....	.....	10s	.....	.....	0.04	1.0	Cloudy	
Detroit, Mich.	.....	.....	29.98	761.5	24	— 4.4	87	E	17	7.6	.....	.....	10n	.....	.....	0.01	0.3	Sleeting	
Dodge City, Kan.	27.05	687.1	29.42	747.3	20	— 6.7	100	N	22	9.8	.....	.....	10n	.....	.....	Inap.	Inap.	Light snow	
Dubuque, Iowa	.....	.....	29.76	755.9	36	2.2	80	SE	12	5.4	.....	.....	10s	.....	.....	0.40	10.2	Cloudy	
Duluth, Minn.	.....	.....	30.04	763.0	15	— 9.4	83	NE	42	18.8	.....	.....	10n	.....	.....	0.06	1.5	Light snow	
Eastport, Me.	.....	.....	30.19	766.8	5	—15.0	62	NW	19	8.5	.....	0	0	.....	.....	0	0	Clear	
Erie, Pa.	.....	.....	30.04	763.0	25	— 3.9	88	NE	18	8.0	.....	.....	10n	.....	.....	Inap.	Inap.	Light rain	
Escanaba, Mich.	.....	.....	30.14	765.5	12	—11.1	80	NE	28	12.5	.....	.....	10s	.....	NE	Inap.	Inap.	Cloudy	
Fort Gibson, Indian Terr.	.....	.....	29.56	750.8	64	17.8	67	S	20	8.9	.....	0	0	.....	.....	0	0	Clear	
Fort Sill, Indian T.	28.47	723.1	29.59	751.6	33	0.6	61	SW	8	3.6	.....	0	0	.....	.....	0	0	Clear	
Fort Sully, Dakota	28.20	716.6	30.11	764.8	7	—13.9	88	N	20	8.9	.....	.....	10s	.....	N	0.01	0.3	Cloudy	
Galveston, Tex.	.....	.....	29.90	759.4	63	17.2	83	SE	5	2.2	.....	5cs	0	W	.....	0	0	Fair	
Grand Haven, Mich.	.....	.....	29.87	758.7	23	— 5.0	86	E	30	13.4	.....	.....	10n	.....	E	Inap.	Inap.	Light sleet	
Indianapolis, Ind.	.....	.....	29.72	754.9	53	11.7	93	S	8	3.6	.....	.....	10n	.....	W	0.23	5.8	Light rain	
Indianola, Tex.	.....	.....	29.90	759.4	65	18.3	94	S	10	4.5	.....	0	5s	.....	SW	0	0	Fair	
Jacksonville, Fla.	.....	.....	30.12	765.0	52	11.1	86	Calm	0	0	.....	0	0	.....	.....	0	0	Clear	
Keokuk, Iowa	.....	.....	29.46	748.3	56	13.3	81	S	14	6.3	.....	0	0	.....	.....	0	0	Clear	
Key West, Fla.	.....	.....	30.01	762.5	73.2	22.9	85	SE	6	2.7	.....	1k	2ks	SE	SE	0.16	4.1	Clear	
Kittyhawk, N. C.	.....	.....	30.11	764.8	47	8.3	70	SW	8	3.6	.....	2ck	Haze	NW	.....	0	0	Fair	
Knoxville, Tenn.	.....	.....	30.04	762.7	46	7.8	77	E	6	2.7	.....	.....	10s	.....	SW	0	0	Cloudy	
La Crosse, Wis.	.....	.....	29.70	754.4	31	— 0.1	70	E	4	1.8	.....	.....	10s	.....	.....	0.08	2.0	Cloudy	
Leavenworth, Kan.	.....	.....	29.46	748.3	37	2.8	80	NE	6	2.7	.....	.....	10s	.....	.....	0	0	Threatening	
Lexington, Ky.	28 81	731.8	29.89	759.2	56	13.3	80	S	16	7.2	.....	.....	10ks	.....	SW	0	0	Cloudy	
Long Branch, N. J.	.....	.....	30.28	769.1	30	— 1.1	89	NE	18	8.0	.....	.....	10n	.....	.....	Inap.	Inap.	Light rain	
Louisville, Ky.	.....	.....	29.81	757.2	58	14.4	82	S	6	2.7	.....	.....	10s	.....	SW	Inap.	Inap.	Cloudy	
Lynchburg, Va.	.....	.....	30.08	764.0	46	7.8	76	NE	3	1.3	.....	.....	10s	.....	.....	0	0	Cloudy	
Malone, N. Y.	.....	.....	30.41	772.4	0	—17.8	84	Calm	0	0	.....	5cs	0	NW	.....	0	0	Fair	
Marquette, Mich.	.....	.....	30.19	766.8	15	— 9.4	82	E	20	8.9	.....	.....	10s	.....	E	0	0	Cloudy	
Memphis, Tenn.	.....	.....	29.83	757.7	61	16.1	82	S	11	4.9	.....	.....	10s	.....	SW	0.05	1.3	Cloudy	
Milwaukee, Wis.	.....	.....	29.88	758.9	28	— 2.2	100	E	.....	.....	.....	.....	10n	.....	.....	0.55	14.0	Sleeting	
Mobile, Ala.	.....	.....	29.99	761.7	61	16.1	88	S	4	1.8	.....	5k	5s	SW	S	0	0	Cloudy	
Montgomery, Ala.	.....	.....	30.06	763.5	56	13.3	80	SE	3	1.3	.....	10cs	0	SW	.....	0	0	Cloudy	
Morgantown, W. Va.	.....	.....	29.99	761.7	45	7.2	84	SW	1	0.4	.....	.....	10s	SW	.....	Inap.	Inap.	Threatening	
Mt. Washington, N. H.	23.61	599.7	29.97	761.2	7	—13.9	77	NW	10	4.5	.....	1c	0	.....	.....	0	0	Clear	
Nashville, Tenn.	.....	.....	29.87	758.7	62	16.7	77	S	8	3.6	.....	.....	10s	.....	W	0	0	Cloudy	
New Haven, Conn.	.....	.....	30.30	769.6	24	— 4.4	74	N	12	5.4	.....	.....	10s	.....	N	0	0	Cloudy	
New London, Conn.	.....	.....	30.31	769.9	25	— 3.9	61	N	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy	
New Orleans, La.	.....	.....	29.93	760.2	63.5	17.5	91	SE	7	3.1	.....	8k	0	SW	.....	0.01	0.3	Fair	
Newport, R. I.	.....	.....	30.28	769.1	23	— 5.0	73	N	8	3.6	.....	.....	10s	.....	N	0	0	Cloudy	
New York, N. Y.	.....	.....	30.23	767.8	28	— 2.2	78	NE	8	3.6	.....	.....	10s	.....	.....	Inap.	Inap.	Cloudy	
Norfolk, Va.	.....	.....	30.10	764.5	48	8.9	78	S	3	1.3	.....	0	Haze	.....	.....	0	0	Clear	
North Platte, Neb.	26.78	680.2	29.50	749.3	12	—11.1	100	N	24	10.7	.....	.....	10n	.....	N	0.01	0.3	Light snow	
Omaha, Neb.	28.40	721.4	29.48	748.8	27	— 2.8	94	N	18	8.0	.....	.....	10s	.....	N	Inap.	Inap.	Cloudy	
Oswego, N. Y.	.....	.....	30.30	769.6	15	— 9.4	82	NE	9	4.0	.....	.....	10s	.....	.....	0	0	Cloudy	
Pembina, Dakota	.....	.....	30.18	766.6	8	—13.3	89	NE	8	3.6	.....	.....	10s	.....	.....	0.21	5.3	Cloudy	
Philadelphia, Penn.	.....	.....	30.25	768.3	29	— 1.7	78	E	15	6.7	.....	5ck	5s	W	.....	0	0	Cloudy	
Pike's Peak, Colorado	17.25	438.1	29.46	748.3	— 7	—21.7	100	NW	45	20.1	.....	0	2s	.....	.....	0.14	3.6	Fair	
Pittsburgh, Penn.	.....	.....	29.99	761.0	44	6.7	91	NE	2	0.9	.....	.....	10s	.....	.....	0.12	3.0	Cloudy	
Port Huron, Mich.	.....	.....	30.08	764.0	22	— 5.6	72	E	11	4.9	.....	.....	10n	.....	.....	0.03	0.8	Sleeting	
Portland, Me.	.....	.....	30.32	770.1	11	—11.7	80	NW	2	0.9	.....	5c	Haze	.....	.....	0	0	Fair	
Portland, Oregon	.....	.....	29.78	756.4	35	1.7	90	N	5	2.2	.....	0	0	.....	.....	0.09	2.3	Clear	
Punta Rassa, Fla.	.....	.....	30.10	764.5	65.9	18.7	92	E	8	3.6	.....	5cs	Haze	SW	.....	0	0	Fair	
Rochester, N. Y.	.....	.....	30.27	768.8	16	— 8.9	76	E	13	5.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Salt Lake City, Utah	25.58	649.7	29.91	759.7	18	— 7.8	68	E	4	1.8	.....	0	0	.....	.....	0.43	10.9	Clear	
Sandy Hook, N. J.	.....	.....	30.25	768.3	30	— 1.1	89	NE	17	7.6	.....	.....	10n	.....	NE	Inap.	Inap.	Light rain	
San Diego, Cal.	.....	.....	30.10	764.5	49	4.4	83	NE	8	3.6	.....	0	0	.....	.....	0	0	Clear	
San Francisco, Cal.	.....	.....	29.70	754.4	47	8.3	70	SE	28	12.5	.....	.....	10n	.....	.....	0.05	1.3	Heavy rain	
Santa Fe, N. M.	23.12	587.2	29.66	753.4	14	—10.0	63	NW	6	2.7	.....	0	0	.....	.....	0.05	1.3	Clear	
Savannah, Ga.	.....	.....	30.13	765.3	54	12.2	86	Calm	0	0	.....	5cs	Fog	W	.....	0	0	Fair	
Shreveport, La.	.....	.....	29.87	758.7	62	16.7	83	S	7	3.1	.....	10k	0	SW	.....	0	0	Cloudy	
Smithville, N. C.	.....	.....	30.15	765.8	53	11.7	93	Calm	0	0	.....	2ck	Fog	W	.....	0	0	Fair	
Springfield, Mass.	.....	.....	30.32	770.1	21	— 6.1	27	NE	8	3.6	.....	.....	10s	.....	NW	0	0	Cloudy	
St. Louis, Mo.	.....	.....	29.63	752.6	57	13.9	68	S	12	5.4	.....	0	0	.....	.....	0	0	Clear	
St. Marks, Fla.	.....	.....	30.08	764.0	49	9.4	93	Calm	0	0	.....	5ck	2s	W	.....	0	0	Fair	
St. Paul, Minn.	.....	.....	29.74	755.4	20	— 6.7	92	NE	14	6.3	.....	.....	10n	.....	.....	0.18	4.6	Heavy snow	
St. Paul's Island, Alaska	.....	.....	30.24	768.1	— 1	—18.3	68	ENE	67	30.0	.....	1c	5k	.....	.....	0	0	.....	
Thatcher's Island, Mass.	.....	.....	30.30	769.6	21	— 6.1	57	N	14	6.3	.....	8c	0	NW	.....	0	0	Fair	
Toledo, Ohio	.....	.....	29.94	760.5	27	— 2.8	88	E	12	5.4	.....	.....	10n	.....	.....	0.10	2.5	Sleeting	
Tucson, Arizona	27.61	701.3	30.20	767.1	34	1.1	.....	S	.....	.....	.....	0	Haze	.....	.....	0	0	Clear	
Tybee Island, Ga.	.....	.....	30.15	765.8	56	13.3	57	S	4	1.8	.....	5c	Fog	NE	S	0	0	Foggy	
Vicksburg, Miss.	.....	.....	29.93	760.2	65	18.3	89	SW	5	2.2	.....	.....	10s	.....	S	0	0	Cloudy	
Virginia City	24.02	610.1	29.50	749.3	20	— 6.7	85	SE	1	0.4	.....	.....	6n	.....	W	0.04	1.0	Light snow	
Washington, D. C.	.....	.....	30.19	766.8	34	1.1	70	NE	10	4.5	.....	.....	10s	.....	NE	0	0	Cloudy	

UNITED STATES SERIES.—CONTINUED

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Inches.	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Wilmington, N. C	.....	.....	30.13	765.3	52	11.1	93	SW	5	2.2	.....	5c8	Haze	NW	.....	0	0	Fair	
Wood's Holl, Mass	.....	.....	30.28	769.1	24	— 4.4	73	NW	9	4.0	.....	.....	10s	.....	.....	0	0	Cloudy	
Wytheville, Va	27.68	703.1	29.88	758.9	40	4.4	82	W	1	0.4	.....	8c8	0	W	.....	0	0	Cloudy	
Yankton, Dakota	28.46	722.9	29.82	757.4	15	— 9.4	91	N	25	11.2	.....	.....	10s	.....	.....	0.03	0.8	Cloudy	
Yuma, Arizona	.....	.....	30.08	764.0	42	5.6	.....	NE	.....	.....	.....	0	0	.....	.....	0	0	Clear	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.08	764.0	79	26.1	82	E	4	1.8	.....	2c	8ks	N	NE	0	0	Fair	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.02	762.5	74	23.3	76	E	.....	.....	.....	5c	0	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.26	768.6	75	23.9	76	E	6	2.7	.....	8c8	4k	E	.....	0	0	Fair	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.19	766.8	73	22.8	76	Calm	0	0	.....	2c	2s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.84	757.9	73	22.8	81	Calm	0	0	.....	0	2n	.....	SW	0	0	Fair	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.07	763.8	70	21.1	85	SE	1.2	0.5	.....	8c	0	.....	.....	1.18	30.0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.21	767.3	65.5	18.6	79	W	15.0	6.7	.....	0	0	.....	.....	0.07	1.8	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.25	692.1	30.06	763.5	64	17.8	83	ESE	1.0	0.4	.....	5c	0	ESE	.....	0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	29.98	761.5	80	26.7	74	E	.....	.....	2	.....	6ks	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.07	763.8	83.3	28.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.18	639.6	.....	.....	68.9	20.5	80	.....	5	2.2	.....	3c	4s	.....	.....	0	0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.39	746.5	30.5	— 0.8	.....	NE	.....	.....	.....	.....	10n	.....	.....	0.05	1.3	Fair	John Delaney.
York Factory, B. A	.....	.....	30.71	780.0	—20	—28.9	65	SE	3	1.3	.....	2k	2s	S	.....	0	0	.....	J. Fortescue.
Honoluiu, Oahu, H. I	.....	.....	30.14	765.5	72	22.2	95	NE	.....	.....	6	.....	.....	.....	.....	0	0	Cloudy	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.3 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the CHIEF SIGNAL OFFICER OF THE ARMY, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 28, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours	.....	.....	30.34	770.5	68.9	20.5	47	S	.....	.....	1	.....	0	.....	.....	0	0	Clear	Charnot and Masselot.
Algiers	.....	.....	30.32	770.1	68.7	20.4	62	WNW	.....	.....	5	.....	2	.....	.....	0	0	Clear	Peter.
La Calle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kuntz.
Tunis	.....	.....	30.21	767.4	65.8	18.8	57	NW	.....	.....	4	.....	4	.....	.....	0	0	Fair	Jacques.
Sfax	.....	.....	30.23	767.7	73.9	23.3	41	N	.....	.....	2	.....	1	.....	.....	0	0	Clear	Chauvey.
Salda	.....	.....	30.35	770.8	66.2	19.0	38	N	.....	.....	1	.....	1	.....	.....	0	0	Clear	Millot.
Tebessa	.....	.....	30.29	769.3	64.9	18.3	.....	NW	.....	.....	4	.....	3	.....	.....	0	0	Fair	Colin.
Gerlville	.....	.....	30.34	770.6	57.6	14.2	40	NNE	.....	.....	3	.....	2	.....	.....	0	0	Clear	Buard.
Laghouat	.....	.....	30.33	770.3	66.2	19.0	46	SW	.....	.....	2	.....	0	.....	.....	0	0	Clear	Delord.
Biskra	.....	.....	30.32	770.1	77.2	25.1	34	NW	.....	.....	2	.....	2	.....	.....	0	0	Clear	Dubois.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram	.....	.....	29.84	757.9	56.1	13.4	69	NE	.....	.....	2	.....	10	.....	.....	0.028	0.7	.....	Prof. Ivan Stosir.
Buda-Pesth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Cen. M. I., Hungary
Cracow	.....	.....	29.77	756.2	48.2	9.0	71	WSW	.....	.....	2	.....	9	.....	.....	0.021	0.54	.....	I. R. Observatory.
Eperies	.....	.....	29.80	756.9	37.9	3.3	97	Calm	.....	.....	0	.....	10	.....	.....	0	0	.....	Julius Mikolik.
Gratz	28.04	727.5	29.85	758.2	48.4	9.1	88	SSW	.....	.....	2	.....	5	.....	.....	0	0	.....	Andreas Rospini.
Hermannstadt	28.37	720.7	29.79	756.7	52.0	11.1	62	SSW	.....	.....	1	.....	7	.....	.....	0.037	0.95	.....	Prof. Reissenberger.
Kremsmünster	28.60	726.4	29.97	761.1	43.3	6.3	87	W	.....	.....	5	.....	7	.....	.....	0.465	11.8	.....	Prof. C. Wagner.
Lemberg	.....	.....	29.67	753.7	43.0	6.1	81	SW	.....	.....	1	.....	9	.....	.....	0	0	.....	Dr. T. Stanecki.
Nyiregyhaza	.....	.....	29.79	756.7	44.6	7.0	94	SW	.....	.....	1	.....	10	.....	.....	Blank	Blank	.....	Habzsuda Daniel.
Pola	.....	.....	29.84	757.9	51.3	10.7	94	E	.....	.....	3	.....	10ks	.....	.....	0.062	1.58	.....	I.R. Hydrographic Of'ce
Szegedin	.....	.....	29.81	757.1	47.7	8.7	86	SW	.....	.....	1	.....	10	.....	.....	0.057	1.45	.....	Karl Stancel.
Trieste	.....	.....	29.87	758.7	51.4	10.8	94	W	.....	.....	1	.....	10	.....	.....	0.087	2.2	Partly cov'd	Prof. V. Faroffi.
Vienna	.....	.....	29.82	757.5	46.9	8.3	80	WNW	.....	.....	5	.....	10	.....	.....	0.343	8.7	.....	I. R. Central Institute
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	.....	.....	29.82	757.4	48.2	9.0	94	WSW	.....	.....	2	.....	10	.....	.....	0.059	1.50	Raining	Royal Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen	.....	.....	29.72	754.9	39.5	4.2	.....	ESE	9	4.0	.....	.....	3	.....	.....	0.210	5.33	Blue sky.....	William Boswell.
Ardrossan	.....	.....	29.69	754.1	43	6.1	.....	NE	.....	.....	1	.....	8	.....	.....	Blank	Blank	Foggy	J. Mayes.
Armagh Observatory	.....	.....	29.72	754.9	50.8	10.4	.....	SSW	13	5.8	.....	.....	10	.....	.....	.....	.....	Overcast.....	S. Cal., for Dr. Robinson
Bidston, Liverpool Obs.	.....	.....	29.74	755.4	51.4	10.8	.....	W	21	9.4	.....	.....	2	.....	.....	.....	.....	Blue sky.....	John Hartnup.
Birr Castle, (Parsonstown)	.....	.....	29.70	754.4	54	12.2	.....	WSW	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	J. Dreyer.
Bradford	.....	.....	25.67	753.6	50.1	10.1	.....	W	.....	.....	2	.....	2	.....	.....	0.20	5.1	*D. clouds.....	J. McLandsborough.
Bridgetown, (Barbados)	.....	.....	29.90	759.4	75.0	23.9	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Gloomy.....	Sergt. G. H. Hunt.
Cambridge Observatory	.....	.....	29.76	755.9	57.1	13.9	.....	NNW	.....	.....	2	.....	7	.....	.....	.....	.....	*D. clouds.....	H. Todd.
Cardington	.....	.....	29.77	756.1	56.4	13.6	.....	W	.....	.....	2	.....	4	.....	.....	.....	.....	*D. clouds.....	John McLaren.
Carlisle	.....	.....	29.69	754.1	49	9.4	.....	SW	.....	.....	3	.....	9	.....	.....	0.10	2.5	.....	J. Bell, for J. Cartmell.
Chatham, School M. E.	.....	.....	29.77	756.1	50.2	10.1	.....	NNW	.....	.....	1	.....	6	.....	.....	.....	.....	*D. clouds.....	Capt. J. Fellowes, R. E.
Dartmoor	28.45	722.6	29.96	761.0	48.3	9.3	.....	W	.....	.....	7	.....	10	.....	.....	.....	.....	Foggy	R. E. Power.
Donaghadee	.....	.....	29.70	754.4	51	10.6	.....	SSE	.....	.....	3	.....	0	.....	.....	.....	.....	Blue sky.....	J. Mac Gowan.
Dover	.....	.....	29.80	756.9	49	9.4	.....	WSW	.....	.....	4	.....	10	.....	.....	.....	.....	Overcast.....	J. Costello.
Eccles, (near Manchester)	.....	.....	29.73	755.1	54.2	12.3	.....	SW	8.0	3.6	.....	.....	6	.....	.....	.....	.....	*D. clouds.....	Thomas Mackereth.
Falmouth Observatory	.....	.....	29.94	760.5	53.2	11.8	.....	WSW	24	10.7	.....	.....	10	.....	.....	.....	.....	Overcast.....	The Staff.
Fort Napier, (Natal)	27.50	698.5	29.73	755.1	78.8	26.0	.....	E	.....	.....	1	.....	0	.....	.....	.....	.....	Blue sky.....	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)	.....	.....	29.94	760.5	85.0	29.4	.....	N	.....	.....	0	.....	8	.....	.....	.....	.....	*D. clouds.....	(tis.
Galway, Queen's College	.....	.....	29.62	752.3	54	11.7	.....	SW	.....	.....	1	.....	10	.....	.....	.....	.....	Gloomy.....	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)	.....	.....	30.28	769.1	61.0	16.1	.....	NE	.....	.....	2	.....	1	.....	.....	.....	.....	*D. clouds.....	Pvt. C. Aitken, A. H. C.
Glasgow Observatory	.....	.....	29.69	754.1	40.0	4.4	.....	NE	.....	.....	1	.....	10	.....	.....	.....	.....	Overcast.....	Lewis Stuart.
Great Yarmouth	.....	.....	29.69	754.1	52	11.1	.....	WNW	.....	.....	4	.....	3	.....	.....	.....	.....	*D. clouds.....	G. T. Watson.
Greenwich Royal Obs.	.....	.....	29.81	757.2	54.2	12.3	.....	W	.....	.....	4	.....	10	.....	.....	Blank	Blank	Overcast.....	The Staff for G. B. Airy
Guernsey	.....	.....	29.97	761.2	53	11.7	.....	WSW	.....	.....	4	.....	5	.....	.....	.....	.....	*D. clouds.....	Dr. S. E. Hoskins.
Halifax, Moorside Obs.	.....	.....	29.74	755.4	49.5	9.7	.....	WNW	.....	.....	2	.....	5	.....	.....	.....	.....	*D. clouds.....	Dr. S. E. Hoskins.
Helston	.....	.....	29.90	759.4	55	12.8	.....	SW	.....	.....	4	.....	8	.....	.....	Blank	Blank	*D. clouds.....	L. J. Cr sley..
Holyhead	.....	.....	29.74	755.4	51	10.6	.....	SW	.....	.....	3	.....	6	.....	.....	0.19	4.8	Hazy.....	M. P. Moyle.
Kew Observatory	.....	.....	29.81	757.2	53.9	12.2	.....	WSW	14	6.3	.....	.....	9	.....	.....	.....	.....	*D. clouds.....	John Tilston.
Kingstown	.....	.....	29.74	755.4	50	10.0	.....	SSE	.....	.....	3	.....	10	.....	.....	.....	.....	Misty.....	The Staff.
Leicester Museum	.....	.....	29.77	756.1	53.0	11.7	.....	W	.....	.....	1	.....	3	.....	.....	.....	.....	Overcast.....	George Mitchell
Malta, (Mediterranean)	.....	.....	30.13	765.3	60.4	15.8	.....	NW	.....	.....	2	.....	6k	.....	.....	.....	.....	*D. clouds.....	William J. Harrison.
Nairn	.....	.....	29.68	753.9	41	5.0	.....	ENE	.....	.....	1	.....	10	.....	.....	.....	.....	.....	Fred Travis, Pvt A.H.C
Nassau, (Bahamas)	.....	.....	30.14	765.5	73.2	22.9	.....	E	.....	.....	3	.....	5	.....	.....	.....	.....	Overcast.....	W. D. Penny.
Nottingham	.....	.....	29.75	755.6	54.7	12.6	.....	WNW	.....	.....	5	.....	4k	.....	WNW	0.04	0.03	*D. clouds.....	Surg.-Maj. Henry.
Oscott, St. Mary's College	.....	.....	29.72	754.9	56.0	13.3	.....	W	.....	.....	6	.....	1	.....	.....	.....	.....	*D. clouds.....	L. J. Lowe, F. R. S
Oxford, Radcliffe Obs.	.....	.....	29.78	756.4	55	12.8	.....	SW	.....	.....	1	.....	7	.....	.....	.....	.....	Blue sky.....	Rev. Stephen Whitty.
Plymouth	.....	.....	29.90	759.4	52	11.1	.....	SW	.....	.....	4	.....	10	.....	.....	.....	.....	*D. clouds.....	J. Lucas.
Roche's Point	.....	.....	29.77	756.1	53	11.7	.....	W	.....	.....	4	.....	10	.....	.....	.....	.....	Misty.....	John Merrifield.
Saint Ann's Head	.....	.....	29.81	757.2	49	9.4	.....	WSW	.....	.....	3	.....	10	.....	.....	.....	.....	Misty.....	W. Kennedy.
Saint Helier, (Jersey)	.....	.....	30.00	762.0	53.0	11.7	.....	W	.....	.....	5	.....	8	.....	.....	.....	.....	Foggy.....	John C. Walker.
Sandwick Manse, (Orkneys)	.....	.....	29.74	755.4	35.8	2.1	.....	E	14	6.3	.....	.....	4	.....	.....	.....	.....	¾ clouded...	A. P. Amy.
Scarborough	.....	.....	29.66	753.4	48.3	9.1	.....	NNW	.....	.....	3	.....	5	.....	.....	.....	.....	*D. clouds.....	Rev. Dr. Clouston
Scutari Cemetery, (Turkey)	.....	.....	29.91	759.7	57.2	14.0	.....	SW	.....	.....	1	.....	5	.....	.....	.....	.....	*D. clouds.....	F. Shaw.
Sheffield	.....	.....	29.72	754.9	52.0	11.1	.....	NW	.....	.....	3	.....	3	.....	.....	.....	.....	*D. clouds.....	Sergt. W. H. Lyne.
Silloth Rectory	.....	.....	29.69	754.1	50.6	10.3	77	W	.....	.....	2	.....	4	.....	.....	0.013	0.33	Blue sky.....	W. F. Cooper.
Stonyhurst Observatory	.....	.....	29.73	754.1	49.5	9.7	.....	W	.....	.....	3	.....	7	.....	.....	0.520	13.21	*D. clouds.....	Rev Francis Redford.
Stornoway, Lews C. (Hebr)	.....	.....	29.63	752.6	41	5.0	.....	E	.....	.....	4	.....	5	.....	.....	.....	.....	.....	The Staff.
Stratfield Turgiss	.....	.....	29.83	757.7	53.0	11.7	.....	W	.....	.....	2	.....	4	.....	.....	.....	.....	*D. clouds.....	John Smith.
Streatley Vicarage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Blue sky.....	Rev. Charles H. Griffith
Thurso	.....	.....	29.69	754.1	40	4.4	.....	ENE	.....	.....	3	.....	4	.....	.....	.....	.....	.....	Rev. John Slatter.
Truro, Royal Institution	.....	.....	29.93	760.2	56	13.3	.....	SW	.....	.....	6	.....	9	.....	.....	.....	.....	*D. clouds.....	John Trotter.
Valencia Observatory	.....	.....	29.72	754.9	53.6	12.0	.....	SW	30	13.4	.....	.....	10	.....	.....	.....	.....	Raining.....	W. Newcombe
Sub-Series.																		Drizzling.....	The Staff.
Cape Good Hope Obs.	.....	.....	30.05	763.3	73.3	22.9	48	SSE	32	14.3	.....	.....	1	.....	.....	.....	.....	.....	The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)	.....	.....	.....	.....	44	6.7	.....	SW	.....	.....	4	.....	3	.....	.....	0	0	.....	.....
Leith, Restalrig Park	.....	.....	29.72	754.9	40.2	4.6	.....	NE	.....	.....	2	.....	10s	.....	.....	0.35	8.9	Overcast.....	Andrew Gib
Monach Lt-house, Hebrides	.....	.....	29.50	749.3	43	6.1	.....	SSE	.....	.....	4	.....	10	.....	.....	0	0	.....	J. Youngclause.
North Unst, (Shetland Is)	.....	.....	29.77	756.1	35	1.7	.....	NE	.....	.....	6	.....	9	.....	.....	.....	.....	.....	.....

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 1. Generally, the distinction between upper and lower clouds is not made. The rain-fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen	.....	.....	29.45	748.0	31.6	— 0.2	92	SE	.....	.....	6	.....	10	.....	.....	.....	.....	Snowing.....	
Faröe	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Godthaab, (Greenland)	.....	.....	29.72	755.0	21.0	— 6.1	95	NNW	.....	.....	4	.....	10	.....	.....	.....	.....	Snowing.....	
Stykkisholm, (Iceland)	.....	.....	29.71	754.7	28.6	— 1.9	96	E	.....	.....	4	.....	0	.....	.....	.....	.....	.....	
Thorshavn, (Faröe)	.....	.....	29.84	758.0	37.0	2.8	79	ENE	.....	.....	3	.....	5	.....	.....	.....	.....	Snowing.....	
Vestervig	.....	.....	29.60	751.9	22.3	— 5.4	96	NE	.....	.....	7	.....	8	.....	.....	.....	.....	.....	

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Alençon	.....	.....	30.05	763.2	51.8	11	68	W	.....	.....	1	.....	10	.....	.....	0.039	1.0	Covered	Normal School.
Amiens	.....	.....	29.91	759.7	51.4	10.8	75	WSW	.....	.....	3	.....	10	.....	.....	0.098	2.5	Covered	Normal School.
Avignon	.....	.....	30.22	767.6	61.0	16.1	44	N	.....	.....	3	.....	0	.....	.....	0	0	Clear.....	Normal School.
Bar-sur-Seine	.....	.....	30.13	765.3	50.4	10.2	84	SW	.....	.....	2	.....	10	.....	.....	0.598	15.2	Raining.....	C. Sailliard.
Beaumette, (near Angers)	.....	.....	30.10	764.6	54.7	12.6	72	W	32.7	14.6	.....	.....	.....	.....	WSW	0.008	0.2	.....	Beaumette Observatory
Beauvais	.....	.....	29.97	761.2	53.1	11.7	80	W	.....	.....	3	.....	10	.....	W	0.089	2.25	Covered.....	Normal School.
Besançon	.....	.....	30.19	766.8	48.6	9.2	80	S	.....	.....	4	.....	8	.....	W	0.693	17.6	Very cloudy	Normal School.
Bourg en Bresse	.....	.....	30.31	769.8	50.5	10.3	86	SW	.....	.....	1	.....	5kn	.....	E	.....	.....	Cloudy.....	Normal School.
Bourges	.....	.....	30.10	764.5	51.8	11	93	NW	.....	.....	8	.....	10	.....	W	0.587	14.9	Covered	Normal School.
Brest	.....	.....	30.00	762.1	53.1	11.7	90	WSW	.....	.....	4	.....	10	.....	WSW	0	0	Raining.....	Naval Observatory.
Caen	.....	.....	30.00	761.9	54.0	12.2	83	W	.....	.....	2	.....	10	.....	E	0.12	3.	Covered	Normal School.
Chartres	.....	.....	29.97	761.2	54.1	12.3	.....	W	.....	.....	6	.....	10	.....	.....	0.004	0.1	Covered	Normal School.
Chaumont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Normal School.
Clermont	.....	.....	30.13	765.2	58.6	14.8	55	S	.....	.....	2	.....	8	.....	W	0	0	Very cloudy	Puy de Dome, Obs.
Commercy	.....	.....	30.06	763.4	46.6	8.1	89	W	.....	.....	6	.....	10kn	.....	W	0.283	7.2	Covered	Normal School.
Commune de Gréasque*	.....	.....	30.17	766.4	58.6	13.8	34	NW	.....	.....	8	.....	2	.....	NW	0.051	1.3	.....	.....
Grenoble	.....	.....	30.21	767.3	51.3	10.7	76	N	.....	.....	2	.....	10kn	.....	N	0.83	21.	Covered	Normal School.
Le Mans	.....	.....	30.09	764.3	53.4	11.9	95	W	.....	.....	4	.....	8	.....	W	0.295	7.5	Very cloudy	Normal School.
Loches	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lons-Le-Saulnier	.....	.....	30.23	767.8	48.7	9.3	84	SSW	.....	.....	2	.....	10	.....	.....	0.976	24.8	Light rain...	Normal School.
Mâcon	.....	.....	30.19	766.9	50.5	10.3	85	E	.....	.....	2	.....	5	.....	E	0.677	17.2	Cloudy.....	Normal School.
Mirecourt	.....	.....	30.10	764.5	49.3	9.6	.....	SSW	.....	.....	4	.....	10	.....	NE	0.35	9.	Covered	Normal School.
Metz	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nismes	.....	.....	30.14	765.6	65.8	18.8	53	N	.....	.....	2	.....	2	.....	NW	0	0	Slightly cl'dy	Normal School.
Orleans	.....	.....	30.06	763.5	54.3	12.4	93	WSW	.....	.....	4	.....	8	.....	W	0.047	1.2	Very cloudy	Normal School.
Paris Observatory	.....	.....	30.00	762.1	53.1	11.7	78	WSW	.....	.....	3	.....	8	.....	W	0.236	5.99	Almost cov'd	National Observatory
Parthenay	.....	.....	30.23	767.8	52.2	11.2	86	SW	.....	.....	2	.....	8	.....	SW	0.20	5.	Very cloudy	Normal School.
Privas	.....	.....	30.27	768.8	53.1	11.7	.....	NE	.....	.....	2	.....	10	.....	.....	0.055	1.4	Covered	Normal School.
La Roche-sur-Yon	.....	.....	30.14	765.5	55.6	13.1	86	SW	.....	.....	2	.....	10	.....	.....	0.220	5.6	Covered	Normal School.
Rochefort, Observatory	.....	.....	30.26	768.6	55.4	13.0	87	WSW	.....	.....	4	.....	10	.....	NE	0	0	Covered	Naval Observatory.
Rouen	.....	.....	29.97	761.2	52.0	11.1	86	WSW	.....	.....	4	.....	10	.....	W	0.299	7.6	Covered	Normal School.
Saint Lo	.....	.....	30.03	762.8	53.2	11.8	90	W	.....	.....	2	.....	10	.....	W	0.059	1.5	.....	Normal School.
Tarbes	29.31	744.5	30.39	772.0	57.2	14	45	NW	.....	.....	4	.....	0	.....	.....	0.20	5.	Clear.....	Normal School.
Toulouse	.....	.....	30.50	774.6	57.2	14.0	67	NW	.....	.....	2	.....	10	.....	.....	.....	.....	Covered	Normal School.
Villefranche	.....	.....	30.28	769.0	51.8	11	94	W	.....	.....	4	.....	5	.....	.....	0	0	Cloudy.....	Normal School.
Sub-Series.																			
Fort de France, Martinique	.....	.....	29.93	760.1	77.4	25.2	74	NE	.....	.....	2	.....	2k	.....	.....	0	0	.....	L'Abbé Marchési.
Gorée	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marseilles	.....	.....	30.11	764.9	63.0	17.2	80	WNW	.....	.....	3	.....	0	.....	.....	0	0	.....	Marseilles Observatory.
Mont-Louis	25.04	636.1	30.42	772.7	50.0	10.0	42	W	20.5	9.17	.....	.....	2	.....	WNW	0.098	2.5	.....	—, Faiguère.
Montsouris, Paris	.....	.....	30.01	762.1	52.7	11.5	90	WSW	.....	.....	4	.....	9	.....	WSW	0.098	2.5	.....	Montsouris Observ'tory
Perpignan	.....	.....	30.24	768.2	63.9	17.7	44	N	37.3	16.66	.....	.....	1	.....	NW	0	0	.....	Dr. Fines.
Pic du Midi, (Summit) H. P.	21.41	543.7	.....	.....	24.4	— 4.2	.....	NW	.....	.....	2	.....	1	.....	.....	.....	.....	Clear.....	M. Baylac.
Saint Maur, (near Paris)	.....	.....	30.02	762.4	51.8	11.0	88	WSW	.....	.....	3	.....	10	.....	.....	0.283	7.2	Light rain...	E. Renou.
Toulouse	.....	.....	30.35	771.0	56.1	13.4	66	WNW	.....	.....	3	.....	9	.....	.....	0	0	.....	Toulouse Observatory
Tours	.....	.....	30.13	765.2	53.2	11.8	80	WSW	.....	.....	3	.....	9	.....	WNW	0.303	7.7	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	30.00	762.0	54.6	12.0	80	W	.....	.....	2	.....	10	.....	.....	0.036	0.76	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. Le Lec, S. J.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,090.9 ft.; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.5 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg	.....	.....	29.78	756.3	47.7	8.7	60	W	.....	.....	7	.....	10	.....	.....	0.236	6.0	Raining.....	Prof. T. Hoh.
Berlin	.....	.....	29.59	751.5	49.1	9.5	70	SW	.....	.....	2	.....	4	.....	.....	0.043	1.1	.....	Prof. Arndt.
Breslau	.....	.....	29.77	756.1	47.8	8.8	75	WSW	.....	.....	7	.....	10	W	.....	0.035	0.9	.....	Dr. P. Neugebauer
Carlsruhe	.....	.....	29.98	761.5	51.8	11.0	55	SW	.....	.....	10	.....	10	.....	.....	0.256	6.5	Raining.....	A. Senz.
Cassel	.....	.....	29.70	754.3	51.8	11.0	51	WSW	.....	.....	4	.....	4	.....	.....	0.079	2.0	.....	Dr. H. Möhn.
Cologn	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Frankfort on the Main	.....	.....	29.97	761.1	52.7	11.5	60	SW	.....	.....	4	.....	8	.....	.....	0.130	3.3	.....	Prof. Prestel.
Friedrichshafen	.....	.....	30.13	765.2	46.4	8.0	70	W	.....	.....	.....	.....	6	.....	.....	0.319	8.1	Rainy.....	Physical Society.
Hamburg	.....	.....	29.59	751.5	44.1	6.7	90	WSW	.....	.....	6	.....	10	.....	.....	0.043	1.1	Raining.....	M. Wilhelm.
Kiel	.....	.....	29.53	750.0	42.3	5.7	87	W	.....	.....	5	.....	10	.....	.....	0.150	3.8	.....	Deutsche Seewarte.
Königsberg	.....	.....	29.61	752.1	35.8	2.1	98	SW	.....	.....	2	.....	10	.....	.....	0.059	1.5	.....	Prof. G. Karsten.
Köslin	.....	.....	29.56	750.7	40.8	4.9	.....	S	.....	.....	1	.....	10	.....	.....	0	0	Raining.....	Prof. E. Luther.
Leipsic	.....	.....	29.77	756.1	49.3	9.6	92	WSW	.....	.....	4	.....	9	.....	.....	0.020	0.5	Showery.....	H. Müller.
Münster	.....	.....	30.04	762.9	49.8	9.9	65	SW	.....	.....	2	.....	10	.....	.....	0.209	5.3	Raining.....	Prof. Bruhns.
Posen	.....	.....	29.66	753.3	49.1	9.5	85	W	.....	.....	1	.....	10	.....	.....	0.114	2.9	.....	Prof. E. Heis.
Strassburg, (in Alsace)	.....	.....	30.04	763.0	52.9	11.6	56	W	.....	.....	3	.....	10	.....	.....	0.055	1.4	.....	Dr. Magener.
Stuttgart	.....	.....	30.00	762.1	51.3	10.7	43	W	.....	.....	.....	.....	6	.....	.....	0.201	5.1	.....	Dr. Schur.
Thorn	.....	.....	29.63	752.7	44.4	6.9	87	WSW	.....	.....	4	.....	9	.....	.....	0	0	.....	Prof. Schoder.
Treves, (Trier)	.....	.....	29.89	759.2	49.3	9.6	69	SW	.....	.....	8	.....	10	.....	.....	0.244	6.2	.....	Dr. Hasenbalg
Wustrow, Naval School	.....	.....	29.56	750.7	39.9	4.4	94	SW	.....	.....	5	.....	10	.....	.....	0.051	1.3	Raining.....	Prof. Flesch.
																			E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens	.....	.....	29.93	760.1	65.1	18.4	.....	SW	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine	.....	.....	29.85	758.1	55.0	12.8	71	Calm	.....	.....	0	.....	8	.....	.....	0	0	.....	
Padua	.....	.....	29.87	758.8	52.5	11.4	65	W	9.4	4.2	.....	.....	10	W	.....	0	0	.....	
Vicenza	.....	.....	29.88	759.0	52.2	11.2	66	SW	.....	.....	2	.....	0	.....	.....	0	0	.....	
Verona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bergamo	.....	.....	29.85	758.3	53.6	12.0	47	SW	.....	.....	2	.....	1	.....	.....	0	0	.....	
Domodossola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Milan	.....	.....	29.93	760.2	63.1	17.3	77	WNW	.....	.....	1	.....	3	N	.....	0	0	.....	
Pavia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Moncalieri	.....	.....	29.98	761.5	61.0	16.1	24	NNW	21.0	9.4	.....	.....	0	.....	.....	0	0	.....	
Mondovi	.....	.....	30.03	762.7	55.0	12.8	29	NNW	.....	.....	2	.....	1	NNW	.....	0	0	.....	
Porto Maurizio	.....	.....	29.98	761.6	55.6	13.1	.....	S-W	.....	.....	2	.....	0	.....	.....	0	0	.....	
Genoa	.....	.....	29.92	760.0	63.3	17.4	22	N	4.9	2.2	.....	.....	0	.....	.....	0	0	.....	
Piacenza	.....	.....	29.92	759.9	56.3	13.5	60	NW	6.9	3.1	.....	.....	0	.....	.....	0	0	.....	
Bologna	.....	.....	29.92	760.0	50.0	10.0	26	WNW	.....	.....	1	.....	5	E	.....	0	0	.....	
Florence	.....	.....	29.89	759.2	57.2	14.0	61	NE	.....	.....	4	.....	9	NE	.....	0	0	.....	
Leghorn	.....	.....	29.90	759.4	57.6	14.2	63	WNW	2.5	1.1	.....	.....	2	.....	.....	0	0	.....	
Siena	.....	.....	29.86	758.4	50.9	10.5	78	NNW	9.4	4.2	.....	.....	9	N	.....	0.035	0.9	.....	
Urbino	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Pesaro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ancona	.....	.....	29.87	758.8	46.8	8.2	81	NW	.....	.....	4	.....	10	.....	.....	0	0	Dense fog.....	
Grosseto	.....	.....	29.87	758.6	58.3	14.6	69	NNE	.....	.....	8	.....	6	SE	.....	0	0	.....	
Rome	.....	.....	29.83	757.7	52.5	11.4	95	E	3.8	1.7	.....	.....	9	W	.....	0.882	22.4	Rain & hail..	
Naples, O. U	.....	.....	29.82	757.5	61.7	16.5	65	SW	.....	.....	4	.....	9	SW	.....	0.122	3.1	.....	
Lecce	.....	.....	29.92	760.0	55.4	13.0	82	SE	12.5	5.6	.....	.....	10	.....	.....	0.012	0.3	Light rain...	
Cosenza	.....	.....	29.95	760.8	58.5	14.7	71	NW	1.3	0.6	.....	.....	10	.....	.....	0.024	0.6	Light rain...	
Riposto, (Sicily)	.....	.....	30.04	762.9	59.9	15.5	70	SSE	.....	.....	2	.....	1	NNW	.....	0	0	.....	
Palermo	.....	.....	29.92	759.9	67.6	19.8	41	WSW	12.5	5.6	.....	.....	1	.....	.....	0	0	.....	
Caltanissetta	.....	.....	29.99	761.8	56.1	13.4	60	W	.....	.....	6	.....	4	E	.....	0	0	.....	
Sub-Series.																			
Naples, S. R	.....	.....	29.82	757.4	57.2	14.0	81	SW	13.0	5.8	.....	.....	..k,c	W	.....	0.028	0.7	.....	Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 461 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NETHERLANDS' SERIES.

Furnished by the cooperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing	.....	.....	29.83	757.6	46.8	8.2	.....	W	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	
Groningen	.....	.....	29.59	751.6	44.6	7.0	.....	W	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	
Helder	.....	.....	29.66	753.4	44.8	7.1	.....	SW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Utrecht	.....	.....	29.71	754.5	51.1	10.6	89	WSW	.....	.....	5	.....	8	.....	.....	.....	.....	Very cloudy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen	.....	.....	29.65	753.2	25.2	— 3.8	100	S	1.1	0.5	.....	.....	10	.....	.....	0.020	0.5	Snowing.	
Brönö	.....	.....	30.00	762.0	23.6	— 5.0	52	Calm	0	0	.....	.....	1	.....	.....	0	0	.....	
Christiania	.....	.....	29.49	749.1	15.1	— 9.4	72	NNE	7.2	3.2	.....	.....	10	.....	.....	0	0	.....	
Tromsö	.....	.....	29.90	759.5	23.9	— 4.5	88	SW	2	1	.....	.....	8	.....	.....	0.031	0.8	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.00	762.1	62.1	16.7	90	WSW	10.6	4.75	.....	.....	3	.....	.....	0.551	14.0	.....	Dr. J. A. N. Sampaio.
Campo Maior	.....	.....	30.34	770.6	59.7	15.4	73	E	4.8	2.16	.....	.....	3	E	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.31	769.9	63.9	17.7	63	SE	4.6	2.05	.....	.....	2	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.38	771.7	55.9	13.3	91	NE	4.9	2.2	.....	.....	7	WSW	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.67	753.5	43.5	6.4	91	WSW	11	5	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Wilna	.....	.....	29.59	751.6	36.5	2.5	98	S	4	2	.....	.....	10	.....	.....	....	.....	Misty	Astronomical Obs.
Dorpat	.....	.....	29.66	753.4	24.1	- 4.4	88	NE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	29.78	756.5	11.1	—11.6	75	NE	9	4	.....	.....	10	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	29.89	759.1	9.3	—12.6	96	N	9	4	.....	.....	10	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	29.76	756.0	35.6	2.0	91	S	9	4	.....	.....	8	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	29.91	759.7	42.8	6.0	84	SSE	18	8	.....	.....	8	.....	.....	.....	.....	.....	Kurdakof.
Kertch	.....	.....	29.98	761.5	45.9	7.7	79	S	7	3	.....	.....	7	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.83	757.7	32.2	0.1	81	SSW	18	8	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.98	761.6	35.8	2.1	69	Calm	0	0	.....	.....	8	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	29.78	756.5	0.0	—17.8	80	WNW	18	8	.....	.....	8	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.62	726.9	30.04	763.0	50.7	10.4	52	Calm	0	0	.....	.....	6	.....	.....	.....	.....	.....	Physical Observatory.
Astrakhan	.....	.....	30.26	768.6	32.7	0.4	90	NE	7	3	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	30.06	763.5	18.7	— 7.4	86	S	2	1	.....	.....	6	.....	.....	.....	.....	.....	Physical Cabinet.
Orenburg	.....	.....	30.31	769.8	17.8	— 7.9	83	SW	2	1	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	29.04	737.5	30.10	764.4	21.2	— 6.0	74	S	13	6	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.08	763.9	47.1	8.4	50	NE	2	1	.....	.....	8	.....	.....	.....	.....	.....	.....
Kasaly	.....	.....	30.11	764.9	21.0	— 6.1	77	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.56	725.4	30.30	769.5	47.8	8.8	38	NNE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.50	774.8	13.5	—10.3	87	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	30.14	765.6	12.6	—10.8	92	W	2	1	.....	.....	10	.....	.....	.....	.....	Snowing	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.26	768.5	29.8	— 1.2	55	Calm	0	0	.....	0	.....	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.91	709.0	30.26	768.6	—15.3	—26.3	87	Calm	0	0	.....	0	.....	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.24	768.1	3.7	—15.7	85	Calm	0	0	.....	0	.....	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 409. m eters, or 1,341.8 feet; Ekaterinburg, 304.42 m., or 1,005.22 ft.; Tashkend, m. 494.22, or 1,621.37 ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.07 m., or 1,942.27 ft.; Oorga, 1,281.06 m., or 4,202.62 ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.37	771.3	60.3	15.7	53	SW	3.0	1.33	.....	0	0	.....	.....	0	0	Clear	Royal Observatory.
San Fernando	.....	.....	30.33	770.4	65.8	18.8	75	SW	4.0	1.8	.....	3	4	NW	SW	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.02	762.5	6.5	—21.4	71	N	.....	.....	2	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	29.98	761.5	9.0	—12.8	88	N	.....	.....	2	.....	0	.....	.....	0.189	4.8	.....	
Hernosand	.....	.....	30.01	762.3	11.5	—11.4	100	NE	.....	.....	2	.....	0	.....	.....	0.039	1.0	.....	
Stockholm	.....	.....	29.78	756.4	16.9	— 8.4	76	ENE	.....	.....	6	.....	6	.....	.....	0.110	2.8	.....	
Wisby	.....	.....	29.69	754.0	25.2	— 3.8	100	E	.....	.....	6	.....	10	.....	.....	0.091	2.3	.....	
Sub-Series.																			
Upsala	.....	.....	29.87	758.6	15.1	— 9.4	81	NNE	17.0	7.6	.....	.....	6	.....	.....	0.002	0.05	Snowing	Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. —10.	Clouds. Amount. Up'er —10.	Clouds. Amount. Low'r —10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.78	731.0	30.23	767.7	48.9	9.4	64	SSW	.....	.....	1	.....	10	.....	.....	0.740	18.8	Covered	The Observatory.
Zurich	28.48	723.5	30.15	765.7	47.1	8.4	76	SW	.....	.....	2	.....	7	.....	SW	1.583	40.2	Raining.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.4 mm.; Thermometer, +4.1 cent.; Relative Humidity, —3 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Constantinople	.....	.....	29.95	760.6	52.2	11.2	71	SSE	3	1.5	.....	.....	6	.....	W	0	0	....	
Fao, (Persian Gulf)	.....	.....	30.24	768.0	66.7	19.3	.....	NW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.91	759.6	57.7	14.3	.....	SE	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.84	757.8	55.8	13.2	.....	W	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	29.76	756.0	53.6	12.0	.....	N	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.10	764.6	66.0	18.9	60	W	.....	.....	2	.....	8c	.....	.....	0	0	Fair.....	Prof. C. V. A. Van Dyck.

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Bathurst, N. B.	.....	.....	30.12	765.0	14.6	— 9.7	84	Calm	0	0	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.13	765.3	6	—14.4	.....	NE	11	4.9	.....	.....	10s	.....	NE	0	0	Cloudy.....	W. R. Bigg.
*Chatham, N. B.	.....	.....	30.12	765.0	12	—11.1	84	NW	1	0.4	.....	2k	8ks	NW	NW	0	0	Cloudy.....	G. A. Blair.
Charlottetown, P. E. Island.	.....	.....	30.08	764.0	12	—11.1	94	NE	4	1.8	.....	.....	Fog	.....	.....	0	0	Foggy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.11	764.8	2.7	—16.3	80	E	.....	.....	4	10c	.....	.....	.....	0	0	Stormy.....	James Smith, M. A.
Dalhousie, N. B.	.....	.....	30.15	765.8	11.7	—11.3	67	E	.....	.....	2	.....	8s	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C.	.....	.....	29.83	757.7	35.1	1.7	85	N	3	1.3	.....	.....	.....	.....	.....	0	0	Clear.....	W. H. Revis.
Fredericton, N. B.	.....	.....	30.14	765.5	0.2	—17.7	94	W	8	3.6	.....	2cs	.....	.....	.....	0	0	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.36	771.1	— 2	—18.9	100	N	10	4.5	.....	2k	2s	N	N	0	0	Cloudy.....	James Stewart.
Goderich, Ontario	.....	.....	29.72	754.9	22.7	— 5.2	89	Calm	.....	.....	0	.....	10n	.....	.....	0.400	10.16	Threatening	H. J. Strang, M. A.
Granton, Ontario	.....	.....	29.96	761.0	23.2	— 4.9	.....	E	.....	.....	4	.....	10n	.....	.....	0.10	2.5	Cloudy.....	James Grant.
*Halifax, N. S.	.....	.....	30.04	763.0	11	—11.7	90	NW	4	1.8	.....	2ck	0	S	.....	0	0	Fair.....	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.03	762.7	9	—12.8	78	NE	26	11.6	.....	.....	10s	.....	.....	0.03	0.8	Cloudy.....	S. Woods, M. A.
Little Current, Ontario	.....	.....	29.95	760.7	5.6	—14.7	.....	NE	18.0	8.0	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.18	766.6	— 1	—18.3	81	NE	18	8.0	.....	5ck	2ks	NW	NW	0	0	Cloudy.....	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.08	764.0	3	—16.1	88	E	14	6.3	.....	5ck	2s	E	E	0	0	Fair.....	J. B. Haney.
*Parry Sound, Ontario	.....	.....	29.94	760.5	12	—11.1	52	NE	20	8.9	.....	.....	10n	.....	E	0	0	Cloudy.....	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	29.67	753.6	25	— 3.9	100	NE	8	3.6	.....	.....	10ks	.....	NE	0.40	10.2	Threatening	H. Morgan.
Port Hastings, N. S.	.....	.....	30.16	766.1	22.9	— 5.1	.....	NW	5	2.2	.....	.....	.....	.....	.....	0	0	Fine.....	P ter Grant.
*Port Stanley Ontario	.....	.....	29.66	753.4	27	— 2.8	96	E	10	4.5	.....	.....	10n	.....	E	0.50	12.7	Cloudy.....	M. Payne.
*Quebec, Quebec	.....	.....	30.23	767.8	— 2	—18.9	84	Calm	0	0	0	0	.....	.....	.....	0	0	Clear.....	Capt. Ash, R. N.
St. John, N. B.	.....	.....	30.11	764.8	7	—13.9	88	N	1	0.4	.....	.....	.....	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	29.75	755.6	16	— 8.9	83	E	9	4.0	.....	.....	10s	.....	.....	0.08	2.0	Sleeting.....	K. Stewart.
Stayner, Ontario	.....	.....	29.85	758.2	13	—10.6	96	SE	8	3.6	.....	.....	10n	.....	SE	0.16	4.1	Light snow..	R. J. Cole.
Stratford, Ontario	.....	.....	29.70	754.4	18.9	— 7.3	91	E	17	7.6	.....	.....	10s	.....	.....	0.65	16.5	Cloudy.....	C. J. MacGregor, M. A.
*Sydney, C. B.	.....	.....	30.06	763.5	9	—12.8	91	Calm	0	0	0	0	0	.....	.....	0	0	Clear	T. C. Hill.
*Toronto, Ontario	.....	.....	29.84	757.9	17	— 8.3	92	NE	15	6.7	.....	.....	10n	.....	.....	0.32	8.1	Light snow	Magnetic Observatory.
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES,

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10	Clouds. Direction. Upper. Fro —	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.02	762.5	13	—10.6	80	NW	6	2.7	.....	....	10s	.....	.....	0.29	7.4	Cloudy	
Alpena, Mich.	.....	.....	29.80	756 9	13	—10.6	100	NE	26	11.6	.....	.....	10n	.....	.....	0.57	14.5	Heavy snow	
Atlantic City, N. J.	.....	.....	29.88	758.7	37	2.8	100	NE	13	5.8	.....	.....	Fog	.....	.....	0.05	0.3	Foggy	
Augusta, Ga.	.....	.....	29.94	760.5	60	15.6	91	Calm	0	0	.....	.....	8s	.....	W	0.04	1.0	Fair	
Baltimore, Md.	.....	.....	29.89	759.2	35	1.7	90	NE	4	1.8	.....	.....	Fog	.....	.....	0.07	1.8	Light rain	
Barnegat, N. J.	.....	.....	29.88	758.9	37	2.8	100	NE	12	5.4	.....	.....	Fog	.....	.....	0.09	2.3	Foggy	
Benton, Montana	27.28	692.9	30.08	764.0	— 1	—18.3	100	Calm	0	0	.....	5c	0	.....	.....	0	0	Fair	
Bismarck, Dakota	28.42	721.9	30.26	768.6	1	—17.2	56	N	5	2.2	.....	5k	5s	N	N	0.05	1.3	Cloudy	
Boston, Mass.	.....	.....	30.04	763.0	23	— 5.0	100	N	7	3.1	.....	.....	10s	.....	N	0.13	3.3	Cloudy	
Breckenridge, Minn	.....	.....	30.19	766.8	4	—15.6	87	NW	18	8.0	.....	.....	10s	.....	NW	0 08	2.0	Cloudy..	
Buffalo, N. Y.	.....	.....	29.96	760.4	26.5	— 3.1	88	E	12	5.4	.....	.....	10n	.....	E	0.55	14.0	Sleeting	
Burlington, Vt.	.....	.....	30.14	765.5	4	—15.6	74	N	7	3.1	.....	2ok	5s	W	.....	0	0	Cloudy	
Cairo, Ill.	.....	.....	30.09	764.3	33	0.6	61	W	13	5.8	.....	0	0	.....	.....	0.02	0.5	Clear	
Cape Hatteras, N. C.	.....	.....	29.88	758.9	58	14.4	87	W	13	5.8	.....	.....	10n	.....	W	Inap.	Inap.	Light mist	
Cape Henry, Va.	.....	.....	29.88	758.9	54	12.2	87	SW	5	2.2	.....	8k	Fog	SW	.....	0	0	Cloudy	
Cape May, N. J.	.....	.....	29. 8	758.9	40	4.4	100	NE	6	2.7	.....	.....	Fog	.....	.....	0	0	Foggy	
Charleston, S. C.	.....	.....	29.97	761.2	63	17.2	94	SW	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy	
Cheyenne, Wyoming	23.92	607.6	29.86	758.4	12	—11.1	100	SW	1	0.4	.....	0	0	.....	.....	0	0	Clear, frost	
Chicago, Ill.	.....	.....	29.72	754.9	3	— 1.1	78	W	11	4.9	.....	.....	10s	.....	W	0.79	20.1	Cloudy	
Cincinnati, Ohio	.....	.....	29.8	756.9	42	5.6	58	W	8	3.6	.....	.....	10s	.....	W	0.08	2.0	Cloudy	
Cleveland, Ohio	.....	.....	29.93	760.6	31.4	1.3	100	SW	5	2.2	.....	.....	Fog	.....	SW	0.49	12.4	Foggy	
Colorado Springs, Col.	24.03	610.4	29.90	759.4	21	— 6.1	70	Calm	0	0	.....	.....	10s	.....	SW	0	0	Cloudy	
Corsicana, Tex.	.....	.....	30.20	767.1	40	4.4	73	N	6	2.7	.....	2c	Haze	.....	.....	0	0	Fair	
Davenport, Iowa	.....	.....	29.94	760.5	25	— 3.9	88	NW	28	12.5	.....	.....	10s	.....	.....	0.87	22.1	Cloudy	
Denison, Tex.	.....	.....	30.23	767.8	32	0.0	69	N	8	3.6	.....	5c	0	.....	.....	0	0	Fair	
Denver, Col. *	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Detroit, Mich.	.....	.....	29.95	753.1	30	— 1.1	100	NE	2	0.9	.....	.....	Fog	.....	.....	0.61	15.5	Foggy	
Dodge City, Kan.	27.52	699.0	29.99	761.7	18	— 7.8	68	W	3	1.3	.....	2c	0	.....	.....	Inap.	Inap.	Clear	
Dubuque, Iowa	.....	.....	29.86	758.4	27	— 2.8	65	NW	12	5.4	.....	.....	10n	.....	.....	0.72	18.3	Light snow	
Duluth, Minn.	.....	.....	30.03	762.7	14	—10.0	82	NE	8	3.6	.....	.....	10s	.....	.....	0.30	7.6	Cloudy	
Eastport, Me.	.....	.....	30.09	764.3	9	—12.8	67	NW	10	4.5	.....	8c	Haze	.....	.....	0	0	Fair	
Erie, Pa.	.....	.....	29.58	751.3	32	0.0	100	Calm	0	0	.....	.....	10s	.....	.....	0.74	18.8	Cloudy	
Escanaba, Mich.	.....	.....	29.86	758.4	10	—12.2	84	N	16	7.2	.....	.....	10n	.....	N	0.27	6.9	Light snow	
Fort Gibson, Indian Terr.	.....	.....	30.25	768.3	30	— 1.1	68	NW	4	1.8	.....	0	0	.....	.....	0	0	Clear	
Fort Sill, Indian T.	29.00	736.6	30.2	767.1	26	— 3.3	67	N	8	3.6	.....	2cs	0	N	.....	0	0	Clear	
Fort Sully, Dakota	28.49	723.6	30.35	77 .9	3	—16.1	87	NW	6	2.7	.....	8cs	1s	.....	NW	Inap.	Inap.	Cloudy	
Galveston, Tex.	.....	.....	30.10	764.5	62	16.7	57	NE	11	4.9	.....	0	0	.....	.....	0	0	Clear	
Grand Haven, Mich.	.....	.....	29.94	760.8	26	— 3.3	94	E	9	4.0	.....	.....	10n	.....	.....	0.37	9.4	Light sleet	
Indianapolis, Ind.	.....	.....	29.83	757.7	34	1.1	79	W	10	4.5	.....	.....	10s	.....	SW	0.46	11.7	Cloudy	
Indianola, Tex.	.....	.....	30.11	764.8	61	16.1	100	NE	12	5.4	.....	1cs	0	.....	.....	0	0	Clear	
Jacksonville, Fla.	.....	.....	30.07	763.8	65	18.3	89	SW	9	4.0	.....	.....	10s	.....	SW	0	0	Cloudy	
Keokuk, Iowa	.....	.....	29.98	761.5	24	— 4.4	74	NW	19	8.5	.....	.....	10s	.....	NW	0.41	10.4	Cloudy	
Key West, Fla.	.....	.....	30. 9	764.3	74.8	23.8	90	Calm	0	0	.....	1k	2ks	S	S	0	0	Smoky	
Kittyhawk, N. C.	.....	.....	29.91	759.7	56	13.3	87	NW	18	8.0	.....	0	8ks	.....	NW	0.01	0.3	Fair	
Knoxville, Tenn.	.....	.....	29.87	758.7	58	14.4	81	SW	14	6.3	.....	1k	0	SW	.....	0.10	2.5	Clear	
La Crosse, Wis.	.....	.....	29.91	759.4	18	— 7.8	100	NW	6	2.7	.....	.....	10n	.....	NW	0.75	19.1	Heavy snow	
Leavenworth, Kan.	.....	.....	30.22	767.6	17	— 8.9	83	NW	10	4.5	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Lexington, Ky.	28.80	731.5	29.93	760.2	38	3.3	71	W	12	5.4	.....	0	2s	.....	SW	0	0	Clear	
Long Branch, N. J.	.....	.....	29.94	760.5	31	— 0.6	100	NE	12	5.4	.....	.....	10n	.....	.....	0.21	5.3	Light rain	
Louisville, Ky.	.....	.....	29.92	760.0	40	4.4	56	W	10	4.5	.....	.....	10s	.....	SW	0.25	6.3	Cloudy	
Lynchburg, Va.	.....	.....	29.84	757.9	43	6.1	91	NE	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy	
Malone, N. Y.	.....	.....	30.07	763.8	5	—15.0	75	NE	8	3.6	.....	5cs	0	NW	.....	0	0	Fair	
Marquette, Mich.	.....	.....	29.95	760.7	14	—10.0	100	N	16	7.2	.....	.....	10n	.....	NE	0.10	2.5	Light snow	
Memphis, Tenn.	.....	.....	30.13	765.3	44	6.7	36	NW	7	3.1	.....	0	Haze	.....	.....	0	0	Clear	
Milwaukee, Wis.	.....	.....	29.72	754.9	27	— 2.8	77	NW	8	3.6	.....	.....	10ks	.....	NW	0.82	20.8	Cloudy	
Mobile, Ala.	.....	.....	30.11	764.8	60	15.6	88	Calm	0	0	.....	5ck	Sm'e	.....	.....	0.11	2.8	Fair	
Montgomery, Ala.	.....	.....	30.07	763.8	60	15.6	94	W	6	2.7	.....	2c	Haze	W	.....	0.10	2.5	Clear	
Morgantown, W. Va.	.....	.....	29.66	753.4	56	13.3	80	S	10	4.5	.....	.....	10s	.....	SW	0.54	13.7	Cloudy	
Mt. Washington, N. H.	23.51	597.1	29.87	758.7	18	— 7.8	100	SW	10	4.5	.....	.....	Fog	.....	.....	0	0	Foggy	
Nashville, Tenn.	.....	.....	29.99	761.7	46	7.8	54	W	6	2.7	.....	0	0	.....	.....	0.36	9.1	Clear	
New Haven, Conn.	.....	.....	29.99	761.7	24	— 4.4	87	NE	14	6.3	.....	.....	10s	.....	N	0.25	6.3	Cloudy	
New London, Conn.	.....	.....	30.05	762.9	28	— 2.2	88	N	5	2.2	.....	.....	10s	.....	.....	0.13	3.3	Cloudy	
New Orleans, La.	.....	.....	30.10	764.5	63	17 2	83	NW	6	2.7	.....	2k	Haze	W	.....	0	0	Clear	
Newport, R. I.	.....	.....	30.01	762.0	28	— 2.2	88	NE	4	1.8	.....	.....	10s	.....	NE	0.25	6.3	Cloudy	
New York, N. Y.	.....	.....	29.95	760.7	21	— 1.7	89	NE	16	7.2	.....	.....	10s	.....	.....	0.14	3.6	Cl'dy, foggy	
Norfolk, Va.	.....	.....	29.88	758 9	50.5	10.3	89	SW	4	1.8	.....	2k	5s	W	SW	0	0	Fair	
North Platte, Neb.	27.16	689.8	29.95	760.7	11	—11.7	69	Calm	0	0	.....	0	0	.....	.....	Inap.	Inap.	Clear	
Omaha, Neb.	29.04	737.6	30.20	767.1	15	— 9.4	82	NW	15	6.7	.....	0	5s	.....	NW	0.12	3.0	Fair	
Oswego, N. Y.	.....	.....	29.87	758.7	26	— 3.3	94	E	9	4.0	.....	.....	10s	.....	.....	0.18	4.6	Threatening	
Pembina, Dakota	.....	.....	30.27	768.8	3	—16.1	86	NW	16	7.2	.....	.....	10s	.....	.....	0	0	Cloudy	
Philadelphia, Penn.	.....	.....	29.91	759.7	31	— 0.6	100	E	12	5.4	.....	.....	Fog	.....	.....	0.03	0.8	Foggy	
Pike's Peak, Colorado	17.51	444.7	29.72	754.9	2	—16.7	30	SW	48	21.5	.....	0	2s	.....	.....	0	0	Fair	
Pittsburgh, Penn.	.....	.....	29.61	752.1	53	11.7	72	SW	16	7.2	.....	8k	0	W	.....	0.28	7.1	Fair	
Port Huron, Mich.	.....	.....	29.94	760.8	28	— 2.2	88	NW	5	2.2	.....	.....	10n	.....	.....	0.57	14.5	Light rain	
Portland, Me.	.....	.....	30.11	764.8	17	— 8.3	67	NE	13	5.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Portland, Oregon	.....	.....	29.82	757.4	35	1.7	90	N	5	2.2	.....	0	0	.....	.....	0	0	Clear	
Punta Rassa, Fla.	.....	.....	30.13	765.3	68	20.0	94	NE	4	1.8	.....	.....	8s	.....	SW	0	0	Cloudy	
Rochester, N. Y.	.....	.....	29.78	756.4	23	— 5.0	86	E	15	6.7	.....	.....	10s	.....	.....	0.24	6.1	Cloudy	
Salt Lake City, Utah	25.40	645.2	29.73	755.1	31	— 0.6	60	Calm	0	0	.....	.....	10s	.....	.....	0	0	Cloudy	
Sandy Hook, N. J.	.....	.....	29.93	760.2	31	— 0.6	89	NE	18	8.0	.....	.....	10s	.....	NE	0.25	6.3	Cloudy	
San Diego, Cal.	.....	.....	29.80	756.9	51	10.6	86	S	32	14.3	.....	.....	10n	.....	S	0.05	1.3	Heavy rain	
San Francisco, Cal.	.....	.....	29.61	751.8	46	7.8	84	S	2	0.9	.....	.....	10ks	.....	.....	0.86	21.8	Cloudy	
Santa Fe, N. M.	23.21	589.5	29.75	755.6	25	— 3.9	63	NE	10	4.5	.....	0	0	.....	.....	0	0	Clear	
Savannah, Ga.	.....	.....	30.01	762.2	65	18.3	83	W	8	3.6	.....	.....	10s	.....	SW	0	0	Cloudy	
Shreveport, La.	.....	.....	30.23	767.8	45.5	7.5	54	N	5	2.2	.....	2c	0	.....	.....	0	0	Fair	
Smithville, N. C.	.....	.....	29.96	761.0	59	15.0	97	E	5	2.2	.....	.....	10n	.....	SW	0.83	21.1	Light rain	
Springfield, Mass.	.....	.....	30.03	762.7	25	— 3.9	74	NE	4	1.8	.....	.....	10s	.....	.....	0.24	6.1	Cloudy	
St. Louis, Mo.	.....	.....	30.06	763.5	27	— 2.8	77	NW	24	10.7	.....	0	5s	.....	.....	0.08	2.0	Fair	
St. Marks, Fla.	.....	.....	30.08	764.0	65	18.3	94	SW	3	1.3	.....	.....	10s	.....	SW	0.08	2.0	Cloudy	
St. Paul, Minn.	.....	.....	29.94	760.5	14	—10.0	81	NW	12	5.4	.....	.....	10s	.....	.....	0.06	1.5	Cloudy	
St. Paul's Island, Alaska	.....	.....	30.35	770.9	— 4	—20.0	94	NE	20	8.9	.....	1c	1k	WNW	.....	0	0	.....	
Thatcher's Island, Mass.	.....	.....	30.03	762.7	26	— 3.3	76	NE	15	6.7	.....	.....	10s	.....	N	Inap.	Inap.	Cloudy	
Toledo, Ohio	.....	.....	29.93	752.6	35	1.7	90	SW	4	1.8	.....	.....	10s	.....	SW	0.21	5.3	Cloudy	
Tucson, Arizona	27.45	697.2	30.04	763.0	37	2.8	.....	S	.....	.....	.....	0	0	.....	.....	0	0	Clear	
Tybee Island, Ga.	.....	.....	30.00	762.0	63	17.2	94	S	8	3.6	.....	5c	Sm'e	E	.....	0	0	Smoky	
Vicksburg, Miss.	.....	.....	30.18	766.6	53	11.7	48	N	4	1.8	.....	5cs	0	W	.....	0	0	Fair	
Virginia City	24.03	610.4	29.51	749 5	14	—10.0	81	Calm	0	0	.....	2c	0	W	.....	Inap.	Inap.	Fair	
Washington, D. C.	.....	.....	29.88	758.9	34.5	1.4	100	NE	3	1.3	.....	.....	Fog	.....	.....	0.09	2.3	Foggy	

UNITED STATES SERIES.—CONTINUED

STATIONS.	BAROMETER. Corrected for instrumental errors. Inches.	BAROMETER. Corrected for instrumental errors. Millimeters.	BAROMETER. Reduced to sea-level. Inches.	BAROMETER. Reduced to sea-level. Millimeters.	TEMPERATURE OF THE AIR. Fahrenheit.	TEMPERATURE OF THE AIR. Centigrade.	RELATIVE HUMIDITY. Per cent.	WIND. Direction. From—	WIND. Velocity. Miles per hour.	WIND. Velocity. Meters per second.	WIND. Force. 0—10	CLOUDS. Amount. Up'er 0—10	CLOUDS. Amount. Low'r 0—10	CLOUDS. Direction. Upper. From—	CLOUDS. Direction. Lower. From—	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Inches.	RAIN-FALL OR MELTED SNOW IN THE PAST 24 HOURS. Millimeters.	WEATHER.	OBSERVER.
Wilmington, N. C	.....	.....	29.94	760.5	68	14.4	100	SE	4	1.8	.....	.....	10n	.....	SW	1.02	25.9	Light rain	
Wood's Holl, Mass	.....	.....	30.01	762.2	31	— 0.6	89	NE	3	1.3	.....	.....	10s	.....	.....	0.21	5.3	Cloudy	
Wytheville, Va	27.47	697.7	29.57	751.1	54	12.2	86	W	5	2.2	.....	5k	Sm'e	W	.....	0.10	2.5	Fair	
Yankton, Dakota	28.88	733.5	30.30	769.6	10	—12.2	79	NW	20	8.9	.....	.....	10s	.....	NW	0.07	1.8	Cloudy	
Yuma, Arizona	.....	.....	29.81	757.2	42	5.6	.....	E	.....	.....	.....	8c	0	SW	.....	0	0	Fair	
SUB-SERIES.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.07	763.4	77	25.0	95	E	8	3.6	.....	.....	..n	.....	.....	0	0	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.02	762.5	74	23.3	81	E	.....	.....	.....	8pc	2k	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.27	768.8	76	24.4	72	SSE	5	2.2	.....	4ck	8ks	SE	N	0	0	Cloudy	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.21	767.3	74	23.3	76	Calm	0	0	.....	2c	2s	.....	.....	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.87	758.7	74	23.3	76	NE	2.4	1.1	.....	0	0	.....	.....	0.018	0.45	Clear	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.11	764.8	74	23.3	85	SE	2.4	1.1	.....	0	0	.....	.....	0	0	Clear	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	30.18	766.6	65.5	18.6	70	SW	5.0	2.2	.....	5ck	2k	NW	.....	0	0	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.32	693.9	30.14	765.5	62	16.7	88	S	2.0	0.9	.....	5c	0	S	.....	0	0	Fine	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.02	762.5	80	26.7	74	E	.....	.....	3	.....	8ks	.....	.....	0.010	0.25	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.06	763.4	80.6	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.18	639.6	.....	.....	68.0	20.0	82	.....	0	0	.....	3ck	4s	.....	.....	0	0	Fair	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.74	755.4	23.0	— 5.0	.....	W	.....	.....	.....	10k	10s	.....	.....	0.02	0.5	Cloudy	John Delaney.
York Factory, B. A	.....	.....	30.48	774.2	— 3.5	—19.7	100	S	11	4.9	.....	.....	8s	.....	.....	0	0	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	30.14	765.5	72	22.2	92	NE	.....	.....	7	.....	.....	.....	.....	0.15	3.8	Rain-squalls	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

MARINE SERIES.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....

NOTE.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft.. or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.9 (?) ft., or 2,091.5 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.5 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 6.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

* Observation not simultaneous.

Collated at the Office of the CHIEF SIGNAL OFFICER OF THE ARMY, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON FEBRUARY 29, 1876.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time
2:39 P. M. CONSTANTINOPLE mean time
2:14 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of General d'Eudeville, Commandant Supérieur du Génie in Algeria.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.30	769.5	65.5	18.6	53	SSE			1		0			0	0	Clear	Charnot and Masselot.
Algiers			30.28	769.0	66.6	19.2	64	N			1		0			0	0	Clear	Peter.
La Calle																			Kuntz.
Tunis			30.25	768.3	65.1	18.4	49	NW			6		0			0	0	Clear	Jacques.
Sfax			30.26	768.5	71.6	22.0	36	SW			3		1			0	0	Clear	Chauvey.
Safda			30.31	769.8	73.4	23.0	18	SSW			1		0			0	0	Clear	Millot.
Tebessa			30.31	769.9	62.2	16.8		W			4		0			0	0	Clear	Colin.
Geriville			30.35	770.9	62.2	16.8	31	NNW			2		1			0	0	Clear	Buard.
Laghouat			30.36	771.2	68.0	20.0	32	NE			2		0			0	0	Clear	Delord.
Biskra			30.34	770.6	75.2	24.0	17	NW			1		2			0	0	Clear	Dubois.

Note.—In the originals the distinction between the amount of upper and lower clouds is apparently not made. The weather is published as given. The rain-fall is measured at 7 a. m. local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			30.04	763.1	54.5	12.5	55	SW			1		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.91	759.7	41.7	5.4	75	W			1		10			0.017	0.42		I. R. Observatory.
Eperies			29.98	759.0	43.5	6.4	88	S			1		6		N	0	0		Julius Mikolik.
Gratz	28.70	731.2	30.00	761.9	50.5	10.3	55	SW			2		8			0	0		Andreas Rospini.
Hermannstadt	28.45	722.5	29.88	759.0	47.8	8.8	54	WNW			4		5			0.065	1.65		Prof. Reissenberger.
Kremsmünster	28.65	727.8	30.01	762.3	46.8	8.2	87	WSW			5		10			0.228	5.8		Prof. C. Wagner.
Lemberg			29.80	756.9	42.8	6.0	81	W			1		7			0.098	2.5		Dr. T. Stanecki.
Nyiregyhaza			29.91	759.8	48.6	9.2	76	W			1		5			0	0		Habzsuda Daniel.
Pola			30.05	763.3	53.4	11.9	85	SW			1		5cks			0	0		I.R. Hydrographic Office
Szegedin			29.97	761.3	51.1	10.6	62	W			3		6			0	0		Karl Stancel.
Trieste			30.05	763.3	52.2	11.2	85	Calm			0		0			0	0	Clear	Prof. V. Farolfi.
Vienna			29.98	761.4	46.4	8.0	85	W			2		10			0.165	4.2		I. R. Central Institute

Note.—The originals give, occasionally, the weather by the Vienna symbols. The distinction between upper and lower clouds is not made. It is not always certain that the weather remarks refer to the exact moment of observation. At Lemberg the rain-fall is measured at 7 p. m., local time. The elevation of Gratz is 343.5 meters, or 1,126.9 feet; Hermannstadt, 407.8 m., or 1,337.9 ft.; Kremsmunster, 383.6 m., or 1,258.5 ft.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels			29.86	758.4	52.7	11.5	90	SW			5		10			0.091	2.30	Raining	Royal Observatory.

Note.—In the originals, the weather is occasionally given in general notes.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London, and Alexander Buchan, Secretary of the Scottish Meteorological Society, Edinburgh.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.34	745.2	46.0	7.8		S	14	6.3			10			0.255	6.48	Raining	William Boswell.
Ardrossan			29.54	750.3	47	8.3		W			3		6					*D. clouds	J. Mayes.
Armagh Observatory			29.62	752.3	50.3	10.2		SW	19	8.5			5					*D. clouds	S. Cah. for Dr. Robinson
Bidston, Liverpool Obs.			29.65	753.1	47.7	8.7		W	36	16.1			8					Overcast	John Hartnup.
Birr Castle, (Parsonstown)			29.68	753.9	51.8	11.0		SW			2–4		4					*D. clouds	J. Dreyer.
Bradford			29.54	750.3	51.6	10.9		SW			2		1			0.10	2.5	*D. clouds	J. McLandsborough.
Bridgetown, (Barbados)			30.03	762.7	79.6	26.4		E			1		6					*D. clouds	Sergt. G. H. Hunt.
Cambridge Observatory			29.70	754.4	56.0	13.3		SW			2		10			Blank	Blank	Overcast	H. Todd.
Cardington			29.72	754.9	56.0	13.3		W			4		9					Overcast	John McLaren.
Carlisle			29.55	750.6	48	8.9		W			5		4			0.41	10.4		C. Bell, for J. Cartmell.
Chatham, School M. E.			29.77	756.1	54.2	12.3		WSW			1							Overcast	Capt. J. Fellowes, R. E.
Dartmoor	28.42	721.9	29.03	760.2	47.6	8.7		W			6		9					Squally	R. E. Power.
Donaghadee			29.58	751.3	48	8.9		W			6		7					*D. clouds	J. Mac Gowan.
Dover			29.81	757.2	47	8.3		WSW			4		10					Rain and fog	J. Costello.
Eccles, (near Manchester)			29.63	752.6	51.0	10.6		WSW	12.0	5.4			10					Showery	Thomas Mackereth.
Falmouth Observatory			29.88	758.9	54.0	12.2		WSW	22	9.8			10					Overcast	The Staff.
Fort Napier, (Natal)	27.63	701.8	29.86	758.4	77.0	25.0		E			1		10					Overcast	Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.86	758.4	85.0	29.4		N			1		6						[tis.
Galway, Queen's College			29.54	750.3	51	10.6		SW			2		4					Showery	R. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.30	769.6	67.0	19.4		NE			3		4						Pvt. C. Aitken, A. H. C.
Glasgow Observatory			29.49	749.0	45.7	7.6		W			2		4					Fine	Lewis Stuart.
Great Yarmouth			29.67	753.6	54	12.2		SSW			4		6					*D. clouds	G. T. Watson.
Greenwich Royal Obs.			29.78	756.4	53.9	12.2		WSW			5		10			Blank	Blank	Overcast	The Staff for G. B. Airy
Guernsey			29.93	760.2	51.5	10.8		SW			5		10					Misty	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.61	752.1	50.3	10.2		W			3		8			Blank	Blank	*D. clouds	L. J. Crossley.
Helston			29.85	758.2	55	12.8		W			4		6			0.25	6.3	Gloomy	M. P. Moyle.
Holyhead			29.69	754.1	50	10.0		SW			4		3					Blue sky	John Tilston.
Kew Observatory			29.78	756.4	54.4	12.4		SW	20	8.9			9					Overcast	The Staff.
Kingstown			29.86	758.4	51	10.6		W			5		1					Blue sky	George Mitchell
Leicester Museum			29.68	753.9	55.0	12.8		SW			3		6					Threatening	William J. Harrison.
Malta, (Mediterranean)			30.09	764.3	62.2	16.8		NW			2		4k						Fred Travis, Pvt A.H.C
Nairn			29.38	746.2	39	3.9		Calm			0		10					Raining	W. D. Penny.
Nassau, (Bahamas)			30.14	765.5	71.4	21.9		SE			1		4					*D. clouds	Surg.-Maj. Henry.
Nottingham			29.66	753.4	54.4	12.4		SSW			6	c	7k,ks,n		W	0.255	6.48	*D. clouds	E. J. Lowe, F. R. S
Oscott, St. Mary's College			29.66	753.4	56.0	13.3		SW			6		9			Blank	Blank	Threatening	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.73	755.1	58	14.4		WSW			3		7					*D. clouds	J. Lucas.
Plymouth			29.87	758.7	53	11.7		WSW			4		10					Overcast	John Merrifield.
Roche's Point			29.73	755.1	50	10.0		W			3		2					Fine	W. Kennedy.
Saint Ann's Head			29.75	755.6	47	8.3		W			4		1					Blue sky	John C. Walker.
Saint Helier, (Jersey)			29.96	761.0	51.0	10.6		SW			5		10					Overcast	A. P. Amy.
Sandwick Manse, (Orkneys)			29.32	744.7	40.8	4.9		S	8	3.6			10					Raining	Rev. Dr. Clouston
Scarborough			29.54	750.3	52.0	11.1		WSW			2		10					Raining	F. Shaw.
Scutari Cemetery, (Turkey)			29.90	759.4	54.0	12.2		S			1		10			Blank	Blank	Gloomy	Sergt. W. H. Lyne.
Sheffield			29.58	751.3	59.8	15.4		WNW			4		4			0.080	2.18	Blue sky	W. F. Cooper.
Silloth Rectory			29.55	750.6	51.0	10.6	76	SW			4		3			0.074	1.88	*D. clouds	Rev Francis Redford.
Stonyhurst Observatory			29.61	752.1	47.9	8.8		W			5		10			Blank	Blank	Threatening	The Staff.
Stornoway, Lews C. (Hebr.)			29.35	745.5	46	7.8		WSW			2		5					*D. clouds	John Smith.
Strathfield Turgiss			29.79	756.7	52.7	11.5		W			1–2		6					*D. clouds	Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Thurso			29.29	744.0	43	6.1		SW			3		10					Raining	John Trotter.
Truro, Royal Institution			29.86	758.4	57	13.9		W			6		5					*D. clouds	W. Newcombe.
Valencia Observatory			29.71	754.6	52.9	11.6		SW	33	14.8			10					*D. clouds	The Staff.
Sub-Series.																			
Cape Good Hope Obs.			29.96	761.0	73.4	23.0	48	SSE	32	14.3			6						The Staff, for E. J. Stone.
Calf of Man, (Isle of Man)					46	7.8		W			4		3			0	0		
Leith, Restalrig Park			29.48	748.8	47.0	8.3		W			6		5k			0.28	7.1	Cloudy	Andrew Gibb
Monach Lt-house, Hebrides			29.40	746.7	46	7.8		WSW			3	0	0			0.6	15.2		J. Youngehause.
North Unst, (Shetland Is)			29.40	746.7	35	1.7		SSE			7		10			Blank	Blank		

Note.—The originals generally omit the relative humidity and rain-fall. Except in a few cases and the sub-series, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. The cloudiness at Stornoway by the scale 0 to 4. Generally, the distinction between upper and lower clouds is not made. The rain fall is measured at Aberdeen at 10 a. m.; at Nottingham at 6 p. m., local time. The altitude of Dartmoor is 1,400 feet, or 426.7 meters; Fort Napier, 2,200 ft., or 670.6 m. *Detached clouds.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.90	759.4	20.5	— 6.4	82	E			4		10						
Fanöe			29.89	759.1	26.4	— 3.1	82	E			6		10						
Godthaab, (Greenland)			29.51	749.6	18.1	— 7.7	92	NNW			2		10						
Stykkisholm, (Iceland)			29.12	739.7	32.7	0.4	94	E			6		8						
Thorshavn, (Faroe)			29.35	745.4	36.5	2.5	89	ESE			3		10						
Vestervig			29.84	759.0	20.5	— 6.4	95	E			7		10						

Note.—The originals give the wind-force by the scale 0 to 6; occasionally, weather by Vienna symbols; no distinction between the amount of upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency, U. J. Le Verrier, Director of the Paris Observatory, and the respective observers

Stations.	Barometer. Corrected for instrumental errors.		Barometer. Reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Winds. Direction.	Winds. Velocity.		Winds. Force.	Clouds. Amount.		Clouds. Direction.		Rain-fall or melted snow in the past 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Up'er 0—10.	Low'r 0—10.	Upper From—	Lower. From—	Inches.	Millimeters.		
Alençon			29.94	760.4	51.8	11	83	SW			2		10			0.118	3.0	Covered	Normal School.
Amiens			29.97	761.1	54.3	12.4	88	SW			6		10			0.122	3.1	Covered	Normal School.
Avignon			30.18	766.6	64.8	18.2	42	NW			4		0			0	0	Clear	Normal School.
Bar-sur-Seine			30.12	765.0	54.1	12.3	86	SW			2		10		W	0.12	3.	Covered	C. Saillard.
Beaumette, (near Angers)			30.06	763.4	58.5	14.7	67	SW	22.4	10.0					SW	0.043	1.1		Beaumette Observatory.
Beauvais			29.98	761.5	54.9	12.7	83	W			4		10		W	0.098	2.50	Covered	Normal School.
Besançon			30.19	766.8	54.7	12.6	70	S			4		8		W	0.094	2.4	Very cloudy	Normal School.
Bourg en Bresse			30.29	769.4	55.9	13.3	68	SW			1	..e	2n		E			Slightly cl'dy	Normal School.
Bourges			30.17	766.4	55.0	12.8	90	NW			2		10		W	0	0	Covered	Normal School.
Brest			29.94	760.5	53.1	11.7	90	SW			3		10		SW	0.128	3.25	Foggy	Naval Observatory.
Caen			29.95	760.8	56.1	13.4	84	SW			4				W	0	0		Normal School
Chartres			29.97	761.1	54.3	12.4		SSW			6		10			0.020	0.5	Covered	Normal School.
Chaumont																			Normal School.
Clermont			30.13	765.3	61.9	16.6	59	S			2		8		W	0	0	Very cloudy	Puy de Dome, Obs.
Commercy			30.08	764.1	50.2	10.1	95	SW			4		10n		SW	0.55	14.	Covered	Normal School.
Commune de Gréasque*			30.18	766.6	61.7	16.5	43	NW			4		2			0	0		
Grenoble			30.19	766.8	53.6	12	76	ENE			2	2c		S		0	0	Slightly cl'dy	Normal School.
Le Mans			30.09	764.2	54.3	12.4	86	SW			4		8		SW	0	0	Very cloudy	Normal School.
Loches																			
Lons-Le-Saulnier			30.20	767.0	56.7	13.7	62	SW			2		5		SW	0.08	2.	Cloudy	Normal School.
Mâcon			30.21	767.4	55.6	12.8	73	Calm			0		10			0	0	Covered	Normal School.
Mirecourt			30.11	764.7	50.0	10		WSW			4		10		NE	0.16	4.	Covered	Normal School.
Metz																			
Nismes			30.19	766.9	58.8	14.9	72	N			2		0			0	0	Clear	Normal School.
Orleans			30.10	764.6	53.6	12	95	SW			3		5		SW	0	0	Cloudy	Normal School.
Paris Observatory			30.02	762.6	55.8	13.2	75	WSW			3		10		WSW	0.104	2.65	Covered	National Observatory.
Parthenay			30.15	765.7	59.0	15	78	SW			2		5		SW	0.04	1.	Cloudy	Normal School.
Privas			30.21	767.3	59.5	15.3		SW			1		2			0	0	Slightly cl'dy	Normal School.
La Roche-sur-Yon			30.13	765.2	56.5	13.6	78	SW			2		5		NE	0	0	Cloudy	Normal School.
Rochefort, Observatory			30.17	766.3	59.9	15.5	71	SSW			3		5		NE	0.197	5.0		Naval Observatory.
Rouen			29.97	761.1	55.6	13.1	84	SSW			4		8		S	0.232	5.9	Very cloudy	Normal School.
Saint Lo			29.94	761.6	53.6	12	95	W			1		9		SW	0.08	2.		Normal School.
Tarbes	29.15	740.4	30.22	767.5	57.2	14	37	S			1		0			0	0	Clear	Normal School.
Toulouse			30.38	7717.	65.3	18.5	75	S			1		0					Clear	Normal School.
Villefranche			30.33	770.4	54.0	12.2	70	SSE			1		5			0	0	Cloudy	Normal School.
Sub-Series.																			
Fort de France, Martinique			29.93	760.1	77.4	25.2	74	NE			2		2k			0	0		L'Abbé Marchési.
Gorée																			
Marseilles			30.13	765.3	63.9	17.7	66	NW			3		0			0	0		Marseilles Observatory.
Mont-Louis	25.01	635.3	30.37	771.4	52.2	11.2	39	SW	20.5	9.17			3		W	0	0		—. Falguère.
Montsouris, Paris			30.02	762.4	56.1	13.4	85	SW			3		10		SW	0.024	0.6		Montsouris Observ'tory.
Perpignan			30.17	766.4	65.8	18.8	42	Calm	0	0			1		NW	0	0		Dr. Fines.
Pic du Midi, (Summit) H. P.	21.37	542.8			35.1	1.7		W			2		2					Clear	M. Baylac.
Saint Maur, (near Paris)			30.02	762.6	55.8	13.2	79	SW			3		10			0.091	2.3	Covered	E. Renou.
Toulouse			30.26	768.6	58.1	14.5	68	NNW			1		1			0	0		Toulouse Observatory.
Tours			30.11	764.8	57.7	14.3	78	WSW			4		10		WSW	0	0		C. Marquet.
Versailles, (near Paris)			30.02	762.4	56.5	13.6	75	W			2		10			0.039	0.99	Covered	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec, S. J.

Note.—The originals generally give the wind-force by the scale 0 to 7; the weather in general terms, as published; the wind-velocity for Beaumette, Mont-Louis, Perpignan, and Zi-Ka-Wei in meters per second. Generally, the distinction between upper and lower clouds is not made. The rain-fall is generally measured at 7., 8. or 9 a. m., local time, and at Clermont, 9 a. m. of the following day. The records of the amount of rain and snow are frequently omitted. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; Chaumont, 332 m., or 1,089.9 ft; Clermont, 388 m., or 1,272.9 ft; Commune de Gréasque, 322 m., or 1,056.4 ft; Pic du Midi, (Summit,) 2,877 m., or 9,439.1 feet; Pic du Midi, (Plantade,) 2,366 m., or 7,762.6 feet; Tarbes, 308 m., or 1,010 ft. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.
*Near Marseilles.

GERMAN SERIES.

Furnished by the coöperation of Geo. Neumayer, Superintendent Imperial Hydrographic Office, Berlin.

Bamberg			29.85	758.1	59.9	10.5	84	W			6		10			0.945	24.0	Raining	Prof. T. Hoh.
Berlin			29.97	761.2	37.9	3.3	62	NW			2		10			0.131	3.4	Snow & rain	Prof. Arndt.
Breslau			29.95	760.7	36.7	2.6	68	WNW			9		10			0.075	1.9		Dr. P. Neugebauer.
Carlsruhe			30.04	763.1	51.8	11.0	89	SW			5		10			0.189	4.8		A. Senz.
Cassel			29.79	756.6	51.8	11.0	90	SSW			7		10			0.146	3.7		Dr. H. Möhl.
Cologn																			Dr. Garthe
Emden																			Prof. Prestel.
Frankfort on the Main			30.03	762.8	55.4	13.0	85	SW			3		9			0.146	3.7		Physical Society
Friedrichshafen			30.17	766.4	48.	9.1	63	W					10			0.193	4.9	Raining	M. Wilhelm.
Hamburg			29.93	760.1	31.6	— 0.2	94	ESE			8		10			0	0	Heavy snow	Deutsche Seewarte.
Kiel			29.95	760.6	31.6	— 0.2	73	E			2		10			0	0		Prof. G. Karsten.
Königsberg			29.60	753.3	34.5	1.4	88	W			2		5			0.201	5.1		Prof. E. Luther.
Köslin			29.87	758.8	25.9	— 3.4		W			3		10			0.500	12.7		H. Müller.
Leipsic			29.96	761.0	34.2	1.2	96	E			2		10			0.055	1.4	Light rain	Prof. Bruhns.
Münster			29.89	759.1	50.9	10.5	98	SW			1		10			0.075	1.9	Raining	Prof. E. Heis.
Posen			29.94	760.4	33.4	0.8	74	NNW			9		10			Inap.	Inap.		Dr. Magener.
Strassburg, (in Alsace)			30.08	764.1	54.2	11.8	82	S			3		10			0.043	1.1	Raining	Dr. Schur.
Stuttgart			30.07	763.7	53.2	11.8	71	W					10			0.075	1.9	Light rain	Prof. Schoder.
Thorn			29.80	756.8	31.8	— 0.1	83	WNW			6		10			0	0		Dr. Hasenbalg
Treves, (Trier)			29.85	758.2	51.8	11.0	88	W			7		10			0.047	1.2		Prof. Flesch.
Wustrow, Naval School			29.97	761.3	27.0	— 2.8	80	NNW			3		8			0	0		E. F. Schütz.

Note.—In the originals the distinction between the amount of upper and lower clouds is not made; it is not always certain that the remarks in the weather column refer to the moment of observation. The elevation of Friedrichshafen is 413.4 meters, or 1,356.3 feet.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens			29.89	759.2	56.3	13.5		NE										Raining	

Note.—The originals give the barometer corrected, but not reduced to sea-level; the weather and occasionally the wind force in general terms; occasionally, the kind of clouds.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry and Commerce, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Udine			30.04	762.9	54.5	12.5	64	SW			6		1			0	0		
Padua			30.03	762.7	53.2	11.8	72	SE	2.5	1.1			2			0	0		
Vicenza			30.04	762.9	52.7	11.5	70	ESE			2		0			0	0		
Verona																			
Bergamo			30.00	761.9	56.3	13.5	50	SW			1		3			0	0		
Domodossola																			
Milan			30.02	762.4	67.1	19.5	35	WSW			1		0			0	0		
Pavia																			
Moncalieri			30.07	763.6	57.4	14.1	43	ESE	3.1	1.4			1			0	0		
Mondovi			30.08	764.1	52.2	11.2	45	NNW			4		1			0	0		
Porto Maurizio			30.13	765.2	57.2	14.0		E			4		1			0	0		
Genoa			30.10	764.4	58.6	14.8	69	SE	6.3	2.8			2	SE		0	0		
Piacenza			30.02	762.6	60.1	15.6	43	NW	13.7	6.1			3			0	0		
Bologna			30.09	764.3	62.1	16.7	24	SW			1		2	W		0	0		
Florence			30.15	765.7	59.0	15.0	51	W			2		0			0	0		
Leghorn			30.12	765.1	59.4	15.2	58	NW	1.8	0.8			6			0	0		
Siena			30.11	764.7	57.0	13.9	68	ESE	0	0			9	W		0	0		
Urbino																			
Pesaro																			
Ancona			30.07	763.8	56.1	13.4	42	NNW			4		1			0	0		
Grosseto			30.12	765.0	64.4	18.0	38	S			2		6	SE		0	0		
Rome			30.13	765.2	62.1	16.7	63	SE	1.8	0.8			2	WSW		0	0		
Naples, O. U.			30.12	765.0	64.0	17.8	48	NNW			4		1	N		0	0		
Lecce			30.04	763.1	57.6	14.2	70	W	24.8	11.1			2	N		0	0		
Cosenza			30.11	764.7	60.8	16.0	68	NW	6.3	2.8			2			0	0		
Riposto, (Sicily)			30.00	762.1	60.3	15.7	75	N			2		1	SE		0	0		
Palermo			30.09	764.3	60.6	15.9	58	N	10.5	4.7			1			0	0		
Caltanissetta			30.07	763.8	55.0	12.8	68	WNW			6		0			0	0		
Sub-Series.																			
Naples, S. R.			29.74	755.3	61.7	16.5	58	NE			4					0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, or the velocity in kilometers per hour; generally, no distinction between upper and lower clouds; occasionally the weather in general terms. The altitude of Bergamo is not known; Mondovi, 556 meters., or 1,824.2 feet; Urbino, 451 m., or 1,479.7 feet; Siena, 348.5 m., or 1,143.3 feet; Caltanissetta, 570.3 m., or 1,871.0 feet.

JAPANESE SERIES.

Tokio																			

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Flushing			29.85	758.2	50.7	10.4		W			5								
Groningen			29.71	754.7	36.5	2.5		ESE			4								
Helder			29.71	754.7	44.4	6.9		SSW			4								
Utrecht			29.74	755.5	50.9	10.5	98	SW			5		10						Overcast

Note.—The originals give the wind-pressure in kilograms per square meter; the amount of cloudiness without distinguishing between upper and lower clouds. It is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.78	756.3	31.3	— 0.4	89	NNE	6.0	2.7			10			0	0		
Brönö			30.01	762.3	24.8	— 4.0	37	Calm	0	0			0			0	0		
Christiania			30.05	763.3	18.3	— 7.6	58	ENE	9.6	4.3			0			0.004	0.1		
Tromsö			30.02	762.5	29.5	— 1.4	72	SW	9	4			1			0	0		

Note.—The originals give the amount of cloudiness without distinguishing between upper and lower clouds; the weather by the Vienna symbols. The cloudiness and weather at Bergen refer to 2 h., p. m., local time, instead of 1 h., 4 min.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer: Corrected for instrumental errors. Inches.	Barometer: Corrected for instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Angra, (Azores,)	.....	.....	30.12	765.0	59.2	15.1	78	W	9.4	4.20	.....	.....	6	.....	.....	0.016	0.4	.....	Dr. J. A. N. Sampaio.
Campo Major	.....	.....	30.25	768.3	66.2	19.0	50	SW	7.4	3.33	.....	.....	9	S	.....	0	0	.....	Dr. A. M. R. dos Santos.
Funchal, (Madeira,)	.....	.....	30.33	770.4	63.0	17.2	76	NE	5.6	2.50	.....	.....	5	.....	.....	0	0	.....	Capt. D. A. da Cunha.
Lisbon	.....	.....	30.31	769.9	55.4	13.0	91	SW	8.7	3.9	.....	.....	10	.....	.....	0	0	.....	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the amount of cloudiness without distinguishing between upper and lower clouds. The rain-fall at Lisbon is measured at noon, local time, instead of 0 h., 6 min.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw	.....	.....	29.79	756.7	34.3	1.3	76	W	25	11	.....	.....	10	.....	.....	.....	.....	Graupelnd...	Astronomical Obs.
Wilna	.....	.....	29.67	753.6	38.3	3.7	92	SE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Astronomical Obs.
Dorpat	.....	.....	29.94	760.5	19.8	— 6.8	84	ENE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Physical Cabinet.
St. Petersburg	.....	.....	30.08	763.9	10.9	—11.7	77	NE	9	4	.....	.....	3	.....	.....	.....	.....	.....	Central Physical Obs.
Kuopio	.....	.....	30.21	767.3	9.1	—12.7	88	NNE	9	4	.....	.....	0	.....	.....	.....	.....	.....	Ch. Forsten.
Kieff	.....	.....	29.80	757.0	39.2	4.0	84	SSE	9	4	.....	.....	6	.....	.....	.....	.....	.....	Physical Cabinet.
Nikolaiev	.....	.....	29.95	760.6	46.2	7.9	69	S	4	2	.....	.....	5	.....	.....	.....	.....	.....	Kurdukof.
Kertch	.....	.....	29.97	761.2	51.1	10.6	73	SSE	4	2	.....	.....	4	.....	.....	.....	.....	.....	Lagorio.
Moscow	.....	.....	29.90	759.4	35.8	2.1	89	S	13	6	.....	.....	10	.....	.....	.....	.....	.....	Meteorological Obs.
Lugan	.....	.....	29.98	761.6	37.6	3.1	71	SE	9	4	.....	.....	5	.....	.....	.....	.....	.....	Meteorological Obs.
Archangel	.....	.....	30.19	766.8	*7.2	—13.8	84	WNW	13	6	.....	.....	0	.....	.....	.....	.....	.....	Ogorodnikof.
Tiflis	28.56	725.4	29.98	761.4	51.4	10.8	82	N	11	5	.....	.....	3	.....	.....	.....	.....	.....	Physical Observatory.
Astrakhan	.....	.....	30.26	768.5	30.2	— 1.0	80	NE	4	2	.....	.....	10	.....	.....	.....	.....	.....	Sebastianof.
Kasan	.....	.....	29.97	761.1	23.5	— 4.7	98	SSW	2	1	.....	.....	10	.....	.....	.....	.....	Snowing...	Physical Cabinet.
Orenburg	.....	.....	30.20	767.1	18.1	— 7.7	86	SW	4	2	.....	.....	10	.....	.....	.....	.....	.....	Tschernischef.
Ekaterinburg	28.97	735.7	30.02	762.6	21.6	— 5.8	67	WSW	11	5	.....	.....	5	.....	.....	.....	.....	.....	Meteorological Obs.
Nukuss	.....	.....	30.01	762.3	42.8	6.0	70	NW	4	2	.....	.....	10	.....	.....	.....	.....	.....	
Kasaly	.....	.....	30.04	763.0	28.4	— 2.0	96	E	4	2	.....	.....	10	.....	.....	.....	.....	.....	Bobrof.
Tashkend	28.44	722.4	30.15	765.9	53.1	11.7	31	Calm	0	0	.....	.....	10	.....	.....	.....	.....	.....	Michelson.
Barnaul	.....	.....	30.32	770.2	13.3	—10.4	72	SW	2	1	.....	.....	5	.....	.....	.....	.....	.....	Meteorological Obs.
Yeniseisk	.....	.....	29.80	758.4	21.0	— 6.1	95	SSW	13	6	.....	.....	10	.....	.....	.....	.....	.....	Marks.
Irkutsk	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Usolzef.
Oorga	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mossin.
Peking, (China)	.....	.....	30.23	767.9	35.6	2.0	64	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Physical Observatory.
Nertchinsk	27.87	707.9	30.21	767.2	—12.3	—24.6	87	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	Meteorological Obs.
Vladivostock	.....	.....	30.19	766.8	14.2	— 9.9	84	Calm	0	0	.....	.....	0	.....	.....	.....	.....	.....	
Nikolaievsk, on the Amoor	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the wind velocity in meters per second; the amount of cloudiness without distinguishing between upper and lower clouds, and the weather by the Vienna symbols. The elevation of Tiflis is 405. meters, or 1,411.8 feet; Ekaterinburg, 396.4? m., or 1,005.2? ft.; Tashkend, m. 494.2?, or 1,621.3? ft.; Irkutsk, 392. m., or 1,286. ft.; Nertchinsk, 592.0? m., or 1,942.2? ft.; Oorga, 1,281.0 m., or 4,202.6? ft.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid	.....	.....	30.25	768.4	65.1	18.4	50	SE	2.2	1.00	.....	2	0	SW	.....	0	0	Light clouds.	Royal Observatory.
San Fernando	.....	.....	30.28	769.2	73.2	22.9	48	ESE	9.2	4.1	.....	5	3	SE	SE	0	0	.....	The Naval Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

Note.—The originals give the weather in general terms; rain-fall for San Fernando from preceding to following midnight, for Madrid for 8 hours preceding; wind-velocity for Madrid in kilometers per hour.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson Chief of the Meteorological Division of the Upsala Observatory.

Haparanda	.....	.....	30.34	770.5	17.6	— 8.0	88	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	
Umea	.....	.....	30.22	767.5	13.6	—10.2	93	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	
Hernosand	.....	.....	30.21	767.3	8.6	—13.0	96	NE	.....	.....	2	.....	0	.....	.....	0	0	.....	
Stockholm	.....	.....	29.97	761.2	12.4	—10.9	72	NNE	.....	.....	4	.....	2	.....	.....	0.004	0.1	.....	
Wisby	.....	.....	29.92	760.0	19.4	— 7.0	100	E	.....	.....	4	.....	10	.....	.....	0.098	2.5	.....	
Sub-Series.																			
Upsala	.....	.....	30.07	763.6	9.3	—12.6	100	N	13.4	6.0	.....	.....	1	.....	NE	0	0	.....	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 6, and Upsala also velocity in meters per second; the weather by Vienna symbols, or, occasionally, in general terms; no distinction between the amount of upper and lower clouds. The rain-fall is measured at 8 a. m., local time.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.77	730.8	30.20	767.0	54.0	12.2	61	NNW	.....	.....	1	.....	6	.....	.....	0.024	11.6	Vapor	The Observatory.
Zurich	28.53	724.7	30.19	766.7	49.5	9.7	81	W	.....	.....	2	.....	9	.....	W	0.795	20.2	Raining	The Observatory.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.2 mm.; Thermometer, +6.8 cent.; Relative Humidity, —6 per cent.

Note.—The originals give the wind-force by the scale 0 to 4 for Zurich; the amount of cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet. The rain-fall is measured at Zurich at 9 a. m.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople, and Prof. C. V. A. Van Dyck, Superintendent of the Lee Observatory at Beirut.

Station.																			
Constantinople	.....	.....	29.92	760.0	55.4	13.0	66	S	2	1.0	.....	.....	10	.....	SW	0.161	4.1	.....	
Fao, (Persian Gulf)	.....	.....	30.20	767.1	65.1	18.4	.....	NW	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	29.97	761.2	56.8	13.8	.....	NW	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	29.89	759.2	56.7	13.7	.....	W	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sub-Series.																			
Beirut, (Syria,) Lee Obs'y	.....	.....	30.04	763.1	64.6	17.8	63	W	.....	.....	2	.....	1k	.....	N	0	0	Fair	Prof. C. V. A. Van Dyck

Note.—The originals give the wind-force by the scale 0 to 7, (except Beirut, by the scale 0 to 12, and by Lind's anemometer when strong,) and Constantinople also velocity in meters per second; the weather in general terms; no distinction between upper and lower clouds, and, except Constantinople and Beirut, the amount by the scale 0 to 4. It is assumed that the barometer is reduced to sea-level.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada. Those marked with a star (*) are also telegraphed daily to the Office of the Chief Signal Officer, U. S. Army.

Station.																			
Bathurst, N. B	.....	.....	30.11	764.8	20.7	— 6.3	78	N	2.0	0.9	.....	.....	.....	.....	.....	0	0	.....	Hon. J. Ferguson.
Brockville, Ontario	.....	.....	30.15	765.8	16	— 8.9	.....	NE	3	1.3	.....	.....	10s	.....	E	0.43	10.9	Light snow	W. R. Bigg.
*Chatham, N. B	.....	.....	30.11	764.8	19	— 7.2	89	N	6	2.7	.....	.....	10ks	.....	N	0	0	Cloudy	G. A. Blair.
Charlottetown, P. E. Island	.....	.....	30.06	763.5	18	— 7.8	94	N	14	6.3	.....	.....	10s	.....	.....	0	0	Cloudy	H. J. Cundall, C. E.
Cornwall, Ontario	.....	.....	30.06	763.5	14.9	— 9.5	93	E	.....	.....	2	.....	9s	.....	.....	0.30	7.6	Clearing	James Smith, M. A.
Dalhousie, N. B	.....	.....	30.20	767.1	10.2	— 12.1	85	NW	.....	.....	2	.....	2ks	.....	.....	0	0	.....	H. A. Johnson.
Esquimault, B. C	.....	.....	29.67	753.6	42.1	5.6	83	E	2	0.9	.....	.....	10	.....	.....	0	0	Cloudy	W. H. Bevis.
Fredericton, N. B	.....	.....	30.14	765.5	16.1	— 8.8	90	NE	3	1.3	.....	.....	10n	.....	.....	Inap.	Inap.	.....	Prof. Harrison.
*Fort Garry, Manitoba	.....	.....	30.52	775.2	—21	—29.4	100	Calm	0	0	.....	.....	Fog	.....	.....	0	0	Foggy	James Stewart.
Goderich, Ontario	.....	.....	30.23	767.8	18.9	— 7.3	89	NW	.....	.....	3	.....	10n	.....	.....	0	0	Threatening	H. J. Strang, M. A.
Granton, Ontario	.....	.....	30.17	766.3	17.4	— 8.1	.....	NW	.....	.....	1	.....	10n	.....	.....	0.10	2.5	Cloudy	James Grant.
*Halifax, N. S	.....	.....	29.98	761.5	16	— 8.9	85	N	20	8.9	.....	.....	8ks	.....	N	0	0	Clear	F. Allison, M. A.
*Kingston, Ontario	.....	.....	30.13	765.3	17	— 8.3	83	N	3	1.3	.....	.....	10s	.....	.....	0.29	7.4	Cloudy	S. Woods, M. A.
Little Current, Ontario	.....	.....	30.24	768.1	10.6	—11.9	.....	Calm	0	0	.....	.....	10s	.....	.....	0	0	.....	G. B. Abrey, C. E.
*Montreal, Quebec	.....	.....	30.15	765.8	12	—11.1	84	NW	9	4.0	.....	0	0	.....	.....	0	0	Clear	C. H. McLeod, C. E.
*Ottawa, Ontario	.....	.....	30.10	764.5	20	— 6.7	81	E	11	4.9	.....	5k	2s	E	E	0	0	Fair	J. B. Haney.
*Parry Sound, Ontario	.....	.....	30.17	766.3	15	— 9.4	86	N	3	1.3	.....	5cs	5ks	.....	.....	0.20	5.1	Cloudy	Rev. R. Mooley.
*Port Dover, Ontario	.....	.....	30.15	765.8	21	— 6.1	84	W	7	3.1	.....	10k	0	W	.....	0.13	3.3	Cloudy	H. Morgan.
Port Hastings, N. S	.....	.....	30.20	767.1	21.1	— 6.1	.....	NW	4	1.8	.....	.....	.....	.....	.....	0	0	Fine	P. ter Grant.
*Port Stanley, Ontario	.....	.....	30.18	766.6	20	— 6.7	87	W	14	6.3	.....	.....	10n	.....	W	0.23	5.8	Cloudy	M. Payne.
*Quebec, Quebec	.....	.....	30.22	767.6	17	— 8.3	92	NE	12	5.4	.....	0	0	.....	.....	0	0	Clear	Capt. Ash, R. N.
St. John, N. B	.....	.....	30.11	764.8	18	— 7.8	84	NE	10	4.5	.....	.....	10s	.....	.....	0	0	.....	G. Murdoch, C. E.
*Saugeen, Ontario	.....	.....	30.16	766.1	16	— 8.9	83	Calm	0	0	.....	.....	10n	.....	.....	0.21	5.3	Cloudy	K. Stewart.
Stayner, Ontario	.....	.....	30.18	766.6	18	— 7.8	78	Calm	0	0	.....	.....	10n	.....	.....	0.31	7.9	Cloudy	R. J. Cole.
Stratford, Ontario	.....	.....	30.16	766.1	18.9	— 7.3	84	NW	10	4.5	.....	.....	10s	.....	.....	0.05	1.3	Cloudy	C. J. MacGregor, M. A.
*Sydney, C. B	.....	.....	30.00	762.0	16	— 8.9	92	NE	4	1.8	.....	8c	Haze	NE	.....	0	0	Fair	T. C. Hill.
*Toronto, Ontario	.....	.....	30.19	766.8	16	— 8.9	83	NW	3	1.3	.....	.....	10n	.....	.....	0.30	7.6	Cloudy	Magnetic Observatory
Woodstock, Ontario	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Montgomery.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Note.—The originals for Brockville, Charlottetown, Stayner and those telegraphed, give the cloudiness by the scale 0 to 4. The latitude of Granton is 1,015 feet, or 309.4 m.; Stratford, 1,182 feet, or 360.3 m.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. Army.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.	.....	.....	30.07	763.8	17	— 8.3	100	Calm	0	0	.....	.....	10n	.....	.....	0.52	13.2	Light snow	
Alpena, Mich.	.....	.....	30.21	767.3	15	— 9.4	81	NW	4	1.8	.....	.....	10s	.....	NW	0.37	9.4	Cloudy	
Atlantic City, N. J.	.....	.....	30.02	762.5	31	— 0.6	100	NW	4	1.8	.....	.....	10s	.....	NW	0.42	10.7	Cloudy	
Augusta, Ga.	.....	.....	30.10	764.5	48	8.9	63	NW	2	0.9	.....	2cs	2s	NW	NW	0	0	Fair	
Baltimore, Md.	.....	.....	30.08	764.0	36	2.2	61	NW	8	3.6	.....	5k	2ks	W	.....	0.03	0.8	Clearing	
Barnegat, N. J.	.....	.....	30.01	762.3	29	— 1.7	89	N	19	8.5	.....	10k	0	N	.....	0.04	1.0	Cloudy	
Benton, Montana	27.21	691.1	30.01	762.2	5	—15.0	100	Calm	0	0	.....	10k	0	.....	.....	0	0	Cloudy	
Bismarck, Dakota	28.43	722.1	30.27	768.8	2	—16.7	44	E	1	0.4	.....	0	5s	.....	E	0	0	Fair	
Boston, Mass.	.....	.....	30.00	762.0	23	— 5.0	86	N	10	4.5	.....	.....	10n	.....	N	0.13	3.3	Light snow	
Breckenridge, Minn	.....	.....	30.45	773.4	— 8	—22.2	80	N	4	1.8	.....	.....	10s	.....	.....	0	0	Cloudy	
Buffalo, N. Y.	.....	.....	30.14	765.5	20	— 6.7	85	W	8	3.6	.....	.....	10n	.....	.....	0.15	3.8	Light snow	
Burlington, Vt.	.....	.....	30.14	765.5	14	—10.0	72	Calm	0	0	.....	2ck	8s	.....	.....	0.26	6.6	Cloudy	
Cairo, Ill.	.....	.....	30.38	771.6	31	— 0.6	60	NE	5	2.2	.....	2cs	Haze	.....	.....	0	0	Fair	
Cape Hatteras, N. C.	.....	.....	29.97	761.2	46	7.8	76	NE	24	10.7	.....	.....	8ks	.....	NE	0.02	0.5	Cloudy	
Cape Henry, Va.	.....	.....	30.05	763.5	41	5.0	74	N	18	8.0	.....	.....	10s	.....	N	0	0	Cloudy	
Cape May, N. J.	.....	.....	30.02	762.5	34	1.1	89	N	10	4.5	.....	0	8ks	.....	W	0.07	1.8	Cloudy	
Charleston, S. C.	.....	.....	30.10	764.5	54	12.2	49	W	8	3.6	.....	5c	Sm'e	W	.....	0	0	Fair	
Cheyenne, Wyoming	23.08	601.5	29.62	752.3	20	— 6.7	100	SW	2	0.9	.....	5c	2s	.....	.....	0	0	Fair, frost	
Chicago, Ill.	.....	.....	30.35	770.9	20	— 6.7	70	W	5	2.2	.....	0	0	.....	.....	0.03	0.8	Clear	
Cincinnati, Ohio	.....	.....	30.28	769.1	31	— 0.6	60	NW	9	4.0	.....	.....	10s	.....	.....	0	0	Cloudy	
Cleveland, Ohio	.....	.....	30.23	767.8	24.2	— 4.3	84	W	14	6.3	.....	.....	10ks	.....	W	0.05	1.3	Cloudy	
Colorado Springs, Col.	23.80	604.5	29.67	753.6	22	— 5.6	72	N	4	1.8	.....	5ck	0	NE	.....	0	0	Fair	
Corsicana, Tex.	.....	.....	30.12	765.0	50	10.0	71	E	6	2.7	.....	.....	10ks	.....	S	0	0	Cloudy	
Davenport, Iowa	.....	.....	30.42	772.7	17	— 8.3	75	NW	4	1.8	.....	2cs	Sm'e	.....	.....	Inap.	Inap.	Fair	
Denison, Tex.	.....	.....	30.12	765.0	50	10.0	58	SE	7	3.1	.....	.....	10s	.....	.....	0	0	Cloudy	
Denver, Col.	24.49	622.0	29.71	754.6	22	— 5.6	72	S	2	0.9	.....	8c	6	.....	.....	0	0	Fair	
Detroit, Mich.	.....	.....	30.21	767.3	23	— 5.0	86	W	8	3.6	.....	.....	10s	.....	W	0.02	0.5	Cloudy	
Dodge City, Kan.	27.38	695.4	29.74	755.1	32	0.0	69	E	28	12.5	.....	.....	10s	.....	.....	0	0	Cloudy	
Dubuque, Iowa	.....	.....	30.40	772.1	14	—10.0	63	NW	3	1.3	.....	0	0	.....	.....	0.05	1.3	Clear	
Duluth, Minn.	.....	.....	30.41	772.4	1	—17.2	56	NW	18	8.0	.....	0	0	.....	.....	0.10	2.5	Clear	
Eastport, Me.	.....	.....	30.07	763.8	18	— 7.8	84	NE	20	8.9	.....	.....	10s	.....	NE	0	0	Cloudy	
Erie, Pa.	.....	.....	30.15	765.8	24	— 4.4	87	NW	14	6.3	.....	.....	10ks	.....	N	0.28	7.1	Cloudy	
Escanaba, Mich.	.....	.....	30.20	767.4	16	— 8.9	66	NW	5	2.2	.....	.....	10s	.....	NW	0.11	2.8	Cloudy	
Fort Gibson, Indian Terr.	.....	.....	30.15	765.8	39	3.9	47	E	8	3.6	.....	8c	Sm'e	W	.....	0	0	Fair	
Fort Sill, Indian T.	28.82	732.0	29.97	761.2	38	3.3	56	SE	4	1.8	.....	.....	10s	.....	SE	0	0	Cloudy	
Fort Sully, Dakota	28.42	721.9	30.26	768.6	6	—14.4	88	E	14	6.3	.....	0	2s	.....	E	0	0	Fair	
Galveston, Tex.	.....	.....	30.12	765.0	62	16.7	88	E	9	4.0	.....	0	0	.....	.....	0	0	Clear	
Grand Haven, Mich.	.....	.....	30.25	768.6	24	— 4.4	74	NW	12	5.4	.....	.....	10n	.....	NW	0.10	2.5	Light snow	
Indianapolis, Ind.	.....	.....	30.32	770.1	27	— 2.8	88	NW	6	2.7	.....	.....	10s	.....	NW	Inap.	Inap.	Cloudy	
Indianola, Tex.	.....	.....	30.08	764.0	65	18.3	89	E	16	7.2	.....	0	8s	.....	S	0	0	Cloudy	
Jacksonville, Fla.	.....	.....	30.14	765.5	56	13.3	56	NW	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Keokuk, Iowa	.....	.....	30.37	771.4	21	— 6.1	71	NE	2	0.9	.....	0	0	.....	.....	0	0	Clear	
Key West, Fla.	.....	.....	30.14	765.5	73.1	22.3	85	NE	5	2.2	.....	1k	Haze	NE	NE	0	0	Clear	
Kittyhawk, N. C.	.....	.....	30.05	763.3	43	6.1	75	N	22	9.8	.....	5k	0	N	.....	0	0	Fair	
Knoxville, Tenn.	.....	.....	30.30	769.6	33	0.6	61	N	7	3.1	.....	0	Fog	.....	.....	0	0	Fair	
La Crosse, Wis.	.....	.....	30.34	770.6	1	—17.2	71	W	1	0.4	.....	2c	Haze	.....	.....	0.35	8.9	Hazy	
Leavenworth, Kan.	.....	.....	30.30	771.1	21	— 6.1	85	NE	4	1.8	.....	0	5s	.....	SW	0	0	Fair	
Lexington, Ky.	29.16	740.7	30.31	770.0	29	— 1.7	78	NW	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
Long Branch, N. J.	.....	.....	30.03	762.7	27	— 2.8	77	N	12	5.4	.....	.....	10s	.....	.....	0.46	11.7	Cloudy	
Louisville, Ky.	.....	.....	30.42	772.7	31	— 0.6	70	W	6	2.7	.....	.....	10s	.....	.....	0	0	Cloudy	
Lynchburg, Va.	.....	.....	30.08	764.0	42	— 5.6	49	NW	8	3.6	.....	10k	0	NW	.....	0	0	Cloudy	
Malone, N. Y.	.....	.....	30.05	763.3	24	— 6.1	85	Calm	0	0	.....	.....	10s	.....	.....	0.60	15.2	Cloudy	
Marquette, Mich.	.....	.....	30.30	769.6	15	— 9.4	82	NW	12	5.4	.....	.....	8n	.....	NW	0.07	1.8	Light snow	
Memphis, Tenn.	.....	.....	30.36	771.1	39	3.9	63	NE	6	2.7	.....	Haze	Haze	.....	.....	0	0	Hazy	
Milwaukee, Wis.	.....	.....	30.39	771.9	9	—12.8	67	NW	9	4.0	.....	0	0	.....	.....	0.02	0.5	Clear	
Mobile, Ala.	.....	.....	30.24	768.1	49	9.4	63	N	3	1.3	.....	10c	0	NW	.....	0	0	Cloudy	
Montgomery, Ala.	.....	.....	30.27	768.8	46.5	8.1	61	NW	3	1.3	.....	0	Sm'e	.....	.....	0	0	Clear	
Morgantown, W. Va.	.....	.....	30.23	767.8	30	— 1.1	78	NW	11	4.9	.....	.....	10n	.....	.....	0.09	2.3	Light snow	
Mt. Washington, N. H.	23.47	596.1	29.83	757.7	4	—15.6	100	NE	36	16.1	.....	.....	Fog	.....	.....	0.41	10.4	Foggy	
Nashville, Tenn.	.....	.....	30.32	770.1	36	2.2	70	N	1	0.4	.....	2c	0	.....	.....	0	0	Clear	
New Haven, Conn.	.....	.....	30.06	763.5	22	— 5.6	100	NE	12	5.4	.....	.....	10n	.....	.....	0.17	4.3	Light snow	
New London, Conn.	.....	.....	30.02	762.5	25.5	— 3.6	81	N	7	3.1	.....	.....	10n	.....	.....	0.15	3.8	Light snow	
New Orleans, La.	.....	.....	30.18	766.6	55	12.8	50	E	12	5.4	.....	8k	Haze	W	.....	0	0	Fair	
Newport, R. I.	.....	.....	29.99	761.7	25	— 3.9	87	N	16	7.2	.....	.....	10n	.....	N	0.25	6.3	Light snow	
New York, N. Y.	.....	.....	30.04	763.1	29	— 1.7	88	NE	5	2.2	.....	.....	Fog	.....	.....	0.22	5.6	Foggy	
Norfolk, Va.	.....	.....	30.08	764.0	40	4.4	73	N	12	5.4	.....	.....	10s	.....	N	0	0	Cloudy	
North Platte, Neb.	27.01	686.0	29.69	754.1	25	— 3.9	62	SE	24	10.7	.....	.....	10s	.....	SE	0	0	Cloudy	
Omaha, Neb.	29.18	741.2	30.36	771.1	15	— 9.4	82	NE	4	1.8	.....	5c	0	W	.....	0	0	Fair	
Oswego, N. Y.	.....	.....	30.10	764.5	21.8	— 5.7	85	NW	6	2.7	.....	.....	10n	.....	.....	0.30	7.6	Light snow	
Pembina, Dakota	.....	.....	30.50	774.7	—13	—25.0	100	NW	1	0.4	.....	0	0	.....	.....	0	0	Clear	
Philadelphia, Penn.	.....	.....	30.05	763.3	30	— 1.1	100	E	5	2.2	.....	.....	10n	.....	.....	0.19	4.8	Heavy snow	
Pike's Peak, Colorado	17.41	442.2	29.62	752.3	6	—14.4	100	SW	31	13.9	.....	.....	10n	.....	.....	0.02	0.5	Light snow	
Pittsburgh, Penn.	.....	.....	30.19	766.8	27	— 2.8	77	NW	4	1.8	.....	.....	10n	.....	.....	0.18	4.6	Light snow	
Port Huron, Mich.	.....	.....	30.23	767.8	18	— 7.8	84	W	9	4.0	.....	.....	10s	.....	.....	0.14	3.6	Cloudy	
Portland, Me.	.....	.....	30.07	763.8	22	— 5.6	72	N	13	5.8	.....	8c	0	N	.....	0.39	9.9	Clearing	
Portland, Oregon	.....	.....	29.82	757.4	39	3.9	81	S	8	3.6	.....	.....	8s	.....	.....	0	0	Cloudy	
Punta Rassa, Fla.	.....	.....	30.15	765.8	65.5	18.6	94	N	6	2.7	.....	0	1ks	.....	N	0	0	Clear	
Rochester, N. Y.	.....	.....	30.11	764.8	20	— 6.7	85	W	8	3.6	.....	.....	10s	.....	.....	0.10	2.5	Cloudy	
Salt Lake City, Utah	25.31	642.9	29.64	752.8	36	2.2	70	NW	1	0.4	.....	.....	10s	.....	.....	0	0	Cloudy	
Sandy Hook, N. J.	.....	.....	30.02	762.5	28	— 2.2	77	NE	6	2.7	.....	.....	10s	.....	NE	0.12	3.0	Threatening	
San Diego, Cal.	.....	.....	30.01	762.2	48	8.9	85	NE	8	3.6	.....	.....	10s	.....	NE	0.70	17.8	Cloudy	
San Francisco, Cal.	.....	.....	29.98	761.5	47	8.3	77	W	4	1.8	.....	0	5s	.....	.....	0	0	Fair	
Santa Fe, N. M.	23.03	585.0	29.57	751.1	34	1.1	61	SE	13	5.8	.....	2k	1s	SW	.....	0	0	Fair	
Savannah, Ga.	.....	.....	30.11	764.8	54	12.2	43	NW	8	3.6	.....	5ck	0	W	.....	0	0	Fair	
Shreveport, La.	.....	.....	30.25	768.3	49.5	9.7	58	E	4	1.8	.....	8ck	2s	W	.....	0	0	Cloudy	
Smithville, N. C.	.....	.....	30.06	763.5	50	10.0	59	N	6	2.7	.....	0	0	.....	.....	0.06	1.5	Clear	
Springfield, Mass.	.....	.....	30.04	763.0	24	— 4.4	73	N	8	3.6	.....	.....	10n	.....	.....	0.18	4.6	Light snow	
St. Louis, Mo.	.....	.....	30.40	772.1	25	— 3.9	87	NE	8	3.6	.....	.....	10s	.....	.....	0	0	Cloudy	
St. Marks, Fla.	.....	.....	30.18	766.6	53	11.7	60	N	4	1.8	.....	0	0	.....	.....	0	0	Clear	
St. Paul, Minn.	.....	.....	30.38	771.6	5	—15.0	86	W	1	0.4	.....	8c,cs	Sm'e	.....	.....	0	0	Fair	
St. Paul's Island, Alaska	.....	.....	30.20	769.4	15	— 9.4	82	ESE	31	13.9	.....	10	0	.....	.....	0	0	.....	
Thatcher's Island, Mass.	.....	.....	30.00	762.0	29	— 1.7	89	NE	30	13.4	.....	.....	.....	.....	.....	0.18	4.6	Snowing	
Toledo, Ohio	.....	.....	30.22	767.6	26	— 3.3	64	SW	1	0.4	.....	.....	10n	.....	W	0.17	4.3	Light snow	
Tucson, Arizona	27.57	700.3	30.16	766.1	44	6.7	.....	W	.....	.....	.....	.....	10s	.....	.....	0.23	5.8	Light rain	
Tybee Island, Ga.	.....	.....	30.11	764.8	53	11.7	59	NW	6	2.7	.....	8c	Sm'e	SW	.....	0	0	Smoky	
Vicksburg, Miss.	.....	.....	30.31	769.9	47	8.3	48	E	5	2.2	.....	8ck	2s	W	W	0	0	Cloudy	
Virginia City	23.91	607.3	29.39	746.5	20	— 6.7	85	NW	3	1.3	.....	.....	10n	.....	W	Inap.	Inap.	Light snow	
Washington, D. C.	.....	.....	30.12	765.0	35	1.7	56	NW	12	5.4	.....	.....	10s	.....	NW	0.03	0.8	Cloudy	

UNITED STATES SERIES.—CONTINUED.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10	Clouds. Amount. Up'er 0—10	Clouds. Amount. Low'r 0—10	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall or melted snow in the past 24 hours. Inches.	Rain-fall or melted snow in the past 24 hours. Millimeters.	Weather.	Observer.
Wilmington, N. C	.....	.....	30.05	763.3	53	11.7	48	NE	6	2.7	.....	0	0	.....	.....	0	0	Clear	
Wood's Holl, Mass	.....	.....	29.96	761.0	30	— 1.1	89	N	7	3.1	.....	.....	10n	.....	.....	0.26	6.6	Light snow.	
Wytheville, Va	27.71	703.8	29.94	760.5	33	0.6	69	NW	12	5.4	.....	8k	0	W	.....	0	0	Cloudy	
Yankton, Dakota	29.00	736.6	30.45	773.4	5	—15.0	75	E	5	2.2	.....	.....	10s	.....	.....	0	0	Cloudy	
Yuma, Arizona	.....	.....	30.09	764.3	44	6.7	.....	N	.....	.....	.....	0	0	.....	.....	0.28	7.1	Clear	
Sub-Series.																			
Bridgetown, B'b'dos, W. I	.....	.....	30.06	763.5	77	25.0	82	NE	6	2.7	.....	5c	8s	NE	NE	1.35	34.3	Cloudy	E. Racker.
Pointe-a-Pitre, G'd'loupe, do	.....	.....	30.01	762.2	77	25.0	76	E	.....	.....	.....	5cs	2k	.....	.....	0	0	Fair	L. V. Bigard.
St. Thomas, St. T., W. I	.....	.....	30.26	768.6	77	25.0	69	ESE	2	0.9	.....	4ck	8ks	E	.....	0	0	Cloudy	W. S. Cameron.
Kingston, Jamaica, W. I	.....	.....	30.22	767.6	74	23.3	81	SE	7	3.1	.....	8c	8s	SE	SE	0	0	.....	James Gall.
Santiago de Cuba, W. I	.....	.....	29.84	757.9	74	23.3	72	NE	6.0	2.7	.....	0	0	.....	.....	0	0	Clear	Robert Mason.
Havana, Cuba, W. I	.....	.....	30.13	765.3	76	24.4	81	SE	3.6	1.6	.....	2k	0	NE	.....	0	0	Fair	Charles Hasselbrink
St. Georges, Bermudas	.....	.....	29.84	757.9	66.5	19.2	92	W	21.0	9.4	.....	0	5fk	.....	.....	0.53	13.5	Fair	C. F. Allen.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Navassa, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I	27.24	691.9	30.05	763.3	63	17.2	88	E	0.5	0.2	.....	2c	0	E	.....	0	0	Fine & clear.	C. Partridge.
Paramaribo, D. Guiana, S. A	.....	.....	30.01	762.2	81	27.2	70	E	.....	.....	3	.....	6k	.....	.....	0	0	.....	C. J. Hering.
Batavia, Dutch Guiana, S. A	.....	.....	30.07	763.8	82.4	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	Dr. H. Groot.
Medellin, Colombia, S. A	25.19	639.7	.....	.....	68.5	20.3	75	.....	4	1.8	.....	.....	10s	.....	.....	0.03	0.8	Cloudy	Thomas Herran.
St. Johns, Newfoundland	.....	.....	29.92	760.0	32.0	0.0	.....	NE	.....	.....	.....	.....	10n	.....	.....	0	0	Cloudy	John Delaney.
York Factory, B. A	.....	.....	30.45	773.4	—18	—27.8	100	NW	1	0.4	.....	0	3ks	.....	NW	0.02	0.5	.....	J. Fortescue.
Honolulu, Oahu, H. I	.....	.....	30.09	764.3	72	22.2	92	NE	.....	.....	7	.....	.....	.....	.....	0	0	Clear	E. P. Church.
Makawao, Maui, H. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.

Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—

Note.—The originals give the cloudiness by the scale 0 to 4, except York Factory, Medellin and Paramaribo. The temperatures at York Factory, when below —40° Fahrenheit, are read from a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5.25 p. m. on the same day. The altitude of the barometer at Bismarck is 1,677 feet, or 511.1 meters; Cheyenne, 6,057.3 ft., or 1,846.2 m.; Clifton, about 2,892 ft., or 881.5 m.; Colorado Springs, 6,032.4 ft., or 1,838.7 m.; Denver, 5,135 ft., or 1,565.1 m.; Dodge City, 2,478.8 ft., or 755.5 m.; Benton, 2,678.4 (?) ft., or 816.4 (?) m.; Fort Sill, 1,100 (?) ft., or 335.3 (?) m.; Fort Sully, 1,678 (?) ft., or 511.4 (?) m.; Lexington, 1,083 (?) ft., or 330.1 (?) m.; Medellin, 4,912 ft., or 1,497.2 m.; Mt. Washington, 6,285 ft., or 1,915.6 m.; North Platte, 2,846 ft., or 867.4 m.; Omaha, 1,054.6 ft., or 321.4 m.; Pike's Peak, 14,150.7 ft., or 4,313.1 m.; Salt Lake City, 4,268.8 ft., or 1,301.1 m.; Santa Fé, 6,862.2 (?) ft., or 2,091.6 (?) m.; Tucson, 2,533? feet, or 772.1? m.; Virginia City, 5,480 (?) ft., or 1,670.3 (?) m.; Wytheville, 2,294.8 ft., or 699.4 m.; Yankton, 1,278 ft., or 389.5 m. The following constants are used in correcting the barometric observations for altitude: Cheyenne, 5.94 inches; Colorado Springs, 5.87 in.; Denver, 5.22 in.; Benton, 2.80 in.; Makawao, 2.170 in.; Mt. Washington, 0.36 in.; Pike's Peak, 12.21 in.; Salt Lake City, 4.33 in.; Santa Fé, 6.54 in.; Tucson, 2.59 in.; Virginia City, 5.48 in. The direction of the wind is given by Medellin in an unknown cypher.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers. The barometric readings in the first two columns are reduced to freezing and their respective standards; those in the second two also to mean sea-level.

When the distinction between the upper and lower strata of clouds is not reported, the *kinds* or *types* of clouds, viz: cirrus, cumulus, stratus, nimbus, scud, fracto, pallio and smoke, as indicated, respectively, by the letters c, k, s, n, d, f, p and sm'e, are generally published with the amount in the lower-cloud column. The distinction between the upper and lower strata is carefully made in the United States Series and a portion of the Canadian Series, and the types are indicated by the above letters or their combinations in the proper column.

Albert J. Myer

Brig. Gen. (Bvt. Assg'd.) Chief Signal Officer, U. S. A.